Tanmay Ravindra Wadhankar

B.Des Student, Department of Design, Delhi Technological University (DTU), formerly Delhi College of Engineering (DCE)

Rahul Dobhal

B.Des Student, Department of Design, Delhi Technological University (DTU), formerly Delhi College of Engineering (DCE)

Tanuj Narain

B.Des Student, Department of Design, Delhi Technological University (DTU), formerly Delhi College of Engineering (DCE)

Veshwas Verma

B.Des Student, Department of Design, Delhi Technological University (DTU), formerly Delhi College of Engineering (DCE).

I am enthusiastic about the intersection of design and technology, and I emphasize efficiency, creativity, and simplicity in my solutions. Working with others and discovering new things is something I really value.

Ritwik Raj

B.Des Student, Department of Design, Delhi Technological University (DTU), formerly Delhi College of Engineering (DCE)

Sambhav - Service Design

Ritwik Raj, Veshwas Verma, Rahul Dobhal, Tanmay Wadhankar, Tanuj Narain

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Context

Sambhav, a Service Design Concept, achieved recognition as the Silver Winner in the 2023 Student Service Design Challenge. This competition was organized by Philips Experience Design, in collaboration with Service Design College, and received support from respected partners like IBM, Ikea, and the Ellen MacArthur Foundation. The event spanned from November 15, 2022, to May 26, 2023, with our concept presentation to the jury taking place on June 9, 2023.

The challenge was structured into four distinct stages, concluding with a dragons den jury evaluation of the services. Participants were tasked with crafting a service that not only enhances personal well-being and resilience but also has a positive impact on collective happiness, spanning from individual lives to workplaces, schools, communities, cities, and even our planet.

The Stages

The challenge was broken into the following stages -

1. Identify and Explore

1.1. Overview:

==The journey to identify a focal point for enhancing well-being commenced with a comprehensive examination of various well-being facets and their interrelationships.== We sought to comprehend how these facets mutually influence one another and contribute to overall well-being. Our guiding question was, "Which issues, if addressed, could trigger a feedback loop with a far-reaching impact on the well-being of people across different domains?" After extensive brainstorming and data analysis, we discerned housing as a promising area of focus. It became evident that the realm of housing held substantial potential for improvement, which could significantly enhance the overall well-being of previously underserved communities.

1.2. Adequate Housing and Well-being:

Adequate housing stands as a cornerstone of individual well-being. The current housing landscape, both locally and globally, grapples with numerous challenges, affecting various dimensions of well-being, such as physical health, emotional and social well-being, and economic growth.

1.3. Challenges in Housing

The most common issues faced in the housing sector:

1.3.1. Homelessness:

- Unemployment
- Poverty

- Lack of Affordable Housing
- Mental Health and Addiction Issues

1.3.2. Improper Housing:

- Lack of Affordable Housing
- Rapid Urbanization
- Economic Instability
- Access to Land

1.3.3. Other Issues:

- Low Rental Yields
- Vacant Houses
- Arbitrary Evictions
- Systemic Issues

1.4. Slums:

Our secondary research prompted us to delve deeper into the nature of slums, their functioning, and the interplay between residents and the available opportunities.

1.4.1. Definition:

Slums are characterized by substandard living conditions and severe overcrowding. The United Nations defines a slum as a place where residents lack one or more of the following five amenities:

- Durable Housing
- Sufficient Living Areas
- Access to Improved Water
- Access to Improved Sanitation
- Secure Tenure

1.4.2. Formation of Slums:

The proliferation of slums is a result of urbanization, with individuals from rural areas moving to urban centers in the hope of better living conditions and employment opportunities. This influx has led to overcrowded and substandard housing.

1.5. Expert Interview Insights:

During our interview with Dr. Namesh Killemsetty, whose academic expertise centers on urban poverty and the housing rights of slum dwellers, we gained the following insights:

- *Challenges in availing government services and policies.*
- *Garbage piling due to ineffective waste management, impacting public health.*
- *Influence of local leaders and powerful families in the slums, leading to arbitrary rules.*
- *Extra charges for essential services in non-notified slums by private vendors.*

1.6. Local Scenario:

The situation of slums in India is a multifaceted challenge influenced by factors such as population growth, urbanization, lack of affordable housing, and insufficient infrastructure and services.

1.7. System Map:

A system map providing a visual representation of the
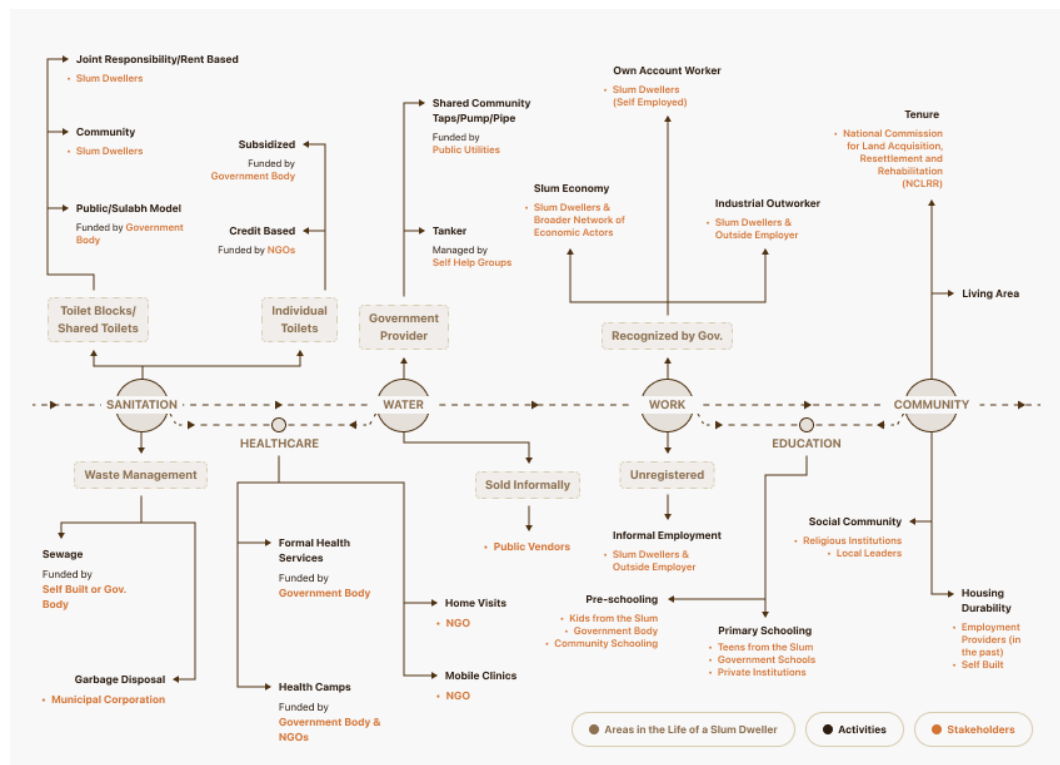
dynamics within slum communities.

Figure 1 : Slum System Map

1.8. Opportunity:

<mark>Studies indicate that by 2030, one in four people will reside in slums.</mark> It's essential to recognize that not all slum residents are impoverished; many hold white-collar jobs and run their businesses. However, inadequate housing conditions contribute to physical and mental health issues, impacting economic growth.

1.9. What we believe:

We believe that creating an inclusive solution that addresses the latent needs of those at the base of the socio-economic pyramid will promote the growth and well-being of all individuals with subpar housing conditions.

1.10. **Problem Statement:**

"How might we sustainably and inclusively enhance the well-being of slum residents by addressing the root causes associated with inadequate housing conditions?"

1.11. **Expected Impacts:**

By improving slum living conditions, we aim to have a direct impact on the following Sustainable Development Goals(SDG):

- **SDG 11: Sustainable Cities & Communities**
- **SDG 10: Reduced Inequalities**
- **SDG 6: Clean Water & Sanitation**
- **SDG 16: Peace, Justice & Strong Institutions**
- **SDG 3: Good Health & Well-being**

2. EMPATHIZE AND DISCOVER

2.1. **The Real Slum:**

In our second phase of exploration, we engaged in an in-depth examination of slum communities. Initially, we ventured into these areas independently. However, it became evident that our presence caused discomfort among the slum dwellers and presented safety concerns. In response to this, we sought out various non-governmental organizations (NGOs) working with slum communities in Delhi. We teamed up with Aashray, an NGO that had established a presence in multiple Delhi slums, including their initiatives focused on education and community engagement. In an effort to bridge the trust gap, we volunteered with this NGO

and accompanied their personnel during our visits to the slums. This collaborative approach enabled us to connect with the slum residents effectively.

As we commenced our visits to the slums, we encountered a stark contrast from our initial perceptions. These slums were composed entirely of makeshift materials, lacking proper housing structures, and the inhabitants had settled on illegally occupied land. Unauthorized electricity connections were prevalent, and residents often faced eviction threats from local authorities.

2.2. Challenges in Slums:

Through our field visits and interviews carried out in slum areas, we noted issues in the following sectors:

2.2.1. Healthcare:

- Limited access to healthcare services.
- Shortage of doctors.
- Affordability issues.
- Improper documentation.

2.2.2. Sanitation:

- Absence of proper sanitation facilities.
- Sewage water flowing within the slums.
- Overcrowding.

2.2.3. Education:

- Lack of proper schools.
- No support system at home.
- Improper documentation.
- Lack of motivation to study.
- Poverty.

2.2.4. Economy:

- Unemployment.
- Job availability.

2.3. Problems with Existing Jobs:

- Inadequate compensation.
- No job security.
- Long working hours.

2.4. Obstacles in Finding Jobs:

- Facing discrimination.
- Lack of education.
- Limited social network.
- Informal job market.
- Lack of skills.

2.5. Alternatives in Livelihood:

Many slum residents resorted to ragpicking as a means of livelihood, given their economic hardships and limited access to other job opportunities. Ragpicking involved the collection and sorting of recyclable materials for sale to recycling plants or scrap dealers.

2.6. The Next Generation:

Education emerged as a fundamental human right and a vital tool for improving lives and well-being. It provided individuals with the knowledge and skills essential for securing better employment, increasing income, and contributing to their communities.

2.7. Education Obstacles

Obstacles preventing children in the slums from accessing education included the perception that education was a lengthy process requiring twelve years

of study before yielding a decent income. Immediate needs, such as securing the next meal, took precedence. A lack of proper documentation and support systems further hindered educational enrollment.

2.8.   **Personas:**

We utilized our insights to create personas and empathy maps in order to understand who we are designing   for.

Figure 2 : Personas and Empathy Maps

2.9.   **Graph:**

We identified a crucial difference between those in low-paying jobs and those resorting to begging. A lack of skills presented an obstacle for both groups in breaking free from poverty.
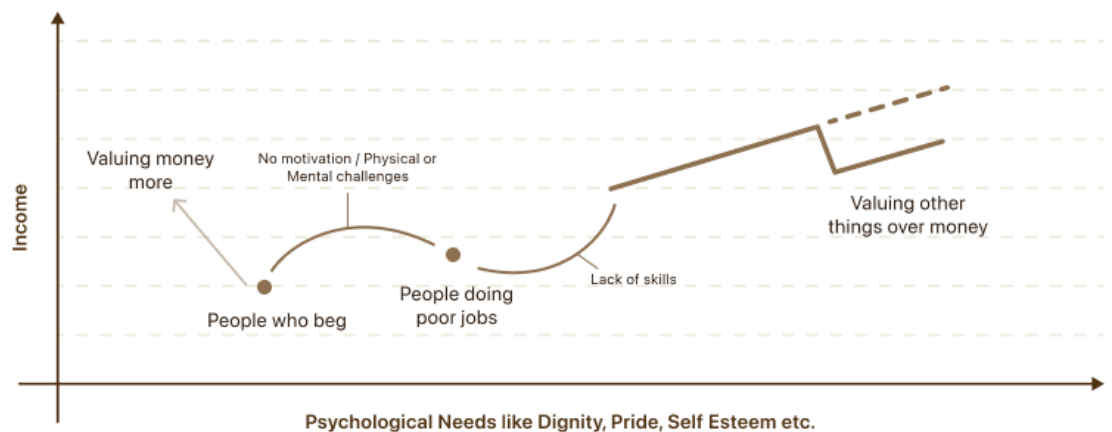
Figure 3 : Graph depicting the relationship between Income and Psychological Needs

2.10. Key Observation:

Based on our observations, we recognize the distinct motivation of individuals engaged in low-paying jobs to uplift themselves and their families, particularly through providing better educational opportunities for their children. In contrast, those who resort to begging appear to be more reliant on external support for their well-being.

3. FRAME AND DEFINE

3.1. The Cycle of Slum Dwellers:

3.1.1. Young Kids Growing Up in Poverty:

Children growing up in impoverished slum communities where their daily needs and education often take a backseat to economic pressures.

3.1.2. Need for Immediate Earnings:

The pressing need for money often compels individuals, including children, to seek immediate means of earning, sometimes at the expense of schooling and education.

3.1.3. Hindrance to Schooling/Education:

The pursuit of immediate income becomes a barrier to accessing education, perpetuating the cycle of poverty.

3.2. Case Study:

Throughout the research, we focused on studying select individuals' lives. By immersing ourselves in their daily routines and experiences, we gathered valuable insights into the unique challenges and circumstances they faced.

3.2.1. Chanchal:

We encountered Chanchal, a playful young girl in the slum. Despite her spirited demeanor, Chanchal aspires to join the army and avoid working under someone. She supports her family by assisting with household chores and resorting to begging when necessary. However, a lack of knowledge and skills creates a sense of exclusion in her school.

3.2.2. Nava:

Nava, a ragpicker with three daughters attending school, aspires primarily for a brighter future for his children. Nonetheless, the economic demands of the present compel him to send his kids to beg, creating a challenging cycle.

3.3. How Might We Statements (HMW):

We employed HMW to compile a list of the issues we are concentrating on and the problem we aim to address.

The "How Might We..." Web

Figure 4 : How Might We Web

- Empower slum dwellers to acquire new skills and knowledge leading to better job opportunities with improved pay, job security, and work-life balance.

- Address the obstacles preventing children from accessing education, including parental priorities and inadequate support systems.

- Support NGOs and community-based organizations working with slum communities to enhance and scale their impact.

- Raise awareness and combat social stigma and discrimination faced by slum dwellers, both in accessing education and employment opportunities.

- Improve living conditions in slums by providing better access to essential amenities such as clean water, toilets, and efficient waste management systems.

- Collaborate with local governments, policymakers, and other stakeholders to establish policies and programs prioritizing the needs and interests of slum dwellers.

3.4. Problem Statement:

"To support parents in achieving a balance between their work and parental responsibilities, there is a pressing requirement to provide them with upskilling opportunities that can lead to better job prospects and increased availability to prioritize their children's needs."

3.5. The ultimate objective is to break the cycle of poverty, enabling slum dwellers to create better opportunities for themselves and their children

4. **IDEATE AND DEVELOP**

In the fourth round of our journey, we were committed to ideating the most effective solution for enhancing the well-being of slum dwellers. We aimed to ensure that the residents played an active role in decision-making and that their voices and needs remained central to our ideation process. To initiate this process, we listed the essential factors that our ideal solution should incorporate, based on our six months of research.

4.1. **Brief Based Factors for the Ideal Solution:**

The proposed solution should be in line with the challenge's requirements, and the concept should place emphasis on the following criteria:

- **People Centric:** It should prioritize the well-being and needs of slum dwellers.
- **Experience Based:** The solution should be designed based on the experiences and insights gathered during our research.
- **Society Oriented:** It should address societal issues within slum communities.
- **Technology Enabled:** Leveraging technology for efficiency and effectiveness.
- **Circular & Sustainable:** Promoting sustainable practices and recycling.
- **Business Viable:** The solution should have a sustainable business model.

4.2. Slum-Specific Factors for the Ideal Solution:

Through brainstorming sessions, we identified the following factors to address:

4.2.1. Community-Based:

The solution should involve forming and fostering a sense of togetherness and unity within the community.

4.2.2. Selling Side:

The solution should aim to eliminate the need for payment from the slum dwellers, given their limited purchasing power.

4.2.3. Income-Based:

The solution should provide a means of generating a stable income for the slum dwellers, given their financial constraints.

4.2.4. Provides Guidance:

The solution should act as a reliable source of information and guidance, especially for critical decisions such as childbirth, considering the lack of education and knowledge among the slum dwellers.

4.2.5. Parent-Child Relationship:

The solution should work towards improving the parent-child relationships in the slums, acknowledging the challenges parents face due to long work hours and the impact it has on their children.

4.2.6. Documentation:

The solution should simplify the process of accessing essential documentation and government policies for slum dwellers, particularly considering the literacy challenges they face.

4.2.7. Experience:

The solution should be experiential, enhancing the overall experience of the slum dwellers and addressing their specific needs.

4.2.8. Financially Capable:

The solution should enable the slum dwellers to become financially stable and able to cater to their own and their family's needs.

4.2.9. Provides Opportunity:

The solution should create opportunities for the slum dwellers, enabling them to grow and make positive changes in their lives over time.

4.2.10. Key Behavioral Change:

The solution should focus on fostering positive behavioral changes within the slum community, helping them overcome detrimental habits and practices that hinder their short- and long-term progress through the design intervention.

4.3. Kano Model

We employed the Kano Model to categorize these factors based on the opinions and needs of slum

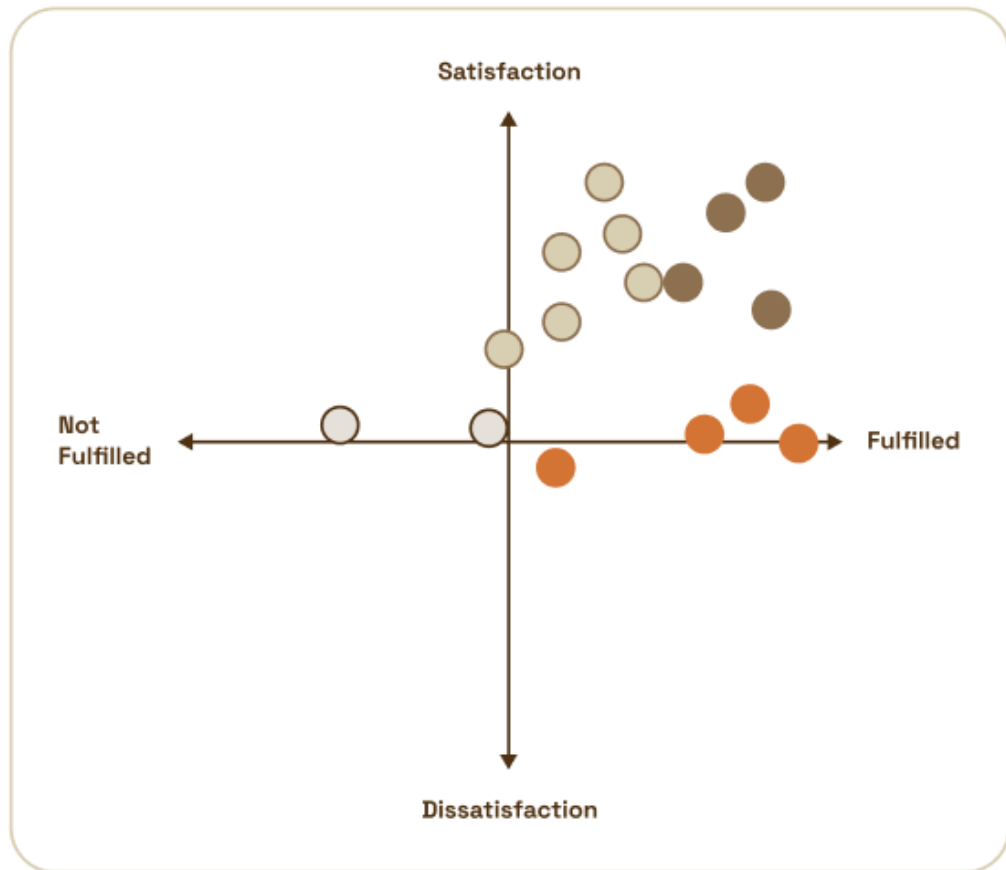**dwellers, which helped us focus our ideation process:**

Figure 5 : Kano Model

4.3.1. Must-Have factors:

- **Selling Side**
- **Income Based**
- **Circular & Sustainable**
- **Scalable**
- **Provides Opportunity**

4.3.2. One-Dimensional factors:

- **Experience Based**
- **Upskills**
- **Future Ready**
- **Makes Financially Capable**

4.3.3. Attractive factors:

- **Parent-Child Relationship**
- **Provides Guidance**
- **Gender Equality**
- **Helps with Documentation**

4.3.4. Indifferent factors:

- **Brings Organization**
- **Technology Enabled**

We further validated these factors through interviews with slum residents and NGOs that work closely with them.

4.4. Brainstorming:

To begin the ideation stage, we used ideation cards with various problem statements and conducted brainstorming sessions while considering the factors we wanted to incorporate into our service.

Ideas included:

- *Healthcare/Food Coupons*
- *Weekly Payments*
- *Ration Card Planning*
- *Assistance with connecting to authorities*
- *Improving documentation storage and access*
- *Gamifying the learning process*
- *Organizing existing Education NGOs*
- *Making the curriculum inclusive for all*
- *Upskilling and using their existing skills*
- *Transitioning from an informal to formal job market*
- *Creating a platform to sell their creations*

4.5. Concept Generation:

We organized various ideas generated during our ideation sessions into potential service concepts.

4.5.1. Concept 1:

Helping slum dwellers complete their documentation and enabling them to access government policies, including assistance with accompanying them to institutes, with slum dwellers paying for the service.

4.5.2. Concept 2:

Upskilling residents and providing them with the necessary skills to become a valuable workforce for businesses, offering weekly payments, healthcare and food coupons.

4.5.3. Concept 3:

Training ragpickers to create sustainable products from the waste they collect and recycle, with slum dwellers selling these products to partnered sustainable companies and receiving monthly payments, while learning proper waste processing.

4.6. Concept Selection:

We scored each concept on the matrices from the kano model to determine which concept would be the best fit.

Must have	Concept 1	Concept 2	Concept 3
Selling Side	−	+	+
Income Based	−	+	+
Circular & Sustainable	−	−	+
Scalable	−	+	+
Provides Opportunity	+	+	+
TOTAL	-1	3	5

Table 1 : Must Have Factors

One Dimensional	Concept 1	Concept 2	Concept 3
Experience Based	−	+	+
Upskills	−	+	+
Future Ready	+	+	+
Makes Financially Capable	+	+	+
TOTAL	0	4	4

Table 2 : One Dimensional Factors

Attractive	Concept 1	Concept 2	Concept 3
Parent Child Relation	−	−	+
Provides Guidance	+	+	+
Gender Equality	−	+	+
Improved Doccumentation	+	+	+
TOTAL	0	2	4

Table 3 : Attractive Factors

Indifferent	Concept 1	Concept 2	Concept 3
Brings Organization	+	+	+
Technologically Enabled	+	−	+
TOTAL	2	1	2

Table 4 : Indifferent Factors

Concept 3 received the highest score based on the factors we identified. We discussed it further with experts and conducted group interviews with slum dwellers to refine the concept.

4.7. **Building on the Concept further**

Based on the analysis of all the factors, Concept 3 earned the highest score. We discussed it further with experts and had group interviews with slum dwellers to improve on the concept.
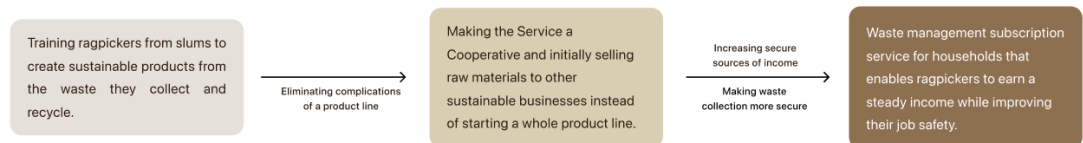

Training ragpickers from slums to create sustainable products from the waste they collect and recycle.

Eliminating complications of a product line

Making the Service a Cooperative and initially selling raw materials to other sustainable businesses instead of starting a whole product line.

Increasing secure sources of income

Making waste collection more secure

Waste management subscription service for households that enables ragpickers to earn a steady income while improving their job safety.

Figure 6 : Concept Evolution

4.8. **Concept Description - Sambhav:**

Sambhav aims to improve the well-being of ragpickers in Indian slums by providing upskilling, resources, and a supportive community. It offers reliable waste collection services to households, making waste procurement safer and consistent for ragpickers, while creating a sustainable supply chain of materials for recycling   companies.

4.9.   Scenario

Figure 7: Concept Scenario

4.10.   Deliverables

Figure 8 : Deliverables
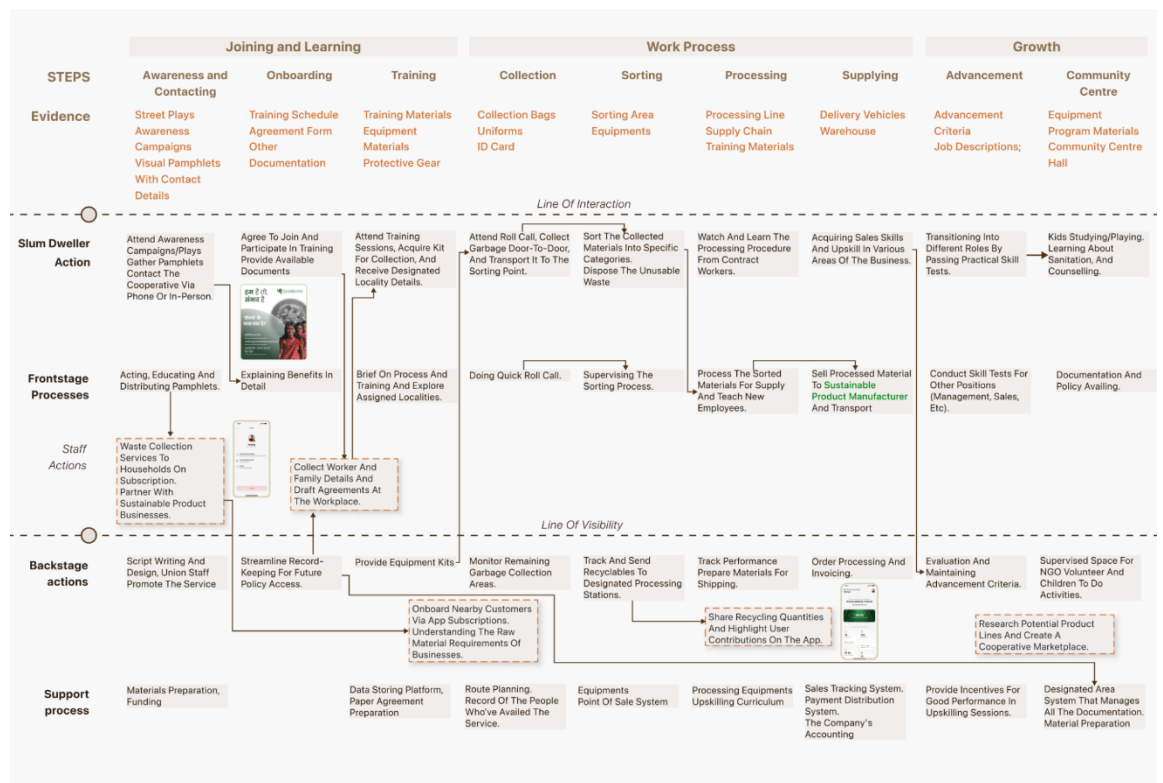
4.11.   Service Blueprint

Figure 9 : Service Blueprint
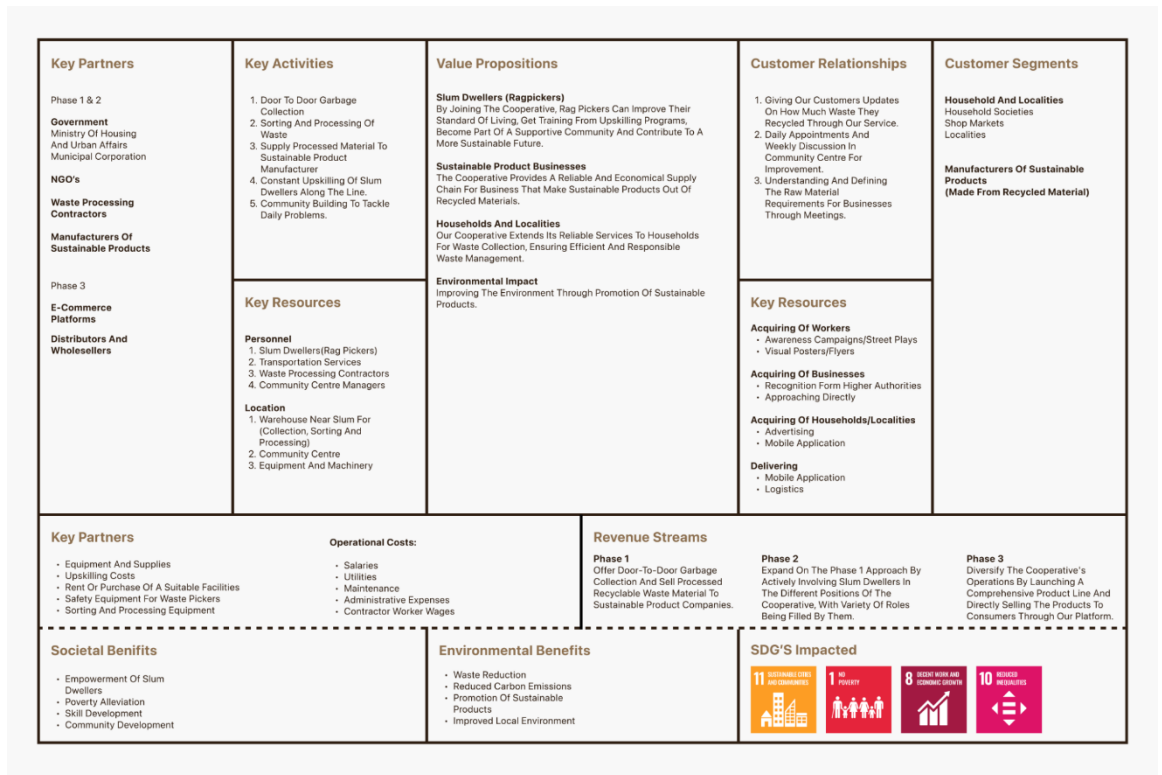
4.12. Business Model Canvas

Figure 10 : Business Model Canvas

Closing Remarks

"Participating in the Challenge was a transformative journey for our team. Engaging with slum dwellers fostered empathy and meaningful connections that fueled our personal growth as we iterated and built on our approach to have a positive change. This experience emphasized lifelong learning, adaptability, and the power of collaboration for personal and collective growth."

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