



The Dark Side of Colourful Textiles.

Theme : Design for Crisis

Team : Quadra

Our Team



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92 million tons

of textile waste is created each year;
Which is equivalent to a truck full of
clothes on landfill sites

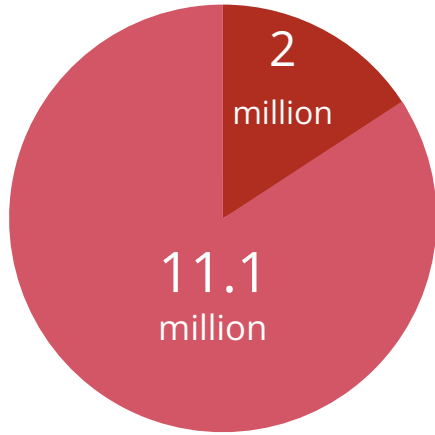
EVERY SECOND.



The Problem

The fashion sector has seen striking growth with over 100 billion garments being produced worldwide every year. According to the data released by The Indian Textile Journal, it is estimated that every year, more than 1 million tons of textiles are thrown away, with most of this coming from household sources. During the COVID-19 pandemic, sharp fall in sales led to an estimated €140-€160 billion worth of clothes remaining as excess inventory globally, according to a McKinsey report in May 2020. The number of people struggling to afford basic clothing is on the rise due to the worsening of India's economy after the COVID-19 pandemic.

Clothing is still viewed as an individual problem, which makes this issue excluded from a public policy problem. The sobering reality is that there is still a long way to go until waste really is both 'in and out' of fashion.



Mind your Waste.

According to the EPA, 13.1 million tons of textiles are trashed each year, and only 15% or 2 million tons are recovered for reuse or recycling.



In fact,
1 million
tons of textiles are thrown
away every year.
3%
by weight of a household bin.

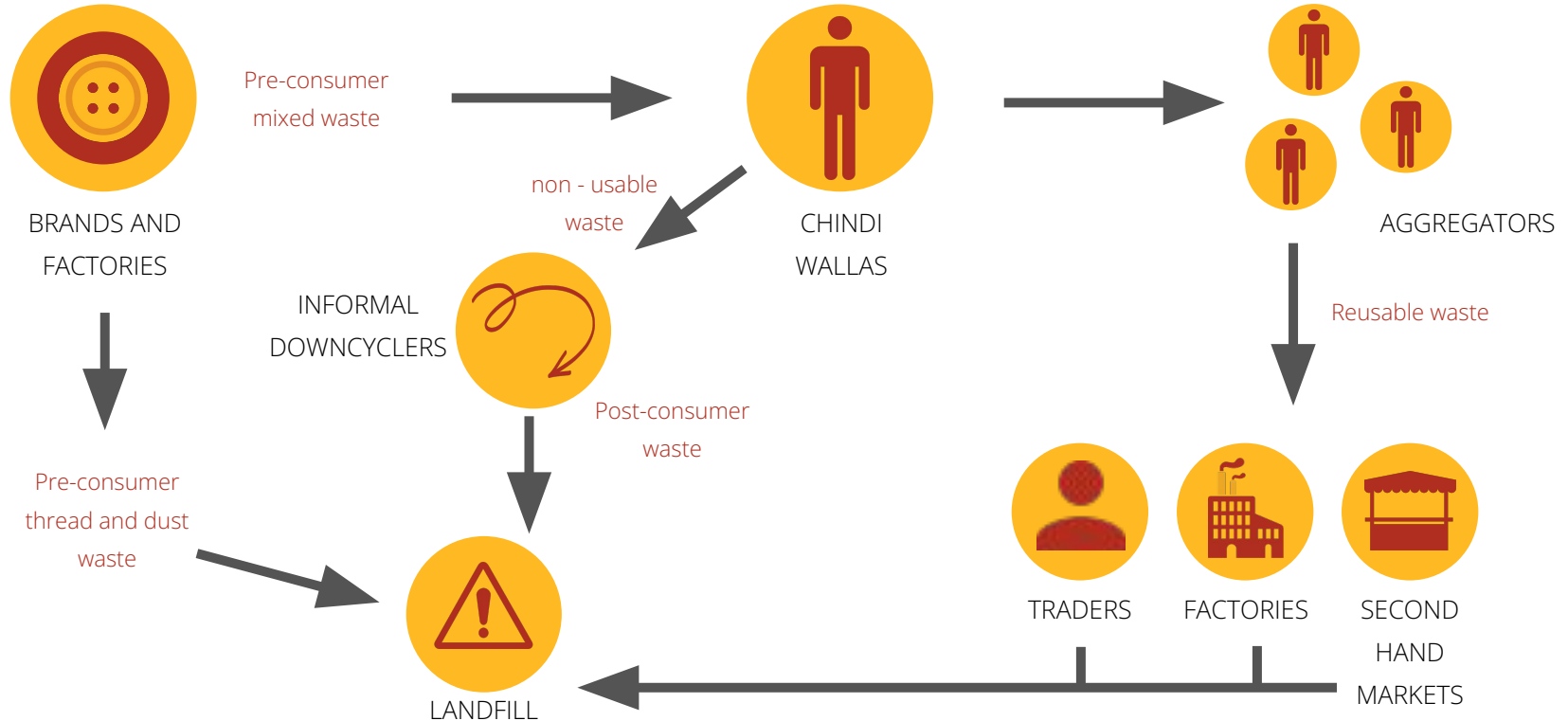


The average t-shirt
WASTES
700 gallons
OF WATER
during manufacturing.



78% of people did not know that
11 million tons of textile is
trashed every year.

Where does textile waste go?



Understanding the cause



1

Global demand for new clothing

Clothing production has doubled with the rising income of middle-class consumers in developing countries. By creating a false demand for fresh looks, fast fashion is promoting **throwaway culture, excessive consumerism, and making clothes disposable commodities** all leading to the Textile waste crisis.

2

Lack of eco-friendly practices and adequate government policies

There is lack of awareness to handle fibre wastes, they are not recycled properly and as a result are thrown out in huge numbers. There are numerous policies launched in favour of the domestic and global demand of textile but **policies for textile waste management are still emerging.**

Why is this an urgent problem?

- According to the UN, the fashion industry is the **2nd largest contributor to pollution and climate crisis** generating 8% of all carbon emissions and 20% of wastewater globally.
- The equivalent of **one garbage truck full of clothes is burned** or dumped in a landfill every second.
- Approximately **60%** of all materials used by the fashion industry are made from **plastic**.
- **500,000 tons** of microfibers are released into the **ocean** each year from washing clothes — the equivalent of 50 billion plastic bottles.
- Some **93 billion cubic metres** of water – enough to meet the needs of five million people – is used by the fashion industry annually, contributing significantly to **water scarcity** in some regions.
- Around **20%** of industrial wastewater pollution worldwide originates from the fashion industry



Interview Insights

Househelp

- Purchase new clothes during diwali
- Shred useless clothes/ scraps to make
 - Doormats
 - Blankets
 - Stuffing for mattress

Problems faced when receiving collected items (NGO's)-

- Manage transport of goods on their own
- Self segregate items when instructions are not followed
- Many times useless goods are dumped
 - Torn/ beyond repair clothes
 - Undergarments
 - Dirty, unwashed clothes

How to decide when to give away-

- Not useful for anyone in the house/ relative
- Out of fashion (rare)
- Lying around in cupboard since 3-4 yrs
- Stored in hopes of repurposing but unable to do so



What people have to say...



It is **tempting to buy compulsively** when my explore page on Instagram is full of cute 'fits but I have to check with myself and see if I really need something new.

Betul, 20, student and founder of Re-Denim London

I **love to shop via a small business** and will gladly pay the price tag for somebody's work over fast fashion.

Shreya, 26, student

It's definitely **harder to find certain pieces of clothing when shopping sustainably** because the options are more limited vs shopping fast fashion.

Vineeta, 38, homemaker



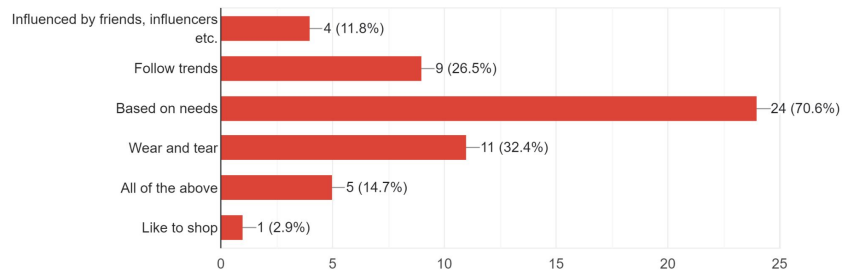
For somebody like me, who expresses their queer self via their fashion, it is important to have a selection of wonderful pieces in my wardrobe so I am

torn with the lack of inclusivity.

Paras, 24, student

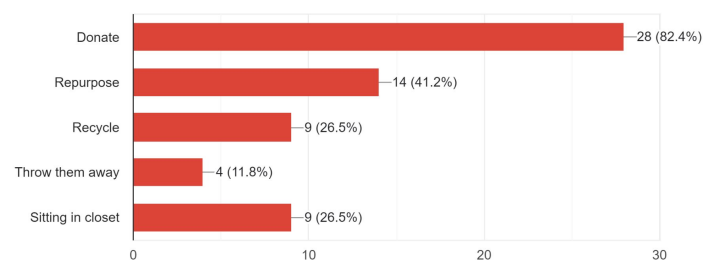
Insights from Survey

What factors affect your purchasing habit?



Majority of the respondents purchase to **fulfill their needs** or after **wear and tear** of their existing clothes.

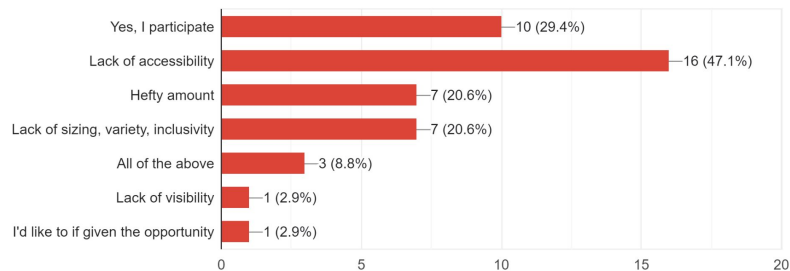
What do you do with your old clothes?



Majority of the respondents choose to **donate** their clothes while some would experiment by **repurposing**.

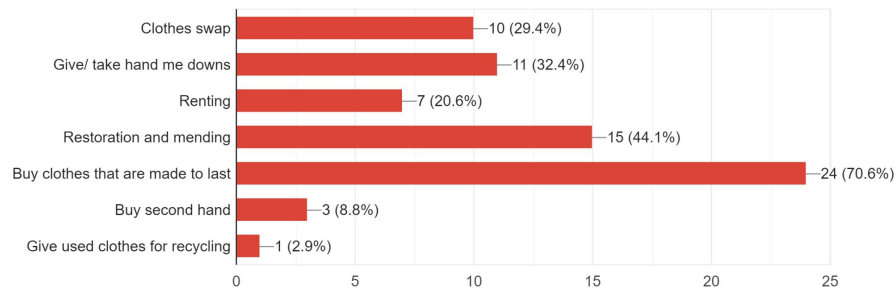
Insights from Survey

Do you participate in sustainable fashion? If not, why?



Majority of the respondents find it difficult to access **sustainable** fashion, while others find the **lifestyle expensive** or **not inclusive**.

Which of these methods would you partake in sustainable fashion.



Majority of the respondents would buy **long lasting** clothes to promote sustainability and **mend** them to increase their lifespan to promote sustainability.

Target Audience

Primary users

Fashion Influencers and Celebrities

Shopaholics

Teenagers and millenials

Environment conscious people

Secondary users

Sustainable brands

NGOs that accept donations

Recycling units

Tailors



01

User Persona



Swetha Baruah

Age - 22, Female
Student

Bio

Swetha is a marketing student with a love for fashion. She is always on top of the **new trends** and shops for them at popular fast fashion brands. She is **easily influenced** by social media and thinks that fashion is an essential mode of self expression. She usually wears one piece of garment for a couple of times and then forgets about it for couple of months before getting rid of them.

Goals & values

Goals :

1. To manage her expenses better and try to avoid falling trap to short-lived trends.
2. To start donating unwanted or unused pieces of clothing.

Values :

1. Look good, feel good.
2. Empathize with followers.

Motivations :

1. To be a famous social media influencer.
2. Good side hustle for living expenses.

Feelings

Worries :

Tensed about hate on social media and peer pressure.

Influences :

Fashion trends, celebrities and advertisements.

Pain Points

Fears:

1. Not being on trend.

Frustrations :

1. Cannot control her urge to shop everytime she comes across something she likes.
2. Doesn't know what to her unutilized clothes.

Challenges :

1. Is not able to find a trustable source to donate or thrift clothes.
2. No space to keep her piles of clothes.

Design Brief

To design a solution that helps provide a longer life to clothes and fulfils the basic clothing needs of people all the while brings about a sustainable mindset in society.

When solved, how will it positively impact users?

Not only will this enhance the quality of life but also, **bring down the social divide**. There are numerous benefits that include contributing to environmental sustainability, incentives for positive actions and social responsibilities. Emergence of ethical **designers and stores who are conscious** about mass production and environment degradation will have power to **create positive influence** on their customers.



Explorations

*Some explorations are future scopes for our final concepts

Avatars or 3D try-ons

to create personalized depictions of their virtual selves in their customized clothes

Inter exchanging of upcycled textiles within a community of a circular economy

Include platform of **buying and selling** of unused clothes to cater to a larger market

Dashboard for industries to report their carbon footprint and to maintain transparency and accountability

App for monitoring spending habits, tracking expenses to increase consciousness among customer

Hosting **community events** like cloth swaps, DIY upcycling workshops etc.

Set target limits for sustainability tracking for businesses, fashion brands

Introduce a **clothing line** of handcrafted products using upcycled textiles.

Dhaaga

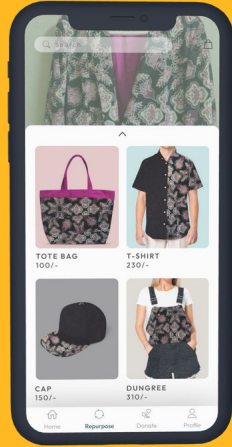
Final Solution

An app that brings about change in our clothing habits while trying to tackle the waste crisis that harms the environment and the people depending on it.



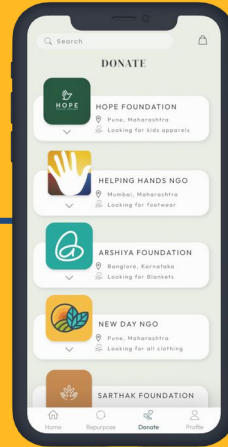
Dhaaga

How it works?



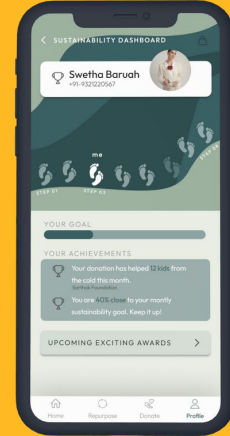
Repurposing

Dhaaga helps users spice up their existing unused clothes by **visualizing various creative alternatives**. All **tailoring work** is outsourced to NGO workers to help in providing **upskilling initiatives**



Donation

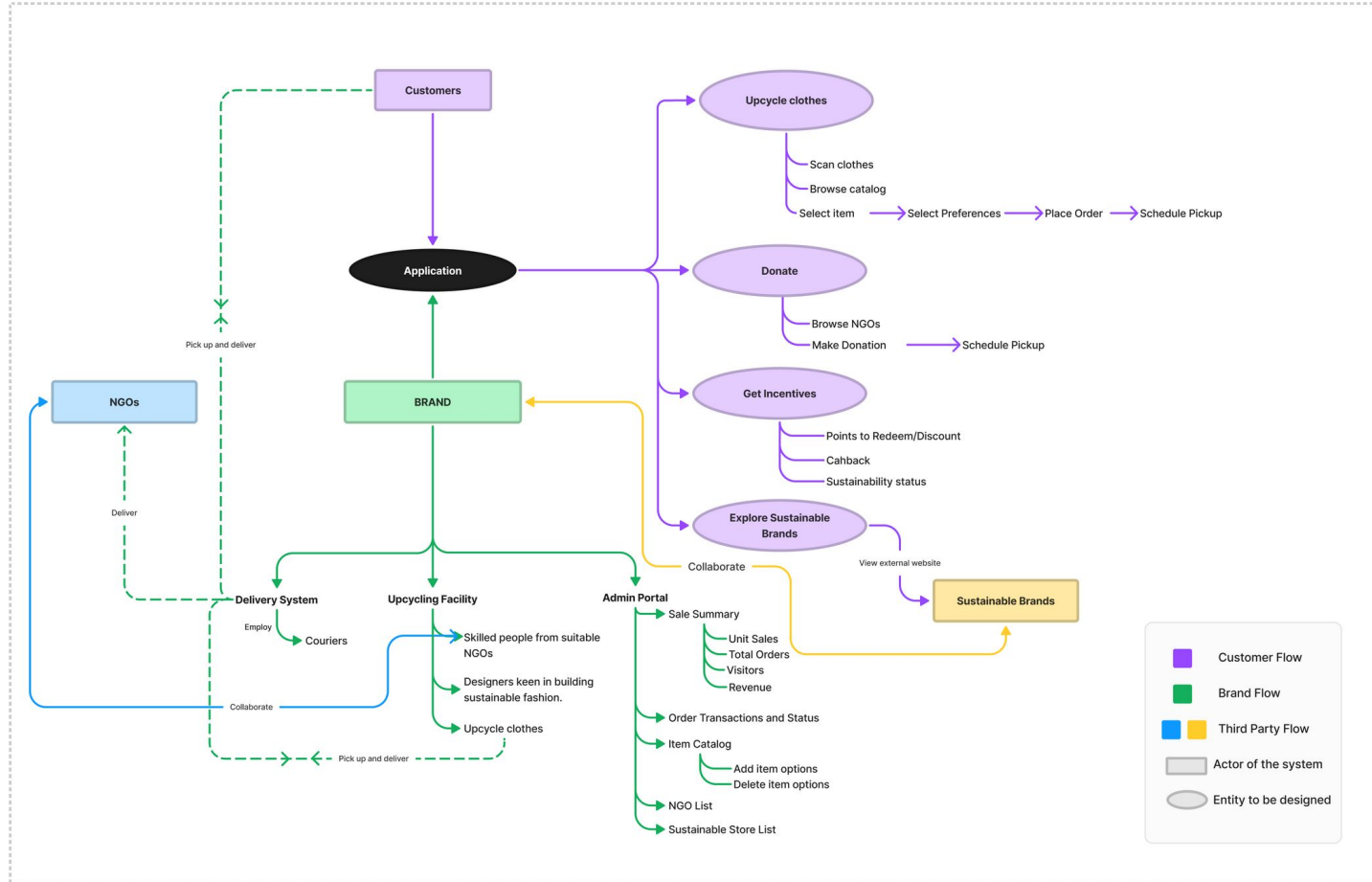
It serves as a **intermediary** in connecting the people with excess to the people in need, all from the comfort of their homes.



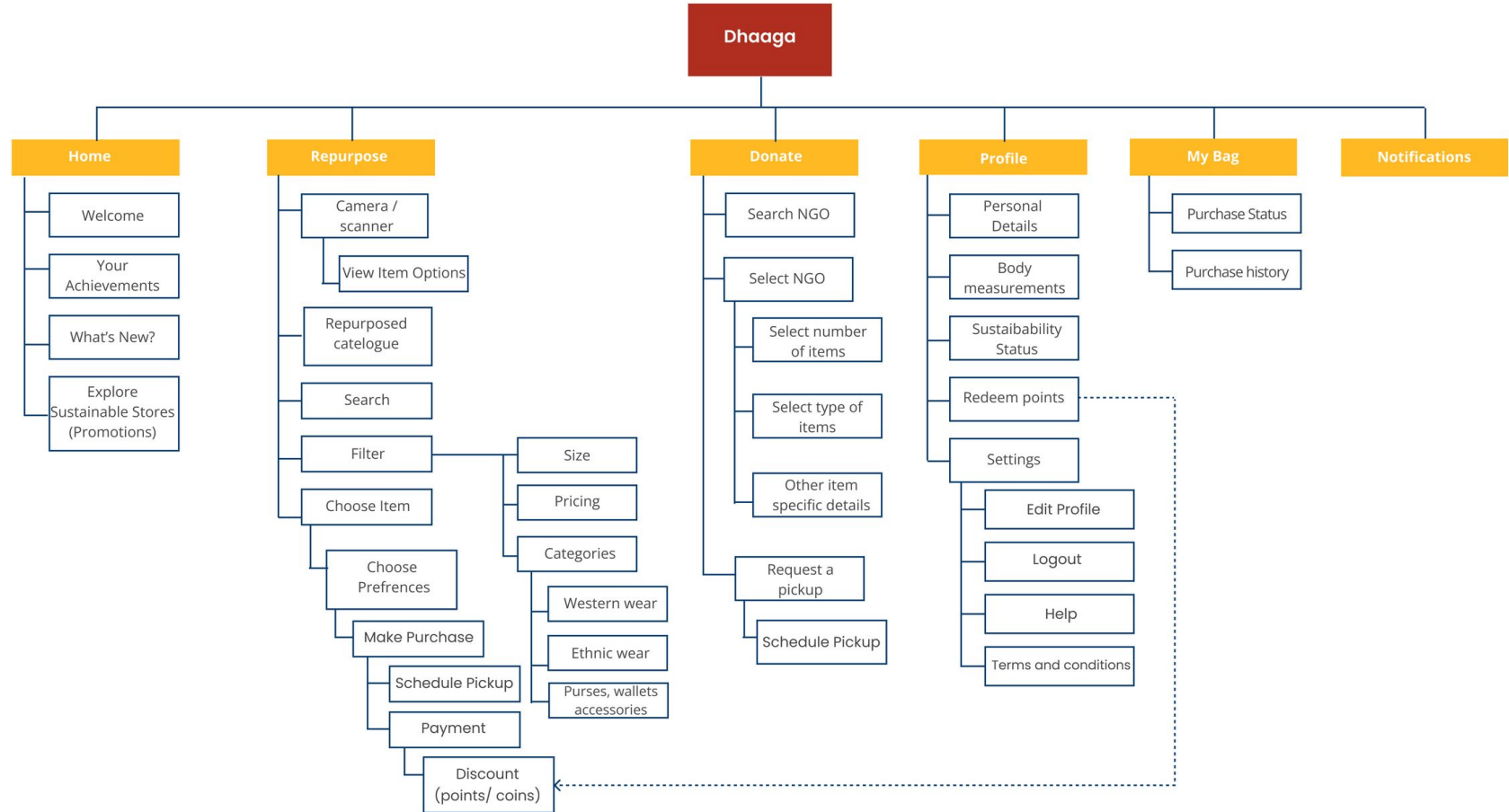
Tracking

It also aims to **improve consciousness** among users by keeping track of their shopping patterns and offering exciting **rewards** to keep them motivated

User Experience : Ecosystem Map



User Experience : Information Architecture

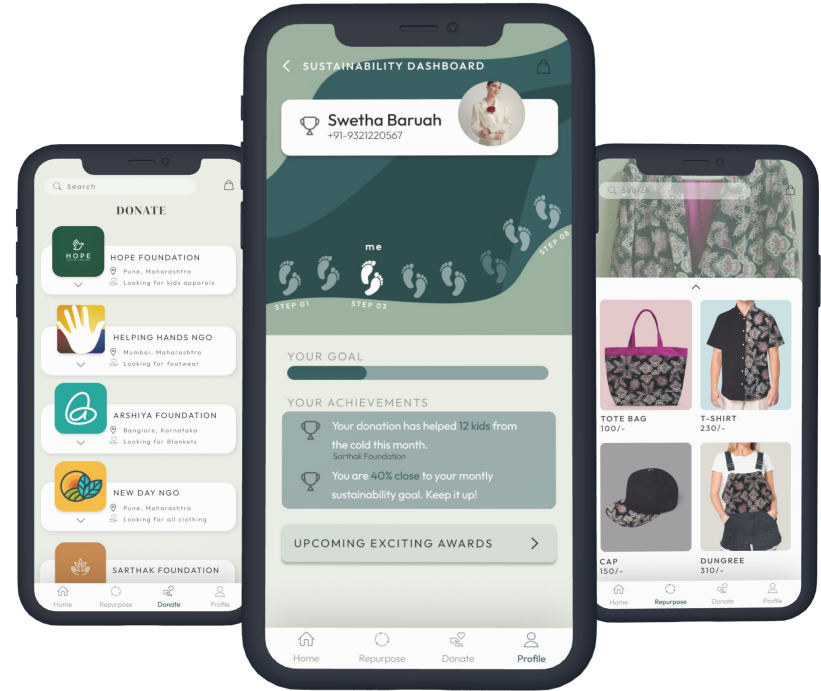


User Experience: Prototype link

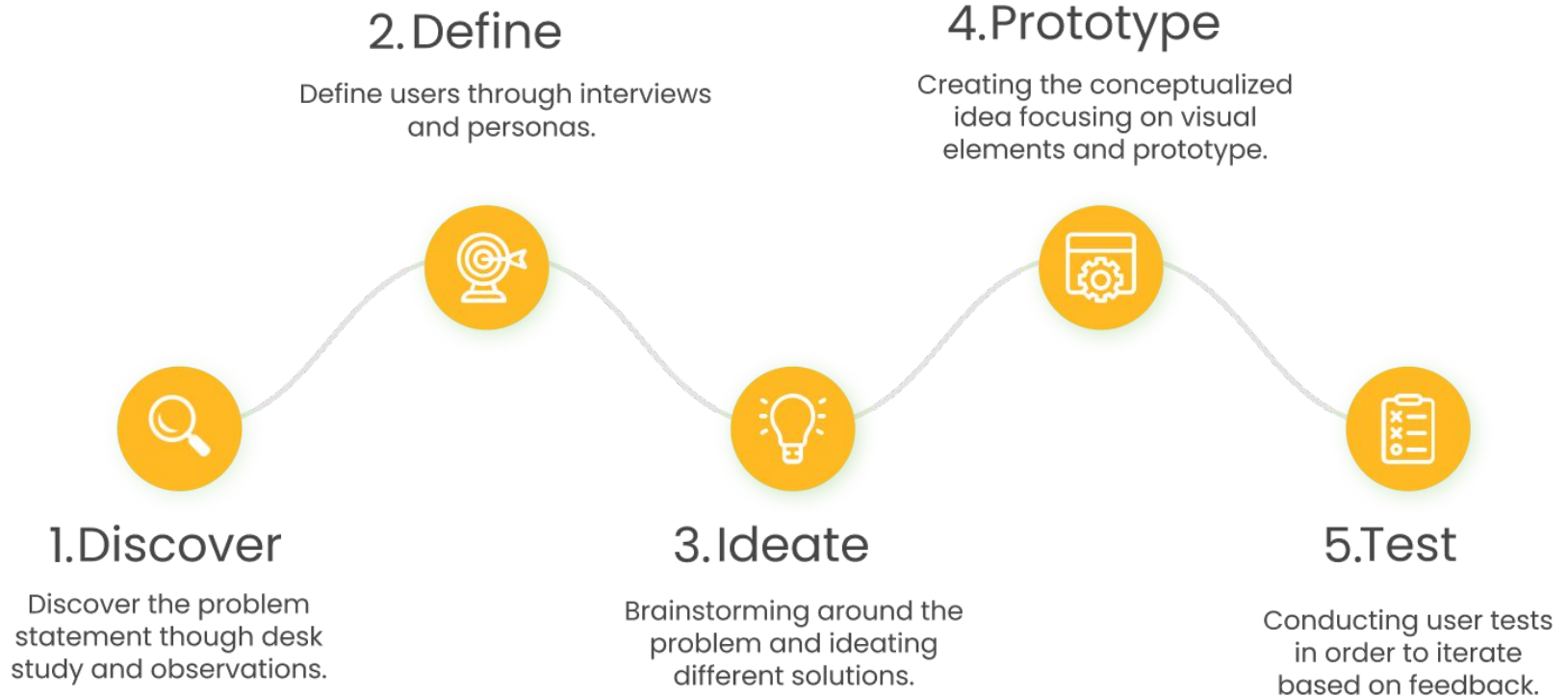
Link to our application prototype :

[Click Here](https://www.figma.com/proto/Y19ujIE4HWzBZau3z9wR8D/UMO-2022?page-id=120%3A2&node-id=209%3A1405&viewport=-1131%2C347%2C0.22&scaling=scale-down&starting-point-node-id=209%3A1405)

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Design Process



Impact on society

1

Reduce carbon

emissions by repurposing instead of production of new products

2

Helping make the transition from fast to slow fashion by **increasing accessibility** and **spreading awareness**

3

Upskilling youth by

tie-ups through NGOs for their tailoring services

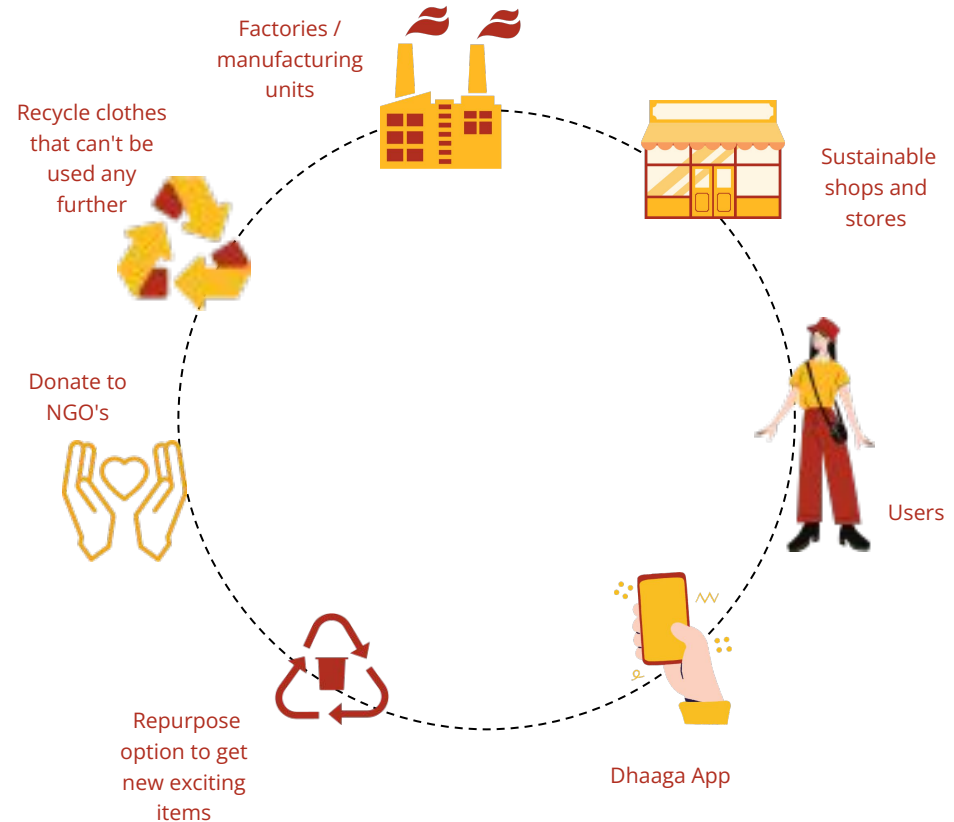
4

Fulfilling needs of underprivileged

by redirecting excess urban textile waste

Sustainability

- Our App maintains a **continuous loop** of the clothes from the time its been bought till the time it doesn't reach its **full potential**.
- The cloth keeps circulating between the users and other organizations.
- Measures have been taken so that no cloth end up in the landfills.



Business Model Canvas

Key Partners  <ul style="list-style-type: none">• NGO's• Fashion Designers and tailors• Sustainable fashion brands	Key Activities  <ul style="list-style-type: none">• Repurposing or upcycling• Donation• Recycling• Community events like clothes swap, workshops, etc.	Value Propositions  <ul style="list-style-type: none">• Repurpose textiles that are in a good condition• Donate good condition clothes to NGO'S• Easy Communication and transparency with the customers• Good User experience• Motivate them to shop sustainably• Good delivery system	Customer Relationships  <ul style="list-style-type: none">• Branding through Social Media (Instagram/ Facebook/ Youtube Ads)• Toll Free Number and customer - Help team	Customer Segments  <ul style="list-style-type: none">• Teenagers• Fashion enthusiasts• Environment conscious people
Key Resources  <ul style="list-style-type: none">• Strong Brand Logistics and Supply Infrastructure• Network of tailors and influencers	Channels  <ul style="list-style-type: none">• Online store• IOS/Android Application• Social Media			
Cost  <ul style="list-style-type: none">• Technical Team, Customer service executives, Marketing Executives, tailors, collaborations• Events, clothes swap, workshops			Revenue Streams  <ul style="list-style-type: none">• Promotions of sustainable brands• Repurposing• Workshop costs that the customer is paying	

References

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- Fashion consumption in COVID-19
<https://www.sciencedirect.com/science/article/pii/S2666784322000109>
- Relationships between clothing and poverty
https://www.researchgate.net/publication/331477287_Relationships_between_clothing_and_poverty_based_on_perceptions_and_experiences_of_the_local_communities_of_South_Sulawesi_Indonesia_A_human_rights_approach
- <https://www.intechopen.com/chapters/56947>
- <https://recyclinginternational.com/technology/textile-recycling-pioneers-weave-their-magic/28471>
- <https://www.wedoact.com/en-au/weblog/ecoblog/sustainable-shopping-habits/>

Thank you!

Team : Quadra

