



INCLUSIVE DESIGN

For the menstruating women of India

Sector

Women of India

User

Housewives

Context

To reduce health hazards caused by the conventional products and to reduce the amount of carbon footprints caused by sanitary pads.

Why?

"Only 12% of India's 355 million menstruating women use sanitary napkins (SNs). Over 88% of women resort to shocking alternatives like un-sanitised cloth, ashes, and husk sand. Incidents of Reproductive Tract Infection (RTI) is 70% more common among these women."



WHAT?

Current challenges and observations

- Diseases like TSS, PCOD, Fibroids, Cancer, etc. caused by unhygienic ways of bleeding and extremely chlorinated and bleached sanitary pads.
- Cant use alternatives such as menstrual cups or sea sponge because in India, anything you put in your vaginal canal is considered a taboo and also because majority are unknown to such products existence.
- Other products like period panties and reusable pads are products are difficult to use as these particular user group of women are ashamed to air-dry it outside in sunlight as the reusable pads have a shape of a normal pad and these women generally don't even put their undergarments out to dry.

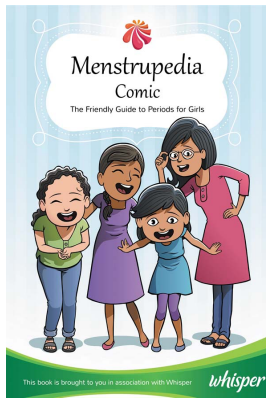
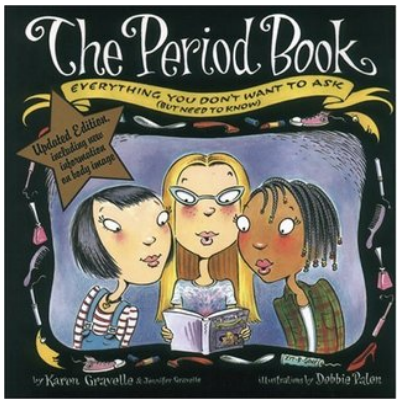
HOW?

Bringing a change at system level

- Awareness about the products available in market.
- Telling the user group about how cheap and sustainable the reusable products are and how it will help reduce the carbon footprints.
- Changing the design of the existing product in a way that user is not ashamed of anybody looking at it when put to dry in sunlight.
- Making the look and feel of the product more ethnic and suitable for the Indian context.
- Making disposal less cumbersome and biodegradable.

LATERAL THINKING

How other industries has solved these kind of problems?

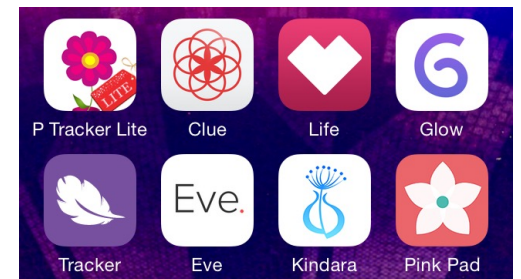
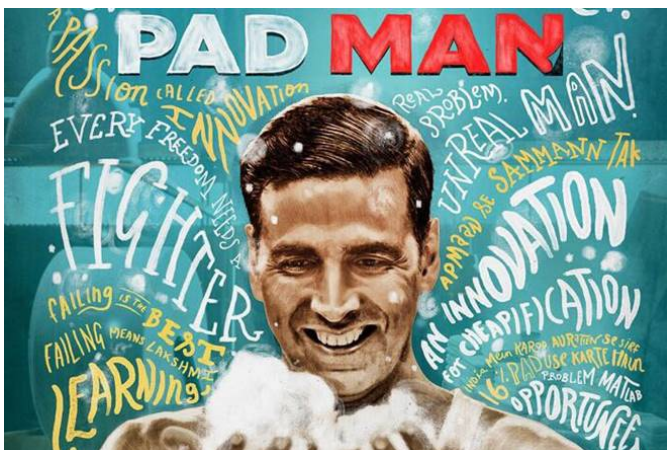


AWARENESS

- Menstrupedia
- 'Padman' the movie
- NGO's
- Advertisements
- School books

PRODUCTS

- Menstrual cups
- Reusable pads
- Period panties
- Sea sponge
- Biodegradable sanitary pads
- Period apps



LIST OF CONCEPTS

- DIY to make sanitary pads at home.
- Comic books on menstruation and menstrual product to create awareness among youth.
- Instead of hunting for newspaper to wrap the pad and throw it in the dustbin, the pad itself has something to roll it in itself and throw.
- Washing and drying of reusable pads in sunlight without the fear of others looking at the product that you keep close to you intimate parts.

CONCEPT GENERATION

Shortlisted -Washing and drying of reusable pads in sunlight without the fear of others looking at the product that you keep close to you intimate parts.

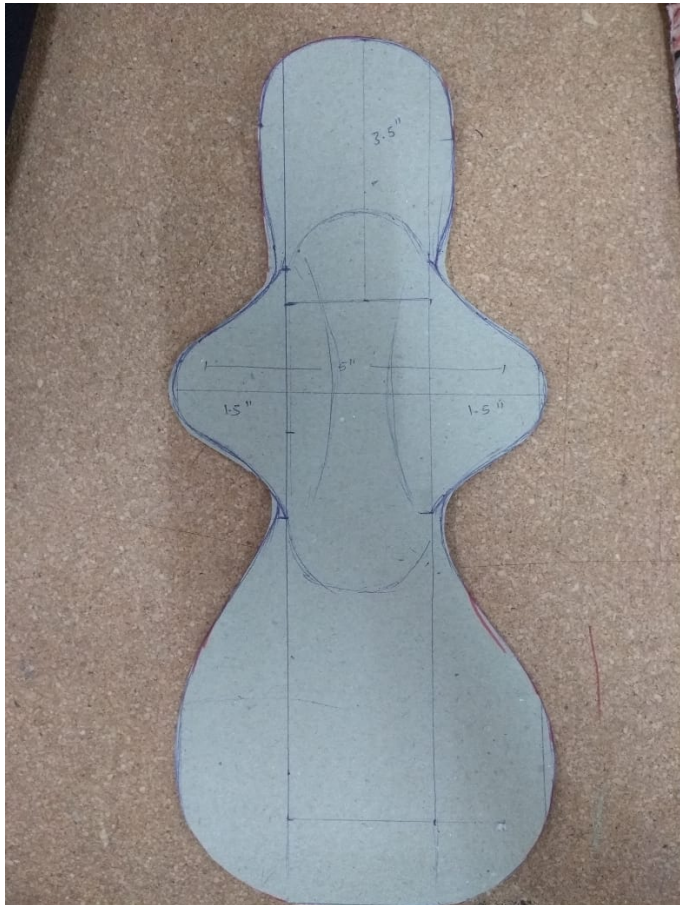
- Choosing material of the cloth that is similar to your other existing dress material.
Example: Kalamkari, Ikkat, Bandhani etc.
- Giving it an extra piece of cloth to camouflage with it.



REQUIREMENTS OF A PAD

- QUICK ABSORPTION – cotton fabric, bamboo fabric
- STAIN PROOF – polyurethane lamination on fabric
- ODER FREE – techno fabric, Micro Encapsulation
- ANTI MICROBIAL PROPERTIES – bamboo fabric, organic dyes like haldi, tulsi, indigo,
- SLIGHT STIFFNESS – demin

Final concept



Using cotton as the material with Kalamkari print

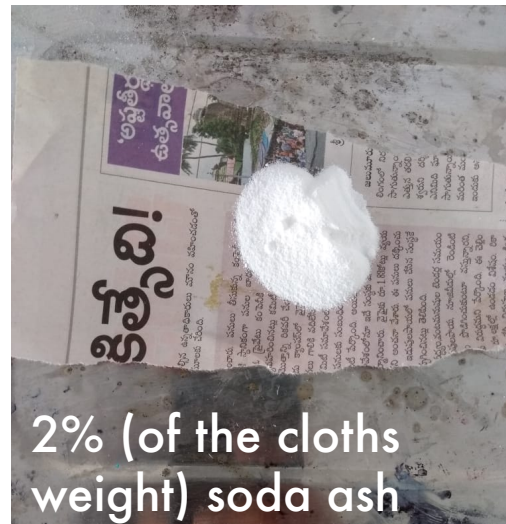
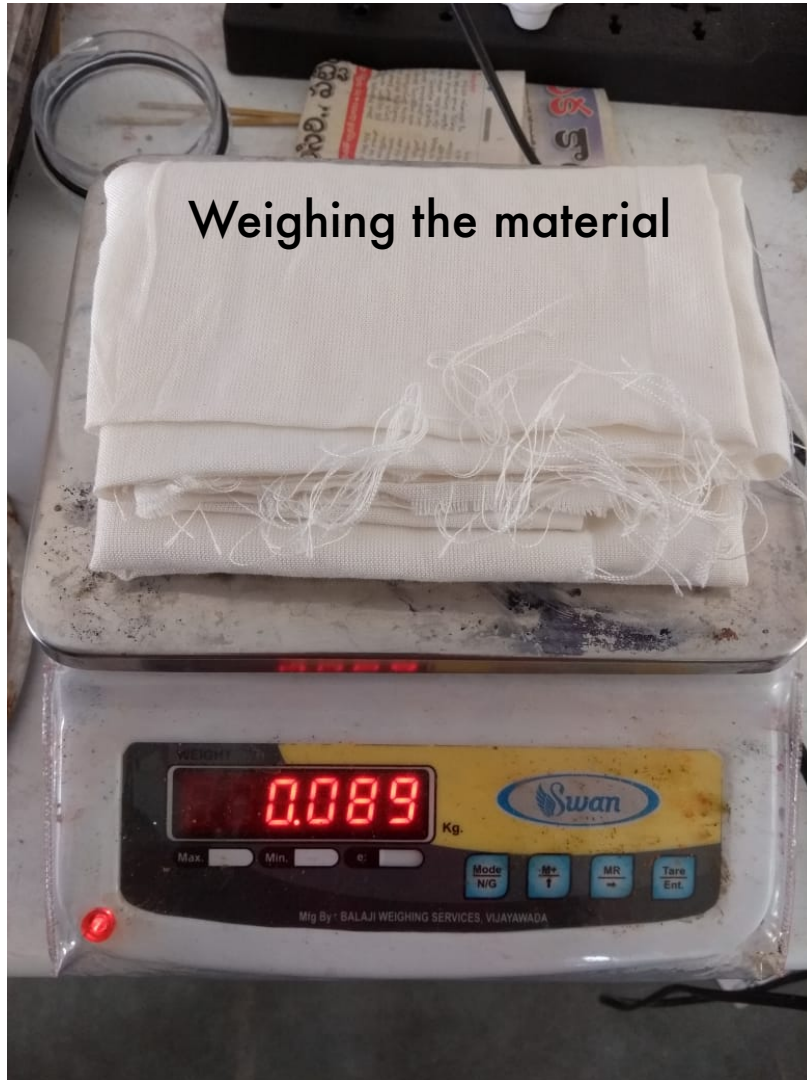


Testing the product by washing by washing it 1st and then checking its absorbency



TRYING OUT BAMBOO FABRIC WITH ORGANIC DYE

Purpose- to remove the starch from the fabric



- Take 2l of water and add caustic soda and soda ash and let it boil.
- After it starts boiling, dip the fabric into the solution prepared.



Rinsing and beating (post 1 hour)



Purpose- to remove the starch from the fabric entirely

- Let the fabric in the solution cool down for half n hour
- Wash the fabric in cold water
- Beat the fabric on a plane surface to remove the starch completely.



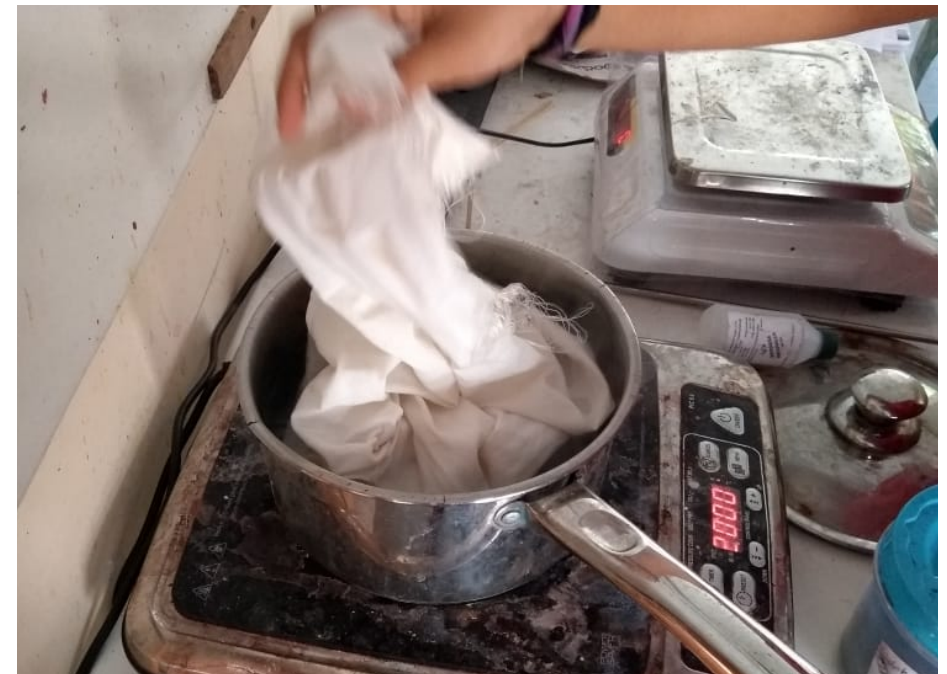
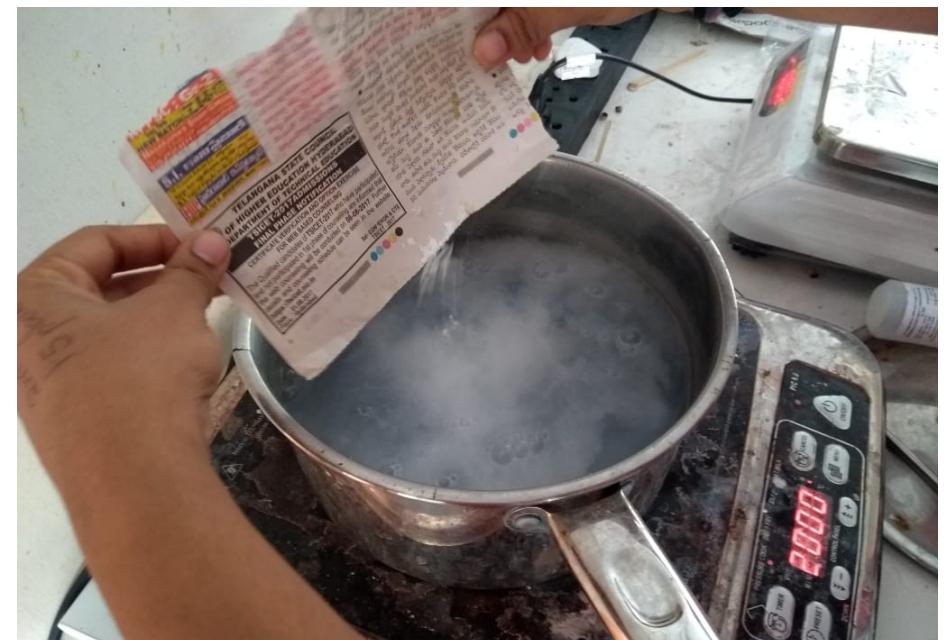


Process- preparation
of alum mordant (pre
mordanting)

Purpose- helps the
organic colour to fix
into the fabric

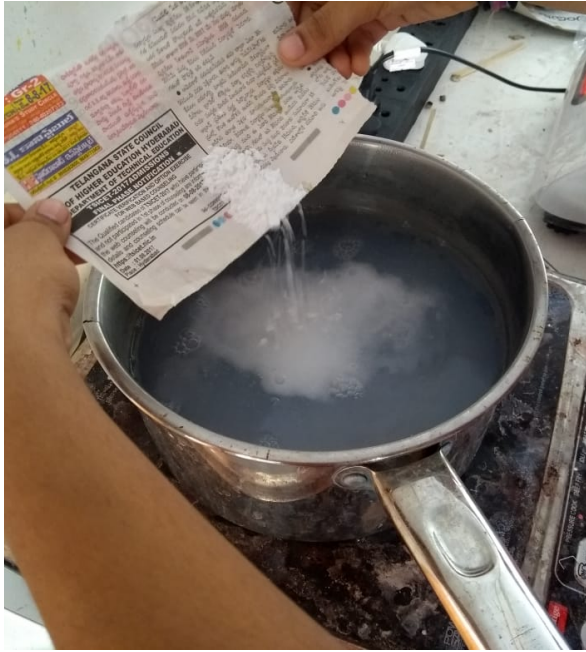
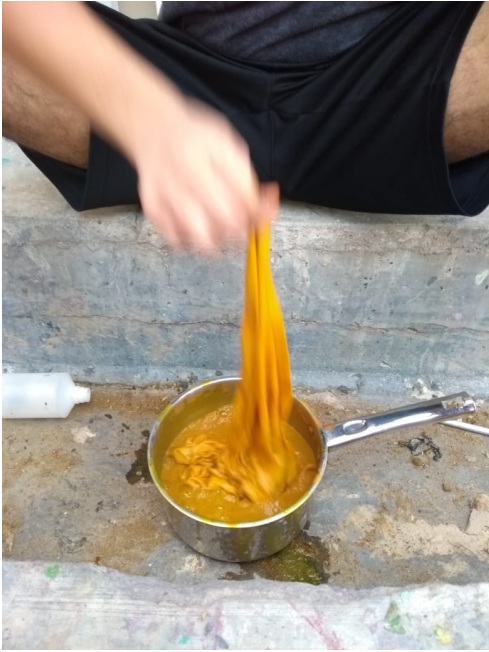
10-15% of of alum
powder.

Boil in water for half
n hour.





- Put 50% (of the weight of the fabric) of turmeric powder into boiling water (2l).
- Remove the fabric from the previous solution and squeeze out the excess water.
- Put the fabric into the turmeric water solution and mix it well
- Keep mixing the solution at regular intervals so that no patches are form on the fabric and the colour is evenly spread



- Rinse out the solution in water
- Proceed the same procedure of mordant and keep it in warm water for up to 2 hours so that the colour doesn't leak.
- Rinse the fabric in water till the colour stops coming out of the fabric and put it to dry