Sustainable Upcycling of Pre Production Cotton Waste for Functional Shoe Insole Development

COMPANY NAME: GREEN INSOLE

ECO FRIENDLY INSOLES FOR EVERY STEP

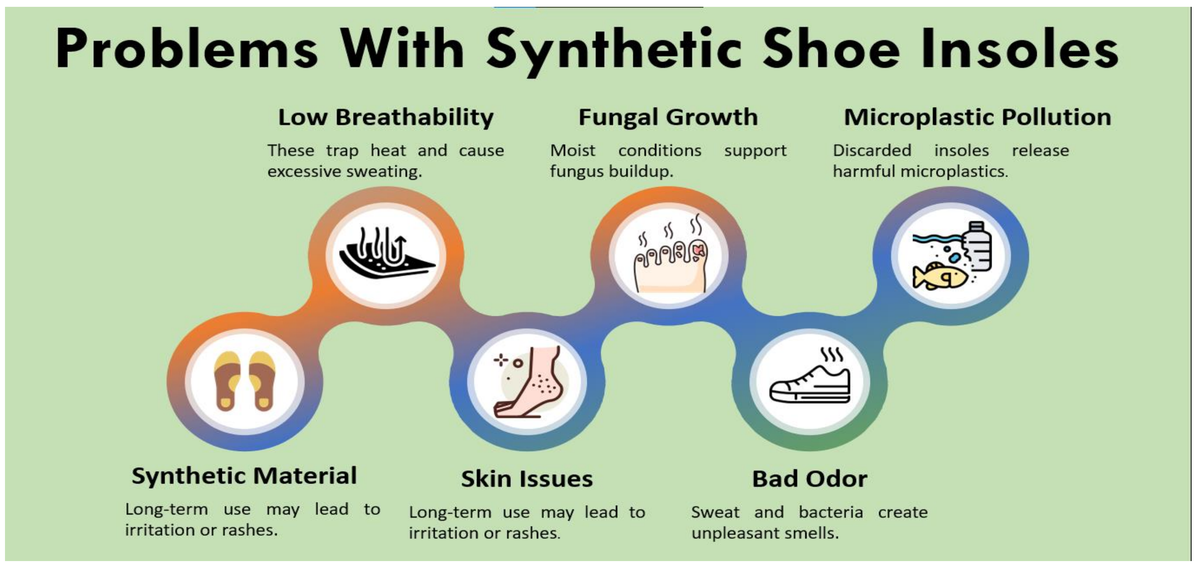
Md. Shazzad Hossain Nabil, Mejbaul Haque Utsho, Shakil Ahmed Shakib Khan, Mahabubur Rahman

The Recyclers

Introduction

Bangladesh produces a huge amount of textile waste, especially cotton "jhut" from the cutting section of garment factories. Sadly, most of this waste is thrown away or burned, which harms the environment and wastes valuable resources. To solve this problem, our project focuses on **upcycling pre-production cotton waste into functional and eco-friendly shoe insoles**. These insoles not only reduce waste but also offer a sustainable alternative in the footwear industry. Through this project, we aim to support a cleaner environment and promote green innovation in Bangladesh's textile and footwear sectors.

Problem Statement



Aim of the project

Environmental

Reducing Textile waste by upcycling cotton and replacing non biodegradable materials

Social

Creating awareness and opportunities in sustainable product development

Economic

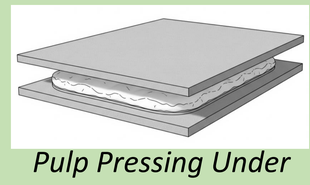
Adding value to waste, supporting green business and reduce synthetic material dependency

Preparation Method (Simplified)

Raw Material Collection from Cutting Waste

Mechanical Extraction of Usable Fibers

Conversion of Fibers into Cellulosic Pulp



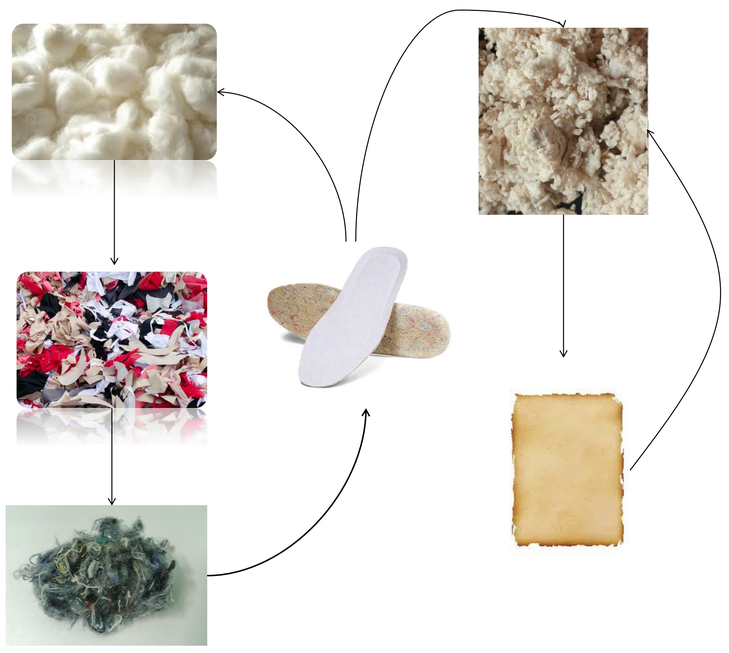
Pulp Pressing Under Controlled Pressure

Formed and Dried Fiber Sheet for Insole Base

Shape Cutting According to Insole Template

Surface Fabric Lamination and Finishing

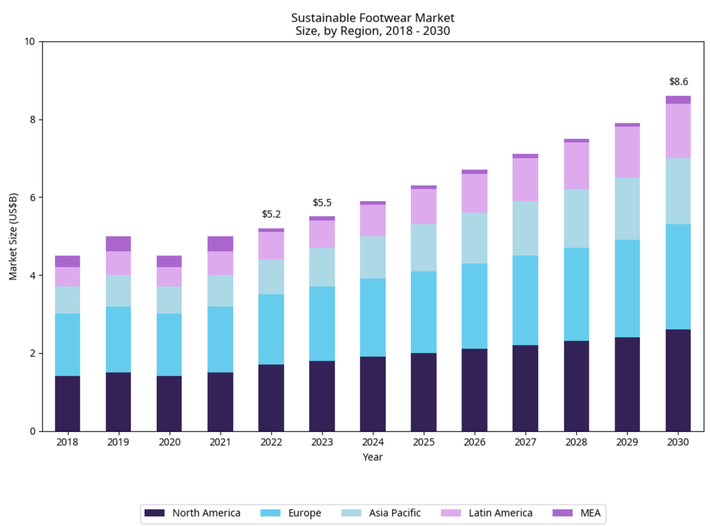
Circular Model (R8 Cycle)



- **Key Features of green insole**
- Eco Friendly material
- Breathable & comfortable
- Skin friendly
- Odor control
- Biodegradable
- Cost effective
- Sustainable production process

Business Study & Model

- Product: Eco-friendly insoles from cotton jhoot waste.
- Target Customers: Shoe brands, eco-conscious users.
- Value: Breathable, biodegradable, low-cost alternative to synthetic insoles.
- Cost: ~18–20 BDT per pair
- Selling Price: 35–40 BDT (wholesale)
- Key Needs: Waste collection, small workspace, 3–4 workers
- Promotion: Social media, samples to shoe brands
- Funding: Own investment, competitions



Alignment with SDG goals

Conclusion

Our project offers a sustainable, low-cost, and eco-friendly solution to textile waste by turning cotton jhoot into biodegradable shoe insoles.

Recommendation

We recommend further testing for durability and exploring partnerships with local shoe brands to scale up production and impact.

Acknowledgement

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