Management Of Waste & Conservation Of Energy
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This project is based on the development of Green Composite Panels from textile waste and wood waste for construction application in the furniture-based products.

Boost up of circular Economy.

Reduced the need for energy in incineration.
PROBLEM STATEMENT

- Polluted Environment
- Increase risk of Deforestation
- Depletion of Non-Renewable sources in the world
PROJECT OBJECTIVE

• Develop a way to reuse textile waste that help in reduction of pollution and keep environment clean.

• Develop a substitute method of producing wood panels rather than clearing land for logging.
RAW MATERIALS & PROCESS

Composite Panels

Textile Waste
Wood Waste

Textile waste → garneting → Strips → Cellulose fiber + Wood waste → Addition of binder → Composite Panels

Wood waste → Thermal pressing
TEXTILE WASTE PRODUCTION IN PAKISTAN

https://www.trade.gov/country-commercial-guides/pakistan-waste-management
PROS OF COMPOSITE PANELS THROUGH TEXTILE AND WOOD WASTE

- Easy availability
- Renewable
- Sustainable
- Eco Friendly
- Circular Economy
- Non toxic
- Non toxic
01
Traditional disposal methods like incineration or landfilling contribute to environmental pollution and energy consumption. By reusing and repurposing waste materials, we reduce the need for new raw materials as well as conserving energy.

02
Compared to traditional manufacturing processes for wood-based panels, production of composite panels from textile and wood waste requires less energy. This is primarily due to the reduced processing steps involved.

03
Composite panels made from textile and wood waste often possess excellent insulation properties. They can provide thermal insulation, reducing heat transfer through walls and other surfaces.
ENVIRONMENT & SUSTAINABILITY CONSIDERATION
REFERENCES:

https://www.trade.gov/country-commercial-guides/pakistan-waste-management


https://www.expertmarketresearch.com/reports/wood-based-panels-market


THANK YOU!