

# Empowering Communities with Solar Charkha for Sustainable Cotton Fibre to Khadi Fabric

## Problem Statement



- ▶ The charkha, or a spinning wheel was operated manually previously.
- ▶ There was no common facility centre for value addition on yarn for converting fibre to khadi.
- ▶ Sloppy marketing of khadi products has always been a challenge in the age of cheap machine-made clothes.
- ▶ The Khadi products are original and handmade, so the price is high, while there are a lot of products in the name of khadi available at a competitive price.

## Key Intervention



- ▶ The solar charkha, a revolutionary innovation, has effectively replaced the traditional manually operated charkha, thereby introducing a sustainable approach to spinning through the utilization of clean solar energy.
- ▶ This ground breaking technology has been implemented by the Kalpvruksh Khadi Gramudhyog, an esteemed establishment dedicated to the production of Khadi.
- ▶ The unit is involved in the production of Cotton Yarn using roving as the raw material. After the yarn is made, manual sizing is performed to enhance its strength. Subsequently, a yarn bini undergoes manual processing to create a khadi product.
- ▶ The unit applied for a loan under the PMEGP scheme, which provided a 35% subsidy on a loan amount. This subsidy enabled the unit to become operational.

## Impact



- ▶ The unit is a clean energy-powered social enterprise operating in the khadi and village industries sectors.
- ▶ The unit produces around 3,600 kg of yarn & 28,000 meters of Khadi fabric annually.
- ▶ It is operated by five women and three men, providing employment to eight individuals at the village level.
- ▶ The unit has been facilitated by MGIRI (a national institute under the MSME Government of India) for their dedication to khadi manufacturing work.
- ▶ The unit has effectively increased the income of its workers and owners, significantly improving their livelihoods.

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*“Solar charkhas create employment and increase income for villagers, providing new opportunities for impoverished communities and making a positive social impact.”*

*-Mr. Nilesh Nikam  
General Manager  
DIC, Yavatmal*

