



REDMI NOTE 8 PRO
64MP QUAD CAMERA

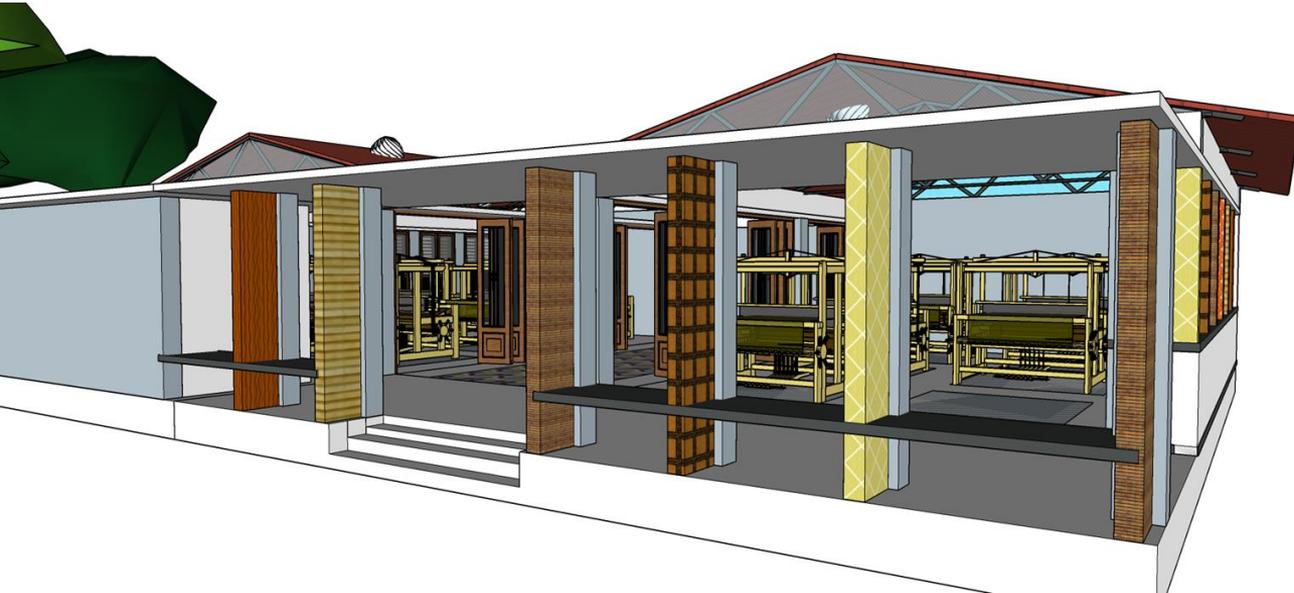


**SELCO
Foundation**

SDG7 Solutions for Textiles and Crafts

Content

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2. SDG7 for Textiles & Craft
 - Cotton Value chain
 - Silk Value chain
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 - Pottery value chain



Sustainable Energy for Development

Access to energy, in a sustainable manner, is among the most important poverty alleviation tools. It underpins all other development goals.



SELCO Foundation | DRE for Development



CLEAN ENERGY ACCESS



ENERGY EFFICIENT TECHNOLOGIES



GREEN BUILT ENVIRONMENTS



AGRICULTURE



ANIMAL HUSBANDRY



MICRO BUSINESSES



TEXTILE AND CRAFTS



HEALTHCARE



COOLING



Sustainable Energy for Textiles & Craft in Odisha

Access to sustainable energy as a catalyst to develop Textiles with

- Improved Productivity
- Reduced Drudgery
- Improved working conditions and wellbeing of the artisans
- Build resilient artisan communities

Pain Points and Challenges

Drudgery	Climate stress	Functionality	Others
-Eye strain -Backache -Hand strain	-Lack of thermal comfort -Roof Leakage -Cyclones	-Storage	- Marketing



Textile Value chain: Cotton



COTTON PICKING

Harvesting of cotton buds



User Group

Cotton farmers and farm labourers



Energy Intervention

Hand-held cotton picking machine



GINNING

Separation of cotton fibres and seeds



User Group

Mill workers at large scale mills or by weavers at small scale units



Energy Intervention

Ginning machine for short staple cotton



SPINNING

Spinning of roved cotton yarn into threads



User Group

Skilled spinners at decentralized or centralized units



Energy Intervention

'Charkhas' (Spinning Machines)



WEAVING

Weaving of threads into cloth



User Group

Skilled weavers working at decentralized or centralized units



Energy Intervention

Looms for weavers



SEWING

Stitching of cloth or other materials for various purposes



User Group

Individual home based entrepreneurs/ tailoring units



Energy Intervention

Sewing machines of various capacities

Textile Value chain: Cotton



Solar powered Textile Value chain with

- Cotton picking machine
- Ginning machine
- Spinning with Ambar Charkha
- Pirn and bobbin winding machine
- Loom
- Efficient Work space/ Common facility centers

IMPACTS

REDUCTION IN DRUDGERY

There is complete elimination of drudgery and fatigue as the spinners do not need to spin the wheel for long periods of time

INCREASE IN PRODUCTIVITY AND INCOME

Considerable Increase in productivity as it allows a single spinners to use two charkhas at the same time

VARIETY OF COTTON

With the speed controller, varying speeds are available allowing the spinners to use different types of cotton yarn and counts.

CREATION OF EMPLOYMENT

With ease in usage, this can be adopted by many women as a home-based livelihood opportunity creating more employment



Percentage increase in production amounts **+80%** No. of Hanks Spun

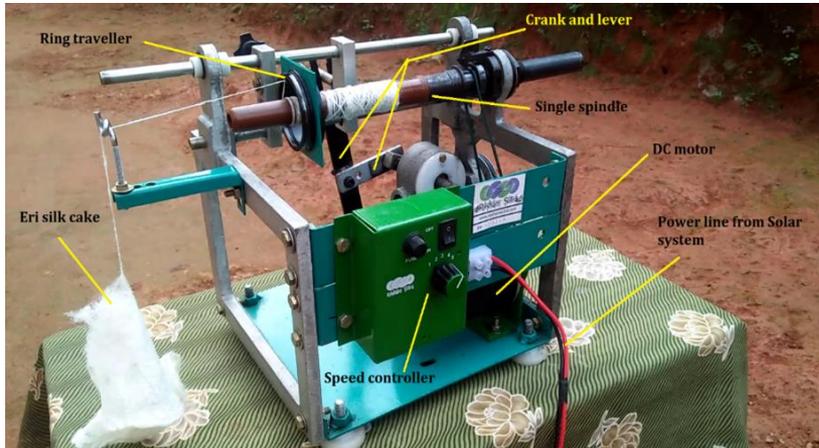
Increase in total income earned by a spinner per day **+157%** Using two charkhas

Farm Level	Silk worm feed growing	Solar Power Sprayer	
		Solar Power Pruner	
Drainage/ Rearhouse level	Silk worm rearing	Rear houses	
		Efficient Cocoon Boiling	
Reeling level Spinning	Reeling activity	Reeling Machine	
	Spinning and twisting of raw silk	Solar powered spinning machine	
Weaving	Pre-weaving functions	Solar powered Pirn and bobbin machine Solar powered Warping machine	
		Solar powered	
Garment /Finish product	Sewing garments/finished goods	Sewing machines	

Textile Value chain: Silk

Solar powered Textile Value chain with

- Farm level- pruners & sprayers
- Efficient rear houses/ grainages
- Efficient cocoon boiling
- Reeling machine
- Spinning machine
- Pirn and bobbin winding machine
- Loom
- Efficient Work space/ Common facility centers



Dokra Craft Value chain



Before (Left) After (Right) solar powered Energy efficient Dokra Craft Value chain with

- Home/Workspace lighting
- Blower for the furnace
- Energy efficient Furnace
- Efficient Work space design
- Grinder and Polisher



Pottery Craft Value chain



Percentage of time saved for Pottery Wheel

35%

Percentage of time saved for Blunger and Pug Mill

60%

Percentage of fuel saved by efficient kiln

40%

Before (above) and After (right) - Solar Powered and Energy efficient pottery value chain with

- Pottery wheel
- Blunger
- Pug mill
- Energy efficient Furnace
- Work space design



For more information,
Please get in touch!

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