SDG7 Solutions for Textiles and Crafts
Content

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   ● Cotton Value chain
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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.
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

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<th>Drudgery</th>
<th>Climate stress</th>
<th>Functionality</th>
<th>Others</th>
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<tr>
<td>-Eye strain</td>
<td>-Lack of thermal comfort</td>
<td>-Storage</td>
<td>-Marketin</td>
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<tr>
<td>-Backache</td>
<td>-Roof Leakage</td>
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<td>-Hand strain</td>
<td>-Cyclones</td>
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</table>
Textile Value chain:
Cotton
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 spinner 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%
- Increase in total income earned by a spinner per day: +157%
<table>
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<th>Level</th>
<th>Activity</th>
<th>Equipment</th>
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<td>Farm Level</td>
<td>Silk worm feed growing</td>
<td>Solar Power Sprayer</td>
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<td>Solar Power Pruner</td>
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<td>Drainage/ Rearinghouse Level</td>
<td>Silk worm rearing</td>
<td>Rear houses</td>
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<td>Efficient Cocoon Boiling</td>
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<td>Reeling Level</td>
<td>Reeling activity</td>
<td>Reeling Machine</td>
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<td>Spinning</td>
<td>Spinning and twisting of raw silk</td>
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<td>Weaving</td>
<td>Pre-weaving functions</td>
<td>Solar powered Pirn and bobbin machine</td>
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<td></td>
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<td>Solar powered Warping machine</td>
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<tr>
<td></td>
<td></td>
<td>Solar powered</td>
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<tr>
<td>Garment / Finish product</td>
<td>Sewing garments/finished goods</td>
<td>Sewing machines</td>
</tr>
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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

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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