

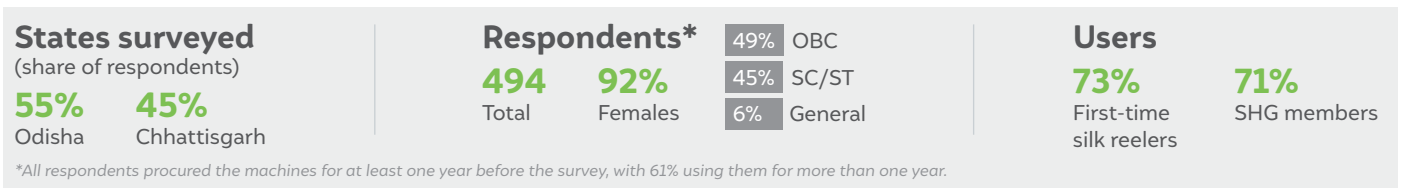
IMPACT OF SOLAR SILK REELING AND SPINNING MACHINES ON RURAL LIVELIHOODS



Image: Reshamsutra

Energy-efficient, solar-powered silk reeling and spinning machines enable users (usually women) to reel high-quality silk. The machine, reduces the drudgery of traditional manual thigh reeling, increases productivity, and promises increased incomes. Till date, approximately 14,000 solar-powered silk reeling machines have been deployed in India.

The findings below are from a primary survey conducted through in-person and telephonic interviews between February - September 2022.



INCOME IMPACT

Users experiencing income increase



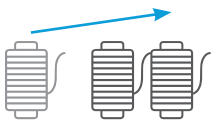
Source: CEEW analysis 2022

Top five spends of increased income



Source: CEEW analysis 2022

PRODUCTIVITY IMPACT



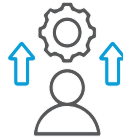
2x
increased productivity compared to earlier reeling practices (manual and grid-powered machines)



63%
users experienced an improvement in yarn quality



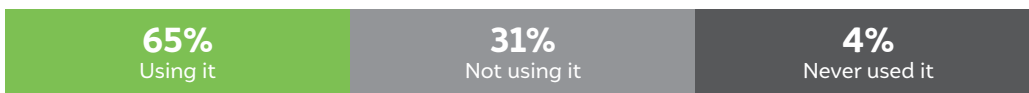
2 hours
a day, average time saved on silk reeling



72%
users reported no physical strain/reduced effort with the machine

Source: CEEW analysis 2022

Technology usage at the time of survey



Top five reasons for not using it

36% Raw material unavailability	17% Earnings not as expected	16% Produce/output not as expected	9% Machine unavailability (wage earners)	8% Lack of marketing knowledge
---	--	--	--	--

Source: CEEW analysis 2022



SOCIAL IMPACT

94%
users experienced increased support from family members/spouse

93%
users reported improvement in confidence to earn and work

87%
users now have a better ability to buy assets and save on own

Source: CEEW analysis 2022



IMPACT ON WOMEN

94%
believe they have the relevant knowledge & skills to become self-reliant

87%
report increased participation in public/community events

74%
believe they have better agency to take decisions in family

73%
more confident about using public/private transport on own

Source: CEEW analysis 2022



ENVIRONMENTAL IMPACT

1.1 MT
CO₂ abatement*

*For every 100 units of Unnati (silk reeling) machine used for 5 hrs for 192 days a year.
Source: CEEW analysis 2022

About Powering Livelihoods

Powering Livelihoods, a CEEW-Villgro initiative, mainstreams clean energy-based livelihood solutions. The findings presented here are based on the Programme's interim impact assessment conducted by CEEW.

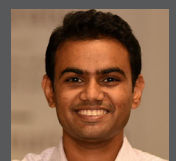
Authors



Divya Gaur
divya.gaur@ceew.in



Priyatam Yasaswi
priyatam.yasaswi@ceew.in



Abhishek Jain
abhishek.jain@ceew.in

For queries / more details, please email the authors

Scan to read the complete report!

