

# Solar Water Heaters in Silk Reeling Industry

Solar Heat in Industrial Processes (SHIP)

24<sup>th</sup> April 2019

T. Ananth

CEO, Nuetech Solar Systems Pvt. Ltd

# The Silk Industry

- India is the Second Largest Silk Producer, behind China
- Karnataka is the Largest Silk Producing State, historically...
- About 12,000 Metric Tons of Silk is produced annually in Karnataka
- Hot Water is used extensively in silk reeling
- Water is heated traditionally with fire wood, Bio-brickets, etc.,

## The Process & hot water usage

- The silk cocoons are first cooked in water under boiling conditions
- Silk yarn is extracted in Basins with warm water at 30 to 40<sup>0</sup> C
- Usage of Solar Water Heaters save between 50% to 80% fuel

# Karnataka Silk Reeling Industry

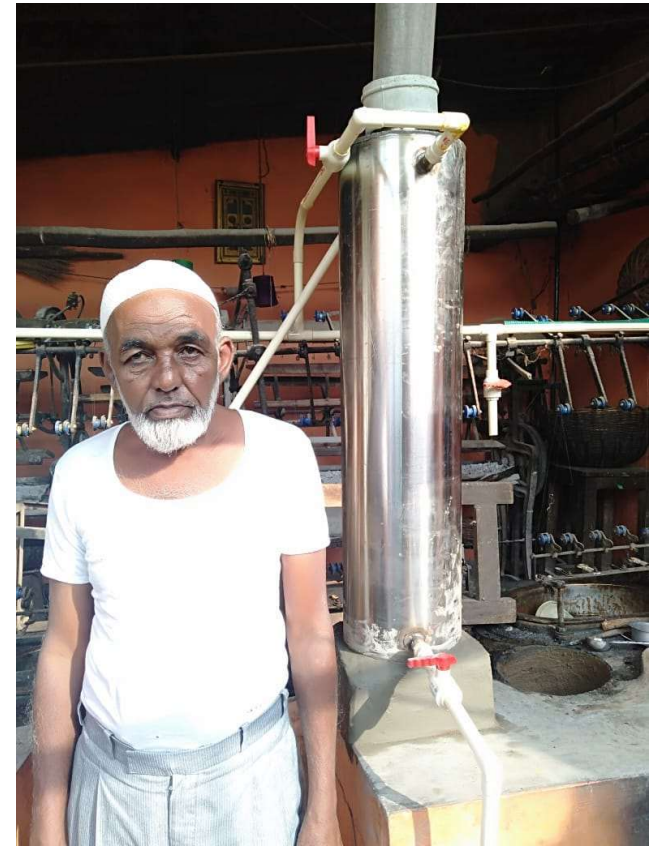
- In Karnataka over 12,500 Small & medium units (up to 20 basins) are under private, cooperative and tiny industrial sector
- The Four Clusters are in Sidlagatta, Ramanagara, Kolar & kollegal.
- Till now, about 2,500 units have installed Solar Water Heaters of 200 (4 basins), 500 (6 to 10 basins) & 1,000 LPD (up to 20 basins) Capacities under the Government Subsidy schemes (75% Subsidy)
- This reduces GHG emissions by a conservative 5,890 Tons CO<sub>2e</sub> per annum
- Total potential of reducing GHG emissions of about 30,000 Tons CO<sub>2e</sub>

## The Way Forward...

- The Silk Reeling Industry is very investment sensitive
- The first Solar Water Heater was installed in 2006 at the Silk Reeling Unit of Karnataka Sarvodaya Sangha, Vijipura. (no Govt. support)
- Though a very successful venture with pay back period of less than 2.5 years, could not be replicated.
- The Farmers would prefer to use available funds towards working capital than invest in Solar Water Heaters
- **Financial Support is imperative**



has Installed a total of 2,037 Solar Water Heaters for tiny and small scale Silk Reeling Units in Sidlagatta, Ramnagara, Kollegal and Kolar (some beneficiaries)









# Any Questions...

T. Ananth

[ceo@nuetechsolar.com](mailto:ceo@nuetechsolar.com)

99452 32138

