PROMOTING ENERGY EFFICIENT LIVELIHOODS

A CASE STUDY BY

MAHILA HOUSING TRUST
ENGAGE, EMPOWER, ENABLE!

TYPES OF PILOTS IN THE SUSTAINABLE HOUSING PROGRAMME

The sustainable Housing Programme intends to explore the possibilities of achieving sustainability in Built Environment through different interventions on a pilot basis and subsequent scaling of pilots.

Home Based Embroidery Work

Home Based Embroidery Works are establishments employing a large number of women workers in activities that enable value addition in the textile industry.

Sustainable Housing Programme

Energy Efficient Home Based Livelihoods
December 2018
About the Livelihood

Surekhaben along with her husband Sanjaybhai runs a HOME-BASED Embroidery Business.

Surekhaben recieves around 700 pieces of textile everyday (1000 pieces during festivals). Her business gives employement to around 35 women on a daily basis. She distributes almost 20 pieces of textile to each women that she employ to add value with light embroidery work. Surekhaben along with sanjaybhai and a few others work on this primary embroidered textile on their 3 embroidery machines for value addition on each piece of textile. Therefore, the embroidery machine is central to surekhaben’s highly vibrant livelihood activity that employs a large number of women everyday.

Promoting Energy Efficiency in Home-Based Livelihoods

Previously, MHT had intervened airlite roof ventilation technology at Surekhaben’s house to maintain natural light and ventilation.

MHT’S technical team conducted an energy audit at surekhaben’s house. According to their pattern of usage of appliances at surekhaben’s home the monthly average expenditure is around INR 1200 (USD 17). Almost half (48%) of the expenditure is accounted from the use of the three embroidery machines. Apart from the embroidery machine, significant amount of consumption is also accounted from the usage of Fan (22%) and 2 tubelights (19%) indicating that the installation of airlite and 2 tubelights was not enough as a stand alone intervention.

MHT’s Intervention

To pilot the energy efficient solutions, MHT intervened in Surekhaben’s house to promote solar energy usage through an embroidery machine, a fan and a tubelight. The key aim was to explore the impact that could be generated through solar powered technical solutions.

Key Objectives

1. Energy Efficiency
   - Energy efficiency through solar powered Embroidery Machine

2. Heat Stress Reduction
   - Reduction of Heat stress through solar powered fan

3. Efficient Illumination
   - Increased illumination through solar powered tubelight

Impact of Sustainable Green Livelihood on Income

Savings through expenditure on monthly electricity bill
- Net increase in monthly income of Surekhaben
  (As per single interjected embroidery machine)
  ₹ 500  $ 7

Projected monthly income for three embroidery machines
  ₹ 1500  $ 21