



MAHILA HOUSING SEWA TRUST

Dignified Home, Dignified Work, Dignified Life

Impact of Heat on Slum Communities & Possible Solutions

National Workshop on Heat Wave 2024

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Mahila Housing Trust (MHT)



Focusing on women-led development, MHT contributes towards:



Mahila Housing Trust (MHT)

Mission: To organize and empower women working in the informal economy and provide them technical services / capacity building to secure better habitat, environment, & basic services.



MHT programs include



**Water, Sanitation,
and hygiene**



**Sustainable Energy
and Climate Change
Resilience**



**Affordable Housing
and Land Rights**



**Livelihoods and Skill
Development**



**Democratic Urban
Governance**

Why slum communities are more vulnerable to heat wave?

Vulnerability Drivers	Impact on Slum Communities	Additional Burden on Women
<ul style="list-style-type: none">• Geographical disadvantage• Inadequate housing quality – building material & poorly-ventilated dwellings• Low access to basic services – water, sanitation, energy etc.• Occupation risk - Construction worker, Rag Pickers, home based workers etc.• Information barrier (about climate change)• No access to cooling technologies• Financial susceptibility• Social & political marginalisation	<ul style="list-style-type: none">• Increased mortality – elderly and children• Increased stress, fatigue & illness• Reduced productivity	<ul style="list-style-type: none">• Dual burden of work• Increased care giving role• Reduced productivity

Community Led Implementation Model

MHT APPROACH

MHT provides the urban poor with



Knowledge to undertake vulnerability assessments.



Equips them with available technologies.



Builds their capacities to devise locally relevant, pro-poor climate resilient solutions.

MHT empowers community-based organizations to



Implement their own resilience action plans.



Influence city planning and governance on pro-poor adaptation and resilience action.

*We focus on **building resilience** for **poor** and enhance their **capacities** to survive, adapt and progress in the face of stress, while **improving their livelihoods and well being status.***



Approach to Capacity Building

- Demystifying climate change using creative and simple tools
 - Vulnerability of Slum Dwellers & Informal Settlements
 - Causes and impacts of climate change
 - Vulnerability of Women
 - Role of women as agents of climate change adaptation
- Community Based Vulnerability Assessment Toolkit (CBVAT)
- Resilience Action Plan
- Community Based Surveillance Mechanism Training
 - Simplified and assembled toolkit for community use
 - Awareness generation of the community regarding water quality and weather situations in slums
 - Hands-on training to capture real-time slum level data



PRO POOR - CLIMATE RESILIENT SOLUTIONS – SOLAR REFLECTIVE WHITE PAINT

INNOVATIVE ROOFING SOLUTION - CHARACTERISTICS

Manufacturer & Application

Few common companies providing solar reflective white paints are **Kaycoat, Insultec, Nerolac etc.**

Thermal properties

Reduce indoor temperatures up to **4° C to 5° C.**

Exterior walls facing maximum sunlight to be painted for larger impact.

Cost per unit

The product costs around **Rs. 25/- per square feet.**
A roof of area 100 sq ft requires 8 litres of paint.

Durability

Solar paint is durable for **4 years without maintenance.**

Ease of access

Easily available in markets. Lime paint or Chuna are affordable alternatives.



Good thermal properties



Quick & easy installation



Ecological alternative



No major maintenance



Fire and Weather retardant

SIGNIFICANT AND DIRECT ASSOCIATION WITH FINANCIAL INSTITUTION

A direct financial and technical support has been provided to households interested to change their roof and are willing to apply the solar reflective white paint. **MHT through AWAAS and Credit Co-operatives has been promoting the pro poor and affordable technology** in various cities across India.



MHT in partnership the Ahmedabad Municipal Corporation & Jodhpur Municipal Corporation (North) has been part of the “Cool Roof Programme” under respective Heat Action Plan. MHT has successfully implemented solar reflective paint in 5000+ houses in urban poor settlement across India with the help of the inhabitants.



VOICES OF WOMEN

“

Ever since we got our tin roof painted white, we've been able to save on electricity since the speed at which the fan rotates has also gone down because we don't feel so hot anymore. We are now able to work on our stitching in the afternoon from 2Pm to 5Pm and finish it on time because we feel at ease and cooler.

**MEENABEN KHORI,
RAMESHDUTT COLONY,
AHMEDABAD.**

Solar Reflective White Paint – Jodhpur Heat Action Plan



PRO POOR - CLIMATE RESILIENT SOLUTIONS - MODROOF

INNOVATIVE ROOFING SOLUTION - CHARACTERISTICS

Manufacturer & Application

Pal Rematerials Private Limited in Ahmedabad,
Used as a **cooling solution for roofing material**

Thermal properties

Observed to reduce home temperatures **up to 6° C**.
Glossy white roof-top and Rockwool insulation for high thermal performance

Cost per unit

The product costs around **Rs. 270/- per square feet**.

Durability

ModRoof has a **15 year warranty** and can be transferred from one location to another and supports incrementality.

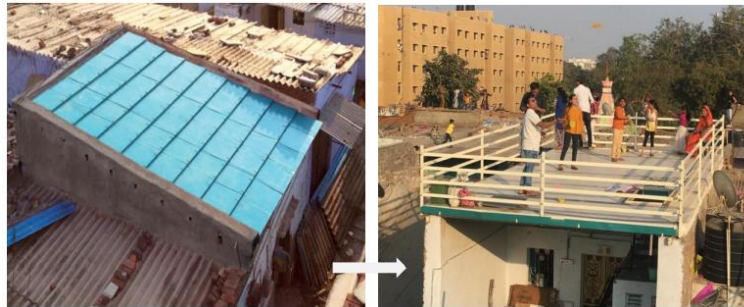
Ease of access

Available only on demand.



SIGNIFICANT AND DIRECT ASSOCIATION WITH FINANCIAL INSTITUTION

A direct loan provided to households interested to change their roof to MOD Roof through MHT and Credit Co-operatives. **MHT has designed a loan model ranging from Rs 30,000 to Rs 2,00,000.**



MOD Roof has been successful in enhancing its product through time contemplating the gaps in usability and constant change.



VOICES OF WOMEN

“

My name is Mina Soni. I live in Vishwasnagar since 15 years. Previously, We had a roof made of corrugated tin sheet. I work as a seamstress and live with my husband and two kids. Earlier it did not get this hot. But since these last years, the heat is intolerable. The second problem is that when it rains, my roof used to leak. Every monsoon season, I had to repair my roof. I have got to know about Mod roof in one of our Vikasini meetings in MHT. Few things I liked about this technology are its cost effectiveness and durability. Despite concrete roof being unaffordable to us, Mod roof looks like a pucca concrete roof. We could also take a loan and pay in instalments. Most importantly, We don't suffer from heat anymore. The company assured us that we can add a floor in the future.

**MINABEN,
VISHWASNAGAR, AHMEDABAD.**

Piloting Cooling Station – Jodhpur Heat Action Plan

Cooling stations play an important role in protecting vulnerable populations, especially the poor, homeless, construction workers, commuters etc. They will provide a safe and accessible space for these individuals to seek temporary relief from the heat and reduce the risk of heat-related illness or death.



Piloting Solutions & Creating Financial Products



Climate Resilient solutions demonstrated



Families took part in field schools organized for validation



Special loan product for successful/acceptable solutions





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