

Climate Change, Energy and Urban Resilience

Built Environment | SELCO Foundation



Impact of Architectural Design on Environmental Sustainability – Session #4

Puffed rice making workshops in
Industrial Dharwad

Overview of Situations and Solutions in Informal **Urban Housing, Education and Livelihoods** for Productivity and Wellbeing



Blacksmiths in the Urban city of
Dharwad's Business Centre

Poor communities
are usually at the
receiving end of the
worst impacts of
climate change

Summers are hotter,
winters are colder
and **disasters are
frequent with
increased intensities**



Low income households in developing countries spend an estimated 30% of their income on food, health and other expenses out of which **15-20% is normally spent on fuel, energy and appliances.**

The inefficiencies of **ad-hoc built structures** are exacerbated.

Spaces with poor ventilation, natural lighting and thermal conditions, **result in high operational cost of energy**

and comfort to end-users



In the last decade, **83% of all disasters were caused by extreme climate-related events**, such as floods, storms and heatwaves.

The inefficiencies of **ad-hoc built structures** are exacerbated.

Costs associated with **mitigation** (repairs, investing in healthcare, productivity losses) are recurring and inefficient leading families into a **cycle of poverty**



Due to increasing temperatures, estimated globally, 103 billion hours were lost in year 2000 which increased to 302 billion work hours lost in 2019.

Climate Change is the biggest **inequality** factor

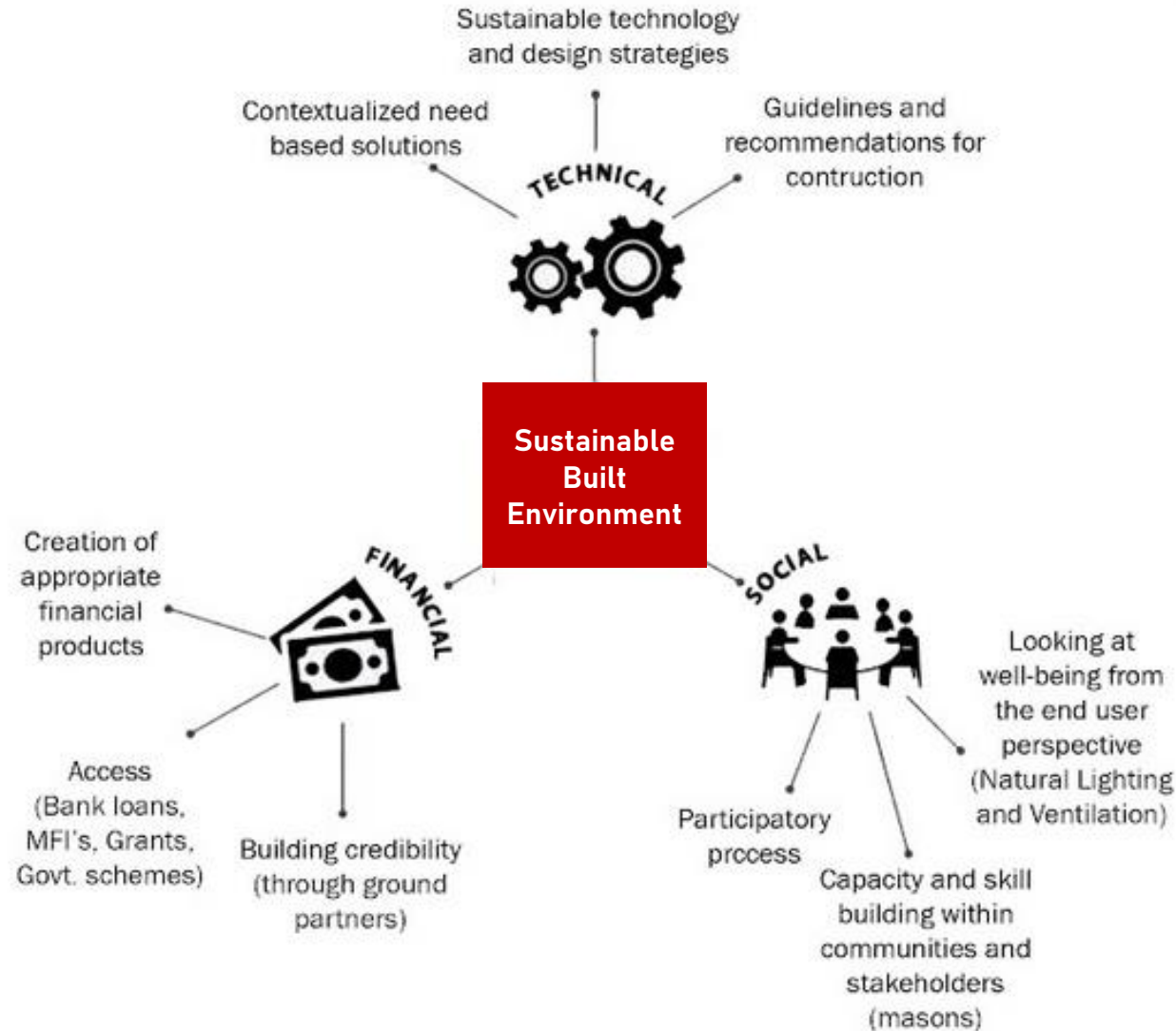


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Urban Community Typologies



The Holistic Design Approach



1 Informality and Urban Settlements



Belgaum, Karnataka



Belgaum, Karnataka | Mahesh Foundation



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2 Disaster and Access to Resilience



2 Disaster and Access to Resilience



2 Disaster and Access to Resilience



3 Bridge School and Conducive Learning



3 Bridge School and Conducive Learning



Bangalore, Karnataka - Many



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4 Informal Worker Housing



Bangalore, Karnataka



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4 Informal Worker Housing



5 Heat and Urban Livelihoods



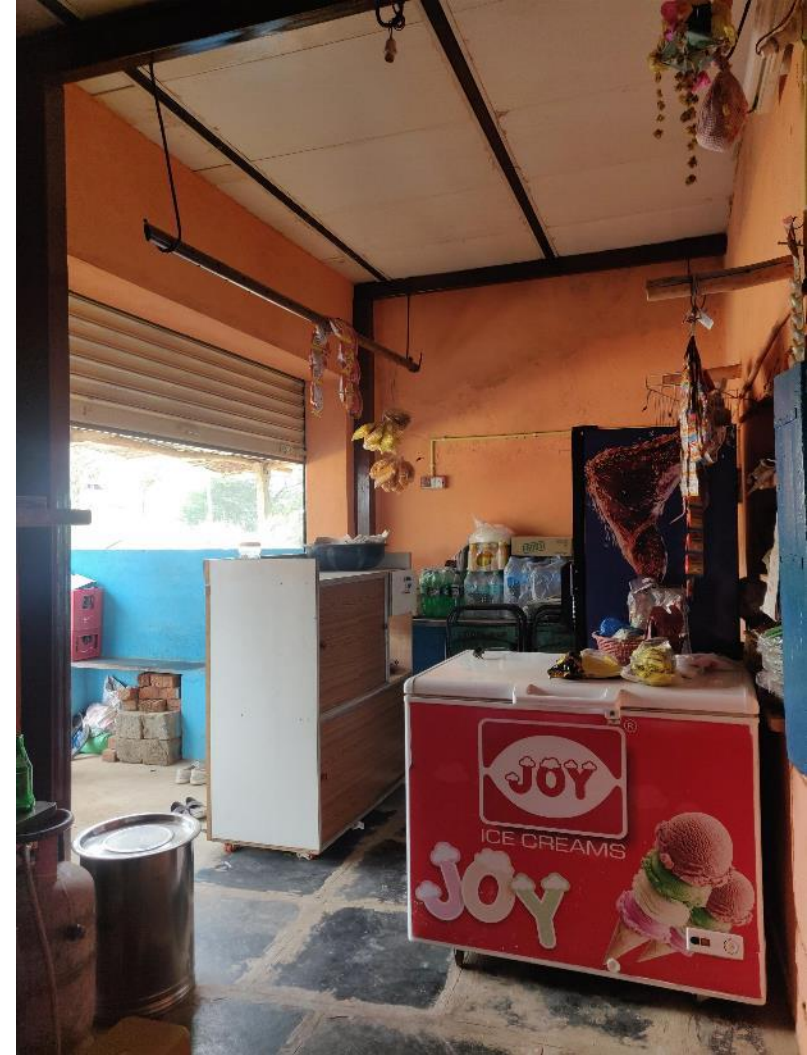
5 Heat and Urban Livelihoods



5 Heat and Urban Livelihoods



Dharwad, Karnataka | ModRoof



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6 Cyclones and Urban Livelihoods

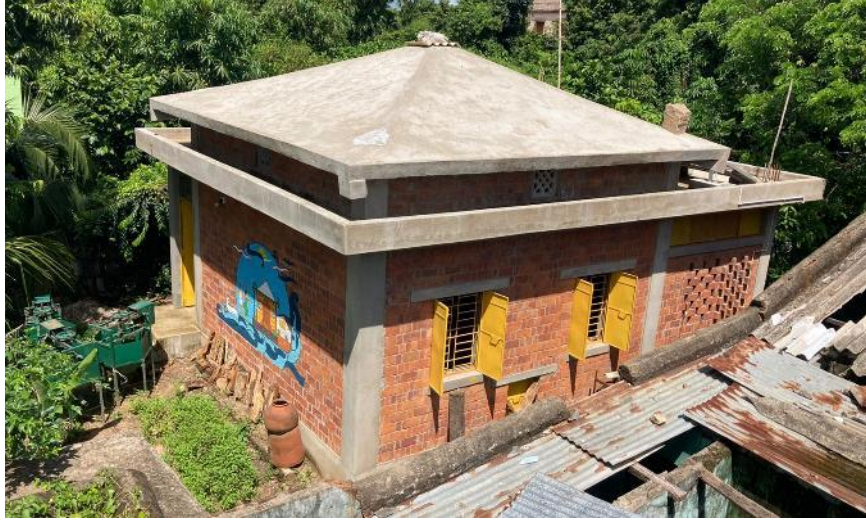


Puri, Odisha



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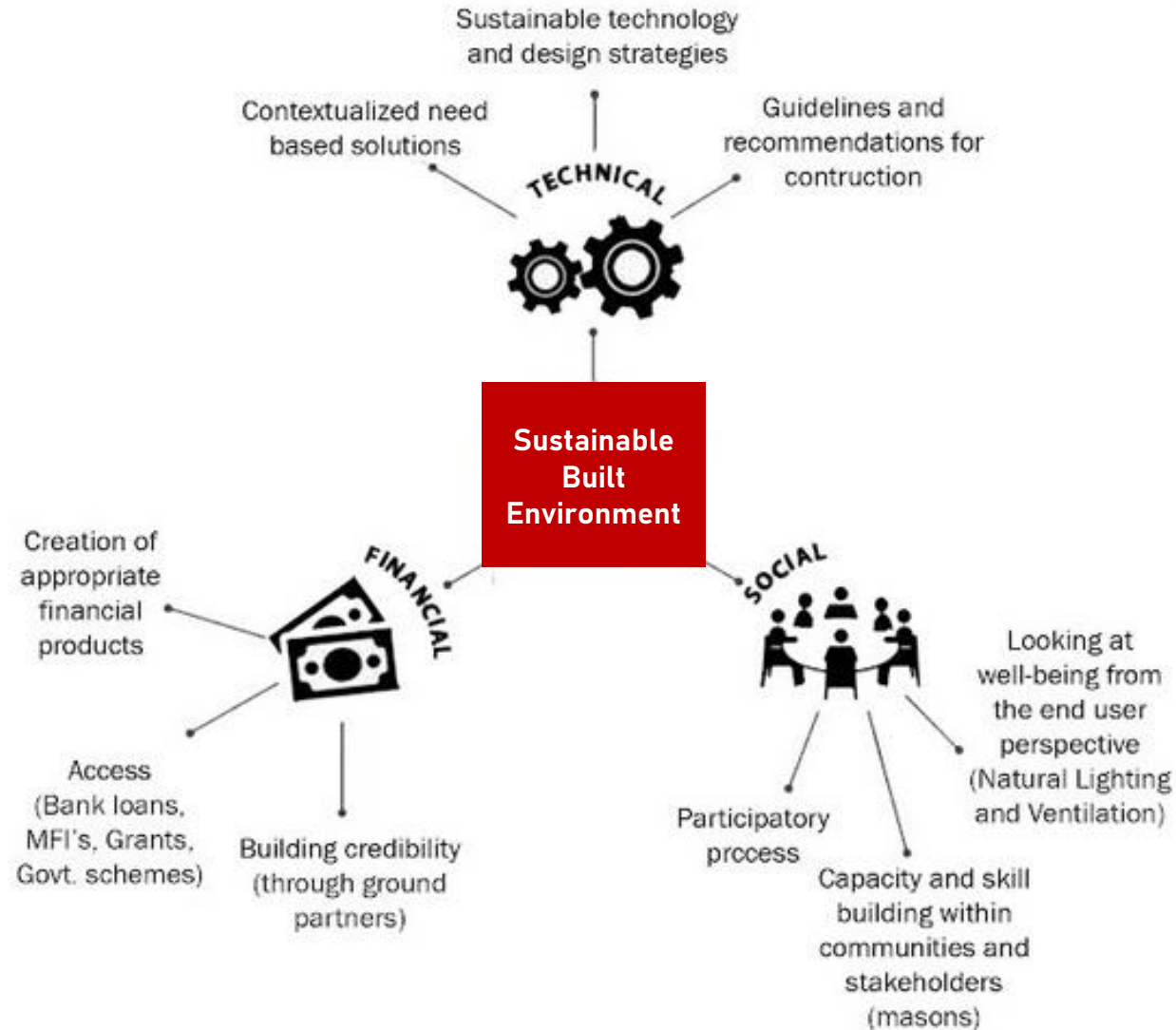
6 Cyclones and Urban Livelihoods



Puri, Odisha



The Holistic Design Approach



Thank you!



For Opportunities of Internships, Fellowships,
Employment and Collaborations

Write to be@selcofoundation.org