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## Enhancing Institutional and Community Resilience to Climate Change Impacts in the Jodhpur City

### Heat Stress

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### Heat Stress

#### Introduction

Rising temperatures due to climate change is leading to heat stress and need remedial actions in designing and planning of built spaces at all scales of city planning to reduce the stress. The spatial exposure to heat risks due to design and planning of built spaces is becoming well understood, but practices which increase the resistivity towards the hazard or the relative vulnerability of communities are not yet influencing decision making and not being reckoned. Heat stress in the arid and semi-arid climatic zones of India is getting aggravated with time. Communities in these places have been managing and coping up with the stress effectively.

Jodhpur, a historic city located in semi-arid climatic zone, confronting heat stress due to worsening built fabric to contest heat wave conditions has been selected for enhancing urban resilience. The proportion and layout of open spaces and built mass along with usage of material and construction technology shows variations in city core to peripheral wards.

#### Objective

A comparative study of 'marginalized communities' managing heat stress in core city wards with the peripheral wards was conducted and is assessed for

the sensitivity, adaptive capacity and coping mechanism of communities to heat stress for arriving at strategies to enhance resilience. Institutional arrangements to cope up with the stresses at various levels was also analysed to suggest suitable mechanism for enhancing institutional resilience for informed decision making.

#### Preliminary Findings

- All interviewees have observed changes in climatic conditions and have been experiencing impacts, specifically in the form of increased heat wave all over the city.
- The expenses on electricity have increased in the last few years and the households in peripheral areas are paying up to INR 5000/- per households in a month.
- Air pollution in the residential areas within the vicinity of the industrial area is affecting the health of people

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