

National Adaptation Strategy Formulation for Reduction of Climate Induced Risk to Labour Productivity

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Climate projections for India indicate an increase in temperature (maximum and minimum) to the order of (2-4) °C by 2050. Climate change induced heat stress is going to impose an extra layer of threat to already stressed sustainable development agenda in India with relatively poor performance in health sector. Case study of Kolkata shows that heat stress is going to affect human wellbeing adversely directly due to loss in labour productivity. Presence of large informal sector adds a new dimension to the problem. Impact of heat stress in terms of productivity of working force will pull down the national performance enormously in mega cities unless adaptation strategies are adopted. In this context, the goal of this study is to capture the direct impact of extreme events through heat stress on human health and associated loss of productivity and income across various occupational categories. For this purpose, we have used a handheld heat stress meter (Wet Bulb Globe Temperature Meter) to estimate workability losses among different occupational categories. Also, we have used an online Wet Bulb Globe Temperature (WBGT) calculator to generate the concept of workability zones and evaluate the impact of heat stress on labour productivity under Business As Usual (BAU) scenario for the year 2011.