

Assessing the Economic Implications of Climate Change: A Study of West Bengal, India

Kamalika Dasgupta¹, Bidisha Biswas², Anushka Maity³, Bijoy Ranjan Saha⁴

The increase of temperatures due to climate change makes heat-related problems worse for workers working outdoors in tropical parts of India like West Bengal. The purpose of this study is to look at how rising temperatures impact the ability to work and be productive in the economy across different climate scenarios. We found that work productivity is decreasing at a high rate, which supports global estimates of 80 million jobs being lost by 2030. By looking at both climate and health data, we can tell there is an urgent need for adaptive policies that protect at-risk workers and support their livelihoods. Heat stress mitigation strategies are needed to reduce negative impacts on India's workers from heat stress. The results of our study support the idea that heat stress adaptations need to be incorporated into India's climate resilience framework so that there are still wage employment opportunities in climate-affected areas. Our research will help policymakers find ways to deal with the growing issue of heat stress by providing them with information on how to successfully create adaptation techniques to promote the health of workers and create economic security for them.

Keywords: Heat Stress, Climate Change, Work Productivity, Labour productivity, Emission Scenarios

1. **Assistant Professor**, Department of Business Administration, Institute of Engineering & Management, University of Engineering and Management, Kolkata, India, Corresponding Author, Email: kamalika.dasgupta@iem.edu.in
 2. **2, 3 & 4 Students**, Department of Business Administration, Institute of Engineering and Management, Kolkata