

# Economy-Wide Effects of Climate Change-Induced Heat Stress in Burkina-Faso: An Applied CGE Analysis

## Project Team



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In Sub-Saharan Africa, climate change impacts human health through variations in agricultural production, an increase in the incidence of infectious diseases (e.g., malaria), and **heat stress**.

Climate change-induced heat stress can lead to changes in mortality and morbidity within the workforce across economic sectors (Bi et al., 2011). This can result in a decrease in **labor availability and productivity** and affect the whole economy.

**In Burkina Faso**, a West African and Sahelian country, it is projected that the population affected by at least one heatwave per year will rise by 8,3% between 2000 and 2080 (Tomalka et al., 2021).

**This project aims to assess the economy-wide effects of heat stress induced by climate change in Burkina Faso using a computable general equilibrium (CGE) model.** The analysis will account for differential effects across sectors, climate zones, types of labor (rural and urban), and household groups.

The results of this project may support policymakers in **designing and implementing mitigating policies** in response to negative effects on the economy and vulnerable households.



**Fig.** Regions and climatic zones in Burkina Faso

**Source:** Adapted from <https://www.mappr.co/counties/burkina-faso-regions/>

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