

# **CLIMATE CHANGE AND MIGRATION IN CAMBODIA: AN ANALYSIS OF SPATIOTEMPORAL TRENDS IN WATER AVAILABILITY AND MIGRATION**

Laura Emilia Sigelmann

## **ABSTRACT**

Cambodia is a small fragile state in Southeast Asia that is highly exposed to the effects of climate change. While there is a burgeoning body of research of the effects of climate change on security outcomes, there is limited research on the relationship between climate change and migration, particularly in Cambodia. The purpose of this study is twofold: first, to analyze subnational climate vulnerabilities in Cambodia with a specific emphasis on water availability; second, to analyze the relationship between water availability and migration in Cambodia. The study first uses a mix of quantitative and qualitative data to establish the political, economic, and social conditions necessary for climate change to affect migration. Then, the study uses ESRI's Emerging Hot Spot Analysis tool and regression analysis to identify precipitation trends on a subnational level. Finally, the study uses qualitative data, including focus group interviews, to analyze subnational migration patterns in relation to subnational precipitation patterns and provide a holistic picture of Cambodia's climate-migration nexus. The study finds that precipitation is decreasing in the northwest provinces of Banteay Meanchey, Battambang, and Siem Reap, where the bulk of the population is reliant on traditional rice agriculture, which is highly vulnerable to the effects of climate change. The study also concludes that households that have experienced crop loss, drought, and poor rainfall are more likely to have a family member migrate the following year. Given that the northwest is experiencing a drying trend, it is likely that more individuals will migrate from these provinces in the future. Future research should address two things: first, how climate change projections for the country vary spatially and temporally; and second, how climate change and migration are quantitatively linked.

*Bridget Scanlon*

---

**Bridget Scanlon**

*Joshua Busby*

---

**Joshua Busby**