

Climate change and maternal food security during pregnancy in rural Uganda: Increasing challenges for maternal-infant health

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Bwindi Impenetrable National Forest. Photo: Julia Bryson



INTRODUCTION

- ### ISSUES
- Food insecurity is expected to increase globally due to climate change,¹ with Indigenous groups facing increased barriers to adaptation²
 - Pregnant women are particularly sensitive to food insecurity, as antenatal undernutrition is linked with poor maternal-infant health outcomes³
 - Addressing climate change, food insecurity and maternal-infant health issues will require innovative policy and inter-sectorial interventions that underscore community needs and prioritize local knowledge and collaboration



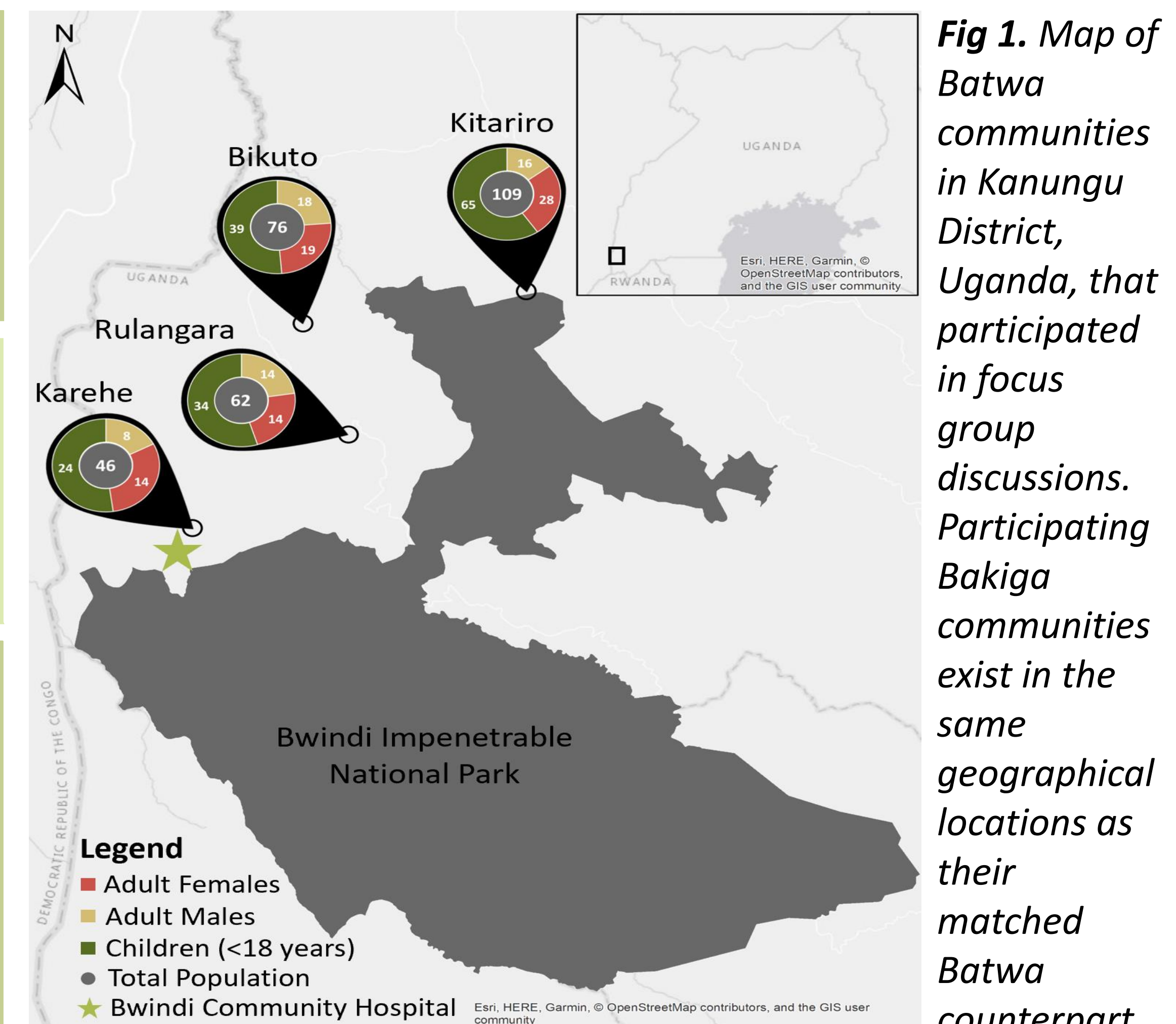
METHODS

OBJECTIVE

This study aimed to characterize the pathways through which climate change influences food insecurity during pregnancy and maternal-infant health in Indigenous and non-Indigenous communities in rural sub-Saharan Africa

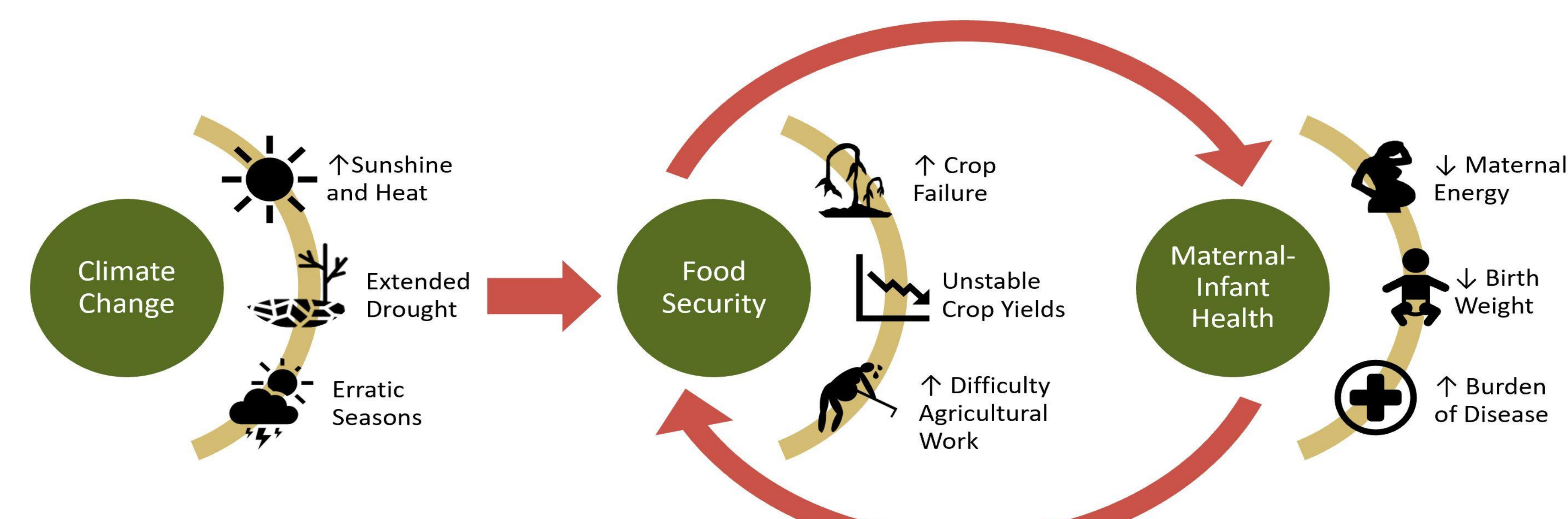
- ### COMMUNITY PARTNERS
- Approximately 700 people in Kanungu District, Uganda, are Indigenous Batwa, who were forest hunter-gatherers until their recent forced eviction from traditional lands
 - Food insecurity is challenging in local communities, especially for the Batwa^{4,5,6}

- ### DATA COLLECTION & ANALYSIS
- 8 focus group discussions (4 Indigenous Batwa + 4 non-Indigenous Bakiga communities)
 - Discussion topics included food security during pregnancy and perceived impacts of climate/weather on nutrition and pregnancy outcomes over time
 - Data were interpreted using thematic analysis⁷ rooted in framework characterizing climate change risks as a function of exposure, sensitivity, and adaptive capacity⁸



RESULTS

- ### RESULTS
- Poor food security was a common problem during pregnancy that had a bidirectional relationship with antenatal health issues (Fig 2)
 - Food insecurity was perceived to be increasing over time due to changes in climate
 - Food insecurity during pregnancy was reported as more severe for Batwa women
 - Women indicated that improved food security would help them better handle environmental exposures while pregnant



CONCLUSIONS

- ### CONTRIBUTIONS TO THE CURRENT STATE OF KNOWLEDGE
- Many women perceived food security to be the *most important* determinant of antenatal health for mothers and infants
 - Indigenous women had reduced adaptive capacity to climate change, contributing to bigger food security challenges while pregnant
 - Women identified direct impacts of changing climate on both agriculture and maternal health, decreasing food security during pregnancy

- ### PRACTICAL IMPLICATIONS
- Policies that promote women's adaptive capacity to climate change may be required to reduce the burden of food insecurity on maternal-infant health^{9,10}
 - Interventions should consider the inequities Indigenous mothers face regarding food security, health, and adaptive capacity for climate change

ACKNOWLEDGEMENTS

We sincerely thank all of our partner communities for their time and contributions to this research. We value the opportunity to listen to women and Indigenous voices. We also acknowledge the support of our partner organizations in Uganda: Bwindi Community Hospital, the Batwa Development Program, the District of Kanungu Government, and the Ugandan Ministry of Health. This research was conducted in collaboration with the Indigenous Health Adaptation to Climate Change (IHACC) project, with parallel project partners in the Canadian Arctic and Peruvian Amazon. Funding was provided by the University of Guelph, the Canadian Institutes of Health Research, and the International Development Research Centre.