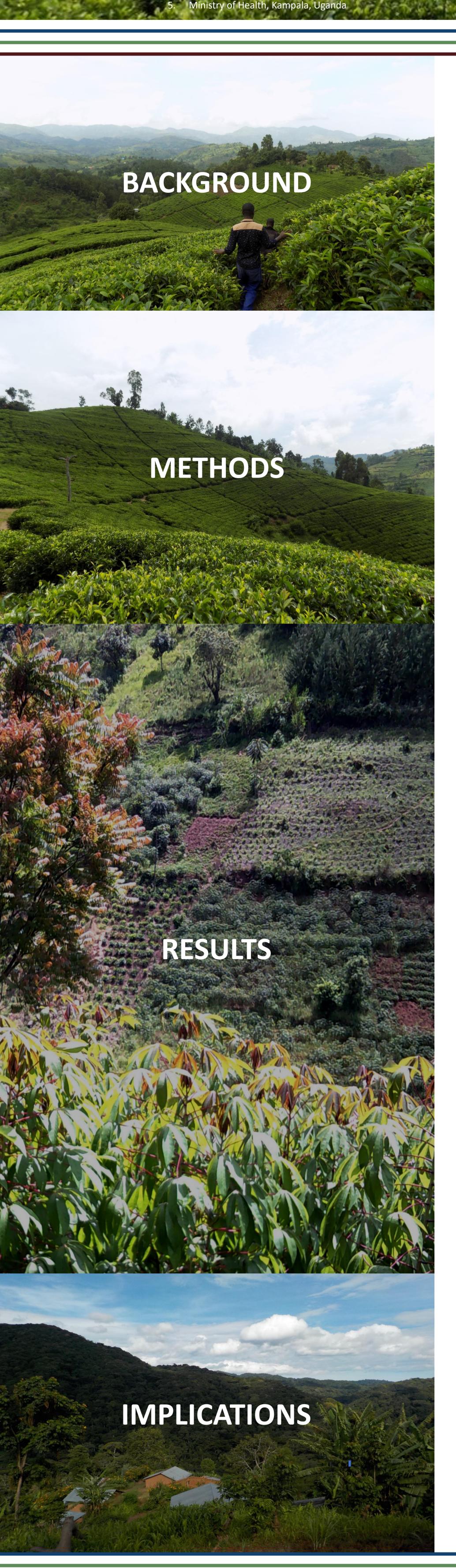
MAPPING SEX AND GENDER CONSIDERATIONS WITHIN THE CLIMATE-HEALTH NEXUS IN EAST AFRICA: A SCOPING REVIEW

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Africa is projected to experience an increase in annual surface temperatures by 2-4°C on average over the next century and undergo extreme drought and unprecedented precipitation events [1]. East Africa currently experiences a high burden of disease which will be further exacerbated by climate change [1,2]. Climate change has been identified as a risk multiplier for existing gender-based disparities [3]. Women and children have been identified as vulnerable groups that would be greatly impacted by the changing climate due to differing health needs and nutritional demands [3,4]. Limited research has examined the extent to which the sex and/or gendered dimensions of climate change impacts on health is represented in the literature. Thus, the objective of this review was to investigate the nature, range, and extent of sex and/or gender considerations in the published literature on climatic change and health in East Africa.

A systematic scoping review was conducted. A search string was developed and used to search three databases (Medline,® EMBASE,® and Web of Science®). Using a priori inclusion criteria, two independent reviewers screened titles and abstracts, and then screened the full texts of potentially relevant articles. Primary research articles about climatic variables (temperature, humidity, precipitation) or disasters and health outcomes in East Africa published between 2009-2018 were included. Article attributes were analyzed descriptively and thematically to investigate the extent to which articles considered sex and/or gender in the research.

Search String Elements

Figure 1: An inclusive search string was developed in consultation with a university librarian to capture climate-health articles published between 2009-2018.

PRISMA Flow Chart

Figure 2: PRISMA flow chart illustrating records identified from the database searches, assessed for eligibility, and included for final review.



Health

Health outcome terms were adapted from previously published literature [5].

Climate

Climatic variables and disasters such as precipitation, humidity, temperature, floods, and drought were included.



East Africa

Search was limited to countries within East Africa.



Identification

13,704 citations were identified from the database searches.

Level 1

Title/ Abstract Screening

8,396 titles/ abstracts were screened



Full Text Screening

810 full texts were Data were extracted assessed.



Level 3

and synthesized from 252 articles for final inclusion.

Main **Findings**

Articles increasingly considered the gendered impacts of climatic variables and health over time.

Many quantitative papers considered sex and/ or gender at a descriptive level and did not make connections with the experiences of gender.

Qualitative research articles included more sex and/ or gender-based considerations than quantitative research.

Topical Themes from Included **Articles**

Figure 3: Central themes that emerged from the climate-health literature.



Effects of heat on health

Waterborne disease

Asthma, allergies, respiratory conditions

Human developmenta effects and perinatal health

Foodborne

disease and

nutrition

Neglected tropical diseases

Weatherrelated morbidity

and mortality

Figure 4: 68.25% of included climate-health articles published between 2009-2018 considered sex and/ or gender in East Africa.

Results emerging from this research summarize our current understanding of sex and gendered impacts of climate change in East Africa. This information can inform the development of public policy supporting climate change adaptation, while reducing gender inequality in public health [3, 6].

Vector-borne disease and zoonoses

Recommendations and implications for sex and/ or gender considerations in future climate-health research include:

Accurately use the terms "sex" and "gender" within the published literature

Consider sex and/ or gender within the abstract, introduction, methods, results, and discussion of climate-health literature

For articles that exclude sex and/ or gender considerations within the methods or analyses, justification should be provided

The different experiences and implications of gender should be acknowledged within the discussion to further gender engagement

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