

Women, Climate change, environmental Quality and COVID-19 pandemic

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Introduction

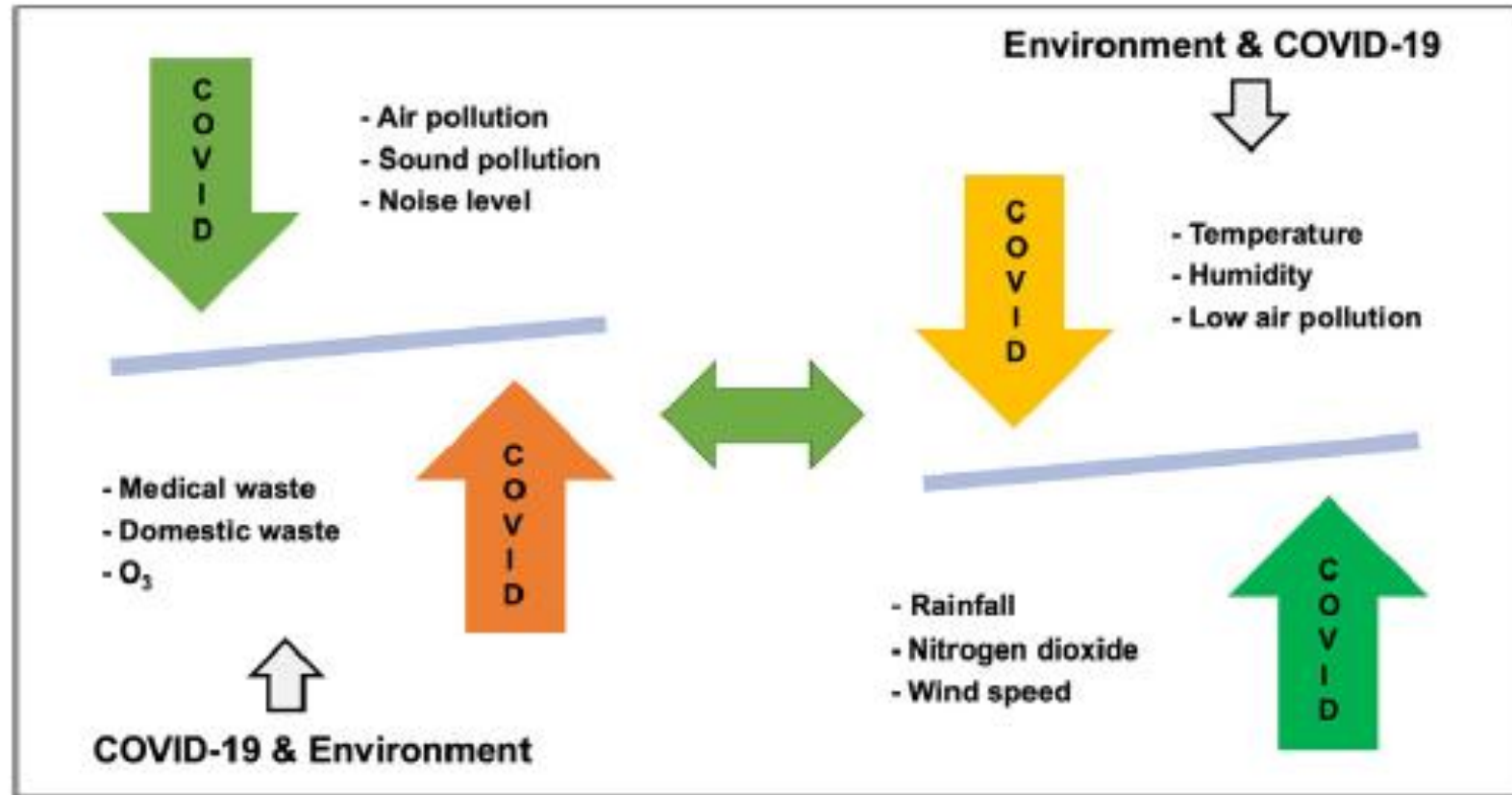
- ❑ Globally, Kenya included, the impacts of climate change affect women and men differently. Women are often responsible for gathering and producing food, collecting water and **sourcing fuel for heating and cooking**.
- ❑ With climate change, these tasks are becoming more difficult.
- ❑ Despite women being disproportionately affected by climate change, they play a crucial role in climate change adaptation and mitigation.
- ❑ Women have the knowledge and understanding of what is needed to adapt to changing environmental conditions and to come up with practical solutions. But they are still a largely untapped resource.
- ❑ Unleashing the knowledge and capability of women represents an important opportunity to craft effective climate change solutions for the benefit of all.

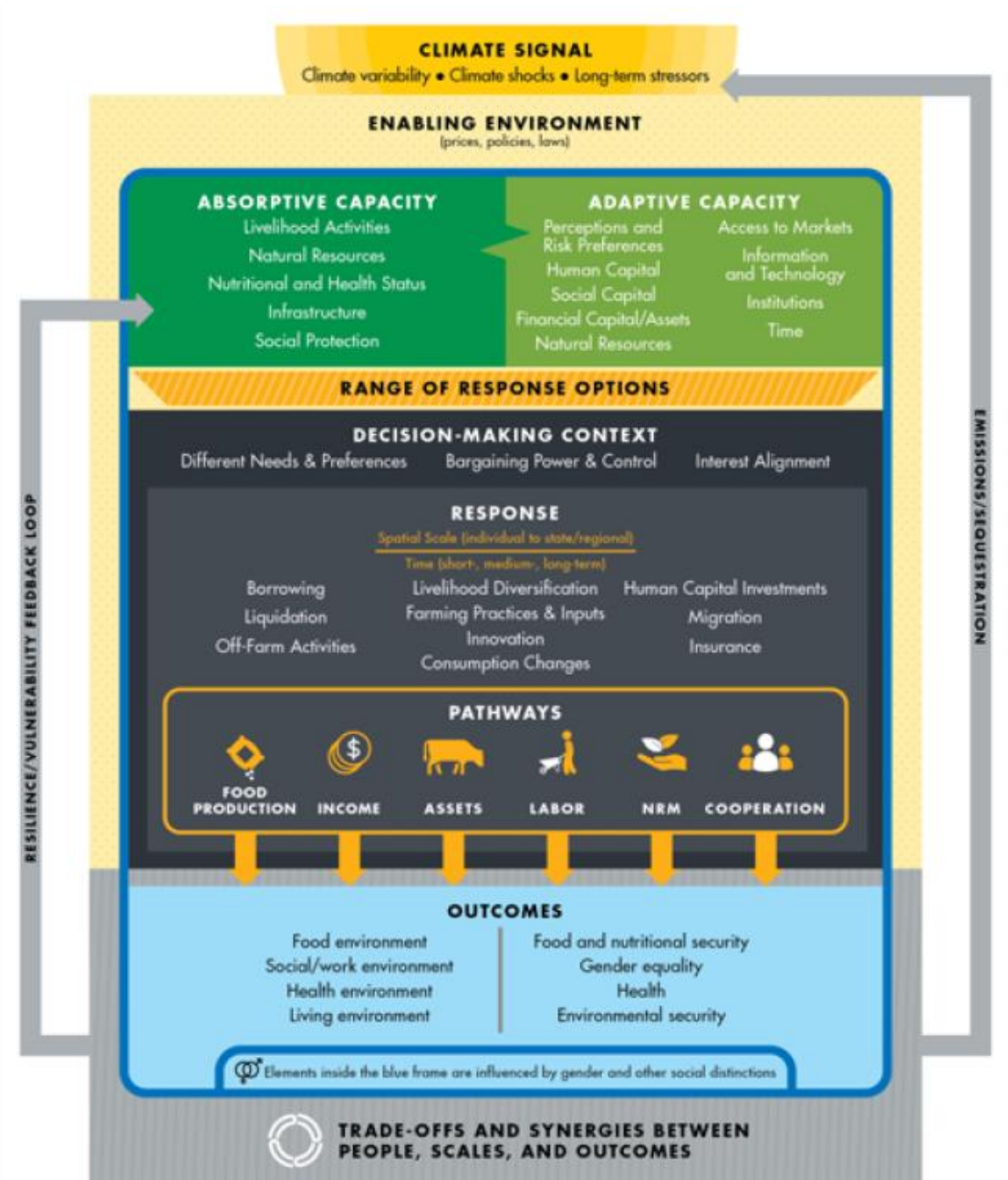
Energy issues

- Women are the primary collectors, users and managers of energy for homes
- Women and men have different degrees of access and control
- Energy scarcity has a disproportionate effect on women and girls.
- Women and men have different perceptions about the benefits of energy – and so have the men, women and children with disabilities
- Men and women have different energy usage and needs
- Women are an important target group in developing countries

- The 2019 Kenya Economic Survey estimated that 21.8 million Kenyan, representing 39.3% of Kenyans, suffered from respiratory ailments that are exacerbated by poor air quality.
- The harm caused by indoor air pollution in Kenya, and how it affects women in particular, is estimated to be high but documentation is at infancy.
- During the COVID-19 lockdown indoor conditions were unique and worthy to analyse

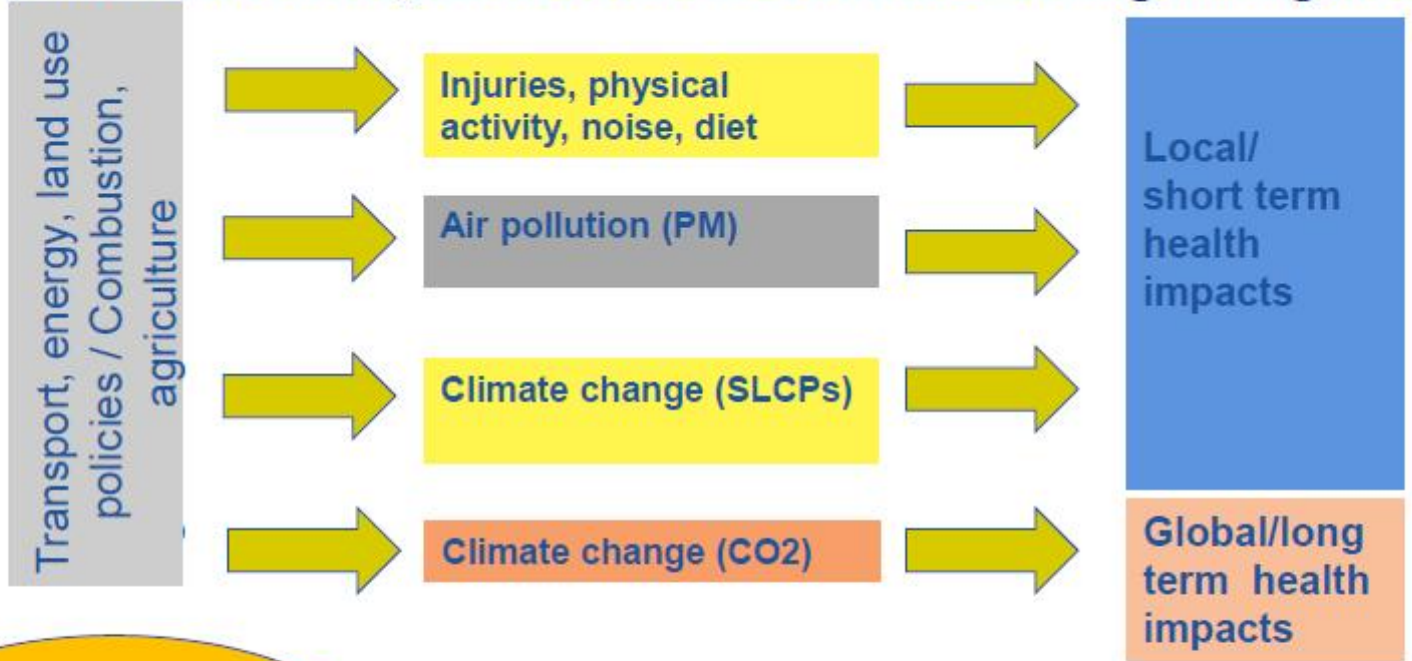
COVID-19





Source: Bryan et al. (2017).

Urban Health Initiative – Support for Policies with Health benefits, Air Pollution & Climate Change Mitigation



Progress –
model for work
with cities



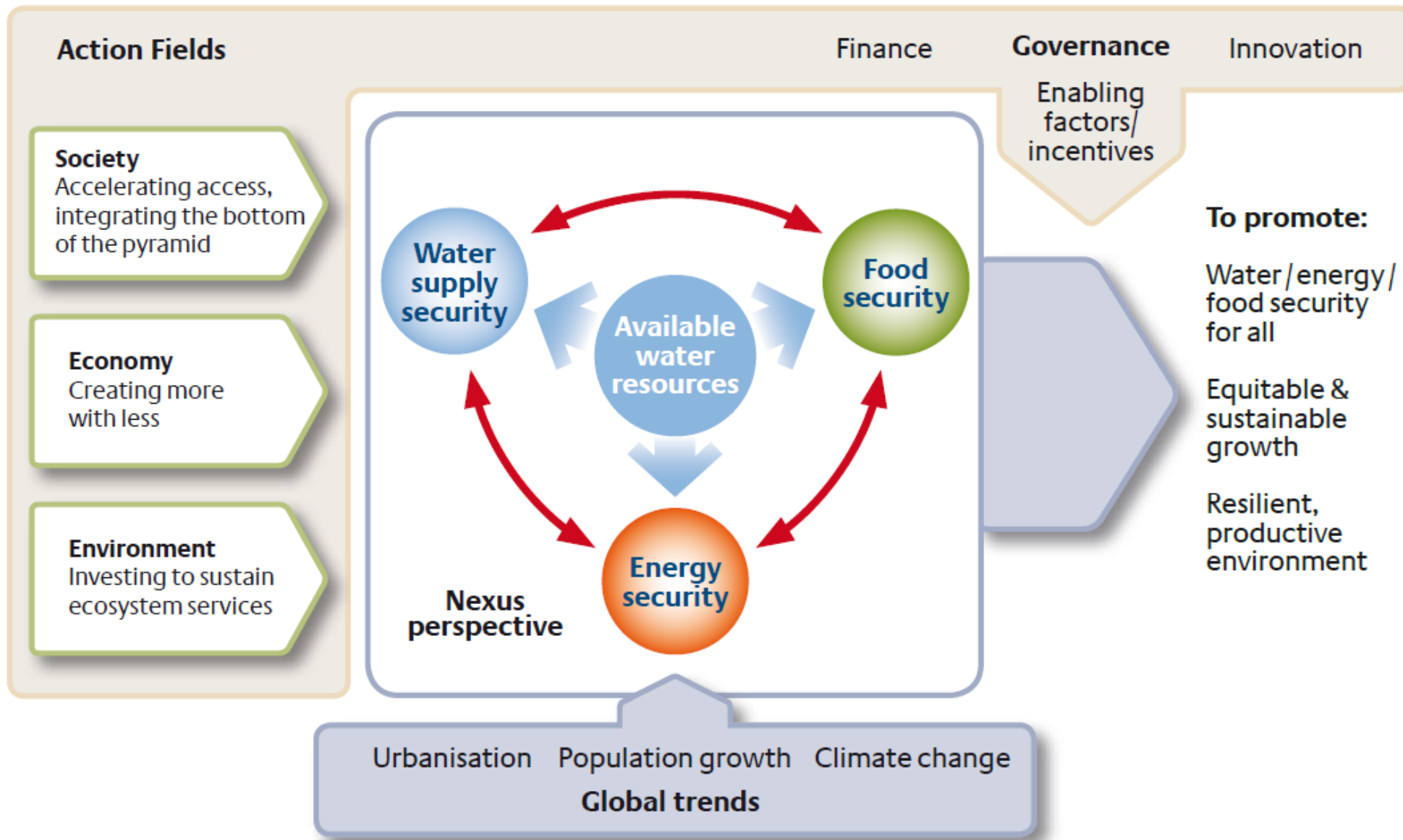
Urban policies that fulfill multiple social objectives

Focus: main sources of air pollutants

- Transport
- Waste burning
- Home energy
- Buildings
- Land use plans
- Industry



1. Health benefits from improving
 - Air pollution
 - Injuries,
 - Physical activity,
 - Noise,
 - Diets...
2. Air and Climate pollutant reductions



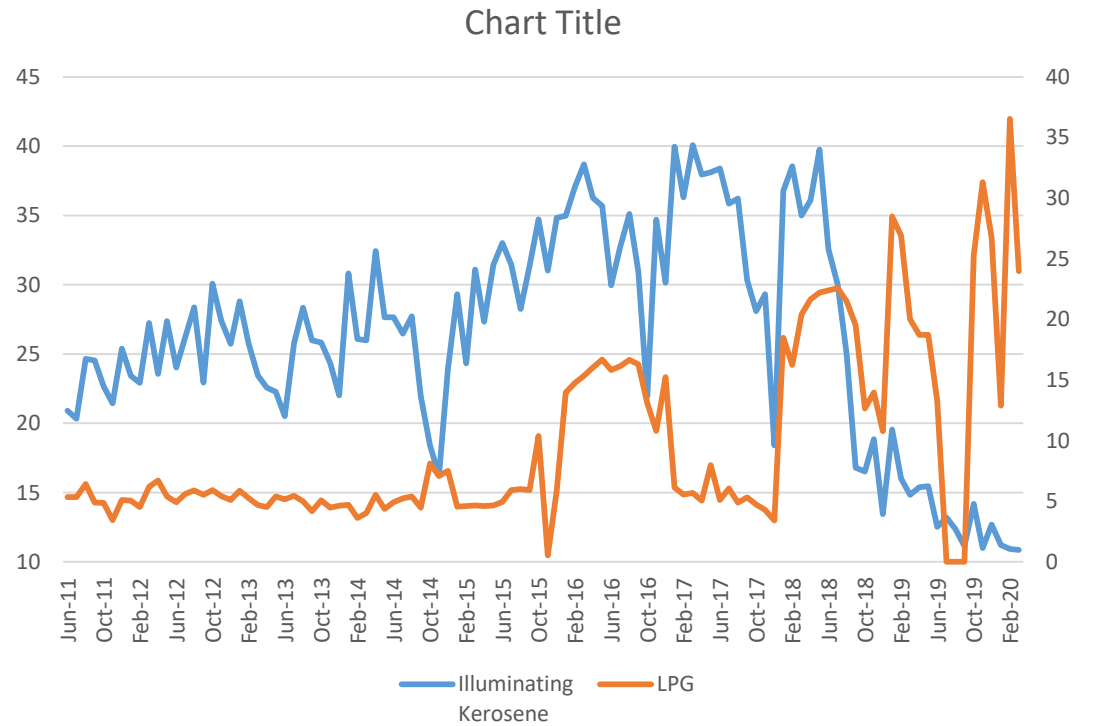
The water, energy and food security nexus [SIE, 2011]

Data and Methods

- Monthly data were collected for the period 2012 to 2020
- Times series analysis of fuel consumption
- Pearson correlation coefficients were calculated between the monthly total fuel and climate change indicators.
- Pearson correlation analysis between kerosene and air pollutants performed

Energy

- Energy policy:



COVID-19 studies...Muthama2020

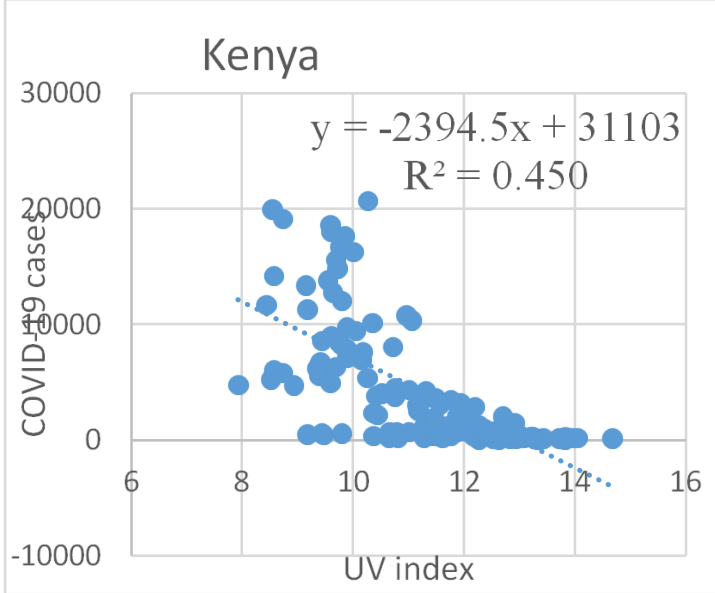


Figure 5a

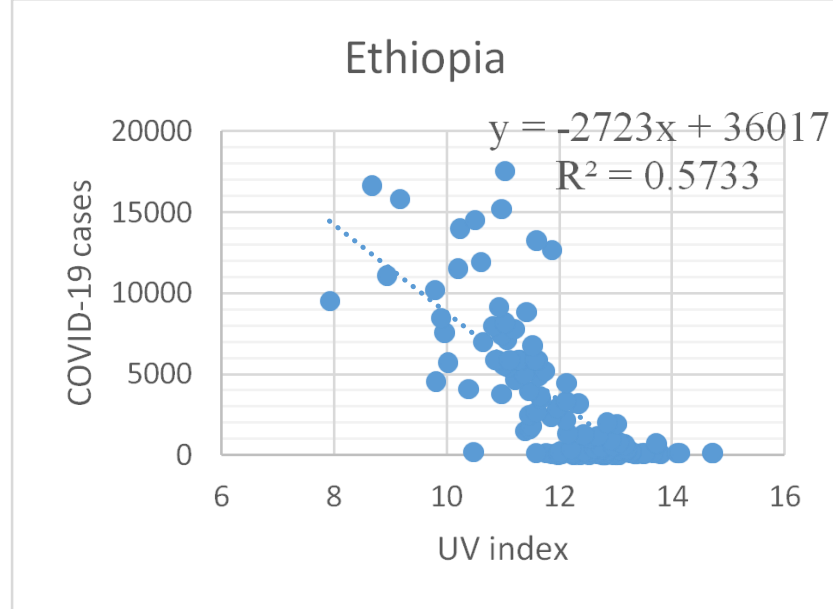
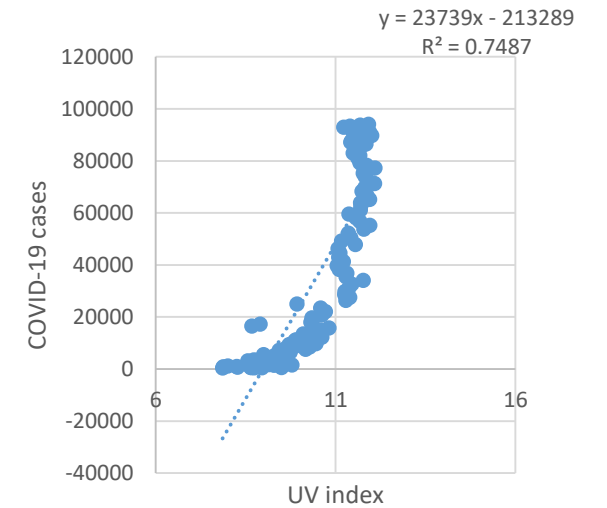
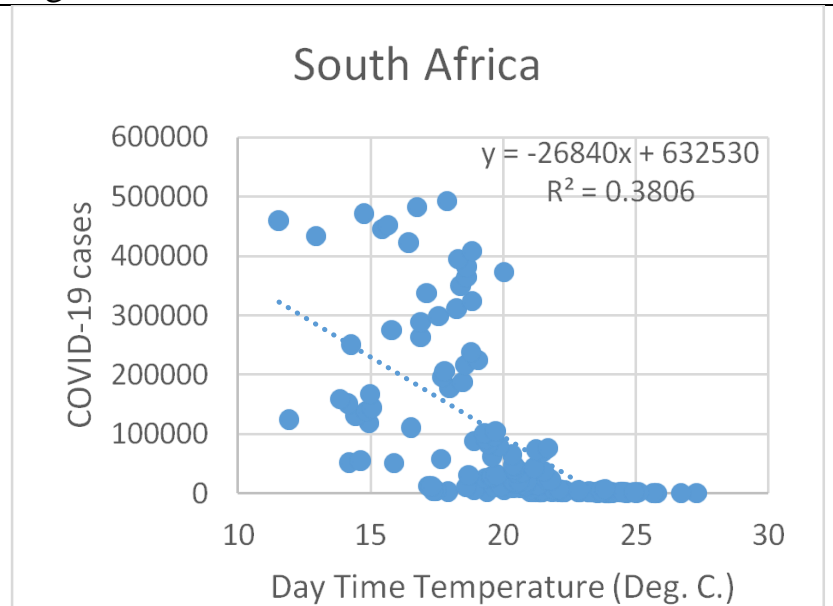
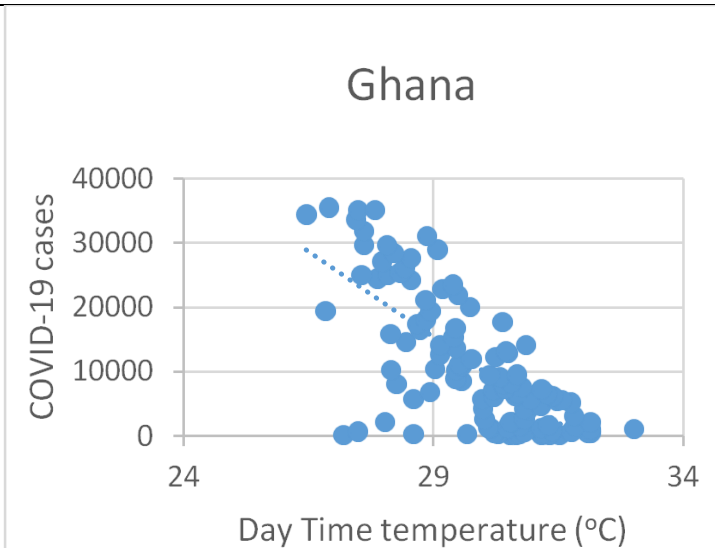


Figure 5b



COVID-19 studies: Angu et al., 2020

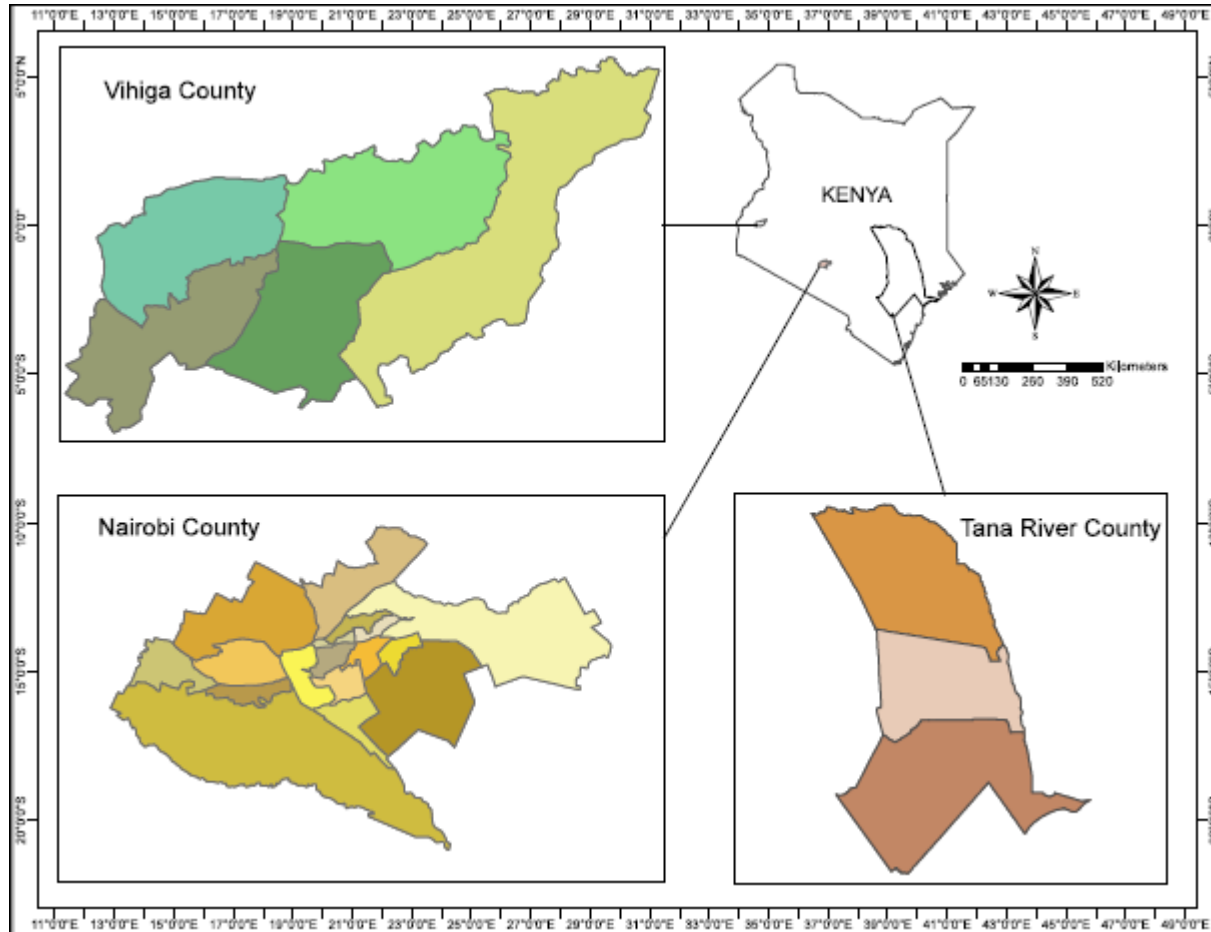


Figure 1: Map showing relative sizes of the study areas (
Source: Angu et al., 2020)

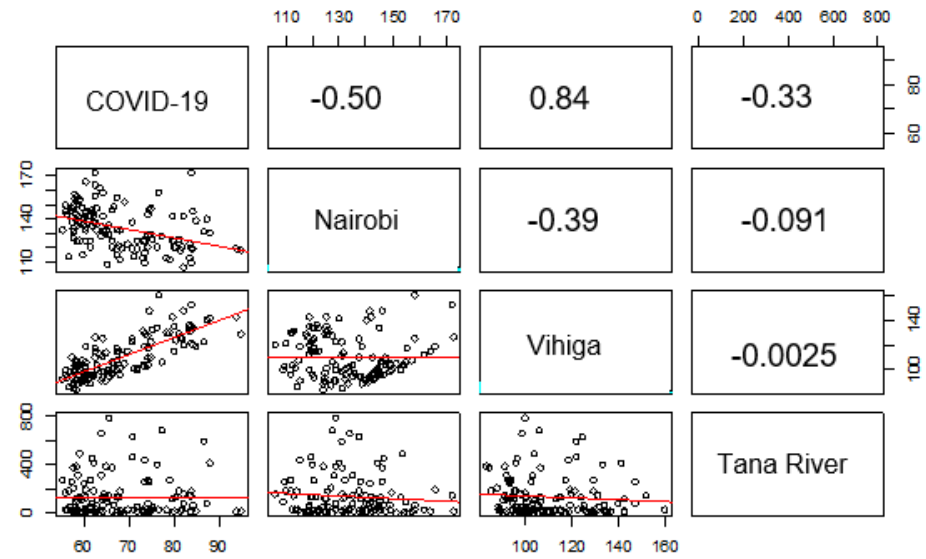


Figure 5: Correlation and scatter plot between COVID-19 and CO concentration level (Angu et al., 2020)

Angu et al., 2020

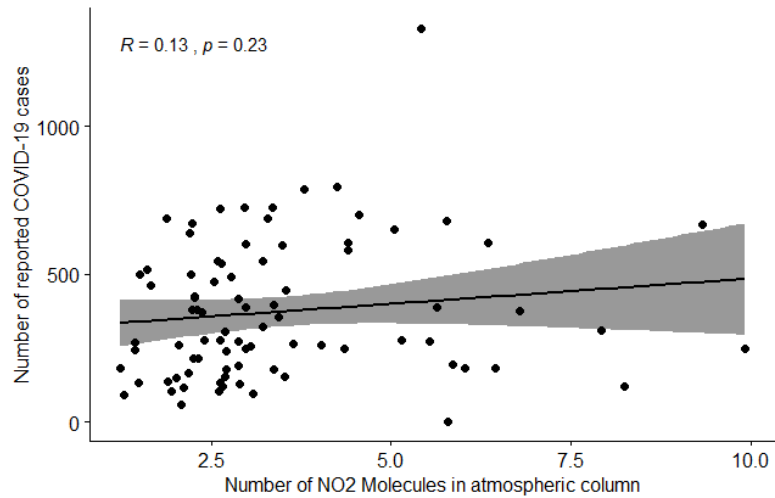


Figure 6: Correlation and scatter plot between COVID-19 and NO₂ in Nairobi County

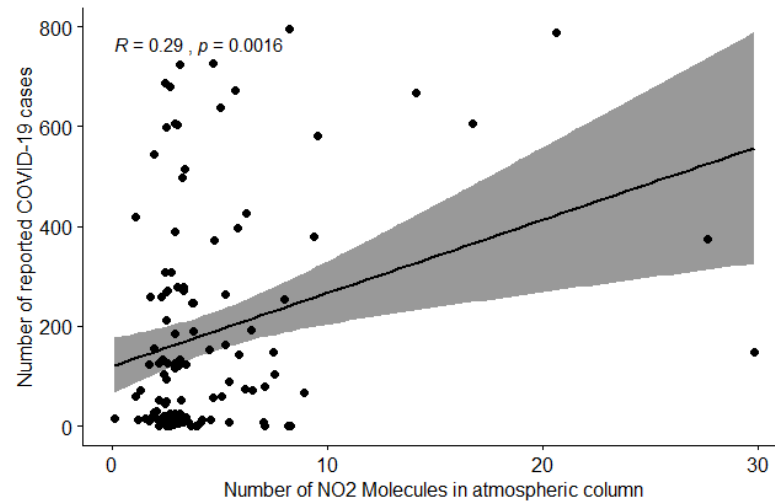


Figure 7: Correlation and scatter plot between COVID-19 and NO₂ in Vihiga County

Discussion

- *Address gender differences in capabilities to cope with climate change adaptation.*
- *Specifically,*
- *Densely populated rural areas exhibited a stronger positive correlation between COVID-19 cases and CO concentration levels.*
- *Make women's equal access to information, resources a priority;*
- *Develop and apply gender-sensitive criteria and indicators for monitoring and evaluation of the results of ongoing adaptation actions regarding indoor air quality*