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Kenyan Women Bearing the Cost of Climate Change

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The Cost of Climate Change on Kenyan Women

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BACKGROUND

Climate Change and Domestic Violence

- Climate change-induced crises can aggravate gender-based violence; the loss of income when weather affects the agricultural industry can exacerbate violence at home.

Changing Climate Patterns

- The effect of climate change on weather patterns has led to increased precipitation and temperature
- Weather changes lead to more intense flooding during rainy seasons and droughts during dry seasons
- This is particularly challenging for agricultural workers whose livelihood depends on growing seasons
 - With changing weather, farmers are challenging when timing the planting and harvesting of crops

Climate Change and Domestic Violence in Kenya

- For 75% of Kenyans, agricultural activities are their primary source of income
- 98% of agriculture in Kenya depends on rainfall
- A nationwide survey revealed that 49% of women had been abused at least once in their lifetime
- One and four Kenyan women report having experiences violence in the previous 12 months

Objectives

- The objective of this analysis is to assess patterns in domestic violence and severe weather events over a 6-year period in Kenya

MATERIALS AND METHODS

DATA SOURCES

IPUMS DHS (Integrated Public Use Microdata Series Demographic and Health Surveys)

- Survey population: Women aged 15-49 who have been married or lived with a man
- 2008 and 2014 data collected for domestic violence severity and frequency
- Outcome: Any experience of domestic violence (Yes/No) in the past 12 months
- GPS coordinates to group data into 8 counties

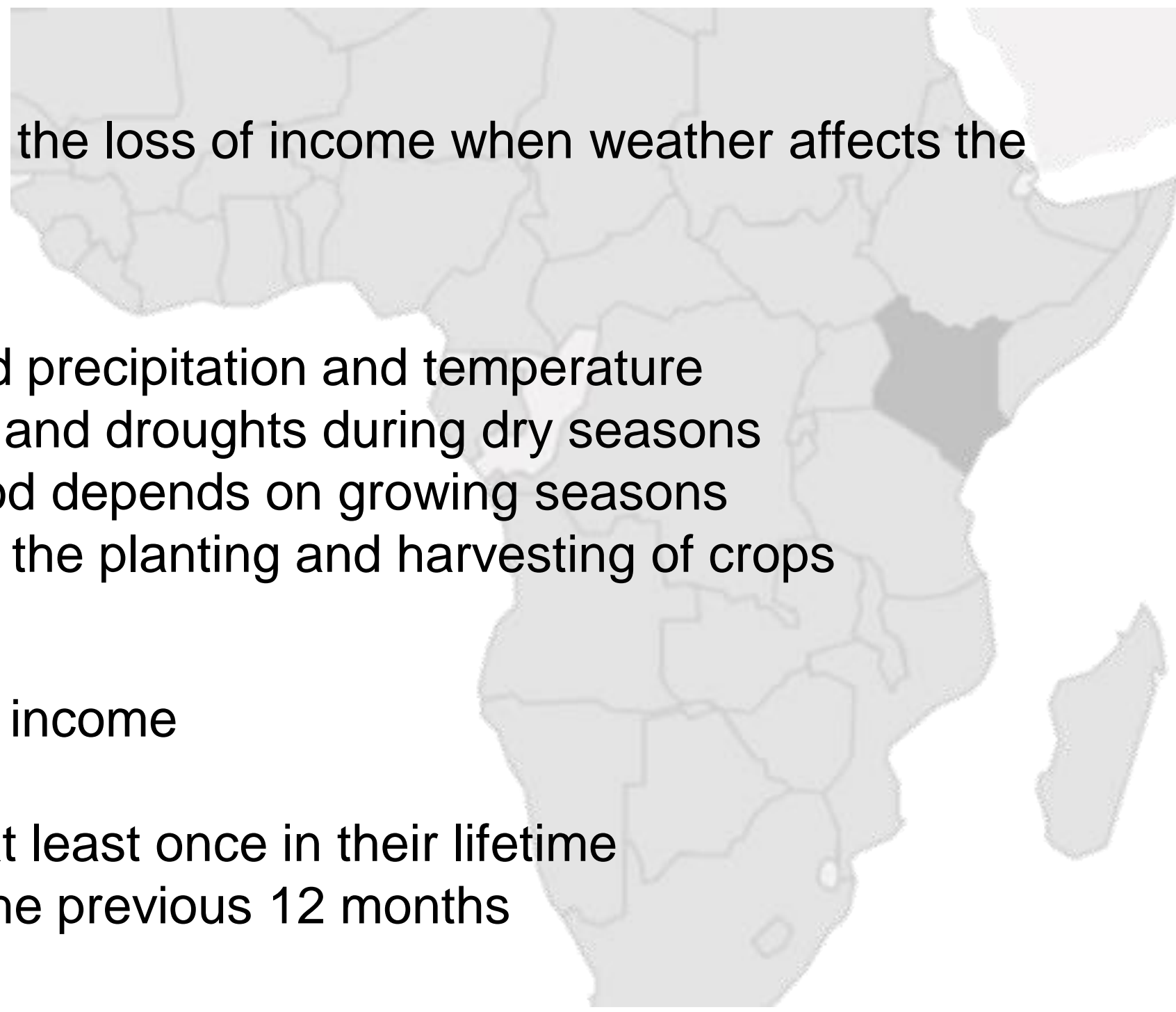
EM-DAT (Emergency Events Database)

- Severe weather event defined as any flood lasting 10 or more days
- Flood data collected form 2006-2008 and 2012-2014

ANALYSIS

Statistical Analysis

- Regression analysis: Mixed method modeling; grouped by 8 counties
- Predictor Variables
 - Severe weather (Y/N) in year of data collection
 - Change in sever weather in the two years leading up to year of DV data c
- Two models
 - Relationship between living in a county that experienced a severe flood event and having experienced DV
 - Relationship between change in severe weather and experience of DV
 - All models adjusted for urban/rural residence, partner works in agricultural industry, partner drinks alcohol



FINDINGS

Table 1. Odds of having experienced domestic violence by severe flood events **N=9,418**

	OR	95% CI
Partner Works in Agriculture	1.18	(1.07, 1.31)
Severe Flood*	1.44	(1.30, 1.59)
Change in Flood Pattern*^		
Increase (0 to 1)	1.60	(1.35, 1.88)
Decrease (1 to 0)	1.03	(0.86, 1.23)
Stay Same (1 to 1)	1.20	(0.93, 1.54)

*Adjusted for urban/rural residence, partner drinks alcohol, partner works in agriculture
^ Change in flood refers to the 1 year prior to DV data collection to the year of DV data collection
0 indicates the county did not experience a severe flood in that year
1 indicates the county did experience a severe flood in that year
Reference category (0 to 0)

- There is greater odds of reporting domestic violence among women whose partners work in agriculture as compared to women whose partners do not work in agriculture
- There is a greater odds of reporting domestic violence when there is severe flood as compared to not experiencing a severe flood
- In the two years leading up to data collection, if there is a change in severe weather from no flooding to at least 1 severe flood, there is increase in odds of reporting domestic violence

Table 2. Prevalence of domestic violence (DV) and number of severe floods by year in Kenya counties

	DV 2008 Prevalence	DV 2014 Prevalence	# Floods 2007	# Floods 2008	# Floods 2013	# Floods 2014
Central	33.2%	29.3%	0	0	1	0
Coast	31.3%	25.5%	0	1	1	0
Eastern	35.0%	29.0%	0	1	0	0
Nairobi	26.2%	40.7%	0	0	0	0
North East	30.2%	9.8%	0	1	0	0
Nyanza	50.1%	41.8%	0	2	1	0
Rift Valley	42.8%	70.0%	0	1	1	0
Western	45.7%	43.8%	1	1	1	0

CONCLUSIONS

- Climate action is an essential component in the ongoing fight to eliminate violence against women and girls
- This analysis adds to the urgency of addressing gender-based violence in all forms alongside action to stop environmental degradation, action to stop gender-based violence, and demonstrate that the two issues often need to be addressed together



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