



**2nd Biennial Africa
Climate-Smart Agriculture Stakeholder Conference**

**Thematic Paper Presentation on
Compatibility assessment of
agroecology and CSA practices**

14th September 2022



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Locality and Originality: Enhancing agroecology as an effective Climate Smart Agriculture approach to reduce wildfires vulnerability in the savannah ecological zone of Ghana.

Aline Mwintome Naawa

**Ph.D. Student, Climate Change and Disaster Risk Management-
Universite de Lome, Togo**



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Background

- Globally, Wildfires occur throughout the year but with varying burning seasons and have damaged important ecotypes and severely reduced the productive capacity of many Ghanaian forests (Blay et al. 2008).
- In the last two decades, wildfires contributed to a 3% (US\$24 million) loss in annual GDP (FORIG 2003; MLFM 2006) in addition to the loss of homes and farm property (MLFM 2006), reducing the potential of agriculture as a source of livelihood and economic development in Ghana.
- Fires in the Savannahs are ignited by pastoralists to stimulate re-growth and to reduce the total burnt area (Lehsten 2013; Archibald et al. 2009).
- 2017/18 Ghana Census of Agriculture, reported that “agriculture contributed more than one-fifth (21.2%) of the GDP in 2017 (GSS, 2020) and employs more than a third of the workforce-36.1 percent (GSS, 2016).



Climate change has worsened the situation with the area experiencing longer drier periods- a catalyst for wildfire



Methodology

Study Design

Data collection(primary and secondary)

Data Analysis

Empirical Research and Case Study;

relies on evidence obtained through observation

Quantitative; 200 Questionnaires to 75 randomly selected households

Qualitative; 10 focus group data (FGD) were held at 5 categorized areas (very severe, severe, high, low, and very low) based on wildfire susceptibility data.

Key Informant Interviews

Descriptive statistics (frequencies and percentages) were employed to quantify HH survey data (SPSS version 21)

Thematic analysis

was employed to analyze the qualitative data obtained from the FGDs

Direct quotations were used to maintain participants' views

Key findings

Causes of wildfires Anthropogenic and environmental

“Pruning of young trees and the practice of no-burning helps preserve young trees from being destroyed”

Coping Strategies

Results indicated that majority of the respondents (n = 155; 77.5%) used local agroecological knowledge.

For instance, some of the farmers indicated crop rotation, mixed cropping, Farmer Managed Natural Regeneration (FMNR), and soil and water conservation such as v

Case Study using the Centre for Indigenous Knowledge and Organizational Development (CIKOD) intervention communities

Variables	Gender		
	Male(n=120)	Female(n=80)	Total(n=200)
Crop rotation	73 (60.8)	60(75.0)	133(66.5)
Mixed cropping	105(87.5)	65(81.3)	170(85)
FMNR*	110(91.7)	73(91.3)	183(91.5)
Mixed farming	65(54.2)	76(95.0)	141(70.5)
Water conservation such as half-moon and stone lines	60(50.0)	54(67.5)	114(57)



Source: CIKOD

Key Recommendations & Conclusion

- Fire management practices between various ministries such as Ministry of Food and Agriculture, Ministry of Environment, Ghana National Fire Service (GNF)
- A framework to integrate local agroecological knowledge with scientific knowledge as an effective climate change adaptation strategy.
- Efforts towards the implementation of FMNR.
- Agroecology should be prioritized in extension services, education and agricultural research especially on FMNR, Soil and water conservation management.
- Greater emphasis needs to be placed on developing local solutions that are sustainable and cost effective.



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Thank you



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