



# **Contribution of firewood harvesting and trading to the livelihood of the people of North East Gonja District of the Savanna Region of Ghana**

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# Presentation outline

- Background and problem statement
- Aim and objectives
- Methodology
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- Conclusions and recommendations

# Background and problem statement

- About 2.5 billion people globally depend on forest resources (Rehman *et al.*, 2006; Belcher *et al.*, 2015; Pandey, 2012; Bhatt & Sachan, 2004)
- Firewood, is by far the most important forest product and it is universally important, in all villages and in almost all households (Belcher *et al.*, 2015; Yemiru *et al.*, 2010).
- In North East Gonja district there is high level of firewood harvesting and trading that contributes in diverse ways to the livelihood of the people
- Yet there is very little or no empirical information on the contribution of the activity to livelihood of the people
- This has the tendency to affect program and policy development for improvement in well being of the people.

# Aim and objectives

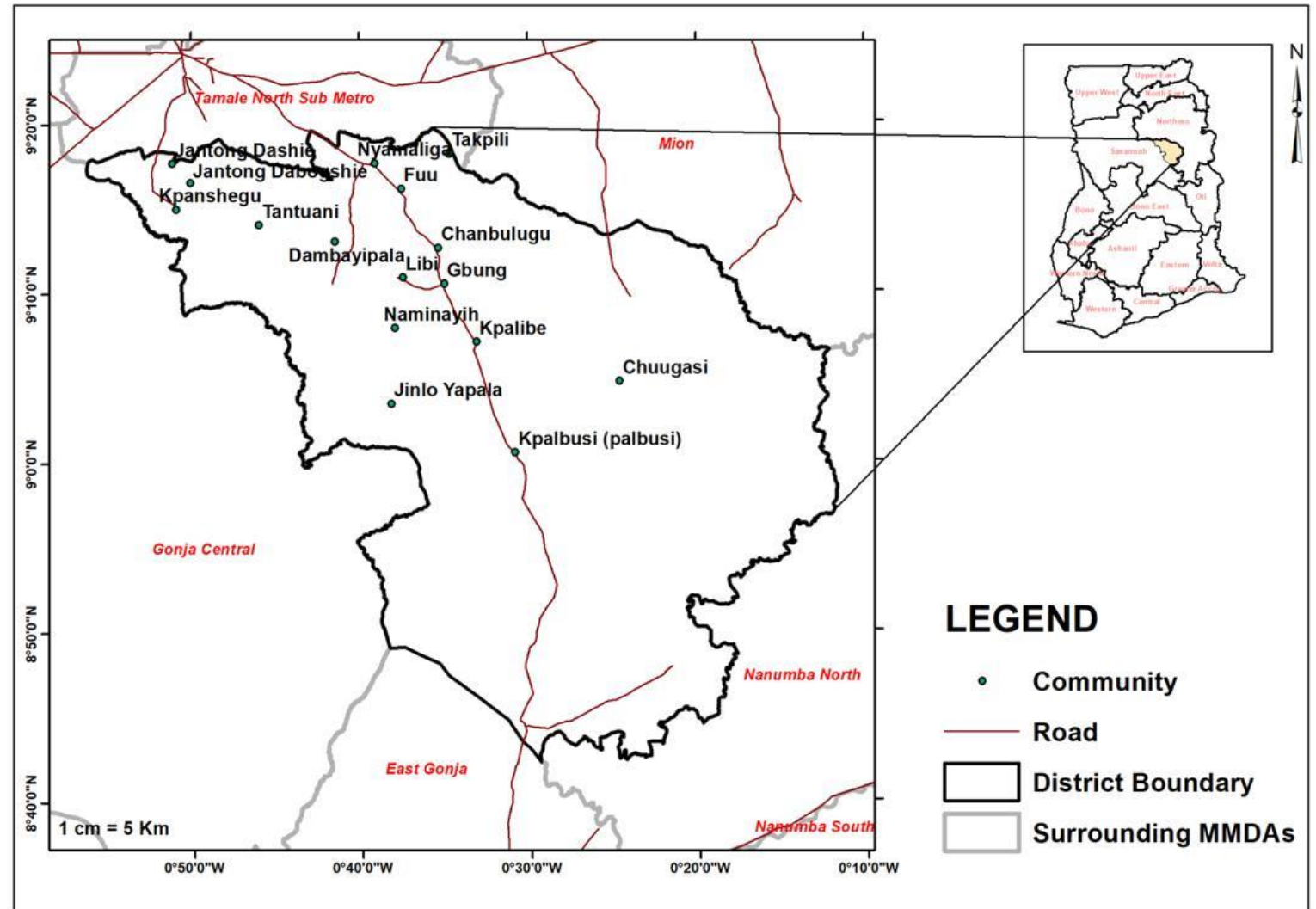
Aim: The study sought to investigate how firewood harvesting and sale contribute to the livelihoods of the people of the North East Gonja District of the Savanna Region of Ghana.

The **specific objectives** were:

1. To assess the contribution of firewood harvesting and trading to rural household income and employment in the North East Gonja District.
2. To assess the contribution of firewood harvesting and trading to the building of livelihood capitals (physical, financial, social, natural, and human capitals).
3. To identify factors that motivates reliance on firewood harvesting and trading in the North East Gonja District.
4. To investigate the institutional arrangements that mediate access to firewood harvesting and trading.

# Methodology

16 study communities



Map of study area- North East Gonja of Savanna Region

# Research design, sampling and data collection

- Mixed methods (qualitative and quantitative)
- 16 notable communities were randomly selected from a list of 24 firewood harvesting and trading communities provided by firewood harvesters.
- Communities were clustered and systematic sampling used to select respondents
- In total 200 respondents were interviewed
- Methods of data collection :
  - questionnaires ,
  - focus group discussion and
  - in-depth interviews with key informants e,g assembly person and chiefs



# RESULTS

## Demographic characteristics of respondents

Gender of respondents	No of respondents	Percentage of respondents
Male	36	18
female	164	82
Educational level of respondents		
No formal education	181	90.9
Primary	8	4.00
JHS	9	4.5
Secondary/technical /voc	2	1.00

# Obj 1: Contribution of firewood harvesting and trading to household income and employment

Table 1. Sources of income and employment of sampled households

Income source	No of respondents	Mean monthly income (GHS)	Percentage contribution to household income	Average number of people employed/hh
Crop farming	184	116.59	19.9	3
livestock	30	136.83	23.4	1
Firewood	196	90.27	15.4	2
Self-owned bus.	97	150.00	25.7	2
Remittances	15	55.1	9.4	1
Wages / labour	8	36	6.2	1

## Obj 2: Contribution of firewood harvesting and trading in building livelihood assets

- Financial capital- Using savings and lending as proxies,
  - over 98% do not save with formal institutions (Banks):
  - 64.5% could not save at all while 33% saved with Village Savings & Loans Schemes.
  - 75% could not lend to neighbours or relatives
  
- Human capital – Meaningful contribution
  - Increase in school enrolment: 176hh (194hh) have an average 4 children enrolled in school
  - Skill development: 49hh (200) had at least one person with skill or under training
  - NHIS/Access to health care: on average 5 members of hhs have valid NHIS
  - Health care cost: mean annual income of ghc181 financed through firewood income.
  
- An average of 80% of respondents confirm that firewood trade is largely responsible for the human development indices.

## **Cont: Contribution of firewood harvesting and trading in building livelihood assets**

### ➤ Physical assets (Low value )

- 70% of respondents own simple farm implements, radio sets etc.

### ➤ Natural capital

- Overwhelming majority (90%) own fowls and have no tenurial rights over lands

### ➤ Social capital

- though 97% sell to urban traders, yet
- almost all firewood traders (95%) do not benefit from the wealth inherent in trade relationships or networks

# Market value of firewood

Ghc420 per cargo load as at Feb, 2019



## Obj3: Factors driving reliance on firewood by households

Factors motivating reliance	No. of respondents	Percentage of respondents
Lack of financial capital	199	99.5
Low levels of education	189	94.5
Poor access to land for farming	7	3.5
Lack of alternative sources of livelihood	200	100.0
Widowhood	8	4.0
Not married	1	0.5
Lack of male children	3	1.5

## **Obj 4: Institutional arrangement mediating access to firewood**

- Traditional authority is the main institution regulating firewood
- Economic trees and sacred sites are not allowed for harvesting.
- External harvesters require permission and payment of fees to harvest.
- There is no organised system and space for accountability.
- Mondays and Fridays are not allowed for farming and firewood harvesting activities
- These institutions were not effective in the regulation of the firewood resource

# Discussion

## **Firewood contribution to income and employment**

- Firewood is low in earning yet, it is the income source most depended upon. (Mamo et al.2007), Low skill and capital required make it easier to enter firewood harvesting but same factors make it difficult to enter high income earning strategies (Kamanga *et al.*, 2007) and (Sunderlin *et al.*, 2005)
- This suggest that the rural households will remain poorer for long
- Agriculture provides better income and employs more due to better product value and ease of access to land.

# Firewood contribution to building livelihood capitals

- Household are poor in almost all the livelihood assets (Belcher *et al.*, 2015; Wunder *et al.*, 2014; Arnold and Persson, 2003; Cavendish, 2000)
- This is largely due to low value of firewood, poor formal education, and not operating in groups, Yemiru *et al.* (2010), Portes (1990)

This could suggest lower levels of well being for households.

- There was however a commendable role of firewood income in human capital development shown in increase in basic school enrolment and access to health care Awono *et al.*, (2010) and Shackleton & Shackleton., (2004)

# Factors motivating reliance on firewood

- Lack of access to high earning alternative livelihood opportunities. Due to poor entrepreneurial skills and social infrastructure in the area to provide these opportunities (Kamanga *et al.*, 2009; Mamo *et al.*, 2007; Rayamajhi *et al.*, 2012)
- High level of illiteracy accounting. This does not allow households to access public sector wages (Baland *et al.* (2003)
- Lack of financial capital  
There are no institutions as well as the collateral to access financial resources. (Dalka, 2016; Babulo *et al.*, 2008; Sunderlin *et al.*, 2005; Arnold, 1994)

# Regulation of firewood trade

- The **traditional authority** is the main institution that regulate access to firewood Babulo *et al.*, (2008b) and Cavendish, (2000).
- Regulation measures include taboo days, charging of fees, no harvesting in sacred sites and not harvesting of economic trees.
- These measures except harvesting in scared sites have not proven effective
- Price of firewood is not determined by the forces of demand and supply but rather who sells first load in a season, Zidago and Wu (2015) *and* Cerutti *et al.* (2015)

# Conclusions

- Firewood comparatively does not provide high income to household as self owned business and livestock yet it is the most depended upon for cash income.
- The low value of firewood and hence income could not help households to acquire high value physical, natural as well as financial capitals.
- Firewood trade similarly could not help poor households to leverage on the wealth of social capital inherent in their trade relation .
- It was however important source of funding for human development though highly inadequate.
- Lack of access to alternative livelihoods sources, low levels of formal education and lack of financial capital account for low incomes of households.
- The Traditional Authority is in charge of regulating access but is not effective in doing so.

# Recommendations

- The Ministry of Lands and Natural resources in collaboration with the District and Municipal Assemblies should upscale afforestation and conservation programs to cover the district to ensure sustainable use of forest resources.
- The District and Municipal Assemblies should collaborate with NEA to provide skill and entrepreneurial trainings along with financial support to households to enable them diversify into better income earning strategies, such as soap making, bee-keeping, guinea fowl rearing.
- District and municipal assemblies should increase investment into providing quality education as a long term measure to livelihood improvement.
- CSOs should support firewood harvesters to operate in organized structures along the firewood value chain to enable them tap into the wealth of benefits offered by social capital
- Support households to have tenurial rights over land and also own high value livestock such as sheep and goats
- **For further research:**
  - Reassess the significance of firewood trade and income in the building of human capital of households in the Kparba area as a sustainable index of improving well-being.
  - Estimate the volumes of firewood exported from the study site annually and the differentials in incomes between the source (rural) and the destination urban markets- An implication for livelihood improvement.
  - An assessment of the role and capacity of Traditional authorities in the sustainable management of the firewood resource.

THANK YOU

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