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Who profits from charcoal production and trade in Ghana?

Introduction

In Ghana, charcoal is the dominant wood fuel used for cooking and heating, supplying 53% of urban household energy demand. Approximately 90,000 individuals are involved in the production and trade of charcoal. However, charcoal has been neglected within forestry and energy policies as a renewable energy source and means of poverty reduction. The sector remains informal with unregulated production and trade and limited access of modern practices and improved technologies.

Charcoal's informal and unregulated nature has led to government plans to formalize by giving a stronger role for institutions of the state to control the production and trade as a means of making the charcoal sector sustainable. The informal character of the charcoal sector makes the trade accessible to a large number of households.



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Policy implications and recommendations

This study illustrates that access to charcoal income and opportunities is shaped by multiple market mechanisms operating in parallel.

Charcoal traders, particularly merchants, can access more income in the market because they wield more social and financial capital that they gained through histories, and norms of identity and social relations.

To enhance the contribution of charcoal production and trade to livelihoods and poverty reduction, we recommend that:

- District Assemblies, NGOs and central government institutions should support communities, or particular groups within communities to come together in establishing associations.
 Such associations could work on organizing joint transport and sales in the cities, obtaining information on charcoal prices in the cities, shared production, improved methods of production and production facilities e.g. improved kilns, and alternative credit opportunities.
- Tax on transporters could be used to generate substantive revenue for charcoal producing districts.

Yet, detailed knowledge on income generated and distribution of profit is limited.

This brief shares the results of research on the profits and mechanisms shaping profits along the charcoal commodity chain in Ghana.

The findings are based on data (580 interviews in total) collected along the charcoal commodity chain originating in three communities in the Kintampo Forest District and ending in three major urban centers of Ghana (Accra, Kumasi and Takoradi), carried out in March to November 2017. Data was collected on the prices of charcoal, cost incurred, quantities of charcoal handled for the year 2016, and the means different actors employ to reap income.

Results

Skewed income distribution in the sector

The charcoal trade in Ghana generates an annual income of US\$66 million. Merchants (US\$5,383) and transporters (US\$5,266) reap annual net income that is about nine times greater than national minimum wage (US\$588) (Ministry of Employment and Labour Relations 2017). Merchants control 22% of the total income in the market but constitute only 3% of the actors in the market. Producers and retailers have net income of US\$526 and US\$406, respectively.

The average margin per bag was multiplied by the quantity of charcoal handled annually to get the net income. Net income per person was calculated by dividing the net income at a particular level by the number of actors (size of groups) at that level.

Group	Estimated group size	Average net income/person (US\$)
Producers (n= 150)	38,181	526
Merchants (n= 50)	2,753	5,383
Transporters (n= 80)	1,085	5,266
Wholesalers (n= 150)	10,995	1,056
Retailers (n= 150)	34,098	406

Table 1: Distribution of annual net income along the charcoal commodity chain in Ghana.

We used the national charcoal production figure (589,891.86 tons or 11,797,837.2 bags [50-kg]) for the year 2016 from Nketiah and Asante (2018) to estimate net income at the national level by multiplying the national production figure by the average margin at each level of the market.



Note: Producers carbo-nize wood into charcoal and sell to merchants. Merchants hire truckers to transport the charcoal from villages to cities. In the cities, merchants sell charcoal to wholesalers and retailers. Wholesalers sell charcoal to retailers and charcoal users in big sacks (such as 50-kg), while retailers sell charcoal in small cans and polythene bags to end users.

Skewed income distribution within group of actors

The distribution of net income within all groups is highly skewed. Few actors within each group control a large share of net income (Fig. 1). About 68% of merchants and 63% of transporters have net income below their groups' average net income.



Figure 1: Distribution of annual net income within groups along the charcoal commodity chain in Ghana; Quartiles 1, 2, 3 and 4 represent the bottom 25%, 50%, 75%, and top 25% of incomes, respectively.

Close to 65% of producers, wholesalers and retailers have net income below their groups' average net income. The skewed wholesaler net income is partly a result of wholesalers in Accra having much higher profits than those in Kumasi and Takoradi.

Market mechanisms shaping merchants' income

Merchants have bargaining power over charcoal prices, and control over access to labour opportunities and markets. They have access to credit, information on production areas, and cultivate relations with transporters, urban wholesalers, and retailers. It is through these combined mechanisms merchants control huge income in the charcoal market.

Market mechanisms shaping transporters' income

Transporters with ties to large merchants are able to get loads throughout the year. After loading merchants' goods, those who have access to credit top up loads with additional bags of charcoal and sell them to wholesalers in the cities.

A well-maintained vehicle enables transporters to carry loads from villages to cities every week during peak charcoal production seasons. Transporters rely on information from producers and merchants to trace where production is taking place.

Market mechanisms shaping wholesalers' income

Wholesalers maintain access to charcoal income through relations with merchants, retailers, and charcoal users, and through access to credit and storage spaces. Wholesalers used to travel to charcoal-producing villages to obtain their own supplies, but presently most of them rely on merchants for supplies.

There were producing areas closer to the cities

advances from merchants to run the production. They pay back the advance with an equivalent number of bags of charcoal at the price set at the time the credit was received.

Few producers transport their charcoal to cities in order to reap additional income from marketing it. Most producers cite as deterrents the fear of not getting buyers, difficulty obtaining lodging, small production numbers, and frustrations with the police services.

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where wholesalers could get supplies, but nowadays these areas have run out of trees, and production has stopped. Those with access to credit are able to purchase more charcoal from merchants and have a chance of generating more income than those who do not have access to credit.

Market mechanisms shaping producers' income

Market mechanisms shaping retailers' income

Retailers cultivate relations with merchants and wholesalers to get frequent supplies and good-quality charcoal.

Those with access to credit are able to purchase more charcoal and have a chance of generating more income.

Producers lack credit and therefore depend on

Further readings

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Acknowledgements

This policy brief is produced by the "Access and Exclusion along the Charcoal Commodity Chain in Ghana (AX) research project." The project was funded by the Danish Research Council for Development Research (Danida). The views and suggestions expressed in the policy brief are the sole responsibility of the authors. We thank all the households and other actors who participated in the research. The contribution of other members of the AX Project team to this policy brief is acknowledged.