



POLICY BRIEFS • ACCESS AND EXCLUSION ALONG THE CHARCOAL COMMODITY CHAIN IN GHANA

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Photo: Joseph Asante

Annual Charcoal Production in Ghana: Implications for Sustainable Production and Trade

Introduction

Charcoal is an integral part of the energy consumption of developing economies. In Ghana, it provides energy for cooking and heating to over 66 per cent of households. Charcoal also provides energy for some commercial and light industrial activities. It forms a key livelihood base for several rural households and key component of local government revenue in areas of high production. Nonetheless, data on the actual level of charcoal production is thin. More accurate estimates are needed to serve as basis for informed discussions and policy decisions. This research was carried out to develop a methodology and applied it to estimate the national annual charcoal production, its geographical location and seasonal variation.

Methods

The study covered the entire country with a focus on charcoal producing areas. The study compiled data from charcoal conveyance certificates (CCC) issued by the Forestry Commission to charcoal transporters. This information was validated with data from a two-week (24x7) sentry monitoring on selected charcoal routes. This two-stage exercise was repeated to provide estimates for 2016 and 2018. In 2018, attempts were also made to quantify charcoal production that is not captured by the CCC system, i.e. local consumption in producing areas.

This was done by way of interviews, visits to production areas and expert views.

Policy implications and recommendations

- Through a methodology consisting of data collection from charcoal conveyance certificates, monitoring at checkpoints and estimation of “local” consumption in production areas, we estimate the national annual charcoal production in Ghana to be 1,100,000 tons. This translates to about 15.7 million m³ of round-wood equivalent (RWE). This figure may be contrasted with the official annual timber harvesting level (annual allowable cut) of 2 million m³ albeit actual timber harvest is higher than that because of illegal logging.
- The bulk of the production comes from the transition zone between the High Forest Zone and the Savannah woodlands, where the preferred tree species for charcoal production occur.
- The high production volumes coupled with poor tree stocking and the rather slow growth rates in the major charcoal production zone give rise to concerns about sustainability of the production.
- We recommend a stronger institutional collaboration between the Forestry Commission and the Energy Commission to provide regular and cost-effective national charcoal statistics.
- Periodic mounting of sentries, as demonstrated in this study, can be done to validate the Charcoal Conveyance Certificate data collected by Forestry Commission. The method can provide regular and cost-effective charcoal statistics.

Results

Our comparison of CCC data collected from the Forestry Commission with data collected at the mounted checkpoints, shows that the CCCs only capture half of the charcoal being transported on the roads. The rest moves on the roads without a CCC. There is thus room for improvement by the Ghana Forestry Commission of the charcoal conveyance certificate regime.

Furthermore, we estimate that approx. 164,000 tons of charcoal is being produced and consumed close to the production sites. These volumes also travel without a CCC. Using this methodology, we estimate that the total national annual charcoal production in 2018 is **one million, one hundred thousand (1,100,000) tons.**

This translates to 15.7 million m³ round wood equivalent (RWE). This may be contrasted with the official annual timber harvesting level (annual allowable cut) of 2 million m³ albeit actual timber harvest is higher than that because of widespread illegal logging (chainsaw lumbering).

The production figure may not reflect national charcoal consumption because it does not account for

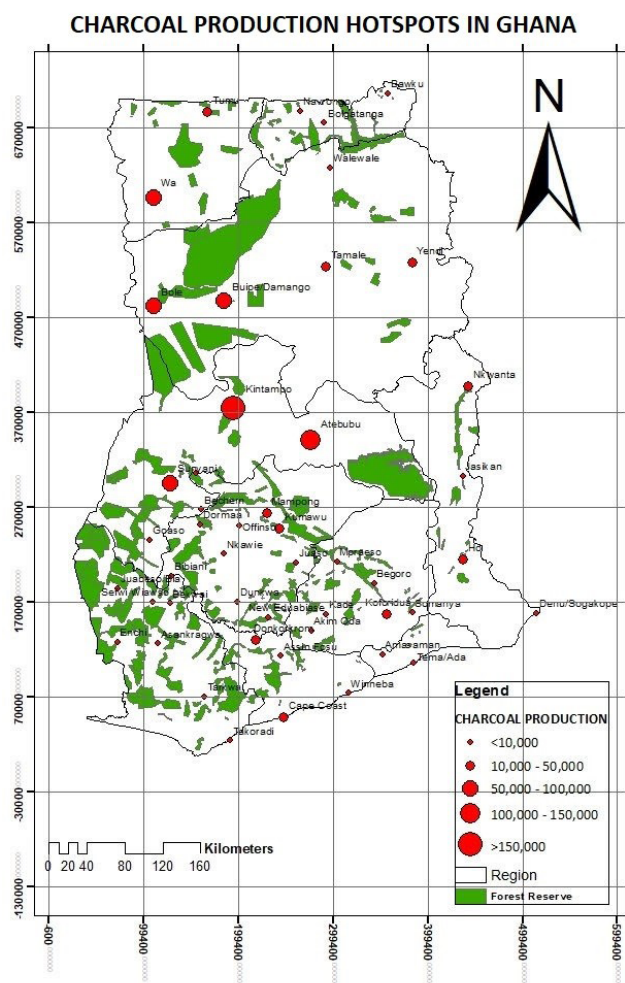


Figure 1: Map of key charcoal production areas in Ghana. Size of circles indicate annual production of charcoal (in ton).



Photo: Joseph Asante

charcoal export or import. All the same, our findings appear somewhat lower than what other sources have estimated for annual charcoal consumption in Ghana. Kintampo forest district has the highest production (205,700 tons); followed by Atebubu (131,600 tons), Sunyani (87,800 tons) and Wa (73,400 tons) respectively. Other forest districts with significant production are Bole (70,500 tons), Damango (55,200 tons), Mampong (47,600 tons), Tumu (38,600 tons), Koforidua (38,500 tons) and Donkorkrom (36,000 tons).

Figure 2 shows the amount of charcoal transported per month in 2018. It shows that the transport is more or less stable across months, perhaps with a tendency towards a higher transport in the months of October, November and December.

The pattern of transport may not fully depict when the charcoal was actually produced as there may be a delay between production and transport to the main consumption centres.

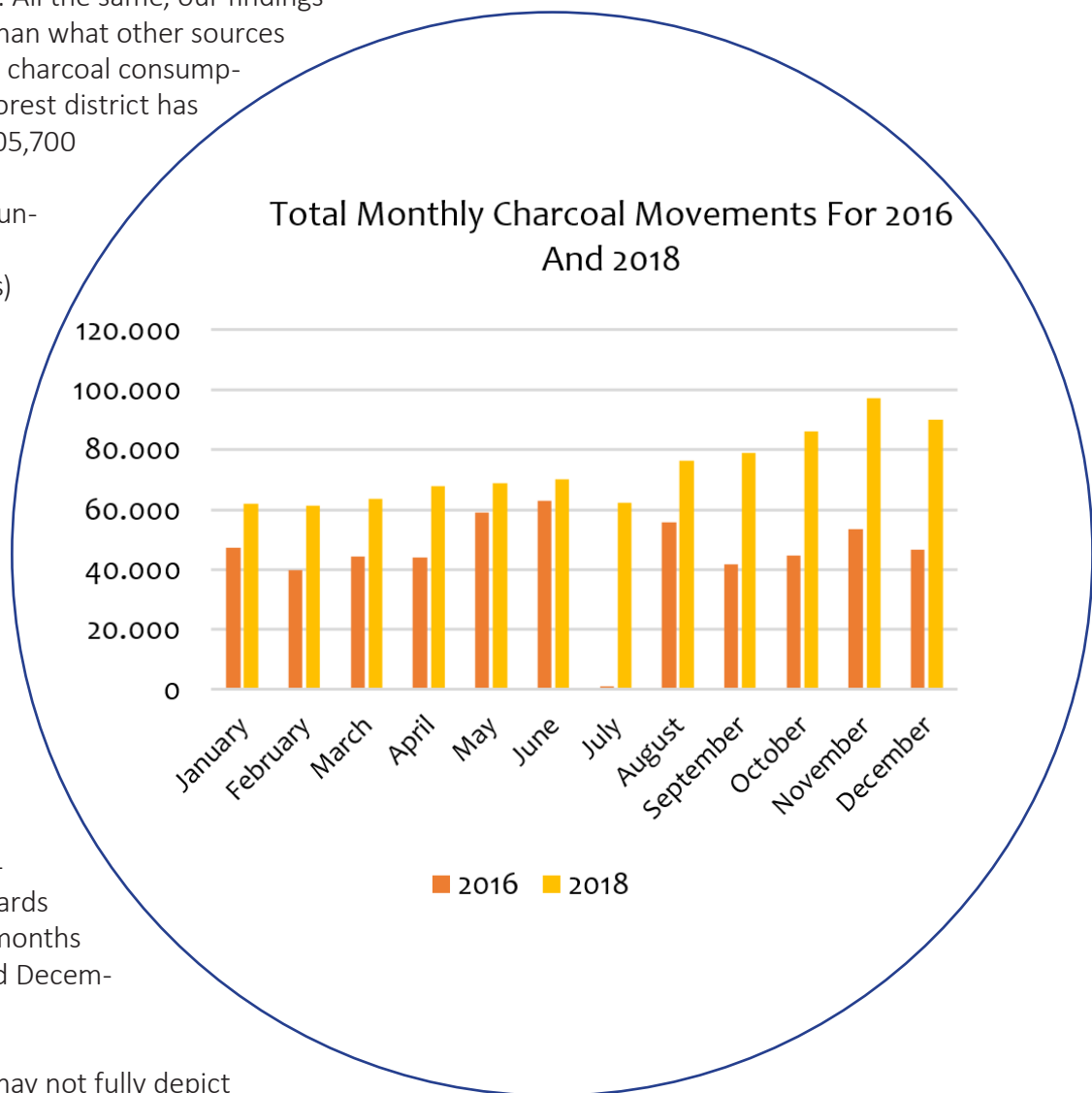


Figure 2: Total monthly charcoal movements in 2016 and 2018.

Further readings

- For further information, please refer to: Nketiah K.S., Asante J. and Hansen C.P. 2021: Estimating national charcoal production. Technical Report www.tropenbosgh.org

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