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Firewood Consumption in the Tamale Metropolis: A Case Study in Nyohini Community

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Abstract

A study was carried out in Nyohini, a suburb of Tamale, Ghana, to ascertain household firewood consumption levels with emphasis on sources as well as preference for firewood species in the community. A sample size of 100 respondents was selected and interviewed using the constant skip method with semi-structured questionnaire. Out of the 100 respondents, 90 were households while 10 were firewood sellers in the study area. Firewood was revealed to be the major form of household energy in the study area, basically for cooking family meals and heating water. The study identified two natural woodlands in Tugu and Gimli communities where the firewood was obtained for use in Tamale. Households purchased firewood from retailers in the study area who also buy from wholesalers who go to these two communities to harvest them. The study revealed that 82.5% of the respondents used an average of 15 kg of firewood per day which implies that each household consumed approximately GH 60.00 (US\$ 30.30) a month on firewood. The study further indicated that respondents preferred firewood as a source of energy compared to other forms of energy because it was considered cheap, readily accessible and needed no skills to use. On the preference for wood species, the study revealed most of the respondents (81.1%) showed no preference for any species while 18.9% have preference for some specific species. High calorific value, less smoke production, charcoal residue, less odour emission, ease of ignition among others were the qualities sought for in firewood by those in the preference class. However, it was noted that the use of firewood could cause problems such as swelling of eyes, coughs, burns, air pollution, and degradation of the vegetation, among others. Despite the rise in demand for firewood in the community, the supplies keep dwindling over time. The study therefore calls for pragmatic measures to avert any future firewood shortfall. This could be done by advocating for the establishment of individual and community woodlots in order to lessen the pressure on the natural vegetation.

Keywords: Consumption, firewood, Sellers, Woodlot