

WOODFUEL USE IN GHANA: AN OUTLOOK FOR THE FUTURE?

Woodfuel is one of the main products of the forests. Approximately 60 percent of the world's total wood removals from forest and outside forests are used for energy purposes. While the developed countries use only 30 percent of wood produced for energy, the developing countries use 80 percent for the same purpose.¹

The bulk of energy supply in Ghana is met from woodfuels, i.e. firewood and charcoal. Woodfuels account for about 71±1 percent of total primary energy supply and about 60 percent of the final energy demand.

WOODFUEL DEMAND AND SUPPLY SITUATION

The bulk of woodfuels amounting to 90 percent is obtained directly from the natural forest. The remaining 10 percent is from wood waste i.e. logging and sawmill residue, and planted forests. The transition and savannah zones of Ghana, mainly the Kintampo, Nkoranza, Wenchi, Afram Plains, Damongo districts provide the bulk of dense wood resources for woodfuels. However, woodfuel resources are depleting at a faster rate as a result of unsustainable practices in the production and marketing of the product that incurs high levels of waste. According to the UN Food

¹ M.A. Trossero, FAO, Unasylva 211, Vol. 53, 2002

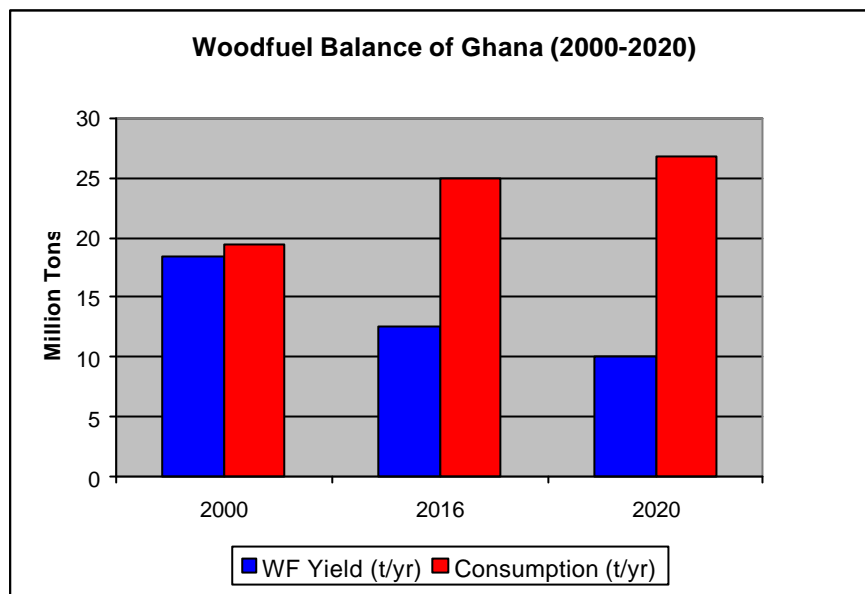
and Agriculture Organisation (FAO), the rate of deforestation in Ghana is 3% per year.

In 2000, the annual production or yield of wood was about 30 million tonnes of which about 18 million tonnes was available and accessible for woodfuels.

Although the exploitation of wood resources for woodfuels is not the main cause of deforestation, there are indications that the preferred woodfuel species are gradually disappearing. The major charcoal production areas of Donkorkrom, Kintampo, Nkoranza, Wenchi, Damongo show physical signs of depleted woodfuel resources. As a result, producers have to travel longer distances in search of wood for charcoal production. Also, the extensive use of less preferred wood species for fuel such as nim and wawa are becoming popular.

Since a majority of households, about 80% in Ghana depend on woodfuels for cooking and water heating in addition to commercial, industrial and institutional use, the demand for woodfuel has for the past years been on the increase. As indicated above about 18 million tonnes of fuelwood was used in year 2000. If this trend of consumption continues, Ghana is likely to consume more than 25 million tonnes of fuel wood by the year 2020. See fig. 1.

Fig. 1



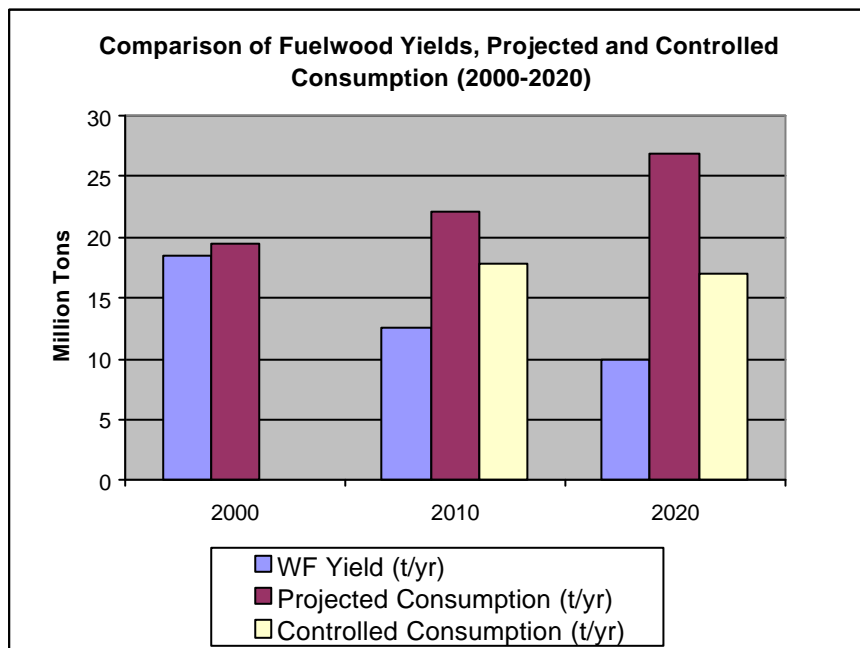
As illustrated in fig 1, by 2020 the woodfuel consumption will reach 25 million tonnes and above. Most of the woodfuel supply will come from standing stocks i.e. 15 million tonnes from standing stock and the rest 10 million tonnes from regeneration or yield. This means that woodfuel supply will no longer come from regeneration but from standing stock. The implication is a direct depletion of standing stocks hence an increase in the rate of deforestation.

CHALLENGES

The energy sector is determined to reduce losses in the conversion of wood to charcoal and also losses in end-use to give way to reduced cost in charcoal production and savings in end-use.

Currently, the efficiency of the traditional kiln which is widely used for charcoal production is about 14 percent. Whereas improved kilns can achieve as much as 25 percent. Similarly, end-use devices have efficiencies as low as 18 percent, whereas improved end-use devices can achieve efficiencies as high as 35 percent. If interventions to promote efficient kilns and end-use devices are introduced, consumption of woodfuels can be controlled and reduced from 25 million tonnes and more by 2020 to 16 million tonnes. See fig. 2

Fig. 2



POLICY CONSIDERATIONS

1. Support for the forestry sector to ensure sustainable management of the country's natural forests and woodlands;
2. Ensure the design and implementation of a regulatory framework for commercial transportation and marketing of woodfuel.
3. Regulate charcoal exports to ensure that only charcoal from wood waste and planted forest are exported.
4. Establish the needed institutional framework to enhance and co-ordinate woodfuel related activities as an integral part of national energy development.
5. Promote improved technologies and higher levels of efficiency in the production of charcoal and use of woodfuels.
6. Support the development, promotion and introduction of alternative fuels for the substitution of woodfuels.