Charcoal Production in Ghana

Building a Sustainable Model based on Community Management and Payments for Ecosystem Services

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Situation Analysis

• In 1900 Ghana had 8.2 million hectares of high forest.

• Only 1.2 million hectares remain.

• Only 40,000 hectares remain off-reserve today.

• Deforestation rates stand at 2% per annum.

• Drivers of deforestation include:
  – Slash and burn agriculture,
  – Logging,
  – Bushfires,
  – Unsustainable harvesting of fuelwood.

Traditional cooking fire using fuel wood
Situation Analysis

• Estimated 60% of all wood taken from forests globally is burnt as fuel - either directly or by first converting it into charcoal.

• Ghana’s fuelwood consumption is 20.6 million m3; consumption of industrial round wood is 1.35 mln m3 and sawn wood is 0.48 mln m3.

• Wood fuel provides 71% of Ghana’s total annual energy demand. Imported petroleum and electricity make up the remainder.

• Wood fuel supports most informal enterprises including bread-baking, processing oil-palm, local brews, traditional textiles, traditional soap making, fish smoking and traditional food services.

• 90% of households use firewood or charcoal for cooking.

• Demand for charcoal is increasing with oil prices.
Situation Analysis

• Charcoal burns much hotter than cut wood and is lighter to transport.

• Charcoal will last in storage without degradation many years longer than fuel wood.

• Charcoal production is the only energy subsector where the cooking appliances and most production equipment are produced locally.

• Previously most wood supply for charcoal production was from off-reserve sources.

• Increasingly, the forest reserves are also being exploited for illegal charcoal production.
Sustainable Charcoal

- Numerous studies of fuelwood and charcoal but no targeted interventions underway in Ghana.

- NCRC decided to tackle the question of sustainable charcoal in Ghana.

- Move charcoal production away from wild sourcing and towards plantation woodlot supply - ensure the sustainable production and avoid deforestation.

- Three main steps:
  - Understand the local charcoal trade, stakeholders, supply chain and linkages.
  - Negotiate community-based charcoal management board in highest production area of Ghana.
  - Facilitate formal agreements on community-based natural resource model for more sustainable charcoal trade.
Key findings

- Local government agencies derive substantial revenue from charcoal tax and can increase revenues if trade is regularized.

- Charcoal producers make little profit compared to middle traders.

- Cost of production increasing due to shortage of suitable wood supply.

- Most producers are settlers & have no land rights and as such exercise little responsibility over the environment.

- About 70% of people in the charcoal trade practice it as their main activity.

- 30% of charcoal stakeholders have made it a career with average involvement exceeding 10 years.
Production

- Production in Ghana is normally done by groups using earth mound method.

- Availability of suitable wood is an important factor in determining the amount of charcoal produced.

- Average producer produces 11 – 15 bags of charcoal per week.

- Production is generally higher in the dry season than the rainy season.

- About 73% of producers practice as a full time business.
Charcoal Supply Chain

**Roadside sellers – middle traders**
- Roadside sellers collect charcoal in large quantities from charcoal producers.
- Gather charcoal from producers or wait for producers to supply them.
- Some pre-finance the production process and control prices.

**Truck dealers – middle traders**
- Truck dealers buy from roadside sellers in large quantities & convey to cities.
- Average 150 bags of charcoal per load.

**Market women – middle traders**
- Buy in large quantities just like roadside sellers and store in market places where they sell out in small volumes.
- Market women live in close association with charcoal producers at community.
Key Challenges

• Transporting charcoal from the production to markets is difficult.

• Production is labour & capital intensive.

• Scarcity of wood supply increases the distance producers have to move to source wood and thus the area required for one mound.

• Grasses are very important in the production process. When grasses are burnt, then producers have to move longer distances for grasses.

• Operating without secure tenure pose real constraints to capital expansion, enterprise growth and profitability.
Community Level Negotiations

- Negotiate agreements with local government authorities, traditional leaders and charcoal producers to formalize charcoal industry.

- Make it attractive for private investment, integrate charcoal into the national energy accounting statistics and prepare for PES opportunities.

- Agreed to date:
  - Process of acquisition of land for charcoal production should include environmentally friendly terms for the land rehabilitation.
  - Periodic inspection of land by relevant local government personnel to ensure replacement of lost trees, fire prevention measures.
  - Where trees are planted for the purpose of charcoal production, measures must be put in place to ensure regeneration of cut trees.
  - Time frame for activities that will take place during and after the production of charcoal on leased land.
  - Settlers, the agreement must be undertaken with a surety to ensure that the guide lines are followed.
Community Negotiations - continued

– Indigenous people, the surety will be required to ensure that the right processes are in place.

– Charcoal producers to show commitment by establishing tree nurseries to show their ability to replace wood supply.

– Local government to pass bye-law.

– Charcoal producers issued licenses by the local government authorities.

– Collaboration with Fire Volunteers to reduce incidence of bushfires due to charcoal production.

– Explore promotion of technologies convert saw dust into charcoal and increased efficiency in charcoal production.

Negotiations at Paramount Chief’s Palace
Way Forward

• Increase the voices & empowerment of local communities in natural resources management issues.

• Increase economic returns for charcoal producers through the formation of local charcoal management boards.

• Conservation of community forests enhanced through reforestation of critical areas for charcoal production and biodiversity protection.

• Explore PES opportunities:
  – Carbon additionality payments,
  – Carbon avoided deforestation payments,
  – Biodiversity payments,
  – Tourism payments.
Way forward

• Direct tourism payments to communities already exceed $30,000 per year.

• Negotiating with UK based private sector carbon investment firm for carbon contract.

• Negotiating with private sector tourism company for joint venture with community management board mid-range service provision.

• Key challenge remains organizing and bundling individual farmers and communities into investor attractive terms.

Globally important pied colobus population at project area