

June 2014

# Supporting SMFEs for sustainable livelihoods

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Facilitating sustainable charcoal production  
in Ghana

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## About the project

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# Contents

<b>Acknowledgements</b>	<b>2</b>
<b>Acronyms</b>	<b>3</b>
<b>1. Project background</b>	<b>4</b>
1.1. Introduction	4
1.2. Objectives	4
1.3. Methodology	5
1.4. Scope of report	6
<b>2. Project highlights</b>	<b>7</b>
2.1. Background survey of pilot district	7
2.2. Stakeholder mapping	10
2.3. Organisation of charcoal production actors and selection of representatives	11
2.4. Follow up on formation of associations	11
2.5. Focus group discussion with associations	12
2.6. Focus group discussions with district-level stakeholders	14
2.7. Training of charcoal associations	14
2.8. Stakeholder discussions on local governance arrangements	14
2.9. Dissemination workshop	14
<b>3. Project challenges</b>	<b>17</b>
3.1. Training of charcoal associations	17
3.2. Piloting the implementation of local governance structure	17
<b>4. Project outputs</b>	<b>18</b>
4.1. Charcoal associations formed in three communities	18
4.2. A local governance structure developed	18
<b>5. Concluding remarks</b>	<b>19</b>
5.1. Challenges	19
5.2. Lessons learnt	19
<b>Appendix 1: Validated governance arrangements for charcoal enterprise in selected communities in Atebubu-Amantin District</b>	<b>20</b>
<b>Appendix 2: Photos from the close out workshop</b>	<b>24</b>
<b>References</b>	<b>26</b>

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K.S. Nketiah

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## Acronyms

APSD	Africa Plantations for Sustainable Development
BAC	Business Advisory Centre
DA	District Assembly
DCE	District Chief Executive
FC	Forestry Commission
FSD	Forest Services Division (of the Forestry Commission)
GNFS	Ghana National Fire Service
IGF	Internally Generated Fund
IIED	International Institute for Environment and Development
SMFE	Small and Medium Forest Enterprise
TA	Traditional Authority (chiefs or sub-chiefs)
TBI	Tropenbos International
TC	Traditional Council
WD	Wildlife Division (of the Forestry Commission)

# 1. Project background

## 1.1. Introduction

Wood biomass energy – fuelwood and charcoal – provides the domestic energy needs of about half the world's population and about 81 per cent of sub-Saharan African households (World Bank, 2011). Almost 60 per cent of urban dwellers use biomass energy (IEA, 2010), mostly in the form of charcoal, making it the most important source of household energy in many cities of Africa (Seidel, 2008).

The charcoal industry, which supports the livelihoods of many rural poor, is still expected to grow despite the lack of appropriate recognition by governments. Broadhead *et al.* (2001) projected a globally increasing charcoal consumption trend from 45.8 million tonnes in 2000 to 75.6 million tonnes in 2030, with sub-Saharan Africa (SSA)'s share going from 23 million tonnes to 46.1 million tonnes in the same period. There is also a projected corresponding increase in the number of people relying on wood-based biomass energy (IEA, 2006; 2010). The lack of recognition of the charcoal sector as a potential sustainable energy industry has contributed to poor governance of the sector, however, which results in huge losses of potential government revenue: up to US \$100 million (World Bank, 2011) and a threat to sustainable practices.

In Ghana, charcoal production and trade is an important small and medium forest enterprise (SMFE). The sector provides domestic energy for cooking and heating to over 66 per cent of Ghana's households (HPC, 2010, cited in Energy Commission, 2014). It also forms a key livelihoods base for several rural households, especially in the forest-savannah transition of Ghana. Despite this recognition, the sector is not well regulated, which threatens its sustainability. In fact, the production of charcoal, as part of fuelwood extraction, has been listed as one of the direct causes of deforestation in Ghana (Ministry of Lands and Natural Resources, 2012). There is therefore an urgent need for interventions to address these concerns, through local organisation and capacity building for actors within the charcoal sector, to tackle the concerns through participatory governance arrangements.

Arnold *et al.* (2003) make a three-point global recommendation for managing the charcoal industry:

1. Locally managed wood resources hinged on effective transfer and enforcement of local rights to the resource, protecting access by the landless, as well as equitable access by fuelwood users to locally managed resources.
2. Management of on-farm woodfuel resources.
3. Generating income from woodfuel trade and markets.

These recommendations are principally related to governance. Several policy suggestions have also been made, instigated by concerns for deforestation, for rationalising the charcoal sector within the forest sector response framework. There is little on practical governance approaches, however. This report is based on a pilot project to address some of the concerns raised above. It was supported by the International Institute for Environment and Development (IIED), with a grant of £20,000 to Tropenbos International Ghana (TBI Ghana) under the Forest Connect Project, whilst the latter also provided counterpart funding of £11,200.

## 1.2. Objectives

The overall objective of the project was to develop a model of local governance arrangements for sustainable charcoal production, through a multi-stakeholder process, and to initiate a process for national adoption of the model. The specific objectives were to:

- i. Assess the perceptions of key stakeholders on the charcoal industry in selected districts /communities.
- ii. Identify and compare various charcoal production models in the districts/communities.<sup>1</sup>
- iii. Evaluate, through a multi-stakeholder process, existing charcoal production models with regard to sustainability.<sup>2</sup>
- iv. Establish and strengthen local governance structures for sustainable charcoal enterprises.<sup>3</sup>
- v. Determine the feasibility of applying the developed model in selected communities.

### 1.3. Methodology

Four main tools were used to execute the project in order to achieve the specified objectives. These were: desk study, field interviews (“snow-balling” purposive sampling approach), consultative meetings and media work.

#### 1.3.1. Desk study

The purpose of this exercise was to ascertain where in Ghana the charcoal industry is vibrant, and that exploring charcoal governance and sustainability issues would be appropriate. Brong-Ahafo region is the highest charcoal producing region, with districts such as Kintampo (North and South), Nkoranza (North and South) Sene (East and West) and Atebubu-Amantin being the top producers (Energy Commission, undated; Osei-Tutu et. al. 2012). There is a general concern that the wood resources in these areas are being depleted (Energy Commission, 2014). The depletion of wood resources is expected to cause further expansion of the charcoal production frontier into the dry forest zone, which has governance and sustainability implications. According to the Wildlife Division of the Forestry Commission, this state of wood extraction is currently being extended into National Parks within the Savannah zone (Nimo, Pers. Comm. 2013). Undertaking charcoal research and development these zones therefore offers great possibilities to generate new ideas regarding a sustainable charcoal industry through supporting governance arrangements. Nonetheless, with the exception of Atebubu-Amantin district, almost all the notorious charcoal production centres have received development project attention related to charcoal.

#### 1.3.2. Field interviews

The project staff developed a guide for the background survey. The checklists in the guide were specific to some stakeholders identified before the survey, whilst other sets were more general in scope. The draft checklists were first tested in the field; thereafter, the necessary corrections were made before a full-scale survey was conducted. Among the stakeholders interviewed were three senior personnel from the Forestry Commission: two from the Forest Services Division (FSD) and one from the Wildlife Division (WD); two traditional authorities (chiefs); three caretaker chiefs; eight community leaders; and fourteen charcoal producers. Other survey respondents were the Coordinating Director and the head of the Business Advisory Centre of the District, farmers, charcoal transporters and charcoal traders. Further details on sampling and selection of participants are provided below.

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<sup>1</sup> Only one charcoal production model exists in the districts. Therefore, comparison became irrelevant.

<sup>2</sup> The single model of earth-mound kiln natural woodland based production was evaluated.

<sup>3</sup> This objective is implied in the overall objective but it is now made a specific objective.

Initially, communities were selected purposively, based on key information from the FSD and the District Assembly (DA). As the project progressed, however, it was observed and confirmed that charcoal production takes place in almost every community in the District. Therefore, other communities were also included. Eventually, the data gathering and validation took place in the following communities: Seneso, Kokofu, Abamma Camp, Abama, Garadima, Fakwasi, Kumfia, Beposo and Nyomoase. These communities were chosen based on a number of criteria which included: the level of production, willingness of community, access to community and communities with existing local institutional structures or with potential for establishing charcoal governance structures locally.

Many of the communities that initially showed interest in the project had expectations such as road construction and provision of farm tractors, however, which were far beyond the scope of the project. After much clarification from the project team that such demands could not be supported by the project, many of them became apathetic. Therefore, a decision was made to focus activities in only the communities that were willing, as evidenced by their commitment to form associations; the project thus ended with only three communities, namely: Fakwasi, Kumfia and Kokofu.

### **1.3.3. Consultative meetings**

Consultative meetings were held with relevant stakeholders, such as chiefs, the registrar of the Traditional Council, District Coordinating Director, the District Finance Officer and Forestry Staff, to collect information at various stages of the project. This method was used to share and solicit views from the different stakeholders, to devise strategies that will ensure the sustainability of the charcoal industry in the district.

### **1.3.4. Media work**

The project used media giants in Ghana to bring its agenda to public attention through news reports on one of its key activities, the close out workshop.

Three major media outlets that covered the close out workshop were Multi-media's Luv FM, Ghana News Agency (GNA) and Viasat 1 TV. Viasat 1 TV aired this programme as part of its major evening news broadcast on Tuesday March 18, 2014. Ghana News Agency, Multi-media and Modern Ghana all published news item on the separate websites. The links to these bulletin are provided as follows: <http://www.ghananewsagency.org/science/act-boldly-to-regulate-charcoal-production-72080>, <http://www.myjoyonline.com/news/2014/march-15th/local-governance-model-developed-for-charcoal-industry-in-ghana.php> and <http://www.modernghana.com/news/529476/1/local-governance-model-developed-for-charcoal-indu.html>.

## **1.4. Scope of report**

This final report has been prepared in fulfilment of the requirements of the grant agreement between TBI Ghana and IIED UK under the Forest Connect Project. The original project period was from 1<sup>st</sup> January, 2013 to 31<sup>st</sup> December, 2013 but the end date was later extended to 31<sup>st</sup> March 2014. This report covers the project activities, outcomes, challenges and lessons learnt from the project. It also provides a section on the project challenges, where variations from the planned activities are explained or justified.



## 2. Project highlights

Summary of activities that were undertaken within the project duration are outlined below.

### 2.1. Background survey of pilot district

A background survey of the district was carried out to identify charcoal stakeholders, assess perceptions of the key stakeholders and identify the various charcoal production systems. Again, the survey was used to introduce the proposed interventions to the stakeholders for comments and suggestions to validate them.

#### 2.1.1. Stakeholder perceptions on charcoal industry

The stakeholder perceptions in relation to charcoal production and trade have been put into four categories – namely local economy, livelihoods, environment and how negative impacts could be mitigated.

##### Effects on local economy

The charcoal industry provides jobs for over 90 per cent of rural dwellers in the district, either full-time or as an activity for lean agricultural production season, with farming being the main occupation. It is also financially important to the DA in that it contributes 20 - 30 per cent of the internally generated fund (IGF) of the DA. For example, in the 2012 fiscal year, the DA generated GH¢296,875.02 as revenue from charcoal industry. This was about 25 per cent of the IGF of the district. The FSD also charges fees ranging from GH¢15.00 to GH¢ 45.00 per truck load, depending on truck size.

##### Local livelihoods

The industry has been of immense benefit to the lives of charcoal producers. Besides farming, it is a major source of income. The business contributes substantial portion of households' income. This income enables actors to meet basic necessary sustenance and also as capital for farm inputs like fertilizer, hire of tractors and seeds. Some students also engage in the business during vacation to enable them finance their education.

##### Effects of charcoal production on the environment

The charcoal sector is seen by regulatory stakeholders (DA, FSD and Traditional authorities) as a major cause of environmental degradation and deforestation. They contend that many of the timber species in the district have been lost to charcoal. It was also noted that many large-scale charcoal producers practice clear-felling of woodland, which is a cause of deforestation. Some producers accept this assertion; however, many producers held the view that the argument of deforestation is not valid because the land has the ability to regenerate through coppicing. In their view, what is required is that the coppices are managed well by controlling bushfires and also preventing illegal grazing by cattle. This view of the local people is corroborated by Arnold *et. al.* (2003) and Openshaw (2011), who claim that charcoal demand hardly exceeds the regenerative capacity of woodlands, except at the urban periphery.

##### How negative effects could be mitigated

Currently, major stakeholders are not doing much to address the negative effects of charcoal production as mentioned above. However, the FSD disclosed that it has embarked on a sensitisation programme to educate producers on the kind of species to be used for producing charcoal and those to exclude from charcoal. This approach has not been well received by producers, since it is timber biased in their opinion, and because the FSD is against the use of preferred charcoal trees such as

Krayie (*Pterocarpus sp.*) and Kranku (*Vitellaria paradoxa*). The FSD is seeking to implement an alternative strategy of dialogue with the stakeholders on how the negative impact could be minimised.

Some of the stakeholders, including farmers and chiefs, suggested that afforestation (woodlot) programmes could provide some solution. This should however be supported by the government, according to them. This is the only means through which pressure on the existing woodland could be reduced and the vegetation cover restored.

### 2.1.2. Charcoal production systems

This section describes the prevalent charcoal production system and also gives a brief description of an emerging system in one adjoining district. The main production system is the natural woodland based earth-mound kiln production system in the district and adjoining districts. The system is described according to the sub-headings below.

#### Source of wood for charcoal production

Wood is obtained in two ways. The first is by acquisition of woodland through verbal agreement with the landowner and payment of agreed lease fee for a specified period, usually not exceeding three years, without receipt. The second option is either to use wood cut during land clearing for crop cultivation or cut wood used in yam cultivation. The latter is the main means by which farmers acquire wood for charcoal production.

In both scenarios, clear-felling is a common practice, unless monitoring by chiefs' operative is effective. Again, the charcoal producers do not make any deliberate efforts to ensure the regeneration of the trees on the land. This renders raw material sourcing quite unsustainable and, in fact, many of them complained of recent shortages of wood.

#### Production practices or methods

The only charcoal production technology used in the District is the earth-mound kiln (See Photo 1); this type is known in the local parlance as the “*Sissala method*” – a term derived from the original charcoal producing tribe in Ghana.

#### Tree species

Almost all trees in the woodlands can be used for charcoal production. Consumer preferences, however, according to the producers, limit producers' preference to some species. These species include Kranku - Shea tree (*Vitellaria paradoxa*), Krayie - Rosewood (*Pterocarpus sp.*) Senya (*Daniellia oliveri*), Kane (*Anogeissus leiocarpus*), Dawadawa (*Parkia biglobosa*), *Khaya senegalensis* and *Azelia spp.* (Papao.). Most of these tree species, especially Kane, Krayie and Kranku, have become very scarce. The ban on cutting these species has been premised on the alternative traditional economic value of timber and Shea butter, strongly supported by landowners and the communities in general. Again, producers have to travel long distances to obtain trees for charcoal production, which adds to production and transport costs, reducing their profit and hence provides some rationale for the identified clear-felling practice.

#### Financing arrangements and pricing

Charcoal producers depend either on their personal savings, money from relatives, loans from banks, or pre-financing by charcoal traders as start-up capital. The predominant form of financing is the pre-financing method,



Photo 1: Earth-mound kiln method

however, which involves producers taking advance payment of money from their wholesale clients before the charcoal is produced for the latter. Sometimes, this financing arrangement could influence the pricing of charcoal. The price of the charcoal is often determined by the dealer or middle women. Other factors, including cost of production and the season (peak or lean), also affect pricing.

### **Knowledge on production technology**

Charcoal producers rely entirely on traditional production knowledge learnt from the Sissala people. Some of the producers are aware of the metal kiln technology and the advantages of its use in an adjoining district (Sekyere Afram-Plains West) but they do not know how it operates. There was the perception that the charcoal produced through the traditional method is of better quality than those produced by the metal kiln. This opinion, however, is at variance with the Energy Commission's standards for export charcoal.

### **2.1.3. Local organisation or association**

This section addresses the status of local organisation for governance, views on the need for associations in addressing collective concerns, and the willingness of actors to form associations.

#### **Level of organisation**

Traders at the Atebubu market have formed an association with about thirty members. Charcoal producers in the district, on the other hand, did not have any association except in one community (Kumfia). This association had developed by-laws, governing the production and sale of charcoal. There is also a taskforce that monitors and checks irregularities in the activities of the producers. Those breaking the regulations receive sanctions in the form of fines from the leaders of the association and sometimes the village's traditional council. Lack of associations in the district is attributed to the fact that most of the major producers, especially the Sisalas, are not sedentary. They move from one community to another, depending on wood availability.

#### **Willingness to form association**

All communities welcomed the call to form associations. Fewer than five per cent of all participants in the sensitisation meetings disagreed with the need for association. They did so with the reason that they are not active producers of charcoal and that the association would put extra demands on their time.

### **2.1.4. Regulations and guidelines**

Regulations and guidelines for engaging in the charcoal industry in the district are not clear. The DA does not have any by-laws pertaining to the harvesting of trees; and the FSD does not have much control over the off-reserve areas where charcoal is produced, but collects fees for waybills. However, the business is being regulated to some extent by the various stakeholders in the district.

Some chiefs have instituted traditional by-laws to regulate the activities of the charcoal industry in the communities. There are directives to all producers on which trees to exclude from harvesting. Offenders are dealt with according to local traditional procedures.

The DA has developed some by-laws to regulate the activities of the charcoal industry in the district but they are not gazetted, which makes its application impossible. According to the DA officials, the cost for gazettement is too high, especially where they have priority development projects without funding.

## 2.2. Stakeholder mapping

This activity involved both desk study and field interviews, with the latter being incorporated in the background survey. The findings are given in a descriptive format below. Nine key stakeholders were identified during the survey; this was also confirmed by grey literature. The stakeholders identified are: charcoal traders, charcoal producers, farmers, chiefs /landowners, the District Assembly (DA), the Forestry Commission (FC), the Energy Commission, the Ghana National Fire Service (GNFS) and transporters.

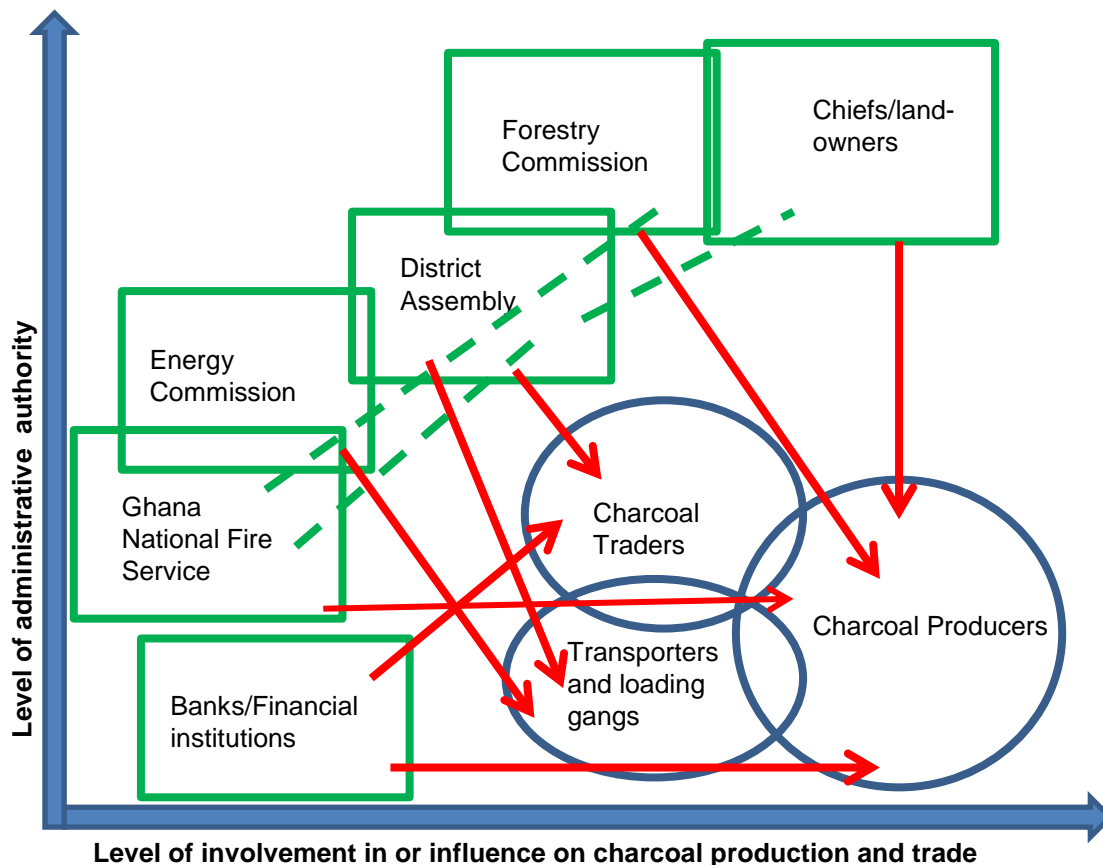


Figure 1: Stakeholders and their influence on the charcoal industry

Figure 1 is a graphical representation of charcoal stakeholders and their level of influence on the charcoal industry. The vertical axis represents administrative or regulatory authority, whereas the horizontal axis stands for the level of involvement or interest in charcoal production and trade.

This diagram portrays a case where actors such as charcoal producers and traders have more direct involvement in the charcoal industry, and therefore serve as basis for starting any bottom-up governance arrangement to ensure sustainable resource use and charcoal industry. On the other hand, the stakeholders with a high level of administrative (regulatory, control and support), such as the Forestry Commission, have a key role in ensuring that governance arrangements are technically and administratively feasible. The uniqueness of chiefs or landowners is also clear, in view of their highest influence and interest in the charcoal industry of the district. The chiefs or landowners are the most powerful stakeholder group. They control access to wood and also receive revenue for granting woodlands for charcoal production. This makes them important in considering all proposals for managing the charcoal industry sustainably.

## 2.3. Organisation of charcoal production actors and selection of representatives

Based on analysis of the background survey data, eight communities were selected as pilot sites for the project. The communities were chosen based on a number of indicators which included: the level of production, willingness of community members to participate, accessibility and the existence of a local governance arrangement. Communities initially selected for this were Fakwasi, Kumfia, Abama, Kokofu, Garadima, Seneso and Beposo/ Nyomoase. These communities selected their own representatives to participate in the multi-stakeholder process which was used to identify the needed interventions and governance arrangements.

### 2.3.1. Sensitisation meetings

Meetings were organised in each of the selected communities with charcoal producers, charcoal traders and other actors, to sensitise them on the project objectives and to solicit their response to the objective. Charcoal producers were initially reluctant to attend the meetings because they perceived their activities as illegal. Most of them joined at a later stage, however, when the purpose of the meetings was clarified. Participants were mostly producers, with a few traders. Particular attention was given to the rationale for forming functional local governance structures (associations at the community level, which would feed into a district-wide association) to address concerns about the sector. Their responses have been captured in the succeeding sub-sections.

### 2.3.2. Concerns and challenges raised during the sensitisation

Another output of these meetings was the identified challenges and concerns of various local charcoal actors that could be addressed through subsequent project activities. These are documented below and were used to guide discussions on further project interventions that could help sustain the industry.

The major concerns were the scarcity of trees and wood, poor road conditions aggravated by unpredictable weather, poor material for packaging charcoal, disloyalty of producers who receive pre-financing, theft of charcoal, rising cost of production and low market prices.

In concluding all the meetings, the participants in the various communities were tasked to meet again, form the association and select their leaders. They were also to select three topmost challenges and issues they would want to prioritise for further action in future activities. They were accordingly asked to provide the project team with possible dates for follow-up meetings, focus group discussions and other activities.

## 2.4. Follow up on formation of associations

The project team undertook a field visit to monitor the status of the formation of associations in six of the eight communities. It was noted that in four of the communities, the charcoal actors had met already and two of those communities had selected their leaders. The other communities were expecting another meeting to select their leaders. The other four communities had scheduled meetings after the date of our visit too, in which they would discuss leadership roles and elect their leaders.

## 2.5. Focus group discussion with associations

Focus group discussion meetings were organised with the newly formed charcoal associations, to propose measures to adopt in order to mitigate the issues and challenges raised by the charcoal actors. The project team, together with the associations, finalised the strategies developed by the associations. Table 1 provides detailed information on plans developed by associations.

### 2.5.1. Community action plans

Issues of potential threat to the sustainability of the charcoal industry were common among all groups. Among the challenges and concerns raised were:

- depletion of resource;
- difficulty in accessing woodlands;
- financial challenges;
- transportation difficulties;
- inefficient method of production; and
- poor packaging materials.

The project team facilitated a discussion among the groups in six communities, namely Garadima, Nyomoase, Fakwasi, Kumfia, Seneso and Kokofu. The outputs were actions recommended by the groups to help mitigate the above challenges and concerns. Even though separate meetings were held in all the communities, the essence of the recommendations from all of them, which was validated in a follow-up visit, is highlighted in Table 1.

Table 1: Proposed action plans of charcoal communities

Issues	Actions recommended by communities	Remarks
Reluctance of land owners to release woodlands for charcoal production and depletion of tree resources	<ul style="list-style-type: none"> <li>Acquire land from land owners as an association to establish woodlots.</li> <li>Make contributions to raise financial resources for the acquisition of land.</li> <li>Approach land owners as an association to acquire woodland for charcoal production.</li> <li>Prepare all the necessary land documentations to ensure land use rights.</li> <li>Devise fair benefit-sharing arrangements.</li> </ul>	Group acquisition of natural woodland was mentioned by some communities to cushion their transition to dependence on woodlots.
Financial difficulties	<ul style="list-style-type: none"> <li>Open a group account with a financial institution and deposit monthly contribution.</li> <li>Borrow money from the financial institution to expand their production.</li> </ul>	
Transportation difficulty	<ul style="list-style-type: none"> <li>Purchase a tractor by/for the association. However, given the high capital cost involved, they agreed that it would be a long term goal.</li> <li>Road maintenance within the short term, to facilitate the transportation of charcoal.</li> </ul>	
Inefficient method of production	<ul style="list-style-type: none"> <li>Acquire metal kiln for efficient production in the long-term.</li> </ul>	Three out of six communities were aware of the metal kiln and mentioned high capital cost as a disincentive to acquire a metal kiln for production.
Poor packaging material/storage	<ul style="list-style-type: none"> <li>Provide a central storage facility (for example, at Atebubu market, or communities).</li> </ul>	The producers used fertilizer sacks, which disintegrate easily upon contact with rain water.



## 2.6. Focus group discussions with district level stakeholders

A one-day focus group discussion was organised in the Assembly Hall of the Atebubu-Amantin District Assembly. It was attended by twenty one participants, drawn from stakeholders from the Ministry of Food and Agriculture (MOFA), FSD, WD, GNFS, Africa Plantation for Sustainable Development (APSD), DA, Atebubu Traditional Council, Kumfia Traditional Council and Fakwasi Traditional Council. The purpose of the meeting was to share and further discuss the issues and the responses from the charcoal communities. This resulted in the further development of strategies and appropriate governance arrangements targeted at the sustainability of the charcoal industry.

Governance issues that were discussed revolved around fair access to resources, regulation and monitoring of production, and trade and disbursement of income generated from the industry by the DA. There were also discussions on how the resource base could be sustained. The various roles to be played by different stakeholders were thoroughly discussed. Information generated from the forum was fed into the model governance arrangements (Appendix 1) for ensuring sustainable charcoal production.

## 2.7. Training of charcoal associations

The project team organised a training workshop to build the capacity of the association in leadership of associations, group dynamics and advocacy skills as relevant for pursuing the governance agenda towards a sustainable industry. Although this activity was not part of the initially planned activities, it became necessary, as it was realised that most of the members of the association did not have the capacity to implement the proposed governance arrangements. Priority was given to the elected leaders of the associations for the training.

With regards to group dynamics, capacities of members were built on group formation, organisation of meetings, meeting skills, team building and conflict management. On Advocacy skills, the resource person focused on the introduction to advocacy and basic skills required to do effective advocacy.

## 2.8. Stakeholder discussions on local governance arrangements

Stakeholders were engaged in a discussion to generate information to develop local governance arrangements that could lead to sustainable charcoal enterprise in the selected communities. Suggestions from the associations were validated through separate discussions with the traditional authorities within whose jurisdictions the selected communities were, and also the registrar of the traditional council. A draft governance arrangement was prepared and circulated to key stakeholder groups including chiefs, DCE, DCD, MoFA, GNFS, WD and FSD. They were asked to study and provide comments on the draft.

The governance arrangement is sub-divided into nine sections. It provides guidelines for registering the associations, acquisition of land for charcoal production, sustainability of the resource base, woodlots/plantation establishment, benefit-sharing arrangements in respect of charcoal production from natural woodlands, dealing with unauthorised charcoal producers, pricing of charcoal, and other arrangements. The validated version of the local governance arrangement is attached as Appendix 1.

## 2.9. Dissemination workshop

A close out workshop was held on March 12, 2014 at the Atebubu-Amantin District Assembly Hall to share lessons from the project implementation with relevant stakeholders and also to collectively



validate the draft governance arrangements. Fifty four representatives from several stakeholder groups participated in the workshop. The following sections highlights details of stakeholders present and key output of the event.

### **2.9.1. Background of workshop participants – stakeholders involved**

The dissemination workshop was attended by representatives of the three newly formed Charcoal Producers Associations (Kokofu, Kumfia and Fakwasi); Traditional Authorities (TA) of Atebubu, Kumfia and Fakwasi; Forest Services Division (FSD), Wildlife Division (WD), Ghana National Fire Service (GNFS), Energy Commission, the District Assembly (DA), Business Advisory Centre (BAC), Resource Management Support Centre (RMSC), Africa Plantations for Sustainable Development (APSD), Atebubu Charcoal Traders Association and three media houses.

### **2.9.2. Highlights of the workshop**

During the workshop, TBI Ghana gave a brief presentation on the context of the project and the Forest Connect programme. The purpose of the workshop was outlined and an overview of the project was presented. The District Chief Executive for Atebubu-Amantin District delivered the welcome address. The project results and lessons learnt were then presented, followed by a detailed discussion of the proposed governance arrangement (see Appendix 2 for some photos). A traditional ruler gave the closing remarks and hoped that there will be a successor project.

The workshop was covered by both the electronic and the print media.

### **2.9.3. Suggestions from the dissemination workshop**

The main suggestions from the workshop are summarised below; those that were related to the governance arrangement have been incorporated in the attached appendix (2). Some of the key suggestions that were used to modify the draft governance arrangements are stated below.

- It was suggested that there should be a partnership between the charcoal associations and relevant stakeholders for technical support and training in areas where knowledge and skills are lacking.
- It was suggested that individuals could acquire land for their own plantation establishment.
- Regarding woodlot establishment, it was agreed that the share of produce or income to the landowners should either be the equivalent of cost of leasing land plus rent or 10 per cent. Representatives from traditional councils agreed that this provision will apply only to associations; individuals who want to embark on woodlots should first obtain written agreement and pay the requisite amount for the lease, so as to avoid any conflict on sharing of benefits.

### **2.9.4. Recommendations**

The following recommendations were made by the stakeholders at the workshop:

- i. Charcoal producers' associations should be scaled up to the district, regional and national levels to ensure national impact.
- ii. Build capacity of the associations in skills needed to access the export market. This became relevant because it was learnt that requirements for acquiring export license, which the association must fulfil, include:

- wood from registered plantations or woodlots;
  - production capacity; and
  - method of production (kiln produced charcoal).
- iii. The project secretariat should source funds to provide metal kilns and technical support to the three charcoal producers association formed in terms of woodlot establishment, efficient and clean charcoal production and marketing.
- iv. The associations should approach APSD to learn the brick kiln technology being used by APSD under their community livelihood support programme.
- v. The Atebubu Traditional Council could seek support from CIKOD, an NGO that works with Traditional Authorities to develop guidelines for natural resources management.

## 3. Project challenges

This section reports the variances that occurred from the original plan of the project and why these changes were necessary. These changes occurred in the areas of training of charcoal association and piloting the implementation of local governance arrangements.

### 3.1. Training of charcoal associations

As was reported in the previous chapter, representatives from each of the associations were trained in group dynamics and advocacy skills. This activity, which was not part of the original plan of activities, became necessary due to observations made during the sensitisation meeting. It was realised that the groups lacked the capacity to implement governance arrangements; their capacities therefore had to be built in these areas.

The training was to strengthen the newly formed association and enable them to better play their role regarding the strategies developed within the local governance arrangement.

### 3.2. Piloting the implementation of local governance structure

One of the objectives of the project was to assess the feasibility of applying an agreed governance model, with the view to sharing lessons learnt from the piloting for wider application.

But this activity could not be reasonably executed due to a number of factors beyond the control of the project team. Key among these was the poor cooperation from the selected communities. This resulted in the delay of scheduled activities: the piloting of the governance arrangement would require at least five months for any meaningful conclusions to be derived. The rather short lifespan of the project also did not help.

## 4. Project outputs

The outputs of the project have been discussed in preceding sessions. We here highlight the key ones.

### 4.1. Charcoal associations formed in three communities

At the end of the project, three charcoal producers associations were established within the pilot district. The capacities of these associations have also been built to enable them to better play their roles regarding the model governance arrangements and also to advocate better on issues of concern to them. The table below shows the various associations and their membership.

Table 4.1: Membership of associations

Association	Number of persons
Kokofu	48
Kumfia	63
Fakwasi	49

Members of the associations are mainly farmers involved in the charcoal business as a secondary livelihood activity. There are, however, a few others whose primary occupation is charcoal production. Other members include chainsaw operators and middle (market) men and women.

### 4.2. A local governance structure developed

A model governance arrangement has been developed; this is provided in Appendix 1. The model spells out strategies to guide the activities and actions of charcoal actors, to ensure the sustainability of the industry.

## 5. Concluding remarks

This final chapter discusses the challenges regarding actual implementation of the project and some lessons learnt.

### 5.1. Challenges

Poor cooperation from some stakeholders, poor road access to communities and poor communication made it impossible for all aspects of the project to be completed in one year.

#### 5.1.1. Poor cooperation from some major stakeholders

Some stakeholders, especially the traders' association and transporters' association at the district level, were reluctant to cooperate with the team. For this reason, their involvement in the project was nominal. Again, there was lack of cooperation from some of the communities within the pilot district. The project activities were thus limited to only a few communities. For instance, the project started with eight communities but ended with only three. Also, the training, which was organised to build capacities of the association, was organised twice instead of once as originally planned, in order to cater for those who were absent during the first meeting. Even then, only two of the remaining people showed up.

#### 5.1.2. Poor road access

Some communities in the district were not involved in the project because of poor roads, which made commuting difficult or impossible. Conveyance of stakeholders from communities to district programmes was problematic, due to the difficulty in accessing public transport; either participants arrived late or did not arrive at all.

#### 5.1.3. Telecommunication challenges

The project team always had to travel to the district whenever there was the need for information to be conveyed to any stakeholder group. This was due to the poor telecommunication network in the district.

#### 5.1.4. Project duration

Again, the project team realised that the duration of the project was too short, especially in the light of the aforementioned challenges. Issues relating to governance require longer periods of time for thorough analysis and consensus building.

### 5.2. Lessons learnt

The key lesson learnt is that a bottom-up approach to developing governance arrangement for ensuring sustainability of the charcoal industry is possible and, in fact, desirable. All stakeholders appreciate the urgent need to share responsibility and to take actions to manage charcoal landscapes well. There is a new momentum to create new resources to feed the industry and also support rural livelihoods.

The above challenges also underscore the need to carefully consider any assumptions made in implementing projects like this one; there is also the need to adopt adaptive approaches in managing the project.

# Appendix 1: Validated governance arrangements for charcoal enterprise in selected communities in Atebubu-Amantin District

## 1. Introduction

Charcoal production and trade provide key support to energy needs of many Ghanaians, support livelihood and district economies through significant contribution to the internally generated funds (IGF) for district assemblies. Yet, due to the unregulated nature of the industry and its environmental impacts, the full potential of the sector for rural sustainable livelihoods is not fully realised. It was in response to this that the IIED-TBI Ghana project facilitated a bottom-up process of collecting data and ideas from various stakeholders for synthesising a model governance arrangement for a sustainable charcoal industry.

The key output of this synthesis of ideas for governing the industry is presented below. These ideas have been validated by three communities that are charcoal production centres in the District.

## 2. Production and trade association

- i. That charcoal producers and traders shall belong to an association registered at the District Assembly in order to be recognised by land owners and regulatory authorities, such as the Forestry Commission (FC), Energy Commission (EC), landowners and the District Assemblies (DAs).
- ii. That the DA, FC and Traditional Councils (Landowners), must require proof of membership of a charcoal association from a prospective charcoal producer, be he/she an indigene or a migrant.
- iii. That district level cooperative society be formed and given legal backing in the DA's by-laws with the power to issue and inspect waybills for transporting charcoal.
- iv. That the associations be given the recognition and support to embark on projects to ensure sustainable resource base (wood).
- v. The association shall be empowered to enforce provisions in these arrangements.

## 3. Access to wood for charcoal production

- i. Land owners must document and publicise rules and procedures for acquiring access rights to woodland for charcoal production.
- ii. Rules and procedures for access to wood for charcoal production shall be made fair to all persons residing in a community.
- iii. However, specific provisions must be made as follows:
  - a. An indigene of a community whose family owns land pays nothing in acquiring access to wood on his/her family land for charcoal production where it is the tradition in that particular community.
  - b. Chiefs reserve the right to lease communal lands to others or migrants at a fee or any form of payment as they may deem appropriate with respect to traditional arrangements.
  - c. A resident farmer has a right to produce charcoal from his/her cultivated land but leasing such lands to others shall be subject to the chief/landowner's consent.

- d. Migrants and non-migrants can buy wood stands from chiefs/landowners for the production of charcoal.
- e. The charcoal association shall be empowered to foster unity and effective collaboration among stakeholders (chiefs, indigenes, migrants) to ensure all parties go by the established norms.

#### **4. Sustainability of resource base**

The need to sustain the resource base for the charcoal enterprise is highly appreciated by all stakeholders. To safeguard livelihoods and to ensure energy provision to all levels of society, the associations agreed to undertake the below listed measures.

- i. Wood shall be felled selectively and appropriately to allow adequate natural regeneration.
- ii. The association shall monitor adherence to limitations on species and avoidance of clear-felling.
- iii. Where appropriate and seedlings available charcoal producers shall replant felled areas.
- iv. Charcoal producers should adopt proper tree cutting methods that allow for coppicing/regeneration.
- v. The members of the associations shall undertake woodlot establishment where resources are available.
- vi. There should be partnership between the association and relevant stakeholders for technical support and training in areas where knowledge is lacking.
- vii. The District Assembly must plough back part of the revenue on charcoal to provide funding support to enable recognised charcoal associations to expand the resource base through integrated woodlot establishment.

#### **5. Integrated woodlot/plantation establishment**

Establishment of woodlot has been considered as a credible means of addressing unsustainable charcoal industry. To realise this, the associations have pledged their commitment to establish a demonstration woodlot integrated with efficient charcoal production technology.

- i. Landowners/chiefs shall release available lands to associations and individuals who demonstrate commitment to establish woodlots under fair payment or benefit sharing arrangements.
- ii. Individuals could acquire land for their own plantation establishment.
- iii. The executive committee of the association shall facilitate the acquisition of land from the chiefs.
- iv. The members of the associations shall use their labour to establish the woodlots.
- v. Funding shall be sought from all possible sources with facilitation by both governmental and non-governmental organisations to help establish the woodlots.
- vi. Benefit-sharing arrangements for the proposed woodlot model shall be as follows:
  - a. Where a leased land is paid for by the association at an agreed fee, the land owners shall not have any share of the wood or charcoal product.
  - b. Where the land has been granted by the chief at no fee, there shall be an agreement with the chief specifying the percentage share of the final produce to the stool. This share must not exceed either the equivalent cost of land lease and rent or ten per cent (10%).

- c. The association shall deduct ten per cent (10%) of the value of the final produce as administration charge.
- d. The remaining eighty per cent (80%) shall be shared according to proportion of contributions (labour or its surrogate<sup>4</sup>) of each registered member of the association.
- e. A register of attendance shall be kept by the association's executive committee for the purpose of recording contributions of members towards the woodlot establishment.

## **6. Benefit-sharing arrangements in respect of charcoal production from natural woodlands**

In respect of production of charcoal from natural woodlands, different benefit-sharing arrangements play out and must be recognised. Nonetheless, the following regulations are hereby agreed:

- i. Indigenous charcoal producers at Fakwasi will continue to enjoy their local arrangement of no fee for using wood from their own family lands.
- ii. Producers at Kumfia, who get free access to wood, shall continue to pay the required fee to the traditional authority (chief) for each truck load of charcoal transported.
- iii. In all communities, an indigene or migrant to whom a piece of woodland is leased at a specified fee shall not be required to pay any other fee to the landowner, apart from waybills required by the FC and DA.
- iv. Where individuals or associations acquire the land at no fee, an agreed percentage share of the number of bags of charcoal produced or its equivalent in monetary value shall be paid to the chief or land owner.
- v. The executive committee of the association shall be intermediaries between charcoal producers and land owners / chiefs to ensure compliance with agreed arrangements.
- vi. Land owners shall inform the charcoal association about nomadic/migrant charcoal producers who have been granted access to wood resources for purposes of monitoring adherence to local rules and regulations.
- vii. Sub-leasing of leased woodlands shall be subject to approval by the land owner or chief and the association informed about same.
- viii. Where sub-leasing occurs, the main lease holder shall have the liberty to determine the appropriate sharing arrangement with the sub-lessee.
- ix. Nonetheless, the conditions under which the charcoal producer acquires land determine the benefit sharing arrangement.
- x. If a producer acquires land for free from a land owner or chief, the landowner's share of the produce must not exceed twenty per cent (20%) of the total charcoal produced or its equivalent in money value.
- xi. Where land is paid for using funds of the association, benefits shall be shared equally among all members.

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<sup>4</sup> This could include payment of fines of equivalent value of man hours or provision of tools, and equipment in support of the woodlot establishment.



**7. Dealing with unauthorised producers**

- i. To facilitate compliance with rules and regulations the executive committee of the associations shall collaborate with the chief/landowner in dealing with offenders. This should be accorded legal backing through gazetted by-laws of the DA.
- ii. The association's members must be sensitised to avoid breaking these regulations and also to report all violations to the association at first instance for remedial actions to be taken at this level. However, persistent violations shall be reported to the appropriate authorities.

**8. Pricing of charcoal**

- i. The existing pricing system where individuals price their charcoal depending on market forces of demand and supply shall be made efficient through formation of cooperative and regulations by the association.
- ii. The association shall regulate and set uniform minimum price for all its members to avoid inequity in pricing.
- iii. A charcoal depot at the district market centre shall be established for keeping charcoal during bumper production season to stabilise prices.

**9. Other arrangements**

- i. The association and relevant stakeholders may review the regulations at least every two years to accommodate emerging issues.
- ii. The association shall develop financial support system for its members through members' contributions and also from agreed fines.
- iii. The associations could be used by revenue agencies to collect appropriate revenues on their behalf in the future.
- iv. Support from relevant sources should be sought to link the charcoal producers to markets.

## Appendix 2: Photos from the close out workshop



Photo 2: Project coordinator making a presentation of project output



Photo 3: A section of stakeholders present at the workshop



Photo 4: Chiefs and representatives of traditional councils seated with Programme Director



Photo 5: The DCE in smock addressing workshop participants



Photo 6: Programme Director of TBI Ghana on project background



Photo 7: Some other participants

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In Ghana, charcoal production and trade is an important small and medium forest enterprise, providing domestic energy for heating and cooking and forming a key livelihoods base for rural households. Despite this recognition, the sector is not well regulated, which threatens its sustainability.

This report describes a project designed to develop a model of local governance arrangements for sustainable charcoal production, through a multi-stakeholder process, and to initiate a process for national adoption of the model.



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## Project materials

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### Forests

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