Fighting over forest: interactive governance of conflicts over forest and tree resources in Ghana's high forest zone

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Social capital construction between a timber operator and local community in the Tano-Offin off-reserve forest: Interactive governance at micro level

Introduction

Over the past two decades, the concept of social capital has been evolving in various academic disciplines. In the early 1990s, it became one of the key assets of the sustainability livelihood framework (DFID 1999). The concept of social capital has also been employed in literature on natural resources and environmental governance (see Pretty & Ward 2001, Trimble & Berkes 2010). There are different definitions for social capital. However, the central tenet of the concept is the ‘interaction’ between or ‘relations’ among individuals or institutions which are bonded by trust, reciprocity, common rules, norms and networks among other features developed in an iterative process (Portes 1998, Pretty & Ward 2001, Woolcock & Narayan 2002). This general principle of social capital aligns with interactive governance theory through the concept of ‘interaction’ (between stakeholders in the system-to-be-governed, between governing actors and between the governing system and the system-to-be-governed (Kooiman et al. 2005, see Chapter 2). These interactions are analysed with a view to assessing governability (i.e. the overall capacity for governance, which is understood as being the interaction between public and private actors to find solutions for societal problems and create opportunities, see Chapter 2). If the ‘societal goal’ is the sustainable management of natural resources, this comes close to the focus in studies that relate social capital to environmental governance. For example, Pretty & Ward (2001) analysed social capital as social action for sustainable resource management (incl. watershed management, integrated pest management and forest management). Drawing from a study of artisanal fisheries in Uruguay, Trimble & Berkes (2010) propose a social capital framework as a basis for creating synergy between the concepts of interactive governance and social capital in fisheries management. They argue that social capital can foster our understanding of the socio-economic system (i.e. the system-to-be-governed), the governing system, and the
system of governing interactions and therewith help to assess governability. In this chapter, the social capital concept is used to analyse the interaction between actors in Ghana’s off-reserve areas.

Ghana’s off-reserve area is a mosaic of patches of forest, fallow and farmlands (Bih 2006). Over the years, it has been a major contributor to timber harvesting for domestic and export markets despite its sharp decline by the turn of the millennium. Between 2003 and 2006, has generated between 19% and 27% respectively of the annual timber revenues in Ghana (Affum-Baffoe 2009, Hansen & Treue 2009). Nonetheless, stakeholders in the sector are uncertain of its sustainability in view of the rapid deforestation and lapses in the current legislation, which has a disincentive effect on farmers’ who tend and nurture the naturally grown timber trees during farming (TBI 2009).

The inequitable sharing of timber resource benefits and restricted access to timber for commercial purposes for actors such as chainsaw operators have become sources of conflict and contestation. These are between the timber operators (both illegal and illegal) and the farmers, among legal and illegal timber operators and between the Forestry Commission and the timber operators (i.e. legal and illegal) (see Chapter 9, Amanor 2005, Asare 2006, Marfo 2006, TBI 2009, Ros-Tonen et al. 2010). Payment of crop damage compensation and social responsibility agreement (SRA) to farmers and local communities respectively are often the focus of these conflicts.

The initial objective of this chapter was to understand the nature of forest and tree livelihood conflicts and conflict management strategies in the Tano-Offin off-reserve. This would enable me to contribute to the off-reserve conflict debate on crop damage compensation and SRA. However, when the first meeting with the inhabitants of the study area – the Awisasu community – was held in June 2009, the initial objective had to be changed since there was an indication of cooperation between the inhabitants, farmers and the timber contractor operating in the off-reserve area. The research question was therefore redefined to read ‘What factors facilitated the cooperation between the local community and the timber operator in Tano-Offin off-reserve area?’ This central question was further split into four sub-questions:

1. What are the characteristics of the Tano-Offin off-reserve area as a system-to-be-governed in terms of the natural and socio-economic sub-systems and the interaction between the two?
2. What governing systems (i.e. challenges and opportunities, access to farming lands, customary and statutory arrangements) operate within the Tano-Offin off-reserve area?
3. What are the perceptions of the inhabitants and the timber operator on why crop damage compensation and SRA conflicts are minimal or absent?
4. What are the views of government officials with regard to crop damage compensation and recommended actions for improvement?

The chapter is based on document analysis, a community meeting with 45 inhabitants, a semi-structured questionnaire with seventeen farmers, and a telephone interview with the timber contractor. Prior to this, a focus group meeting was held with three off-reserve timber operators in the environs of the Tano-Offin forest reserve. The views of the off-reserve issues that emerged from this meeting are also presented in this chapter. Another community meeting was conducted in 2010 to validate the findings. Even though there were no conflicts between the timber operator and the farmers, decisions had to be made regarding the issue of how much compensation should be paid and who should mediate during compensation payment negotiation emerged. Informal interviews
were therefore organised with officials of the District Forest Services Division, the District Ministry of Food and Agriculture (MOFA) and the Land Valuation Division of the Land Commission of Ghana (see Chapter 3 for a more detailed description of the methodology).

As in the previous chapters, the data and the respondents’ views on the subject matters are analysed from an interactive governance perspective (Kooiman et al. 2005). Furthermore, elements of interactive governance theory (images, instruments and actions) are used for an in-depth understanding of the cooperation that resulted between the timber operator and the local people from their respective perspectives.

Table 10.1 Stakeholder groupings who participated in the TBI workshop in 2007

<table>
<thead>
<tr>
<th>Governing structure</th>
<th>Organisation</th>
</tr>
</thead>
</table>
| Statutory           | Ministry of Lands, Forestry and Mines  
Forestry Commission (Wildlife Division and Forest Services Division)  
Office of the Administrator of Stool Lands  
Local government (District Assemblies) |
| Civil society       | NGOs - TBI Ghana, Ricerca e Operazione, Forest Watch Ghana, Care International |
| Market              | Timber industry – Abor Nova  
Chainsaw operators  
Sawn lumber sellers |
| Customary           | Land owner |
| National supportive structure | Resource Management Support Centre  
Forestry Research Institute of Ghana, Kwame Nkrumah University of Science and Technology  
University of Ghana |
| International supportive structure | Danish Centre for Forest, Landscape and Planning  
Proforest Ltd  
FAO  
Tropenbos international  
ITC Netherlands |

The next section presents the natural sub-system (i.e. Tano-Offin off-reserve) and the socio-economic sub-system of the study community and their dependence on the off-reserve area. After that the governing system is presented. With respect to the statutory governing system, a timeline of legislations dealing with timber revenue benefits for local communities and farmers is presented. Also the customary governing system that regulates access to farming land is addressed. Next, the various stakeholders’ images (i.e. those of the local community, farmers, the timber operators and government officials) are presented, as well as their views of the instruments guiding off-reserve timber operations, benefit sharing and cooperation and the proposed actions. When doing so, first the key challenges and opportunities in the off-reserve areas are analysed based on a multi-stakeholder workshop organised by Tropenbos International Ghana in 2007, which involved actors from several constituencies (see Table 10.1). Then the results of a focus group meeting held with off-reserve timber operators in 2008 are presented. Next, the images, instruments and actions from a community perspective, based on a commu-

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1 The workshop was organised by Tropenbos International-Ghana in collaboration with the Danish Centre for Forest, Landscape and Planning and with financial support from CARE International-Ghana in 2007. The workshop outputs were published in 2009 and proceedings are available on URL: http://www.tropenbos.org/publications/strengthening+off-reserve+timber+management+in+ghana (accessed on 10 November 2011).
nity meeting, the results of the questionnaire survey and a validation meeting are presented. Finally, the outcomes of semi-structured interviews with government officials are presented, these focus on their roles in negotiating social responsibility agreements (SRAs) and crop damage compensation. The penultimate section discusses the governance interactions and the features of social capital (see Pretty & Ward 2001) that contribute to the absence of conflicts about timber benefit sharing between the contractor and the local community (including farmers). The chapter ends with a conclusion.

The system-to-be-governed

In line with the previous chapters, the system-to-be-governed is analysed in terms of both the natural and human sub-systems. The subsection on the natural system provides a brief description of the off-reserve in the environs of Tano-Offin forest reserve (see Chapters 4 and 9 for a more detailed description). The social characteristics of the inhabitants of Awisasu and the contribution of off-reserve forest resources and agricultural products to their livelihoods are analysed in the section on the socio-economic sub-system.

The natural system: The Tano-Offin off-reserve area

Generally, there was no delineation of forest estates in Ghana before the reservation in the early 1900s. The reservation processes brought about a physical demarcation of what is termed ‘forest reserves’ and any forest land that falls outside the forest reserves is termed ‘outside forest reserves’ or ‘off-reserve forest area’. The off-reserve forest area represents about 5,482 million hectares out of the 7.5 million hectares of the high forest zone (Affum-Baffoe 2009). Table 10.2 presents the distribution of off-reserve areas according to vegetation zones.

<table>
<thead>
<tr>
<th>Vegetation zone</th>
<th>Total area off-reserve (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet/moist evergreen (ME/WE)</td>
<td>1,618,738</td>
</tr>
<tr>
<td>Moist semi-deciduous South East (MSSE)</td>
<td>1,559,236</td>
</tr>
<tr>
<td>Moist Semi-deciduous North West (MSNW)</td>
<td>1,071,758</td>
</tr>
<tr>
<td>Dry semi-deciduous (DS)</td>
<td>1,232,446</td>
</tr>
</tbody>
</table>

Source: Affum Baffoe 2009.

The off-reserve timber resources encompass naturally regenerated trees on farms and agricultural fallow lands and patches of natural forest stands. The fallow lands are secondary growth on abandoned farms, with high potential for producing timber trees, whilst the farm areas are lands used for active farming under various cropping systems (TBI 2009, Bih 2006). According to Kyereh et al. (2006), a national botanical survey conducted in the area between 2001/2 by the Forestry Commission of Ghana recorded three rare species in some farmlands around Tano-Offin. The three species were two Black Star species (*Guibotia dinklagei* and *Aubregrinia tainsis*) (see note to Table 10.3 for Ghana’s star rating of timber species) and one Blue Star species (*Pterocarpus mildbraedii*), which are widespread internationally but rare in Ghana. Within the Tano-Offin forest reserve environs, the Akyikon range is one of the seven off-reserve ranges in the Nkawie Forest District where a timber utilisation contract (TUC) has been issued for a period of five years.
This reserve area is an important component of the natural resource base of the country, which contributes to the timber trade and provides agricultural livelihood sources for local people and sites for private plantations development (TBI 2009). For Stools and District Assemblies without on-reserve production forest or minerals, revenues from off-reserve timber constitute a significant funding source (*Ibid.*: viii). Nonetheless, the farmers in this area who nurture naturally generated timber trees on their farms do not have a monetary share in the royalties derived from the timber trees nurtured and only receive negotiated money from the contractor in the event that their food or cash crops are damaged during the timber operation (OASL/FC 2010, Act 547).

*Figure 10.1* Map of Awisasu community bordering Tano-Offin Forest Reserve

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The socio-economic system
This section deals with the socio-economic system, addressing respectively the socio-economic characteristics of the Awisasu community and their dependence on forest and tree resources.

– Socio-economic characteristics
Awisasu community is located about 40 km from the capital town Nyinahin of Atwima Mponua District in the Ashanti Region (see Figure 10.1). The community falls within Akyikon off-reserve range. The estimated population aged over eighteen years is 435 (AMD Electoral Office 2010). In terms of infrastructure, the community has a school from the kindergarten to primary level and three boreholes, of which only one actually serves as a source of drinking water for the population. The inhabitants complement this water source with streams from which they draw water for other uses. In addition to the aforementioned infrastructure, there is a pit latrine, which serves both males and females in the community. The community is without electricity.
As an agrarian community, the inhabitants are involved in the cultivation of food crops (e.g. plantation, cassava, vegetables, and rice), cash crops (e.g. cocoa) and livestock rearing for both domestic and commercial purposes. Just like Kyekyewere admitted village (Chapter 7), the Awisasu community pays allegiance to the stools to which it belongs, in this case Nyinahin and Nkawie Panin. The community therefore has two chiefs known called as ‘Odikro’ who represent each of the stool landowners (see also the section on the customary governing system). Like a typical community in the southern part of Ghana, Christianity dominates with other religions such as Islam and traditionalists.

- Contribution of forest resources to the local people’s livelihoods

During the community meeting, the inhabitants revealed that about fifty-six of the inhabitants were engaged in the modified taungya system in 2006 (see Chapter 8 for more information on the MTS). According to the inhabitants, in the past, they used to extract NTFPs from the forest reserve such as snails, mushrooms and game from the forest reserve, but currently do not use these resources anymore because they hardly ever access the reserve since they are no longer engaged in the MTS. People still extract NTFPs such as pestles, mushrooms and snails from the off-reserve area, especially from the fallow lands. These resources contribute to the households’ cash and non-cash income on a seasonal basis. With regard to tree planting in off-reserve area, only a few farmers have planted timber trees such as Cedrella odorata (cedrella) and Tectona grandis (teak) on their farmlands, albeit on very low scale. However they reported that they tended and nurtured different types of indigenous timber species when farming. According to the farmers, some of these trees (e.g. Ceiba pentandra) serve as shade for them to rest when tired during farming, while others (e.g. Terminalia ivorensis (emire) and Terminalia superba (ofram) serve as shade for some crops especially cocoa.

The governing system

Most of the issues (i.e. the social responsibility agreement (SRA), crop damage compensation and legislations) related to the off-reserves have been discussed in Chapters 5 and 9. This section first presents the trends and status of legislations regarding timber revenue benefits for local communities and farmers, and then looks at the management roles of various actors and their respective benefits derived from timber resources. Next, it examines the customary governing structure at local level to gain a better understanding of why social capital is strong in this case and as a further background to the complexities of separation between land and tree tenure arrangements.

The statutory governing structure

Farmers and local communities’ current rights to timber resources and revenue benefits can be traced back to the colonial and post-colonial era (Figure 10.2).

Prior to the introduction of scientific forestry in 1908, farmers had the right to sell timber trees on farmlands with permission from the local town chief based on specific byelaws (Amanor 2005). The introduction of scientific forestry brought about changes in tree tenure rights through which the rights of farmers and their local chiefs were assigned to the paramount chiefs governed by statutory and customary laws. In 1962, during the post-colonial area, the state became (and still is) the custodian of forest resources with timber revenue (royalties) benefits shared among a few stakeholders while exempting others (see Figure 10.3). Between 1994 and 2003, policy reforms and new
legislations resulted in improved recognition of the rights of local communities and farmers to a share in the benefits and revenues from timber resources. Local communities began to enjoy the SRA (see Chapters 5 and 9) and were also able to apply for a timber utilisation permit (TUP) to access timber resources for community development projects. Since then, farmers in off-reserve areas have also benefited from crop damage compensation by the timber contractor based on negotiation. Other benefits for local communities and farmers established in this period are shown in Figure 10.2. Since 2008, the 1994 Forest and Wildlife Policy and legislations have been under review with one of the issues to be addressed being related to the question of whether farmers will have a monetary share in the royalties from trees that they tend and nurture on the off-reserve farmlands.

**Figure 10.2** Timeline of changes in legislations recognition of farmers/local communities’ benefits in timber resources

<table>
<thead>
<tr>
<th>Colonial era</th>
<th>Postcolonial era</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-scientific forestry</strong></td>
<td><strong>Scientific forestry</strong></td>
</tr>
<tr>
<td>Before 1908</td>
<td>1908</td>
</tr>
<tr>
<td>Farmers had rights to sell timber trees on farmland with permission from local chiefs</td>
<td>Farmers and local chiefs’ rights were given to paramount chiefs</td>
</tr>
<tr>
<td></td>
<td>The State became custodian of forest resources with off-reserve timber revenue to few stakeholders and exempting farmers</td>
</tr>
<tr>
<td></td>
<td>- SRA to communities;</td>
</tr>
<tr>
<td></td>
<td>- Crop damage compensation to farmers;</td>
</tr>
<tr>
<td></td>
<td>- Local people consulted before logging on farmland;</td>
</tr>
<tr>
<td></td>
<td>- Ownership of planted trees on one’s own land</td>
</tr>
<tr>
<td></td>
<td>- TUP for community development projects</td>
</tr>
<tr>
<td></td>
<td>1994-2003</td>
</tr>
<tr>
<td></td>
<td>2008-2011</td>
</tr>
<tr>
<td></td>
<td>Will farmers have timber revenue benefits in off-reserve areas?</td>
</tr>
<tr>
<td></td>
<td>- Cap 111</td>
</tr>
<tr>
<td></td>
<td>- Cap 157</td>
</tr>
<tr>
<td></td>
<td>- Cap 136</td>
</tr>
<tr>
<td></td>
<td>- Act 1962 (124)</td>
</tr>
<tr>
<td></td>
<td>FWP of 1994</td>
</tr>
<tr>
<td></td>
<td>Act 547/617</td>
</tr>
<tr>
<td></td>
<td>LI 1649/L1 1721</td>
</tr>
<tr>
<td></td>
<td>Current policy &amp; legislations under review</td>
</tr>
</tbody>
</table>

Based on a review of literature on the subject matter (notably OASL/FC 2010) and the results of the questionnaire survey and interviews, the actors involved in off-reserve timber management, their roles and their shares in timber revenues were reconstructed as presented in Figure 10.3.
Stakeholders’ royalty benefits were calculated on the basis of the FC’s new disbursement arrangement: 50% of any shareable revenue from forest reserves and off-reserve areas is retained by the FC as a management fee, whilst 50% is disbursed to stakeholders. The disbursement is based on Section 267 (Sub-Section 6) of the 1992 Constitution of the Republic of Ghana, which stipulates that the net revenue accruing from stumpage/rent after providing for FC’s management fees and 10% for the OASL is to be distributed among the stakeholders as follows: 25% to the Stool, 55% to the District Assembly and 20% to the Traditional Council (OASL/FC 2010).
Legally, the FSD of the FC is mandated to manage the off-reserve forests resources. Through the FSD the FC allocates timber-felling rights to TUC holders for a period of five years in return for stumpage fees. Occasionally the FSD mediates in SRA and crop damage compensation negotiations when a contractor fails to come to an agreement with a local community or a farmer. Nonetheless, this mediation occurs when the aggrieved party (i.e. the contractor, community or farmer) reports the matter to the FSD. Unlike the situation in on-reserve areas, the FSD has no silvicultural management responsibilities such as site preparation, firebreaks establishment, enrichment planting, etc. Nonetheless the FC receives 50% of the revenues from the stumpage fees (royalties) paid by the contractor. The farmer, who can be a tenant or landowner, often tends and nurtures economic timber species while farming, either to provide shade for resting or to facilitate the growth of some crops such as cocoa. By law (Act 547) the farmer is entitled to negotiate his/her right to a monetary benefit from the contractor. The chainsaw operator has no formal role in terms of timber management, but illegally accesses the timber in return for a moderate compensation amount to the farmer on the condition that he will not be arrested. The active and passive roles of other actors in the management of off-reserve timber resources and the benefits they derive from the resources can be found in Figure 10.3.

Figure 10.3 does not include the Ministry of Food and Agriculture (MOFA), which has no direct responsibility in off-reserve forest and timber resource management. However its work interferes with off-reserve forest and timber resource management due to poor coordination between the two agencies. An interview with two MOFA extension officers in Nyinahin highlighted the poor working relationship between the MOFA and the FSD regarding off–reserve forest management and poor communication about management and policy directions. A clear example is advice on how to deal with trees on cocoa farms. MOFA prefers a combination with gliricidia (Gliricidia sepium) (also referred to as ‘mother of cocoa’), which is a multi-purpose leguminous tree used for shading. This is, however, not a tree which is of interest to the FC. Timber species that MOFA considers compatible with cocoa farming are Terminalia ivorensis (emire) and Terminalia superba (ofram), but they discourage trees such as Ceiba pentandra (onyina), Cola gigantea (watapuo) and Musanga smithi (odwuma) that are not suitable for cocoa farms. They advise cocoa farmers to cut these trees because they carry diseases, require a lot of water and prevent sunlight from reaching the cocoa trees. According to the FC perspective, however, it would be preferable to tend such trees. In the field, confusion often arises because MOFA extension officers and forest guards of the FSD use identical uniforms.

The customary and hybrid governing structure
The strong social ties and connections within the village can be partly explained by the prevailing customary and hybrid governing structures. There are two traditional councils made up of the local chiefs, the queen mothers and the elders (including sub-chiefs) representing the stools of Nyinahin and Nkawie Panin respectively who are in charge of the general welfare of the community. These chiefs and their sub-chiefs have the same functions as outlined in Chapters 7, 8 and 9. The reason that the community has two chiefs and traditional councils is because the committee land belongs to two different stools. In practice this means that each of these local chiefs are caretakers of these lands and are responsible for the allocation of lands, collection of land rents and settling disputes on land issues in their domain. When it comes to general community welfare (that
is, community development projects, communal labout, etc.) both chiefs and their elders collaborate to facilitate such duties in order to ensure harmony within the community.

Embedded in the customary structure are community social groups such as the ‘Peace and Love’ and ‘Odo ne kruye kuo’ (Love and Unity), which are responsible for supporting community members during marriage, sickness or a funeral of family members and relatives.

In addition, there are two hybrid governing structures. One of these is the water and sanitation committee (WATSAN) formed by a government institution at district level (the Community Water and Sanitation Agency) that oversees water and sanitation activities in the village. The other one is the Community Biodiversity Advisory Group (CBAG) created by the FC to involve community members in clearing the boundaries of the protected area of the reserve and in serving as a watchdog against illegal activities in the forest.

As indicated before, trees on farming land fall under the custody of the state (FC/FSD), but land falls under the custody of the stool (see Chapter 5). Within the community setting, there are two ways a farmer can access farming land. The farmer within the community who calls her/himself a ‘landowner’ accesses the farmland through the stool, which in this case is the family of Nyinahin and Nkawie Panin. This is either by outright purchase or leasing, with the latter being the most common option. In both cases, the farmer pays an annual land rent known locally as ‘ento’ to the traditional council of Nyinahin or Nkawie-Panin depending on the stool from which the land was acquired. This generally amounts to GH¢ 8 (US$ 5) per year for an acre of land.

The second category of farmer is the ‘tenant farmer’. This tenant farmer accesses land from a landowner through a leasehold or sharecropping system. Within the community, the leasehold of land in return for cash rent usually applies to land rented for a short period of three years, which is used for food crop cultivation. In the case of a sharecropping arrangement, a piece of land is given to the tenant in return for a share of the farm produce. In Ghana, the two most common sharecropping arrangements are ‘abunu’ and ‘abusa’. Abuna means ‘share in two parts, indicating that the crops are shared equally between the tenant farmer and landowner. Abusa means ‘share in three parts, which indicates that one party takes two-thirds of the crops whereas the other is entitled to the remaining one-third. Which party is entitled to the largest share depends on which party has invested more input. While food crops are generally cultivated under the ‘abunu’ system, cash crops are often cultivated under the ‘abusa’ system.

Based on Hill (1956, cited in Amanor & Dierutuah 2001)2 a further distinction in the ‘abusa’ system can be made between the ‘abusa labourer, the ‘abusa tenant’ or ‘care-taker’ and the ‘abusa land tenant’ (Box 10.1). All the modalities occur within the study community. The third variant enables a farmer to become a landowner, provided the stool or family landowners acknowledge this. In this new status, the former tenant farmer pays the yearly land rent (‘ento’) to the respective traditional councils (i.e. Nyinahin or Nkawie-Panin).

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2 Amanor & Dierutuah (2001) also provide an interesting analysis of the origin of the different sharing cropping systems in Ghana.
Box 10.1  *The different ‘abusa’ relations in Ghana farming system*

1. The ‘abusa labourer’ works on an established cocoa plantation where s/he weeds, plucks the cocoa, ferments and dries the beans and markets them, for which s/he receives one third of the proceeds in return. The landlord provides the tools, clothing, and a plot of land on which to cultivate food crops, in return for which s/he receives two thirds of the proceeds.

2. The ‘abusa tenant’ is generally a migrant without land rights, who has contacted the stool (the chief) for land to cultivate cocoa. After being allocated a piece of forestland, the *abusa* tenant establishes a cocoa farm with his own labour and capital, without the landlord’s assistance in the form of tools, food, seeds or other inputs. When the farm starts producing, the *abusa* tenant pays one third of the proceeds to the chief and is entitled to two thirds of the proceeds.

3. The ‘abusa land tenant’ is like the previous variant, with the difference being that the farmer is allowed to keep all the cocoa during the early years of fruit bearing and can keep one third of the cocoa plantation once the cocoa matures. The rest of the plantation then goes to the landowner. This system is sometimes used to cover a sale or grant of land.


**From images to action**

This section focuses on the images, instruments and actions regarding timber management in off-reserve areas from the perspectives of various stakeholders. The first subsection presents a multi-stakeholder perspective, based on the outcomes of a national multi-stakeholder workshop held by Tropenbos International Ghana in 2007. As these outcomes were presented as a collective outcome, irrespective of diverging perspectives between different stakeholder groups, the subsequent subsections present the images, instruments and actions from the perspectives of timber operators, community members and government officials respectively. The timber operators’ perspective is based on the outcomes of a focus group meeting, which was held with three off-reserve timber operators in 2008 and a telephone interview with the timber operator active in the study area. The community perspective is based mainly on a community meeting with 45 villagers. These three analyses show that, despite being generally depicted as a contested battlefield, Ghana’s off-reserve forest areas also include scenarios of cooperation instead of conflict. The last subsection examines more specifically the images, instruments, actions regarding benefit sharing and damage compensation from the perspective of governance officials.

*A multi-stakeholder perspective of challenges and opportunities regarding off-reserve timber resources*

Past studies in Ghana’s off-reserve areas have revealed two prevailing key issues in off-reserve tree harvesting: the SRA and crop damage compensation payments and the conflicts that these generate between timber operators (both legal and illegal) and local
A study by Lambini (2010) revealed that these conflicts, particularly those related to crop damage compensation, affect the social, natural and financial capitals of the farmers negatively.

The participants in the multi-stakeholder workshop identified several problems in the off-reserve area and formulated several recommendations for policy and research. These are presented in Box 10.2 as images, instruments and actions. Generally, the participants asserted that off-reserve timber resources are dwindling because of (i) inequitable benefit sharing between state agencies and timber operators on the one hand, and local communities and farmers on the other, (ii) inappropriate financial incentives for farmers who tend naturally generated timber trees resulting in the destruction and illegal harvesting of trees, and (iii) failure on the part of the FC to manage off-reserve forests and tree resources sustainably.

The perspective of timber operators
In November 2008, a focus group meeting was held with some timber operators working in the off-reserve areas of the Tano-Offin forest reserve. The discussion centred on problems they encounter in their operations, how they overcome them and how they should be addressed. Similarly to the outcomes of the multi-stakeholder workshop, the timber operators’ views are presented in Box 10.3 according to the three elements (i.e. images, instruments, actions) of first order governance (i.e. day-to-day management).

When interviewed, the timber contractor active in the study area narrated how he managed to establish a good relationship with the residents of the study community. He had previously worked in the Akikyon range in the early 2000s. During that period, he encountered some problems with farmers with regard to compensation payments. Having learned from this experience, he planned to establish a good relationship with the residents once he had obtained a TUC that granted him legal right to work again in the study area, in order to enable a smooth operation this time. To that end, he fulfilled his SRA and employed some young community members during his second term, including one active tree hunter. The task of this young man is not only to identify timber trees but also to lobby and negotiate with the farmers on a compensation rate. As the contractor he or any of his workers engages in the negotiation process only when difficulties arise. According to him, this has not occurred as yet, as social ties play an important role in the negotiations because the young man is a citizen of the village. He also narrated that the SRA has been effective because, in addition to providing the farmers with money for crop damage compensation, he also provides a token of money as an incentive and compensation for tending and nurturing the trees. When asked why he does not pay outright when the trees are felled, he reported that he originally intended to do so in order to commit the farmers to caring for the standing tree and not having to compete with chainsaw millers who only pay for a felled tree. He also said that conflicts between farmers and timber operators could be minimised if the operators deal directly with the community members rather than with the chief and elders only, and if they fulfil their legal obligations. In addition, he recommends the involvement of some young people from the local community who are willing to work during the timber operation. The lessons learned from this experience are summarised in Box 10.4.
Box 10.2  Images, instruments and actions: multi-stakeholder perspectives of off-reserve management in Ghana’s high forest zone

Images

Inequity in benefit sharing: The current benefit-sharing scheme favours state agencies and landowners but denies local people access to timber resources. Farmers who care for trees on farmlands do not receive any benefit when these trees are harvested. Neither do farmers receive adequate compensation from timber companies for crop damage resulting from logging activities on their farms. This has prompted farmers to neglect, and in some cases, deliberately kill off trees on farms. This is also a primary cause of illegal chainsaw operations, which directly and promptly reward the farmer, but have contributed greatly to the degradation of off-reserve forests.

Unclear definition of roles and responsibilities in the management of off-reserve timber: Currently, not all stakeholders identified for the sustainable management of off-reserve timber resources have clearly defined roles and responsibilities that correspond with their individual territorial and functional interests in the resource. This does not provide a good basis for negotiating an equitable distribution of timber revenues.

Absence of a platform to engage in a dialogue about off-reserve problems: There is no multi-stakeholder platform for continuous discussion and dialogue on long-term solutions to current and potential off-reserve timber management problems.

Deficient legislation: The current forest legislations Act 547 and 617 do not provide enough financial benefits to farmers who manage the resources.

Royalties’ disbursement problems: The disbursement of timber revenues by the FC or the Office of Administrator of stool land is often late and characterised by a lack of transparency.

Instruments (proposed)

- Equitable benefit sharing and additional incentives to boost farmers’ motivation to cater for trees on farmland.
- Improved allocation procedures of logging rights, resource pricing (timber rights fees, stumpage fees and other fees) and documentation of the distribution and the use of timber revenues by beneficiaries to increase accountability of the financial management of timber revenues.
- A platform for dialogue about off-reserve problems.

Actions

Policy review: The current socio-economic context within which off-reserve timber trees are grown potentially creates tree tenure and benefit sharing conflicts, discourages farmers from raising and nurturing the trees because they receive no reward for these efforts and poses a problem for sustainable management. This calls for a review of current forest policies, particularly with regard to tree tenure and benefit sharing and eventual devolution of management to the farmer.

- Review of institutional roles: The present complexities of off-reserve timber resource management, institutional and communication means reforms are necessary. This includes the need to establish a platform for information sharing, sensitization and creating a common understanding between landowners and land users in terms of land and tree tenure.

- Improvement in techniques for managing off-reserve trees: More research is needed on options to improve the management of naturally regenerated trees in off-reserve areas, with a view to enabling farmers to respond appropriately to changes in agricultural technology.

Source: TBI Ghana, 2009: ix-x.
Box 10.3  From images to action: The views of off-reserve timber operators

Images
The operators revealed that in their operations they constantly interact with actors such as the FSD, chiefs, farmers, local communities, chainsaw operators and the FSD/Military task force. In such interactions, they face problems regarding:
- SRA negotiation with local communities;
- Negotiation of compensation for destroying farm produce during the felling of trees;
- Tree theft by chainsaw operators;
- Low pricing of the logs by saw millers who buy the logs.

According to the timber operators, the first two problems arise because there is a lack of education on SRA and compensation negotiation on the part of the FC to the local communities. As regards the third problem, farmers instruct chainsaw operators to fell trees on lands given to contractors because this enables them to gain more directly from the trees on their farmland. The last problem that relates to the pricing of logs arises because saw millers who are supposed to buy the logs from the operators have large concession areas and hence control timber pricing. In the views of these respondents, these problems affect their operations because they reduce their profit margin, delay the operation and result in additional costs.

Instruments
In dealing with problems of SRA and crop damage compensation with local communities and farmers respectively, the participants indicated the use of negotiation as the first means of dealing with the problems. According to them, these are often successful but sometimes require mediation by the District Chief Executives (DCE) and the FSD as well as by an opinion leader in the community in which they operate.

As far as tree theft by the chainsaw operators is concerned, arrest with the support of the FSD/military task force or the police was indicated as the most appropriate instrument. However, this is only feasible if the person is actually met during the operation.

The low pricing of logs could best be dealt with by negotiating with prospective buyers to access the price before logging. However, since the logging process takes so long, the buyer could change the proposed price for that particular species and timber operators would then have no other option but to sell to the buyer.

Actions
- The operators mentioned the following strategies to minimise off-reserve problems that result in conflicts:
  - The DCE and FC representatives must educate the local communities on the SRA negotiations to explain the 5% of the annual royalties as their social right.
  - The MOFA must educate the farmers about the need to grow trees on the boundaries of their farmland rather than inter-mixing them with their farm products, since felling destroys food crops and the trees compete for nutrients in their farms.
  - The FC must go beyond granting timber permits and must also include educating the stakeholders, including the timber operators.
  - The Ministry of Lands and Natural Resources should make it a priority to open negotiations between sawmillers and timber contractors on the issue of wood pricing.

Source: Focus group meeting with timber operators, November 2008.
Local community and farmers’ perspectives for cooperation in off-reserve timber management

Images, instruments and actions from a community perspective were discussed during a community meeting attended by forty-five inhabitants. In addition, a survey questionnaire was employed and a focus group held with seventeen farmers on whose land trees had been harvested.

Box 10.4 Strategies used by the timber contractor and the local people to achieve a good relationship during tree felling in the off-reserve area

**Drawing lessons from past working experience:** The timber contractor had previously worked with the local community and during that time he had experienced some problems. He therefore drew lessons to enable him to establish a better relationship during another term of timber operation in the area.

**Networking:** At the onset of the operation, the contractor established a network not only with the chiefs and elders but also with the youths in the community by providing some with employment in relation to his operations. He also employed one of the youngsters as his spokesperson to communicate and engage in dialogue with farmers from his own village, therefore making use of existing social ties.

**Fulfilment of SRA and other benefits:** The contractor adhered to the legal benefits that local communities are entitled to in the form of SRA and paid promptly and made sure that the negotiation process was properly documented. He also assisted the community in a number of ways and this earned him trust and respect from the local people.

**Social ties:** The tree hunter used the existing social ties with his people (i.e. farmers) to facilitate conflict-free negotiations.

**Monetary incentive in addition to crop damage compensation payment:** Besides paying compensation for cash and food crop damage, the contractor gave a token amount of money to the farmers as an incentive for tending and nurturing timber species.

**Shared responsibility:** The contractor avoided outright payment of an agreed amount of money for harvested trees because he wanted the farmers to share the responsibility of protecting the logs from chainsaw millers.

**Reciprocity evolved:** The contractor enjoyed an atmosphere of peace in his timber harvesting operation, which was bereft of conflicts. On the other hand the local community enjoyed some investment in community development in addition to a cash incentive from the SRA. The farmers received a payment for crops destroyed in addition to cash for nurturing the timber trees, whereas some youths gained access to employment.
The inhabitants reported that the timber felling process begins with FSD range supervisors visiting the village to inform them about the allocation of off-reserve timber trees to a timber contractor for a certain period. The officials then briefly inform the inhabitants about the SRA and crop damage compensation arrangements. During pre-felling, the FSD official, accompanied by Unit Committee representatives and some farmers, visits farm and fallow lands to mark the trees that qualify for possible allocation under a TUC. The inhabitants confirmed that the current contractor employed a local ‘tree hunter’ – a person who searches and negotiates for trees – as well as several youths to work in the timber harvesting process.

According to the inhabitants, the timber operator supported the construction of the primary school in the village with cement and a cash contribution of GH¢ 700 (US$ 467) during his previous work in the area in 2001. For this current operation, he provided the community with ten bags of cement for renovation of the school building. He had yet to fulfil the SRA at the time of data collection in 2009. However, during the validation meeting in 2011, the inhabitants (n=36) revealed that the contractor had fulfilled the SRA obligation in the meantime. To this end, the two chiefs and the contractor had signed an agreement with two community members serving as witnesses and then sealed it in the presence of the Unit Committee chairperson. The elders were, however, reluctant to mention the amount of money the contractor paid. The inhabitants were unanimous in praising the contractor for fulfilling his SRA and reported that he had previously supported community development by repairing equipment used to spray their farms and for boreholes. As far as the villagers are concerned, the timber contractor is welcome to work in their village again when the current term of operation has ended.

On the question of why farmers usually destroy naturally grown timber trees on their farmland, they collectively responded that they do so because they do not benefit from timber like they benefit from cocoa. In their view, it is therefore a waste of time to nurture and protect the trees. They referred to a former contractor who operated in the area and did not completely fulfil his SRA obligations. This further undermined the incentives to care for the trees. The reasons are summarised in Box 10.5.

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**Box 10.5 Why farmers destroy naturally grown timber trees on farmlands**

- Timber contractors destroy the crops when harvesting the timber trees.
- They do not pay crop damage compensation as required.
- Sometimes farmers are not even informed that the trees on their farmlands or fallow lands have been made available to a timber contractor.
- If the farmer is absent, some timber operators log timber on farmlands without the farmer’s consent. These farmers only have an opportunity negotiate informally if they meet the contractor in person.
- Farmers receive no benefits from timber trees, except compensation for crop damage. Farmers consider this to be for ‘survival’ when compared to cocoa, which is for posterity.
- Cocoa is affected by the black pod disease because of being shaded by large timber trees.

*Source: Community meeting held in Awisasu, 2009.*
Table 10.3  Species available on farmers’ (n=17) fallow and farmlands

<table>
<thead>
<tr>
<th>Trade name/local name</th>
<th>Scientific name</th>
<th>Star rating*</th>
</tr>
</thead>
<tbody>
<tr>
<td>African mahogany</td>
<td>Khaya spp.</td>
<td>Scarlet</td>
</tr>
<tr>
<td>Akata</td>
<td>Rhodognaphalon buonopozense</td>
<td>Pink</td>
</tr>
<tr>
<td>Asanfina</td>
<td>Anigeria robusta</td>
<td>Pink</td>
</tr>
<tr>
<td>Bako</td>
<td>Tiejemellia heckelii</td>
<td>Scarlet</td>
</tr>
<tr>
<td>Danta</td>
<td>Nesogordonia papaverifera</td>
<td>Pink</td>
</tr>
<tr>
<td>Edinam</td>
<td>Entandrophragma angolense</td>
<td>Red</td>
</tr>
<tr>
<td>Emire</td>
<td>Terminalia ivorensis</td>
<td>Scarlet</td>
</tr>
<tr>
<td>Esia</td>
<td>Petersianthus macrocarpus</td>
<td>Green</td>
</tr>
<tr>
<td>Kyenkyen</td>
<td>Antiaris toxicaria / Antiaris Africana</td>
<td>Pink</td>
</tr>
<tr>
<td>Kyereye (koto)</td>
<td>Pterygopta macrocarpa</td>
<td>Red</td>
</tr>
<tr>
<td>Odum</td>
<td>Milicia excels</td>
<td>Scarlet</td>
</tr>
<tr>
<td>Ofram</td>
<td>Terminalia superba</td>
<td>Pink</td>
</tr>
<tr>
<td>Onyina</td>
<td>Ceiba pentandra</td>
<td>Pink</td>
</tr>
<tr>
<td>Otie</td>
<td>Pycnanthus angolensis</td>
<td>Pink</td>
</tr>
<tr>
<td>Penkwa (Sapele)</td>
<td>Entandrophragma cylindricum</td>
<td>Scarlet</td>
</tr>
<tr>
<td>Sapele</td>
<td>Entandrophragma cylindricum</td>
<td>Scarlet</td>
</tr>
<tr>
<td>Wawa</td>
<td>Triplochiton scleroxylon</td>
<td>Scarlet</td>
</tr>
</tbody>
</table>

* Green = no threat of extinction; pink = significantly exploited, but no threats yet to their economic future; red = current rates of exploitation present a significant danger of economic extinction; scarlet = under imminent threat of economic extinction. For an explanation of Ghana’s star rating of conservation priority for timber species see Chapters 5 and 7. Source: Field survey 2009.

Additional data on off-reserve tree harvesting was gathered through survey and focus group meetings attended by five women and twelve men who had trees on their farms or fallow lands. Only two of the males claimed to be tenants with the rest being landowners. The crops normally grown on their farms are cocoa, maize, oil palm and plantain, with cocoa being the lead cash crop. The respondents stated that they had cultivated various timber tree species on their farm and fallow lands (Table 10.3), to which the botanical names and their star rating (based on Hawthorne & Abu-Juam 1995, see also Chapter 4 and 7) were added. The individual combinations of timber trees and crops are presented in Table 10.4.

Of the seventeen farmers who mentioned that they have trees on their farm/fallow lands, thirteen indicated that the contractor had felled some of the trees between 2005 and 2009. The rest reported that their trees has been earmarked but had not been harvested yet. The most common species harvested was *Ceiba pentandra* (onyina) followed by *Antiaris toxicaria* (kyenkyen) and *Terminalia superba* (ofram). The farmers confirmed the timber operator’s account that they received compensation payment as compensation for crop damage and as a cash incentive for nurturing the trees. They received no compensation for crop damage on fallow land, as these are not considered to be actively cultivated, hence the timber operator feels there is no need to pay for crop damage. However, farmers do receive the incentive payment for nurturing trees on fallow land. The amount received by seven of the farmers during the time of data collection ranged from GHe 20 to GHe 160 (US$ 13 to US$ 107) (Table 10.5). The maximum compensation paid by the contractor as at the time of data collection included both compensation for damaged crops and a cash incentive for nurturing trees and involved the removal of 11 timber trees including *Antiaris toxicaria* (kyenkyen), *Terminalia superba* (ofram), *Ceiba pentandra* (onyina) and *Pycnanthus angolensis* (otie) (Table 10.5). Four of the respondents had received a partial payment of the negotiated amount, whereas two farmers reported that they had not received any money for the trees that were harvested.
Table 10.4  Crop and tree combinations on farm and fallow lands (n=17)

<table>
<thead>
<tr>
<th>Ownership of land</th>
<th>Types of crops grown</th>
<th>Types of timber trees nurtured in local names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenant</td>
<td>Landowner</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoa, maize</td>
<td>Wawa, onyina, African mahogany, ofram, asanfina</td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoa</td>
<td>Otie, African mahogany</td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoyam, cocoa</td>
<td>Ofram, emire</td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoa, plantain</td>
<td>Onyina, odum</td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoa, plantain</td>
<td>Ofram, onyina, wawa</td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoa, plantain,</td>
<td>Onyina, ofram, kyenkyen*, otie</td>
</tr>
<tr>
<td></td>
<td>vegetables</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoa, plantain</td>
<td>Onyina, otie, ofram, akata, esia</td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoa, cassava,</td>
<td>Onyina, edinam, wawa, kyenkyen, emire, danta</td>
</tr>
<tr>
<td></td>
<td>vegetables</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoa, oil palm,</td>
<td>Kyenkyen, ofram, onyina</td>
</tr>
<tr>
<td></td>
<td>Cocoyam</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoa, plantain,</td>
<td>Wawa, odum, bako, edinam</td>
</tr>
<tr>
<td></td>
<td>orange</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoa, oil palm,</td>
<td>Sapele, African mahogany, onyina, odum, wawa</td>
</tr>
<tr>
<td></td>
<td>orange, mango</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoa, plantain</td>
<td>Onyina, kyenkyen, ofram, wawa</td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoa, plantain</td>
<td>Onyina, ofram</td>
</tr>
<tr>
<td></td>
<td>Cocoa, plantain</td>
<td>Ceiba, ofram</td>
</tr>
<tr>
<td></td>
<td>cocoyam</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoa, plantain,</td>
<td>Odum, bako, ceiba, kyenkyen</td>
</tr>
<tr>
<td></td>
<td>yam</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoa</td>
<td>Ceiba, koto, kyenkyen</td>
</tr>
<tr>
<td>Yes</td>
<td>Cocoa</td>
<td>Wawa, ceiba, koto, kyenkyen</td>
</tr>
</tbody>
</table>

* Kyenkyen (*Antiaris africana*) is also known as chenchen and ako.

Table 10.5  Compensation paid for harvesting trees from farm and fallow land

<table>
<thead>
<tr>
<th>Area where trees were harvested</th>
<th>Year of harvest</th>
<th>Number of trees harvested</th>
<th>Kind of tree harvested (vernacular names)</th>
<th>Compensation paid (GHC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmland</td>
<td>2009</td>
<td>12</td>
<td>Wawa, onyina, edinam, ofram, kyenkyen, asanfina</td>
<td>GHC 20 for cocoa destroyed</td>
</tr>
<tr>
<td>Fallow land</td>
<td>2008</td>
<td>6</td>
<td>Kyenkyen, ofram, koto, onyina</td>
<td>No payment because trees were fell on fallow land</td>
</tr>
<tr>
<td>Farmland</td>
<td>2009</td>
<td>3</td>
<td>Onyina</td>
<td>GHC 50</td>
</tr>
<tr>
<td>Farmland</td>
<td>2009</td>
<td>8</td>
<td>Onyina</td>
<td>Not paid yet since logs have not been transported</td>
</tr>
<tr>
<td>Farmland</td>
<td>2007</td>
<td>13</td>
<td>Ofram, wawa, onyina</td>
<td>GHC 60</td>
</tr>
<tr>
<td>Farmland</td>
<td>2009</td>
<td>11</td>
<td>Kyenkyen, ofram, otie, onyina</td>
<td>GHC 160 including cocoa compensation</td>
</tr>
<tr>
<td>Fallow land</td>
<td>2009</td>
<td>8</td>
<td>Onyina, akata, otie</td>
<td>GHC 60</td>
</tr>
<tr>
<td>Farmland</td>
<td>2009</td>
<td>3</td>
<td>Kyenkyen, onyina, ofram</td>
<td>Not yet paid</td>
</tr>
<tr>
<td>Farmland</td>
<td>2009</td>
<td>2</td>
<td>Onyina</td>
<td>Partial payment made</td>
</tr>
<tr>
<td>Farmland</td>
<td>2009</td>
<td>15</td>
<td>Onyina, ofram</td>
<td>GHC 30 partial payment</td>
</tr>
<tr>
<td>Farmland</td>
<td>2009</td>
<td>12</td>
<td>Odum, bako, onyina, kyenkyen</td>
<td>GHC 40</td>
</tr>
<tr>
<td>Farmland</td>
<td>2009</td>
<td>4</td>
<td>Onyina, koto, kyenkyen</td>
<td>GHC 20</td>
</tr>
<tr>
<td>Farmland</td>
<td>2009</td>
<td>17</td>
<td>Wawa, onyina koto, kyenkyen</td>
<td>No payment</td>
</tr>
</tbody>
</table>
Instruments
According to the farmers, negotiation begins between the tree hunter and the farmer. First they negotiate on the trees that the farmer will allow the contractor to fell and the timing. When the crops are almost ready to be harvested, the farmer proposes postponing tree felling until after the crops have been harvested. If negotiations are successful, there will be no need for the contractor to intervene. The tree hunter then pays the agreed amount to the farmer. The amount of incentive payment for nurturing trees depends on the species to be harvested, with a higher amount generally being paid for tree species with a high market value such as those with a scarlet star rating. However, the amount to be paid is determined at the discretion of the timber contractor (through the tree hunter).

The procedure for establishing crop damage is more subjective, but generally the amount paid for cocoa is higher than that for food crops. Since the farmers receive a lump sum for crop damage compensation and tree nurturing, it was difficult to ascertain what prices are paid for individual timber species or crops. During assessments of crop damage between them and the tree hunter there are no government officials (e.g. MOFA or FSD) to help them assess the actual cost of the damage. They therefore receive a payment at the discretion of the tree hunter and the contractor. However, the farmers reported that the negotiation process with the tree hunter and, occasionally, the contractor, does not generate any conflicts and that they are satisfied with the current arrangements. However, they do not know what would happen with another contractor. The only problem they experience is the mode of payment. Farmers would prefer the contractor to pay the agreed amount outright instead of receiving a partial payment at the onset of harvesting and the rest when the logs are loaded onto the truck. As it takes some time before the logs are actually loaded, the small amount of money agreed upon will have lost value by the time it is actually paid.

During the validation meeting with some of the inhabitants of Awisasu, a discussion was held to decide what, in the inhabitants’ view, would constitute a ‘fairly negotiated’ compensation as stipulated by law. The inhabitants felt it would be fair for them to receive a 30% share of the royalties from the forest reserve (instead of 5%) as they live closest to the forest and help to maintain it. Regarding the benefits from naturally generated trees on farm and fallow lands they advocated 10% of the stumpage fee for the farmer in addition to the crop damage compensation which they felt should be GH¢ 10 for a cassava plant and GH¢ 20 for a cocoa tree. Some of the participants felt the benefit should go to the farmer (i.e. local landowner) who received the land directly from the chief of Nyinahin or Nkawie-Panin and not to the tenant farmer, as the ‘landowners’ are the ones who have to pay the annual rent to the actual landowner in Nyinahin or Nkawie-panin. According to the inhabitants, the latter already receive a benefit in the form of their share in the royalties, so would not need to receive an additional stumpage fee.

Actions
The final question discussed at the validation meeting centred on how to minimise problems and conflicts arising from off-reserve tree harvesting. The responses were as follows:

- Efforts should be made to create a common understanding between communities, farmers and timber contractors about the payment of compensation and SRA.
- Timber contractors should pay promptly for destroyed crops.
Timber contractors should invest in a good relationship with communities and farmers and inform them properly when an area is allocated to them.

Arrangements should be made for compensation payments for trees felled on fallow land.

**Government officials’ perspectives of their role in the compensation negotiation process**

This section presents the views of government officials on compensation payment procedures and how they could be improved.

– **Images**

An informal interview with an FSD district officer revealed that the FC mediates in SRA negotiations, but in compensation payment negotiations only when the contractor and farmer do not reach an agreement and one of the parties sends a petition letter. He admitted it would be better to mediate before any conflict arises. However, due to a limited number of staff and an already heavy workload for range supervisors adding the responsibility for mediation is not feasible. He thought that one possible solution would be the appointment of a customer services officer who could play a mediating role between the FC and stakeholders as well as among different stakeholders. The FC promoted the concept of a customer service officer in the early 2000s, but it has not been institutionalised thus far in all the forest districts.

– **Instruments**

Interviews held with two MOFA extension officers in Nyinahin centred on how they calculate compensation payments for farmers when invited to mediate. In the event of destruction by timber contractors, they take the following steps to determine:

- The economic lifespan of the crop destroyed (i.e. 30 years for a cocoa tree).
- The age of the crops and existing properties on the field.
- The number of plants or trees affected or the area destroyed.
- The average crop yield per plant/tree or per acre).
- The current market prices (excluding interest rates, inflation or bank charges).

Generally, the crop damage compensation for cocoa is calculated as follows:

\[
\text{Crop damage compensation payment} = \text{Number of individual trees destroyed} \times \text{Average crop yield} \times \text{Current market price} \times \frac{1}{\text{Relative lifespan of the crop}}
\]

The Land Valuation Division\(^3\) (LVD) of the Ministry of Lands and Natural Resources is also occasionally involved in crop damage compensation assessments. An interview with an LVD official in the Ashanti region revealed that the LVD has documented rates for crops and property for compensation purposes, but that these are not regularly reviewed as should be. When services are requested in compensation mediation, they use the Investment Method of Valuation (Box 10.6), through which they assess the following:

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\(^3\) The Land Valuation Division was established as part of the Land Administration Project in 1999 that was set up to implement the National Land Policy to establish an efficient land administration system with a view to solving land disputes, improving tenure security and resolving ambiguities as regards the demarcation of customary lands ([http://www.ghanalap.gov.gh/](http://www.ghanalap.gov.gh/)) (accessed on 10 November 2011).
• Inputs used in the acquisition of the property;
• The prevailing price of the property;
• The interest rate;
• The lifespan of the property;
• Maturity at destruction;
• Characteristics of the crops, e.g. exotic or local species.

The LVD also occasionally advises on compensation assessments in the law court.

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**Box 10.6 The investment method of valuation**

The investment method of valuation is used to convert a commercial property’s income flow (rent) into an appropriate capital sum (value), thereby relating the capital value of a property to its income-producing power. The formula to valuate a property is:

\[ \text{Value} = \text{Market Rent (MR)} \times \text{Years' Purchase (YP)} \]

The Years' Purchase (YP) perpetuity is a multiplier that corresponds with the investors’ target rate of return. It allows converting a property’s rent into value.


---

- **Actions**
The officials interviewed made the following recommendations to minimise the confrontations between farmers and timber contractors:
  - Appointment of a customer services officer at the FC who could play a mediating role between the parties.
  - The timber contractors must meet with the community and village authorities and show them where their logging activities are going to take place.
  - Those who are going to be affected should be identified.
  - Logging plans should be shown to and discussed with affected farmers.
  - Procedures for negotiating compensation should be discussed with farmers for peace to prevail.

**Discussion**

This section discusses the results regarding off-reserve timber resource management, access and benefits from two perspectives. The first subsection examines them from an interactive governance perspective, i.e. in terms of governance interactions between the system-to-be-governed and the governing system. The second subsection assesses the results from the perspective of social capital and how different strategies employed by the contractor and the local people help to establish cooperation instead of conflict.

*Governance interactions between the system-to-be-governed and the governing system*
The system-to-be-governed that was analysed in this chapter are Ghana’s off-reserve areas, which are endowed with timber resources in patches of forest, fallow and farmlands. These areas are an important source of timber revenues for the country and some
of its stakeholders as they still hold some rare timber species (Kyereh et al. 2006, Af-fum-Baffoe 2009, Hansen & Treue 2009, TBI 2009). It is also the major source of agri-cultural livelihood for local people who cultivate cash and food crops for income and domestic use. This landscape therefore presents two competing land uses, which if not well managed, result in conflicts associated with loss of livelihoods and environmental degradation (Ohlsson 2000). The results revealed that, even though the local inhabitants of Awisasu live close to the Tano-Offin forest reserve, they collect NTFPs for domestic and commercial use mainly from fallow land in the off-reserve area due to restricted access to the reserve. In addition, the off-reserve area provides them with their major sources of income from cash crops (especially cocoa) and food crops.

The off-reserve landscape presents a complex governing system because of the multiple governing structures involved and the different governing rules for land and timber trees. Land for the cultivation of crops is accessed mostly through the stool or family, via a chain of hierarchy. A person who acquires land directly from the stool could also engage in different crop-sharing arrangements with other farmers. Through one of these arrangements, the ‘abusa’ land tenant farmer can also become a local landowner (Hill 1956 cited in Amanor & Diderutuah, 2001). On the positive side, this mode of land transfer enables a tenant to become a local landowner. However, the system also contributes to land fragmentation.

Prior to the introduction of scientific forestry in the early 20th century, the right to access and explore timber resources in off-reserve areas was in the hands of the farmer and the local town chief (Amanor 2005). Scientific forestry changed this pattern by vesting the custody of land in the paramount chiefs (see Chapter 5), which excluded local people and farmers from timber resource benefits. A general call for collaboration resulted in a policy that granted rights to benefits to local people and farmers. These benefits range from SRAs for local communities, to crop damage compensation to farmers in off-reserve areas, ownership of planted trees and consultation of local people before logging proceeds in off-reserve areas (see Figure 10.2). The implementation of these policy directions in practice is still a challenge, despite there not being any adequate policy response to the inequitable sharing of timber revenues. These problems, coupled with accelerating deforestation and lapses in current legislation that create disincentives to farmers who tend and nurture naturally grown trees on farmland, make stakeholders question the sustainability of off-reserve timber resource management (TBI 2009). Figure 10.3 depicts a situation in which current legislation still ignores the farmer in off-reserve areas who is actually the only actor to contribute to off-reserve timber tree management. As proposed by the participants in the multi-stakeholder workshop organised by Tropenbos International in 2007 and the timber contractors who engaged in the focus group meeting organised for this study in 2008, there is a need to review policy and institutions and promote community education to help ensure the sustainability of timber tree management in the off-reserve landscape. The core issue is that local communities in off-reserve areas, and farmers for that matter, must have an equitable share of the timber revenues generated. However, the complexity surrounding land ownership as analysed in this chapter, means that a clarification is required of what really constitutes a ‘farmer’ or ‘landowner’ within the context of Ghana and who of them should be entitled to benefit from the royalties.

In addition, it is important that government agencies assume a more active role in the negotiation of crop damage compensation payments, rather than waiting passively until they are called when negotiation fails. For negotiation to be effective, the parties in-
volved must have equal negotiation skills. However, those of the timber operator are larger thanks to his interaction with other actors in the market governing structure. As Asare (2006) has noted, the farmers’ expectations are often not realistic, and legislation lacks specific regulations on how to determine compensation and ensure that farmers are ‘fairly compensated’. What constitutes ‘fairly compensated’ is still unknown, and this increases the likelihood of misunderstandings in the negotiations between farmers and timber contractor, with conflicts often being the result. As argued in Chapter 9, the study carried out by Richards & Asare (1999)\(^4\) in the late 1990s needs to be re-visited and given due policy consideration for farmers to enjoy the timber benefits to which they are entitled. Similarly, community inhabitants are insufficiently aware of what constitutes the SRA equivalent to 5% of stumpage fees to which the community is entitled as compensation for logging in their area. As a result, the benefits are set at the discretion of the timber contractor, and this makes local people suspicious. As shown in this chapter, there are still some governability challenges that require policy attention. However, the discussion in the next section shows that a timber contractor’s ability to construct social capital can change conflict situations into cooperation. This underpins Portes’ (1998: 3) statement that ‘social networks are not a natural given and must be constructed through investment strategies oriented around the institutionalisation of group relations, and usable as a reliable source of other benefits’.

The role of social capital and its implications for interactive governance theory
Within the Awisasu community, the diversity of governing structures (i.e. the statutory, customary and hybrid governing structures) creates an environment conducive to strong social ties and networks. The customary governing structure system portrays three of the five elements\(^5\) of ‘connectedness’ identified by Pretty & Ward (2001), namely local connections – strong connections between individuals and within local groups and communities – and horizontal local-local connections between groups within communities. Examples of the first are social groups such as ‘Peace and Love’ and ‘Odo ne kruye kue’ (Love and Unity) which are based in the customary governing structure, where members help each other when the need arises. Local-local connections emerge when different community groups become interconnected. An example is the different religious groups (i.e. Christianity, Islam and traditionalist). The hybrid governing structure generates local-external connections – vertical connections between local groups and external agencies or organisations, being one-way (usually top-down) or two-way (Ibid.: 212). Examples of the latter are WATSAN and the CBAGS, which constitute collaborations between the community and the Community Water and Sanitation Agency and the FC respectively. The different dimensions of social networks at the community level is what Boissevain (1974: 31 cited in Portes 1998) labels as ‘multiplexity’, referring to

\(^4\) Richards & Asare (1999) present a detailed analysis of incentives for Ghanaian cocoa farmers to maintain timber trees and a calculation of the compensation that cocoa farmers in Ghana deserve for their efforts. The compensation proposed takes account of physical damage to cocoa and/or other crops by timber contractors and a compensation for cocoa yield loss due to loss of tree micro-environmental benefits such as nutrient recycling, soil and air temperature, loss of NTFPs etc. In addition to these two forms of compensation there is what Richards & Asare termed the ‘additional positive incentive payment’ to compensate the farmer for his skills in tree identification.

\(^5\) The other elements of connectedness identified by Pretty & Ward (2001) which are not dealt with here are i) external-external connections -horizontal connections between external agencies that could lead to collaborative partnerships; and iii) External connections-strong connections between individuals within external agencies.
overlapping social networks where the same people are linked together across different roles.

In trying to understand the concept of social capital, Portes (1998: 6) distinguishes between (a) the possessors of social capital (those making claims); (b) the sources of social capital (those agreeing to these demands) and (c) the resources themselves. In this study, this corresponds respectively with (a) the local inhabitants of Awisasu who claim SRA, and the farmers whose trees are felled who claim compensation from the timber contractor; (b) the timber contractor who established a network with the community through the appointment of a ‘tree hunter’ who negotiates compensation payments with his own kin; and (c) benefits from timber resources. This scenario represents an interpretation of social capital as a source of benefits through extra-familial networks6 (Portes 1998): the timber contractor establishes relations with the local people not only for their benefit but also to his own advantage because it creates a conflict-free environment for him to conduct his timber harvesting operations in a smooth manner.

The timber contractor’s previous experience with the inhabitants of Awisasu and the challenges he had faced enabled him to act in a more strategic manner during his second term. One key strategy was to establish a network with the chief and elders of the community as well as with the youths. In the latter case he selected one to function as a negotiator. Apparently, the timber contractor has taken a cue from the aphorism ‘It is not what you know, it’s who you know’ (Woolcock & Narayam 2000: 225), which enabled him to establish a better relationship with the local people. By employing a local tree hunter who was made responsible for damage compensation negotiation and incentive payment for nurturing timber trees, the contractor took advantage of existing social ties – local connections in the terminology of Pretty & Ward (2001) – between the tree hunter and his people, thereby facilitating the negotiation process. These social ties become evident in the expression, ‘He is a child of ours’. In a small village like Awisasu, the tree hunter could simultaneously be the son, the nephew or grandson or neighbour of the inhabitants and this intensity of ties helps create trust. Furthermore, the timber contractor fulfilled the SRA obligations and additionally supported the local people in other agricultural and infrastructure needs. These strategies created respect and trust on the part of the local people to the extent that they expressed their willingness to work with the timber contractor again, when his term of operation ends and he reapplies. According to Pretty & Ward (2001) the relations of trust facilitates cooperation, reduces transaction costs between people and frees up resources.

According to Kramer et al. (1993), negotiation – either formal or informal – plays an important role in regulating social and organisational life. In this case study, the tree hunter negotiated with the farmers before felling the trees, as a mechanism to develop consensus and compromise on the payment of crop damage and to avoid social and natural resource conflicts. This resulted in conflict-free outcomes for both the operator and the farmers, despite the fact that some farmers were aggrieved that the contractor did not pay for trees logged from fallow lands and that they would have preferred outright payment for the trees felled. This gap in communication could have been avoided if the farmers had been informed of the ‘rules’ of the game at the onset of the negotiations.

The fact that social capital is not a panacea for all social groupings is well illustrated in literature (see Portes 1998, Woolcock & Narayan, 2000; Pretty & Ward 2001). Nev-

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6 Other functions of social capital distinguished by Portes (1998) are the source of social control and the source of family support.
Nevertheless, this particular case has shown that the strategic use of social capital can promote cooperation instead of conflict in the management of off-reserve timber resources. Other timber operators can learn from this case to build a collaborative relationship with local communities. Echoing Portes (1998: 3), ‘such features are not natural but must be constructed through investment strategies oriented to the institutionalisation of group relations, usable as a reliable source of other benefits’.

By analysing the interactions between stakeholders in the system-to-be-governed in terms of social capital, this chapter has confirmed the argument by Trimble & Berkes (2010) that synergy can exist between interactive governance theory and the social capital framework. As proposed by Trimble and Berkes (Ibid.) this can be taken a step further: the social capital framework can also be used to analyse the interactions within the governing system (i.e. the government social capital) and the interactions between those who govern and those who are governed (i.e. the system of governing interactions).

Conclusion

Ghana’s off-reserve forest landscape generates timber revenues for the country and individual stakeholders and is a major source of agricultural livelihood for local people. Inequitable sharing of timber resources and benefits in this landscape has turned the area into a contested battlefield. In literature and interviews, the conflicts are attributed to the prevailing legislation, which excludes farmers and local people who manage the timber resources from timber benefits. However, the case study of the Awisasu community presents a scenario of cooperation that contrasts the frequently cited conflict status of off-reserve areas. This cooperation could be achieved on the basis of the construction of social capital elements such as networking, shared responsibility, and the creation of social ties and trust by the timber contractor, which was reciprocated by the local people. Even though this case is not representative of Ghana’s off reserves as a whole, it shows that there is a need for other contractors to facilitate social capital in their operational areas in order to foster cooperation and minimise conflicts. In substantive terms, the case showed that the concept of social capital aligns well with interactive governance theory.