FOREST FRINGE COMMUNITIES’ PERSPECTIVE ON THE SOCIO-ECONOMIC AND LAND USE IMPACTS OF GRANTING TIMBER RIGHTS: CASE STUDY OF GHANA

Eric Lartey1

Abstract
The adoption of Timber Utilization Contract (TUC) policy may be associated with a range of social, economic and land use impacts in the areas of rural infrastructure, sustainable land use, tourism, income generation and employment. This research examines, from the community perspective, how the award of timber rights affect the socio-economic wellbeing and land use of forest fringe communities since policy inception, and thereupon provides recommendations to serve as a basis for policy review. Eight forest fringe communities and six forestry related institutions in two forest districts in the High Forest Zone of the Western region of Ghana were investigated using the perception survey method. A sample of 50 respondents were taken from each forest district out of which 10 constituted heads of institutions and 40 were community members. The study compared the situation that pertained at the time when timber rights were concession lease based (1970-1998) to the situation at the time of adopting the TUC policy. This policy recorded improvement in provision of social services by the timber firms. For example communal employment improved with timber firms being more environmentally responsible especially with regard to protecting freshwater ecosystems and reducing the impact of logging. However, forest fringe communities have been marginalized as regards participation in the negotiation of Social Responsibility Agreements (SRAs). Most timber firms in the region have not performed responsibly in the area of reforesting logged out areas. The Ministry of Lands and Natural Resources and the Forestry Commission urgently need to master adequate political will to effectively enforce the provisions of the Timber Resource Management Regulation.

Keywords: communities, forest, impacts, land use, socio-economic, timber rights.

Background
According to FAO (1997), forest management has been practised in Ghana since the last decade of the twentieth century, but it was not until 1927 that the legal power to enforce conservation was secured. Since then, a consistent

1 Forestry Commission, P. O. Box MB 434, Accra, Ghana,+233 24 4707201, larteyeric@yahoo.co.uk
policy of selection, demarcation and reservation has been vigorously pursued. The first forest policy was established in 1948. It was revised in line with Ghana’s 1992 constitution and approved in 1994 as the Forest and Wildlife Policy (FWP-1994). The policy contains five specific objectives related to: the management of the Permanent Forest Estate for the conservation of soil, water and biodiversity; the development of viable and efficient forest-based industries; public awareness and the involvement of rural people in forestry and wildlife conservation; research-based and technology-led forestry and wildlife management; and the development of capacity in Sustainable Forest Management (SFM) (ITTO 2005). The focus was on maintaining the protective purposes of the reserves. The concept of productive potential and value on the basis of a sustained timber yield was also introduced (Kotey et al. 1998) but there was no firm commitment from the state to provide the resources required for implementation of these objectives (Okrah 1999).

Forest management was reformed in the early 1990s with the aim of making the forestry sector more sustainable. As has already been mentioned, a new Forest and Wildlife Policy was introduced in 1994 (FWP-1994) which integrated the need for participation by forest fringe communities in the management of forest resources. The emphasis on collaborative and sustainable forest management aims at conservation and sustainable development of the nation's forest and wildlife resources for maintenance of environmental quality and perpetual flow of optimum benefits to all segments of society (Ministry of Lands and Forestry, 1994). The policy of SFM was not applied to the open forests (OFRs) until the advent of the 1998 Timber Resources Management Act (TRMA) which seeks to extend SFM to both the reserved forests and the OFR areas (Odum 2005).

The Timber Resource Management Regulations (LI 1649), passed in 1998, provided for the replacement of concessions with Timber Utilization Contracts (TUCs). A major policy reform in the forestry sector is the introduction of a competitive system allocation of the timber resources on the basis of public bidding for rights to harvest timber in each area on the basis of an annual Timber Rights Fee. TUCs for Forest Reserves have a term of 40 years, while TUCs for other lands it is for 5 years. Annex IV of the TUC requires stronger environmental and social commitments and the improvement of landholder and farmer rights over trees (Kotey et al. 1998). Once a TUC has been awarded, the beneficiary investor assumes an obligation to spend not more than 5% of the annual royalties accruing from its operations to support the development of local communities (Ayine 2008). In fact, contrarily, the timber firms are expected to contribute not less than 5% of the total annual stumpage fees paid to the Forestry Commission. A major weakness in Ayine’s (2008) research is that no visits were made to these communities to verify the existence of the agreed projects. A common
opinion is that any profits returned to the communities, through ad hoc agreements with the timber firms had gone to the stool chief or elders rather than to ordinary residents (Mayers & Vermeulen 2002). According to Amanor (1999), reforms in the forestry sector involved the creation of Social Responsibility Agreements (SRA) between communities and timber contractors. SRA is an arrangement made between the winner of a timber concession bid (the contractor) and representatives of land-owning communities in which the contractor agrees to assist affected communities with the provision of social amenities (Tropenbos International-Ghana 2005). The SRA has two main components for on-reserve areas: the code of conduct and the services to be provided (MLF 1998). The contractor acknowledges and agrees to provide the relevant services as a condition of, and in consideration for, the grant of the concession by the Minister of Lands and Natural Resources. The contractor is supposed to employ locally available inputs or supplies in the provision of services (MLF 1998).

Edwards (2005) describes the assessment of socio-economic impacts as an exercise that examines how a proposed development project will change the lives of current and future residents of a community. This paper discusses how the grant of timber rights impact on the participation of the forest fringe communities in the management of forest resources. Although a number of surveys have been conducted to assess the level of community involvement in forest management, this research goes a step further to evaluate social, economic and land use impacts which have resulted from the implementation of the new system of allocating timber rights. The findings of this research will inform the Ministry of Lands and Natural Resources and the Forestry Commission to revise the timber allocation system in order to ensure the sustainability. It also provides baseline information for NGOs and other advocacy groups concerned about the forest sector.

As reported by Odum (2005), rural community groups, District Assemblies, town committees and NGOs can benefit from the issue of non-commercial Timber Utilization Permits (TUPs) for social or community purposes in areas not subject to TUCs. However, there is general ignorance amongst forest fringe communities about this benefit. Timber companies on the other hand are misusing this instrument. In order for fringe communities to benefit from timber operations, a Social Responsibility Agreement was introduced in the TUCs.

The issue of sustainable forest management and environmental conservation has assumed a more international dimension with Forest Stewardship Council spear-heading the crusade of forest certification. Timber producing companies have to demonstrate their compliance with international standards and responsible forestry, and that their forest operations are sustainable in the long term. To this end, the FSC
consultatively came out with a set of 10 principles and 56 criteria. These forest management principles and criteria incorporate elements that fall under three general categories: Environmental appropriateness, social benefits and economic viability (Swang, 2007). The first category ensures that the harvest of timber and non-timber products maintains the forest's biodiversity, productivity and ecological processes. Principle 6 and 9 of the FSC principles stresses the need for reducing environmental impacts of logging and maintenance of High Conservation Value Forests (HCVFs) respectively in fragile forest ecosystems.

**Conceptual Framework**

The Conceptual framework underpinning the role TUC plays in enhancing participation in forest management is illustrated in Figure 1. Communities have weak linkages (dash lines) in participating in the award of timber rights by government, in contrast to the strong linkages (continuous lines) in participation by government and the timber companies.

**Figure 1. Conceptual Framework**

![Conceptual Framework Diagram]

Source: Authors construct, 2007.
Materials and Methods
A case study approach was used to gather information and data for analysis. This approach allowed the researcher to investigate and understand the underpinnings of the TUC policy. The Western Region of Ghana was chosen as the study location because the majority of timber rights were allocated in this region. The Sefwi Wiawso and Asankrangwa forest districts were investigated because they have concessions that are surrounded by fringe communities that signed SRAs. Because the study was interested in investigating the participation of stakeholders in the implementation of the TUC policy, purposive sampling technique was used to select the respondents of the survey.

Four forest fringe communities were chosen from the Sefwi Wiawso Forest District. A sample population of 100 respondents was covered: 50 respondents from each forest district. Also, the heads of institution were surveyed in both districts, including Forest Services Division (2), District Assembly (2), Administrator of Stool Lands (1), Ministry of Food and Agriculture (1), forest sector NGOs (2), the Traditional Council (1) and Timber companies (1) of the total 80 community respondents, 17 were females whiles the rest were males. Ten respondents were interviewed in each community. They included 5 farmers, 1 chief, 1 unit committee member, 1 Assembly member, 1 Non Timber Forest Product collector and one representative of the forest user group. These respondents were selected based on their knowledge on issues relating to forestry and concession management. Analysis of the primary data was done using SPSS software and the results illustrated in the form of frequencies, percentages and graphs. All the respondents were aged over 40.
Figure 2. Map of Ghana Showing Forest Reserves with Location of Study Areas Shaded

Results and Discussions

Socio-Economic Impacts of TUC Policy on Forest Fringe Communities

(1) Provision of Social Services

The respondents from the surveyed communities generally rated social services provided before TUC policy came into force as poor. About 90 percent of respondents ranked assistance in the rehabilitation of health posts as low. Clearly, an overwhelming majority of the respondents were dissatisfied with the assistance provided by the timber companies in establishing health centres and in fulfilling their social responsibility obligations during the concession lease era.

The perception of the respondents on the provision of social services by the timber companies during the post policy era showed a slight improvement in satisfaction about activities of timber companies. About 56 percent of the respondents believed that the timber companies were doing well especially in the area of road rehabilitation. Seemingly, the companies are now paying more attention to roads they use to truck their logs. Ninety-two percent of the surveyed population rated the provision of potable drinking water by the timber companies to forest fringe communities by SRAs as the lowest among all the social services provided by the companies during the concession lease era (Figure 3).

Figure 3. Perspective of Communities on Provision of Social Services during Pre and Post TUC Policy Era

Source: Survey data, 2007.
Assistance for rehabilitation of community centres and health posts proved better than the other socio-economic services i.e. provision of electricity, potable drinking water, rehabilitation of community centers, rehabilitation of chief’s palace and rehabilitation of health posts. Forty-two percent of the surveyed population ranked this type of assistance as high during the pre-TUC era. All the socio-economic services presented in Figure 4 were ranked fairly low as compared to the post-TUC period. Provision of all services had improved, giving clear evidence that the timber firms operating in the various TUC areas were providing improved services as compared to the situation pertaining during the pre-TUC era. Most heads of institution interviewed gave a poor impression about the way the timber companies had rendered social services to the forest fringe communities before the TUC policy was introduced.

Figure 4. Perspective of Institutional Stakeholders Regarding Provision of Social Services before and after Implementation of the TUC Policy

![Figure 4](chart.png)

Source: Survey data, 2007.

After the introduction of the TUC concept, assistance for rehabilitating chief palaces recorded the most significant improvement compared to other socio-economic services. Assistance in the provision of electricity also experienced an improvement after the introduction of the policy. For example, Akyekyere community in Asankrangwa and two other communities in Sefwi Wiawso district (Ahokwaa and Subienso) confirmed that timber contractors had helped them with the supply of electric poles for the electrification of their communities.
(2) Employment to Youth

As depicted in Figure 5, the institutional stakeholders hold the view that, companies commitment to assist with employment of community members in their respective areas during the concession lease era was lower before the implementation of the TUC policy. About 75 percent of the respondents indicated the implementation of TUC policy had positively impacted forest fringe communities with regard to employment creation. About 42 percent of the respondents rated employment creation by the company to be high during the concession lease era. This may be attributed to the fact that the TUC policy requires timber companies to employ locally available inputs and labour in the provision of services.

Figure 5. Perspective of Institutional Stakeholders on Assistance in Providing Employment to Youth

However, contrary to the view held by the institutional stakeholders, Figure 6 shows that, the companies are not able to employ community members compared to their performance before the implementation of the TUC policy.
This can be attributed to the fact that the indigenes do not have the requisite skills. Moreover migrants from the city centres are moving to the forest communities in search of jobs in timber firms. An average of 16 persons was employed by timber firms in the pre-policy era, but the number dropped to 12 persons in the post-policy period. It was only in Akyekyere in the Asankrangwa districts where the Unit Committee recorded an improvement in employment for their youth (Table 1).

Table 1. Average Annual Employment Figures Collated from the Records of Unit Committees in Forest Fringe Communities in two Study Areas

<table>
<thead>
<tr>
<th>Communities</th>
<th>Estimated number of community members employed in TUC areas annually</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-policy era</td>
</tr>
<tr>
<td>Ahokwaa</td>
<td>15</td>
</tr>
<tr>
<td>Agona</td>
<td>30</td>
</tr>
<tr>
<td>Akyekyere</td>
<td>20</td>
</tr>
<tr>
<td>Anyinabirem</td>
<td>12</td>
</tr>
<tr>
<td>Besebema</td>
<td>10</td>
</tr>
<tr>
<td>Suhienso</td>
<td>15</td>
</tr>
<tr>
<td>Sreso</td>
<td>17</td>
</tr>
<tr>
<td>Wiawso</td>
<td>10</td>
</tr>
<tr>
<td>Average</td>
<td>16</td>
</tr>
</tbody>
</table>

Source: Survey data, 2007
(3) Impact on Income Generation

From Figure 7, support by the companies in the promotion of income generation activities has been a challenge, with none of the respondents awarding a high score. All the respondents gave a very poor impression about income generation. Only 9 percent ranked the performance of the companies high in respect of promoting income generation activities after the implementation of the policy. According to the institutional stakeholders, the policy helped to effect the prompt disbursement of revenue. This is in accordance with section 267 (subsection 6) of the 1992 constitution of the Republic of Ghana, which makes provision for communities to benefit from timber proceeds through the District Assemblies’ usage of their share to finance community development projects (Constitution of the Republic of Ghana 1992). The respondents argue that, more can be done to improve upon prompt disbursement of revenue to the relevant stakeholders in the forest sector. Forty two percent of the respondents attributed the non timely disbursement of revenue to the massive indebtedness of the timber firms to the Forestry Commission.

Figure 7. Perspective of Institutions Regarding Assistance in Generating Income by Timber Firms during the Pre and Post TUC Policy

A quarter of the respondents affirmed prompt and fair payment of compensation by the timber companies. Half of the respondents indicated that the implementation of the new system of allocating timber rights made it
mandatory for the timber firms to pay compensation to affected groups. It was observed that the contractors always entertain fears of losing their property marks\(^2\) when they are reported to the Forestry Commission. It is interesting to note that from the viewpoint of community opinion leaders, prompt disbursement of revenue by the timber companies and their ability to promote income generating activities were poor both before and after the implementation of the TUC policy. However, 71 percent of the respondents indicated that payment conditions have improved with the implementation of the TUC policy. A field visit to Samreboi, revealed that Samartex Timber and Plywood Company Ltd. was the only company that engaged in promoting alternative livelihoods for the communities in which they operated. About 58 percent of the institutional respondents indicated that before the adoption of the TUC policy, the concession lease policy impacted negatively on their share of revenue. A possible reason is that, no effective revenue collection mechanisms were introduced compared to what pertains after the implementation of TUC. Twenty-five percent of the respondents indicated that there is an improvement in the payment of revenue because timber companies are now mandated to pay stumpage fees.

With the adoption of the new policy, annual earnings from SRAs to the fringe communities have generally increased over the years (Table 2). Opinion leaders were of the view that before the implementation of the policy, there were no transparent negotiations on benefit sharing, hence the communities were getting nothing from companies except compensations for crop damage.

Table 2. Annual Earnings from SRA Negotiations for Various Communities

<table>
<thead>
<tr>
<th>Forest Fringe Community</th>
<th>Total Annual Cash Earned through SRA Negotiations/Gh¢</th>
<th>2003</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahokwaa</td>
<td></td>
<td>400</td>
<td>600</td>
<td>-</td>
<td>1500</td>
</tr>
<tr>
<td>Agona</td>
<td></td>
<td>-</td>
<td>2000</td>
<td>1500</td>
<td>2000</td>
</tr>
<tr>
<td>Akyikyire</td>
<td></td>
<td>1200</td>
<td>1500</td>
<td>1500</td>
<td>2500</td>
</tr>
<tr>
<td>Anyinabirem</td>
<td></td>
<td>800</td>
<td>1000</td>
<td>1200</td>
<td>-</td>
</tr>
<tr>
<td>Besebema</td>
<td></td>
<td>1000</td>
<td>1000</td>
<td>2500</td>
<td>3000</td>
</tr>
<tr>
<td>Suhienso</td>
<td></td>
<td>1500</td>
<td>1500</td>
<td>2600</td>
<td>3500</td>
</tr>
<tr>
<td>Sreso</td>
<td></td>
<td>200</td>
<td>2000</td>
<td>2000</td>
<td>1200</td>
</tr>
<tr>
<td>Wiawso</td>
<td></td>
<td>1800</td>
<td>1500</td>
<td>3000</td>
<td>5000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>6900</td>
<td>11100</td>
<td>14300</td>
<td>18700</td>
</tr>
</tbody>
</table>

Source: Survey data, 2007.
Note: Average Gh¢-US$ exchange rate between 2003 and 2007 was Gh¢0.91 per dollar

\(^2\) They are acronyms, abbreviations or letters which identify timber companies in their transactions with the Forestry Commission that is renewed periodically by the Commission
Sustainable Land Use Impacts of TUC Policy on Forest Fringe Communities

(1) Sustainable Land Use

As Figure 8 indicates, the rate at which timber companies were practicing irresponsible logging has reduced significantly over the past decade. Before the implementation of the TUC policy in 1998, about 36 percent of the respondents affirmed that the companies adopted good practices. Also, 55 percent of the respondents rated the commitment of the companies before the implementation of the policy to be generally poor. The SRAs compel companies to reduce as much as possible the intensity of logging in order to protect hill sanctuaries and roads from severe erosion. According to the results of the survey, 44 percent of the respondents acknowledged the commitment of the timber companies to reduce the impact of logging in ecologically fragile areas whiles 50 percent were of the opinion that the companies are poorly committed under the TUC system of timber allocation.

Figure 8. Views of Communities about the Level of Sustainable Land Use
Before and After TUC Policy Implementation

It is clear from Tables 3, that Asankrangwa was better than Sefwi Wiawso in terms of sustainable land use practices. Replanting of harvested areas was an exception as shown in Table 3. Forty-six percent of the sample population indicated that the timber companies are doing well with regard to protecting
water bodies during the post-TUC policy period. The provisions of the contractual agreements require companies to formulate reforestation plans and specify how they intend to rejuvenate logged-out TUC areas. The field results show that the communities are disappointed with respect to both the timber rights and the concession lease system of allocating timber rights.

Table 3. Reduced Impact Logging in TUC/TUP Implementation for the Two Districts

<table>
<thead>
<tr>
<th>Socio-economic service</th>
<th>District</th>
<th>Very low</th>
<th>Low</th>
<th>Indifferent</th>
<th>High</th>
<th>Very high</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>Reduced impact logging</td>
<td>Asankrang -wa</td>
<td>27.5</td>
<td>30</td>
<td>12.5</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Sefwi Wiawso</td>
<td>57.5</td>
<td>50</td>
<td>12.5</td>
<td>10</td>
<td>12.5</td>
</tr>
<tr>
<td>Protection of freshwater ecosystems</td>
<td>Asankrang -wa</td>
<td>22.5</td>
<td>17.5</td>
<td>12.5</td>
<td>7.5</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Sefwi Wiawso</td>
<td>45</td>
<td>32.5</td>
<td>10</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>Reforestation of logged out areas</td>
<td>Asankrang -wa</td>
<td>55</td>
<td>57.5</td>
<td>30</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Sefwi Wiawso</td>
<td>55</td>
<td>57.5</td>
<td>10</td>
<td>17.5</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Source: Survey data, 2007. Note: B = Before, A=After

Close to 80 percent of the respondents criticised companies for not implementing their reforestation plans: they are just mere plans drawn to help them to win their bids for concessions. Also, the Forestry Commission is not effectively enforcing the existing regulations. This contravenes the provisions of Act 547 which requires timber contractors to execute a reforestation plan during the period of the contract. The area to be forested should be at least ten hectares for each square kilometre of the concession.

(2) Tourism

Eighty percent of the respondents indicated that before the implementation of the TUC system of allocating timber rights, much attention was paid to sacred sites which have been set aside by the communities. Only 15 percent of the respondents indicated the timber companies’ respect for sacred sites was very poor in the past. This attitude has not significantly changed with the implementation of TUC. About 81 percent of the respondents said the timber companies have become very conscious of sacred sites since the TUC concept was implemented, whiles 11 percent claimed that
the adoption of the TUC concept has contributed to poor management of sacred sites.

Figure 9. Perspective of Communities on Impact on Tourism Before and After Policy Implementation

Timber Utilization Permits and Contracts

The surveyed communities were also interrogated as to whether they knew about the existence of Timber Utilization Permits (TUPs) and their understanding of the concept. Eighty-one percent of the respondents from both districts have adequate knowledge and deep understanding of the existence of the TUPs. Nineteen percent had their applications often promptly responded to. Forty-three percent of the respondents indicated that whenever they filed their applications, they were told to wait till a response came from Accra. This supports the assertion made by Forest Watch Ghana (2006) about the inability of communities to practically make use of TUPs.

Table 4. Knowledge about the Existence of TUPs

<table>
<thead>
<tr>
<th>Response</th>
<th>Knowledge about the Existence of TUPs</th>
<th>Fulfillment of the Purpose of the TUC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>No</td>
<td>15</td>
<td>18.8</td>
</tr>
<tr>
<td>Yes</td>
<td>65</td>
<td>81.3</td>
</tr>
</tbody>
</table>
Somehow - - 5 6.3
Total 80 100 80 100

Source: Survey data, 2007.

The long periods of waiting for response to their applications compel them to resort to illegally sawn lumber. Nineteen percent of the population had no knowledge about the TUP (Table 4) while 55 percent gave every indication that the TUC is a good concept but it has not been able to fully achieve the purpose for which it was instituted. Thirty-one percent agreed that it has fully achieved its purpose (Table 4). With respect to negotiating contractual agreements, about 58 percent of the respondents from the communities claimed they had not been involved in discussion of any contractual agreement, while 42 percent indicated they were involved. They were mainly traditional rulers. This implies that the communities were not involved much in negotiating SRAs.

**Conclusion**

Clearly, the principles guiding SRAs of timber companies in Ghana have not effectively been complied with, although there has been improvement in comparison to the performance in the concession lease period. Moreover, the SRAs which were and are currently being signed are mostly informal in character. This situation creates conditions for the forest fringe communities to be cheated. With the adoption of the TUC system, timber companies have been more responsible in the provision of social and environmental services to the communities they operate in. It is also evident that reforestation plans which are supposed to be formulated and implemented as part of the conditions for being allocated forest concessions have never been implemented in practice.

Government has woefully lacked the guts to collectively enforce this provision, and this weakness is threatening the sustainability of Ghana’s forests and land use in general. It is also apparent that farmers’ incomes have not enjoyed any significant improvement with the implementation of the timber rights policy. Forest fringe communities have not enjoyed any significant improvement in incomes with the adoption of the timber rights policy and neither have the companies helped these communities to find alternative livelihood sources. This has led communities to resort to illegal exploitation of forest resources. Aside from socio-economic aspects, the companies are also tied by the environmental obligations. Provided the forest resources in the study locations are utilized in a sustainable way, the timber companies would not have had any significant negative impacts on the development of the region.
Policy Implication

Based on aforementioned research findings, the following policy implications or recommendations are sketched:

1. FC should exercise the political will to enforce the provisions of the Timber Resource Management Regulation. Social Responsibility Agreements should be followed comprehensively to ensure that all benefits due to communities get to them.

2. The Timber Utilization Contract should make it mandatory for timber companies to assist communities as part of their corporate social responsibility to get alternative livelihoods to reduce poverty in these areas, as being done by mining companies. Services rendered to these communities should not be in cash, but their capacity should be built to let them reach their full potentials in income generation.

3. Tax relief should be granted to companies who demonstrate strong environmental and sustainable land use commitment in their operations to encourage them. Government should compel the companies to replant indigenous species in rejuvenating the forests instead of encouraging Modified Taungya System in natural forests.

4. It will also be recommended that further research be carried out to assess the socio-economic impacts of the grant of timber rights on timber companies to have a holistic view of impacts on the industry as well.

Acknowledgement

The author wishes to acknowledge the contribution of Michael Okai of the Asankrangwa Forest District during data collection in the field. Much valued contributor to this paper is Professor Dr. Emmanuel Boon of the Human Ecology Department of Free University of Brussels, Belgium. I also give recognition to the chiefs of all the forest fringe communities for permitting entry into their communities to carry out this research. To the District Managers of the Forest Services Division at Asankrangwa and Sefwi Wiawso, I am grateful for their assistance in providing me with valuable information and data.

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