

Small changes for big impacts

Lessons for landscapes and livelihoods from the Wassa Amenfi West Landscape, Ghana



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Executive summary

This paper describes LLS interventions in the Wassa Amenfi West Landscape in the western region of Ghana. The landscape extends over an area of about 120,000 ha. It is a mixed landscape with a variety of agricultural uses; the most important is cocoa farming. At the start of the LLS intervention, parts of the landscape, particularly forested areas were quite degraded, while levels of poverty among the communities that rely on natural resource exploitation were quite high. This situation was further complicated by poorly-defined and publicized land tenure arrangements, which provided disincentives for the local population to undertake action to protect and restore trees, especially cocoa bushes.

LLS interventions sought to tackle the twin challenges of poverty and landscape degradation through a series of very simple interventions, which also served to debunk the myth that landscape restoration and poverty reduction require elaborate and complicated strategies. Through multi-stakeholder engagement, including with local communities and government agencies at the local and regional level, interventions focussed on raising awareness among all stakeholders of the issues and the simple actions that could be implemented to tackle them.

Perhaps of key interest, a crucial intervention that yielded important benefits in terms of incentivizing local communities to intervene to protect their natural resources consisted of 'tweaking' land tenure arrangements. Land tenure arrangements in the landscape are largely based on customary law and not necessarily formalized in law, except in the case of government-owned lands (e.g. forests). Much of the non-government owned land is privately owned, but leased to tenants. Naturally-occurring trees are owned by the government. But trees, including cocoa bushes, planted by tenants on leased lands or by landowners when they manage their own lands, are the property of the tenants/landowners, rather than the government. However, many tenants were unaware of this complex arrangement. As a result, they had few incentives to enhance the quality of their crops.

To overcome this, rather than seeking to instigate formal tenure systems that recognized this, the intervention focused on raising awareness of this. It also introduced a system of tree registration whereby a certificate is issued to the tree planters recognizing their access and rights to the trees and that the benefits from the tree accrue to them. This very simple mechanism of tree certificates has provided incentives to farmers to take efforts to protect and restore their crops as they now have guarantees that the benefits will accrue to them. Over the long term it will also contribute towards enhancing their livelihoods. This and other interventions in the landscape demonstrate the potential of small actions for large impacts both in the landscape and on livelihoods.

About LLS

The Livelihoods and Landscapes Strategy (LLS) is a global project of IUCN's Forest Conservation Programme funded by the Directorate General for International Cooperation (DGIS) of the Netherlands Ministry of Foreign Affairs. Its first phase ran from 2007-2011. Its overall goal has been *"the effective implementation of national and local policies and programmes that leverage real and meaningful change in the lives of rural poor, enhance long-term and equitable conservation of biodiversity and ensure the sustainable supply of forest-related goods and services in line with nationally-defined priorities."*

LLS was intended as a direct response to two of the major challenges facing sustainable development at the time of its design in 2006:

- How to find practical ways to support governments and donors in ensuring that the benefits of national poverty reduction strategies reach the rural poor, and in particular those who are highly dependent on natural resources including forests and trees.
- How to reverse the current lack of momentum in implementing international commitments on sustainable forest use and conservation and therefore address the slippage of forest-related issues within international development.

The strategy is predicated on the belief that although these two challenges are inextricably linked, natural resource management and conservation organizations have yet to make a convincing case, on a large enough geographic or institutional scale, as to how improved resource use and conservation can make a difference to the livelihood security of the rural poor. It is hardly surprising therefore that ministries responsible for finance and economic planning have tended to be unaware that forest goods and services remain as important as ever for many poor people and could be better harnessed to contribute to rural poverty reduction, as well as the national economy.

LLS has contributed to shaping a bold new vision of forests as multifunctional assets that can make a real difference to rural poverty, economic growth, environmental quality, human well-being as well as biodiversity conservation. It has promoted this vision among both the forest sector and decision makers in other sectors whose own goals and targets impact, or are impacted by, the state and integrity of forest resources.

The strategy has four key thematic components, each addressed in a mutually integrated manner:

- i) forests and poverty reduction,
- ii) markets and incentives,
- iii) governance, and
- iv) transforming landscapes

Targeted geographic interventions in nearly 30 landscapes across 23 countries in Africa, Asia and Latin America looked at the linkages between the four themes thereby avoiding their treatment as stand-alone issues.

This paper is one of a series of case studies, exploring and reporting on the experiences from particular LLS landscapes, collectively contributing a host of lessons and insights. The diversity in the landscapes is reflected in the Landscape Papers themselves, whose structures, purposes and outcomes vary depending on each respective case and context in question.

What is a landscape?

A landscape is a mosaic of different types of land use such as agriculture, forests, pasture and conservation areas. Managed as a whole, a landscape serves a variety of needs for various stakeholders. The LLS vision of a landscape is of multiple and complementary land uses based on negotiation rather than centralized planning. Landscapes do not exist in a vacuum, but are influenced by a wide range of external factors including policies and economic conditions generated far outside it, land use in adjacent landscapes and perhaps remote physical features such as dams. Addressing landscape management issues always requires interventions outside as well as inside the landscape.

The papers draw on data and information generated over the last 5 years and in most cases, at the time of publication, successes on the ground have continued into 2012, when the first phase of the project officially closes. With sustainability integral to the LLS project design, the work of LLS will in effect live on in each landscape and often much more widely than that, influencing local, regional and international practice and policy in the manner already detailed and reported in the LLS Landscape Papers, Thematic Papers, Thematic Briefs and Research Papers.

Location of the Wassa Amenfi West Landscape



Introduction

The landscape

The LLS landscape is in Wassa Amenfi West District, in the western region of Ghana. The landscape extends over an area of about 120,000 ha, which amounts to approximately three-quarters of the district. The district capital is Asankrangwa.¹

This is a mixed landscape with forests and a variety of agricultural uses. The main agricultural activity and primary industry in the district is cocoa farming. About 75.6% of the active labour force is employed in agriculture with a further 5.45% employed in manufacturing and processing (through two large expatriate timber processing firms located at Manso Amenfi and Samreboi). Another 7.5% of the labour force is in the services sector with a further 9.5% in commerce. The remaining 2% is employed in the public sector.

The forest in the landscape is semi-deciduous moist forest. There are three forest reserves in the landscape (Mamre, Fure Headwaters and Bura River), plus small areas of the Totoa Shelter Belt and Angoben Shelter Belt forest reserves. Part (50.15 km² or 29.06%) of the Fure Headwaters forest reserve is designated as a Globally Significant Biodiversity Area (GSBA). See Table 1 for details.

Name	Size (km ²)	Size (ha)
Mamre	45.32	4,532.52
Fure Headwater	169.44	16,943.88
Bura River	104.87	10,488.20
Totoa Shelter Belt	63.53	5,535.30
Angoben Shelter Belt	34.56	3,465.44
Upper Wassa ²	101.00	10,100.00
Total	518.72	51065.34

Table 1: Forest reserves in Wassa Amenfi West District
Source: Forestry Services Division, Asankrangwa

Population

The total population of the district in 2006 was 186,257, based on the 2000 Population and Housing Census (District Assembly Medium Term Plan 2006).³ The population density of the district was 53.76 people per km². The exact population of the landscape is not known, but is probably around three-quarters of the district population. Asankrangwa, the District Headquarters, which is home to a large

¹ Both Wassa and Asankrangwa are spelt inconsistently. Wassa and Wasa are used almost interchangeably. Asankrangwa is often spelt Asankragwa. This paper uses Wassa as it is used in official District documents and Asankrangwa as it seems to be more commonly used.

² Upper Wassa Forest Reserve is inside the district but outside the LLS landscape.

³ The region's population growth rate is 3.2% per annum (Wassa Amenfi West District Assembly Medium Term Plan 2006).

percentage of the total district population, is also within the landscape. There are 80 communities within the LLS site or on its boundaries.

The mix of indigenous people and migrant settlers has led to a complex and rich social mosaic, with a wide variety of tribes and languages. The land tenure system, based on customary land tenure (legally recognized in Ghana) is complicated by the presence of migrants, who generally acquire farmland through tenancy arrangements.

The Wassa (a branch of the Akan) are the dominant 'indigenous' ethnic group in Wassa Amenfi West. There are also other ethnic groups, with much of the population made up of migrant cocoa farmers from east and central Ghana. The first migrant cocoa farmers arrived in the 1920s; their populations are very well established. Farmland is acquired from the indigenous populations, sometimes through purchase and often through tenancy arrangements. The establishment of cocoa farms involved conversion of large areas of forest to plantations in the 'cocoa frontier'.⁴

Tenure

There are two principal forms of tenure in the landscape.

Forest reserves are government-owned and managed, under the authority of the Forestry Commission. All of the three forest reserves in the landscape are production forests, although the Mamre forest reserve is not currently being exploited. Concessions for timber harvesting in the production forests are issued by the Forestry Commission (locally represented by the Forest Services Division office at Asankrangwa) to companies such as SAMARTEX.

Outside the reserves, land is under customary tenure. Customary tenure arrangements are legally recognized in Ghana, and constitute the primary form of land tenure beside land directly controlled by the government (such as forest reserves). Although customary tenure is legally recognized, much of it remains unregistered and unsurveyed, resulting in conflicts in some areas, and potential conflicts and uncertainties in others. The system of customary land tenure in the landscape is quite complex. Some land is 'Stool' land (that is, the land owned by chiefs). Other land is owned by members of the indigenous ethnic groups and by people who have acquired it through purchase or some other arrangement. Much of the land is leased to tenants.

There are three main types of tenure arrangement within the customary tenure system:

- *Abunu* is a form of tenure in which cocoa production is shared on a 50/50 basis by the landowner and the tenant. In a variant of *abunu*, the land is divided into two after a crop matures, and the tenant becomes the owner of one half.
- Under the *abusa* system, the owner receives one-third of cocoa produced with the tenant receiving two-thirds.
- The third arrangement is outright ownership.

A government office, the Administrator of Stool Lands, has been set up to encourage registration of customary tenure including tenancy agreements, although this is a slow task. Small registration fees are paid to the Administrator of Stool Lands for registered lands. The fees are paid by the tenant if there is a lease. People also make contributions to the Stool when there is a festival of some kind.

A new government policy prohibits outright sale, and reduces the lease period from 99 to 50 years.

It is important to note that naturally occurring trees on private (customary) land belong to the government. In line with the Forestry Commission's administrative directive dated 3 August 2006 on Registration of

⁴ The movement of migrant cocoa farmers into southern Ghana was a major factor in the economic and population development of southern Ghana. Hill's (1963) book is the classic study of the development of the cocoa frontier.

Private Plantations Located outside Forest Reserves, trees planted by farmers on their own land belong to them, but need to be registered (we will return to this point later in the paper).

Stakeholders

The main stakeholders in the landscape, with their main natural resource interests are:

- **Communities:** concerned with agriculture, including cocoa, NTFPs and wildlife; they are dependent on forest resources for many aspects of their livelihoods.
- **District Assembly and associated administrative units:** responsible for providing development services and also issuing rules and regulations relating to off-reserve natural resource management.
- **Ministry of Food and Agriculture (MOFA):** concerned with all agricultural activities including cocoa; provides training and technical advice.
- **Forestry Commission (national):** responsible for overseeing adherence to forest law and regulations and for issuing timber concessions.
- **Forest Services Division:** the district level representative of the Forestry Commission.
- **Members of the Pebase/Sureso/Akyekyere Community Resource Management Area CREMA (Community Resource Management Area):** this is voluntary government-recognized association for the management of natural resources in a designated area. CREMAs operate outside forest reserves. Once a CREMA has by-laws approved by the District Assembly and a certificate from the Forestry Commission, it has significant rights and responsibilities, including the right to sell hunting permits for certain categories of wildlife. Measures to create the Pebase/Sureso/Akyekyere CREMA were in hand at the start of the LLS process. During the period of LLS activities considerable support was provided to the formalization of the CREMA. This is now all but complete. By-laws and certificates have been finalized and the CREMA has been formally inaugurated. The CREMA is located between forest reserves and mainly captures the cocoa landscape and some pockets of secondary forest. It covers an area of 91 km².
- **Ministry of Lands and Natural Resources:** concerned with the sustainable management of the nation's natural resources.
- **Novella Development Ghana:** concerned with promoting *Allanblackia* production (developing the market chain and domestication).
- **CABUD (Centre for Agroforestry Business Development):** an NGO mainly concerned with sustainable use of NTFPs and community sensitization around natural resources.
- **SAMARTEX:** a timber company. Its primary natural resource concern is to ensure a reliable supply of timber for the long term. It is concerned both with sustainable timber supply and sustainable forest management. SAMARTEX has now become interested in NTFPs and has gone a step further to collect and distribute *Allanblackia* seedlings to smallholder farmers from the Novella Development Rural Resource Centre at Dikoto in the Wassa Amenfi East District.
- **Administrator of Stool Lands:** emerged as a stakeholder after the start of LLS, and is responsible for registering customary lands and maintaining the register.

Chronology of LLS in Wassa Amenfi West

- LLS was inaugurated globally in March 2007 in Montreux, Switzerland
- LLS global advisers visited the landscape in July-August 2007
- A modelling exercise using STELLA was carried out in August 2007
- A poverty assessment of two villages was undertaken in July 2008. The landscape action research team first met on 16 July 2008
- End of first phase of LLS: July 2012

Defining the LLS landscape

At the start of LLS in the landscape (2007), the initial thinking was that the whole district would form the landscape. Wassa Amenfi District was selected because IUCN had already been involved in the Allanblackia Project within the area.⁵ There were already activities related to both livelihoods and biodiversity. This was the entry point.

In July 2008, an LLS action research group was formed, consisting of several key stakeholders. These stakeholders helped to identify and delineate the landscape. Landscape boundaries were identified in a manner which ensured that the landscape covered a variety of land uses, including forest reserves, Allanblackia production and collection, and the innovative Quarm Farm. The proposed Pebase/Sureso/Akyekyere Community Resource Management Area (CREMA) was also in the area. Subsequently, the landscape was limited to a more manageable size. The map presented at the start of the document shows the landscape with its boundaries.⁶

There was no conflict about these criteria, which were generally agreed within the action research group.

Developing the landscape concept

The landscape concept was introduced at the national level at inaugural meetings held in July-August 2007 during a visit by members of the LLS global support team. The concepts were broadly understood at that level. The concepts were introduced to district staff and partners during a workshop. This workshop introduced landscape concepts, the action research approach and explored landscape issues. Part of the exercise involved the use of STELLA, a computer simulation modelling programme.

Ghana-based LLS staff members were already well aware of the concepts following a global meeting in Switzerland in March 2007. District staff and partners from the Forestry Commission and MOFA, already working at the landscape level, understood the concept readily. Community members did not understand the concept at an abstract level, but understood it in practice, through activities on the ground.

The development of the CREMA, with LLS and district-level support, contributed to a wider understanding among community members. (The CREMA is discussed in more detail below.)

Goal of the landscape activity

The main problems identified in the landscape at the beginning of LLS were:

- High levels of poverty.
- Landscape degradation evident in reduced forest cover off-reserve and low yields of agricultural products, especially cocoa.
- Lack of certainty about land and tree tenure. The uncertainty about rights to trees on private land was a particular problem. Although there was a regulation to the effect that planted trees on private land were fully for the benefit of the landowner or tenant, this was not widely known and there was no system for registering the trees and no way for farmers to prove their ownership.

⁵ At the start of LLS three landscapes were identified in Ghana. These were Wassa Amenfi West, Assin Akropong in the central region and Pamu-Berekum in Brong-Ahafo region. The main foci in Assin Akropong and Pamu-Berekum were, respectively, community forestry and forest landscape restoration/reforestation. All three landscapes are part of LLS but the main focus has been on Wassa Amenfi because of the range of land uses.

⁶ This map was digitized by Johannes Förster, a master's student, and Gill Shepherd as a thematic map to present the poverty analysis. See Fig 2.

- Inadequate forest governance with little community participation and little understanding of rights and responsibilities. There were associated problems of enforcement of forest regulations. One issue involved the payment of compensation when timber companies damaged crops (including cocoa) when harvesting natural trees on private land. (Authority to cut natural trees on private land was granted by the Forest Commission, but required that compensation be paid to landowners for damage. This was not adequately enforced.)
- Land tenure issues related to changing land use. Agreements between landowners and tenants/migrants were fairly clear when cocoa was the main crop, but a shift to other types of crop led to uncertainty as they were not part of the original tenancy agreements. (This issue emerged as LLS activities continued.)

From the beginning of LLS there were broad ideas about what should happen in the landscape. The main goal was to enhance livelihoods. Support for the process of formalization was soon added to this.

More explicit goals were determined during the first action research meeting held in July 2008. These goals were:

- To improve tree cover and connectivity
- To improve livelihoods
- To develop a clearer understanding of land rights, etc.

The goal was later re-articulated as an overarching goal with a number of specific objectives (in October 2010):

Overarching goal: to contribute to the improvement of the livelihoods of the rural people through the sustainable management of multi-functional forested landscapes.

Objectives:

- Reduce poverty through income generation from the sale of forest products
- Support better development of market linkages and arrangements to enable greater profits from forest product marketing
- Facilitate securing effective rights to land, trees and forest products
- Improve governance of forests including effective forest law
- Restore forests and forest landscapes as assets for rural livelihoods

Before turning to more detailed analysis of the various components of LLS interventions, it is useful to provide a brief summary of what has been done in the landscape under LLS. Detailed discussions of activities and impacts will follow.

Activities carried out

Poverty and livelihoods

Under the poverty and livelihoods theme, the main activities included:

- A poverty assessment was carried out in two villages in 2008, with a follow-up wealth ranking exercise in the same villages in 2010.
- Community tree nurseries were established and supported, providing income and also contributing to forest landscape restoration (FLR).
- Collection of non-timber forest products (NTFPs), including *Allanblackia* was supported. This was intended to increase and diversify income.
- A borehole was dug at Nkrankrom village to provide a water supply to the nursery. This also provided safe drinking water and contributed to a decline in water-borne diseases.

- LLS staff and partners were trained in the use of the Forest and Poverty Toolkit.

Tenure

- A system for registering private trees on private land was developed, contributing to increased confidence in ownership and providing incentives for private tree planting.
- A study of tenure conflict in the district was commissioned and completed (Opoku, 2009).
- Education/awareness campaigns were carried out on tree tenure and land registration. The latter supported increased numbers of farmers registering land with the Administrator of Stool Lands. (See section on forest and ecosystem governance baselines for details.)

Forest landscape restoration

- Two community nurseries were established.
- By the end of 2010, the two nurseries included 21,500 trees, of which some 74% were *Terminalia superba*.
- A total of 54,734 trees were planted and registered by farmers in the period 2008–2010.
- Awareness-raising activities conducted on the links between forests and climate change.

Governance

- Education and awareness-raising activities were conducted on aspects of forest governance, such as forest and wildlife laws, through district fora and community sensitization.
- Community forest committees were strengthened.
- The process of formalization of the CREMA, through the development of by-laws by the District Assembly, was supported and conflict resolution around the formation of the CREMA was facilitated.
- Multi-stakeholder processes were established and supported.
- The action research team was formed and functioned both as an umbrella framework for implementation of the LLS programme and as a contributor to better forest governance overall. The team was actively involved in all forest fora organized in the district.

Other

- A preliminary exercise applying the computer simulation programme STELLA contributed to thinking about landscape linkages at a workshop held in July 2007.⁷
- A training workshop on the application of STELLA was organized in September 2008.

⁷ The use of STELLA in LLS, including use in Ghana is discussed in Sandker (2010) and Sandker *et al.* (2010).

Key topics: baselines, and how they evolved over the course of the project

Biodiversity and landscape

The baseline situation

No comprehensive baseline surveys specifically concerned with biodiversity were carried out by the LLS team at the beginning of activities. However there are some other relevant baselines in place:

- Some baseline studies for biodiversity exist for the GSBAs. These were not carried out by LLS.
- Surveys of wildlife spotted by hunters in six communities were carried out by LLS in early 2009. These were repeated in August 2010. Some increased sightings were reported in two communities in the August 2010 survey. These were attributed by community members to reduced logging operations and increased community awareness.

A study by Johannes Förster (2009) gives an overview of landscape condition (but not biodiversity) early in the life-cycle of LLS. This study was based on satellite imagery and ground-truthing. As FLR was one of the goals of intervention, issues of tree cover in the landscape are crucial and this is valuable baseline material, although a follow-up survey would be expensive.

The LLS M&E protocol includes indicators for the presence of certain animal species, the number of plants collected from the nurseries, the number of people who collect them and the number of trees planted and protected on-farm.

Prior to the start of LLS management plans existed for all of the reserve forests. However, no management plans existed for forests off-reserve, as these are all on customary lands.

The management plans for the reserve forests were prepared by the Forestry Commission. New management plans will be prepared with community participation, starting from 2009.⁸ This is possibly a result of new forest governance arrangements following the national push for forest governance reform as part of the Voluntary Partnership Agreement (VPA) process in which IUCN/LLS was involved (see below). In the past, communities were simply informed about forest management plans. The process is now more participatory.

Evolution and outcomes

Informal participatory group discussions with hunters to gather information on the sightings of the five national and local important species were held in August 2010. They included hunters from the five communities where the first hunter surveys were carried out in 2009 to determine the faunal indicators of the landscape.

A hunters' survey was conducted with hunters in the five communities on the LLS site to determine the commonness or otherwise of the faunal indicators on the LLS site. The results from the survey in all the five communities suggested that sightings of faunal indicators had not changed within the two years with the exception of Kamaso, where hunters contended that species like Spot nosed monkey (*Cercopithecus petuarista*), Mona monkey (*Cercopithecus mona*), Bush buck (*Tragelaphus scriptus*), Bay duiker (*Cephalophus dorsalis*), Maxwell duiker (*Cephalophus maxwellii*), Bush baby (*Galago demidovi*), and Tree and Long tailed pangolins, are now more commonly seen than before. They attributed this to reduced

⁸ As of May 2011, only the Fure River Forest Reserve management plan has been completed.

pressure from hunters and forest operations leading to reduced disturbance. The reduced pressure on wildlife is also a result of the education and awareness received through the community outreach and sensitization programmes and forest fora organized by the Forest Services Division and IUCN since 2009.

In all the communities, hunters revealed that species which were very common in 2008, but no longer common, include Grasscutter (*Thryonomys swinderianus*), Brush-tailed porcupine (*Atherurus africana*) and Giant rat (*Cricetomys gambianus*). This is because they are perceived as crop pests and were therefore hunted heavily using dogs and other means.

There have been changes in the landscape since LLS started. Landscape restoration is taking place. Perhaps most importantly people are planting many more trees now as it is generally accepted that farmers can benefit from trees that they plant. This has largely been the result of increasing awareness of access and use rights to trees planted on private land and the introduction of a tree registration system which removes uncertainty about ownership. (See section on forest and ecosystem governance baselines) The development of the registration system, increased awareness of rights and increased awareness of the economic and environmental value of trees are all clearly attributable to LLS interventions.

Figures on the actual area of increased tree cover are not available or easy to measure. However, an indication of the interest in planting and minimum figures on trees are evident from records of the number of trees purchased from the nurseries and the number of trees registered by the Forestry Commission:

- The number of seedlings purchased from the Nkrankrom Community Nursery and the Kamaso Community Nursery.

In 2009, Nkrankrom nursery sold 4,700 seedlings of *Terminalia superba*; 50 seedlings of *Allanblackia parviflora*; 45 seedlings of *Kola nitida*; 200 seedlings of *Voacanga Africana*. Most of these were sold to community members and members of the CREMAs (mostly *Terminalia superba*) from other parts of the western region when they visited the site.

In 2010, Nkrankrom sold nothing because the *Terminalia superba* seedlings, which had been promised for the afforestation programme, had not yet been collected. The Kamaso Nursery sold some *Terminalia superba* (943) to six community members on credit.

- Tree certificates issued.

In 2008, 22 certificates were issued to farmers covering a total of 7,201 trees of nine species.

In 2009, only 918 trees of eight species had been planted and registered by 10 farmers.

In 2010, a total of 46,615 trees of 15 species were planted and registered by 16 farmers.

It should be stressed that these are minimum figures as trees come from other sources besides the nurseries and not all privately planted trees are registered.

The timber company SAMARTEX is also promoting tree planting through out-grower agreements. While the LLS cannot take credit for this, the increased willingness to plant trees was attributable to LLS thanks to its education and awareness-raising activities surrounding tree planting and through its support to the redesign and printing of tree certificates for the Forest Services Division.

It is also clear that more people are keeping secondary forest intact. It is not possible to quantify the extent of change here without access to satellite imagery, but there is anecdotal evidence from individuals known to LLS staff and partners. It is probable that the change of attitude behind this is partly a result of LLS influence.

The formalization of the Pebase/Sureso/Akyekyere CREMA is an important step towards the long-term management of the landscape. It provides an opportunity for CREMA members to make planning and management decisions about natural resources including wildlife off-reserve. Other actions that are contributing to improved long-term management of the landscape are the improved relationships and

trust between local people and the Forestry Commission, and improved capacities of the District Assembly and Administrator of Stool Lands. These local agencies are now better able to support the community in natural resource management.

The causes of degradation in the landscape have been identified by LLS and many of them have been addressed. The probability of the improvements being continued after LLS is high. Tree planting and the CREMA are very likely to continue. The high level of interest and enthusiasm within the Forestry Commission at district level is a very positive sign and practices such as tree registration are likely to continue. One current threat is that the private sector has been asking for some GSBA's to be de-gazetted and swapped with logged areas. If approved this would pose a threat to part of the landscape.

Another possible threat is that the end of LLS will reduce the resources available for the 'sensitization' programme (carried out by the Forestry Commission in cooperation with LLS and with financial support from LLS). Ending or reducing the sensitization and education programmes might lead to diminishing community interest in forest governance.

Nevertheless, people are making money from tree planting and NTFPs, and this is an incentive to continue with tree planting, which will be further encouraged by the recent Presidential initiative, Greening for Better Ghana Environment, which aims to plant 20,000 ha/year/district throughout Ghana.

The main incentive for continued natural resource governance rests in income-generation – people making money (from tree planting, nurseries and NTFP collection). The likelihood of the district being selected as a pilot for REDD in Ghana may further link FLR and poverty reduction.

One additional possible threat to the landscape is from mining. At present, there are no mining activities within the LLS landscape, however this could change. In Ghana, minerals (i.e. below the surface of the landscape) belong to the government. Mining can be authorized in protected zones such as reserved forests as well as on customary lands.

Socio-economic conditions and livelihoods

The baseline situation

Some socio-economic data relevant to LLS predates the beginning of the intervention. Socio-economic studies were carried out under the first phase of the Allanblackia Project, covering five sites, two of which are in the district and one within the LLS landscape (Amanor, 2006). These studies looked at Allanblackia collection, other crops, land tenure, and included some work on markets. There was also a study of Allanblackia processing.

At the beginning of LLS, IUCN had a great deal of information and understanding as it had worked in the district for some time in the context of the Allanblackia Project. It had also worked with the District Assembly, so overall had a good idea of poverty and livelihood issues.

Other resources for understanding poverty issues were the National Poverty Reduction Strategy, the District Development Plan (2006) and the Population Census (2000).

In July 2007, early in the LLS intervention, a rapid (and partial) poverty assessment was undertaken, in Simpa village, using the poverty toolkit. In July 2008, this was followed up with more detailed assessments in two other villages within the landscape.⁹ The first three villages (and others in which timeline and trends exercises were carried out) were selected on the basis of an exercise in which the landscape was zoned according to accessibility to markets, and weighted according to a mix of time and

⁹ Three other villages were later included as part of a 'timeline and trends exercise' in January 2009.

distance to the nearest market town.¹⁰ A digitized map was prepared which presents these four zones (ranked progressively from Category 1 (most accessible) through to Category 4 (least accessible)). (See Figure 1)

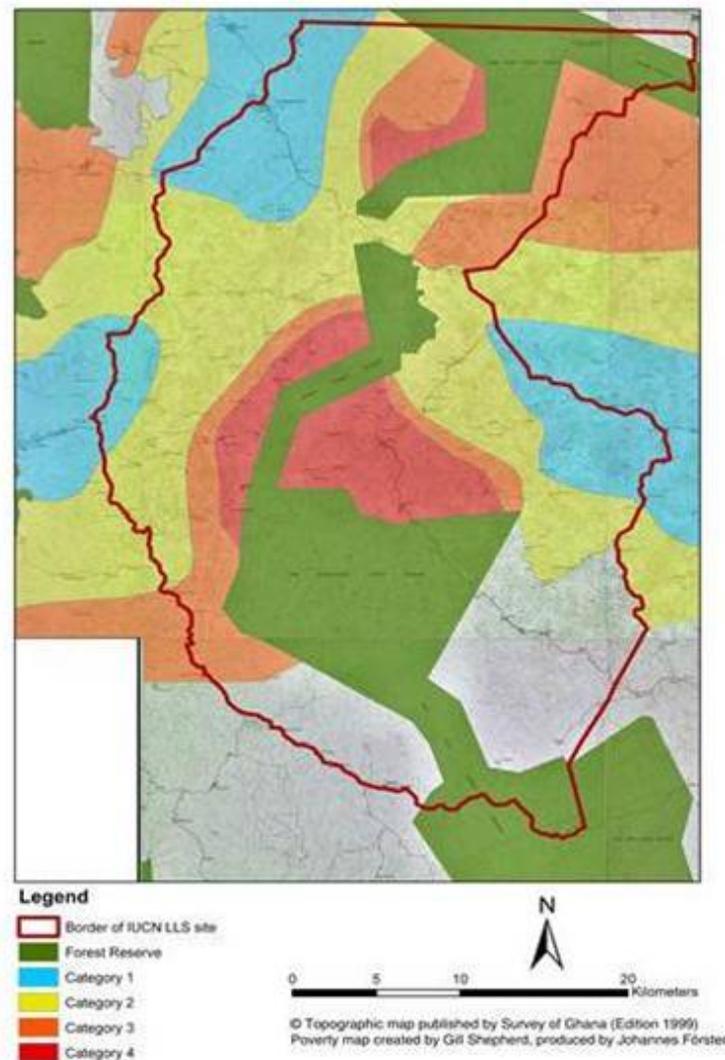


Figure 1 Poverty zones within landscape

The main focus of the studies was to examine the livelihoods of the people in the landscape in terms of forest dependency, but also through data on wealth rankings based on local criteria. Current forest and agriculture problems were also discussed, along with possible solutions.

Pensanom village was in Category 1 (most accessible category) and Kamaso in Category 3. In Pensanom, 65% of households were ranked as wealthy or average and 35% as poor or very poor. In Kamaso, 45% were ranked as wealthy or average and 55% as poor or very poor. This supports a broader pattern identified in LLS generally which suggests that wealth tends to be related to proximity to markets (Shepherd, 2010).

Data were collected from wealthy men and women and poorer men and women in both villages on dependence on cocoa, other crops, non-cash forest products, and cash forest products.

¹⁰ See PROFOR-IUCN Poverty-Forests Linkages Toolkit Field Manual, Booklet 1: *Poverty in the Landscape - Capturing variation*, November 2010, for the methodology.

Major findings included:¹¹

- In both villages, for all groups, the “non-cash benefits of forest are of primary importance, and greatly outweigh its cash benefits.” (Shepherd, attachment to Anon, 2010)
- “Much easier for the women of Pensanom (Category 1). They sell more household agricultural produce than is consumed, they sell forest products and they earn another 10% of income from non-natural resource activities.” (Shepherd, 2010)
- “In Kamaso (Category 3) women sell less household agricultural produce than is consumed, and have few other chances to earn cash from forest products or other sources.” (Shepherd, 2010)
- In August 2010, these two villages were reassessed to ascertain changes in wealth rankings. (See next section.)
- The timeline and trends exercises conducted in January 2009 in three supplementary villages (in Categories 2, 3 and 4, respectively) showed vividly how land-use intensification and forest conversion took place at different rates across the landscape.

Evolution and outcomes

Changes in wealth ranking (repeat wealth ranking exercise)

The repeat of the wealth ranking exercise in two villages in August 2010, two years after the poverty assessment and wealth ranking carried out early in LLS, potentially provided an opportunity to assess whether poverty levels had changed over the period. However, none of the changes identified were explicable in terms of LLS interventions, though they are indicative of issues which should be taken into account in understanding a landscape such as that at Wassa Amenfi West.

The August 2010 wealth ranking identified some changes to the rankings of various households, with some households going up a rank and some down. All household heads where elders had indicated a change of rank were interviewed during a brief ten-minute session to determine why the ranking had changed (though this was not given as the reason for the interview).

Leaving aside cases where the elders identified an improvement or deterioration in wealth but where the interviewee did not concur, three main patterns emerged:

- The main reason for increased poverty was the death of a breadwinner, which left children to be cared for by a relative who became poorer as a result. For instance, a grandfather of over 70, who had lived with his widowed daughter and her children, had to go hunting for unskilled labouring opportunities when his daughter died.
- Paradoxically, the main reason for increased wealth (or the potential for increased wealth) was also death: the inheritance of productive cocoa land after the death of a father. Often the land had been worked on behalf of the father, or had been borrowed from the father, but it was a significant moment when all the income started flowing to the son or sons.
- However, there was sometimes a short-term dip in wealth, upon the inheritance of such land, if the trees were old and diseased and the first step had to be the removal of the trees and their replacement. All trees need replacing after 20-25 years, and this was often the moment at which a parent had become too poor or old to replace them. Often the labour and/or chain sawing costs of

¹¹ A more detailed account of the assessment is attached to Anon (2009), a 'Mid-term Situation Report' on the landscape.

doing this fast were beyond the means of the heir just as they had been beyond the means of the parent, and the beneficiary of the land had to clear the trees himself very slowly.

So, the major drivers of change in wealth status across the board were evolution within family structure in the context of cocoa land.

Indeed, the major driver of poverty in the landscape is low cocoa productivity. The loss of income due to the inability to replace old diseased stock with new stock strongly suggests the need for future support for cocoa field schools and other institutions such as loan schemes to address productivity issues. The failure of income from cocoa at a time (at the time of writing) when cocoa prices are at a historic high globally is a sad irony. Significantly, households whose incomes had decreased were making increased use of forests, mainly for subsistence food, but also for raising additional cash.

Changes in socio-economic conditions

Apart from the repeat wealth ranking exercise, there is other evidence of changes in the socio-economic conditions in the landscape since the start of LLS. The 'cash' and livelihoods values of the changes have not yet been fully quantified or otherwise documented, but there is clear evidence of increased economic activity attributable to LLS and evidence that steps have been put in place that will yield economic dividends in the medium term. This is especially true in the case of increased planting of trees on private land.

One of the most important changes in socio-economic conditions in the landscape is the rapid increase in private tree planting, largely as a result of increasing confidence about ownership resulting from the issue of certificates for private trees. This is not essentially about immediate increase in income, but about the increasing establishment of private trees which will be of considerable value when they mature and are harvested. People are planting trees with economic value for the future.

There are several indicators of the increase:

- The number of tree certificates issued. (See section on biodiversity and landscape baselines for details.)
- The number of seedlings purchased from the Nkrankrom Community Nursery and Kamaso Community Nursery. (See section on biodiversity and landscape baselines for details.) Nkrankrom Community Nursery earned GHC 600 from sale of seedlings in 2009.
- Anecdotal evidence of considerable numbers of individual farmers planting trees usually mixed with cocoa crop.

There is a stable market for timber and high prices are being applied. There is also demand from the Forestry Commission which has been purchasing seedlings. The Nkrankrom Nursery could potentially have sold 120,000 seedlings to the Forestry Commission had they been available.

The nurseries themselves charge for seedlings purchased by farmers. In the case of Nkrankrom Nursery, approximately GHC 600 was earned from the sale of seedlings (an indicator of interest in planting). Of this, GHC 30 was spent on labour and GHC 570 was put into a fund towards the development of the community. This amount is expected to be matched by community contributions and is clear evidence of new activities contributing positively to livelihoods.

Although no survey has been carried out, anecdotal data strongly suggest that collection of NTFPs, including cola, has increased and that cola is being domesticated in some villages. There is also increased interest in the collection of *Allanblackia*. However, limited information comparing 2009 and 2010 collection in seven villages actually reflects a considerable decline in the quantities collected, the number of collectors, and the cash value of what was collected. This is attributed to the fact that there was poor fruiting in *Allanblackia* in 2010, a characteristic of the plant. Although anecdotal evidence indicates an increase in interest in *Allanblackia*, there is no quantitative evidence to support this.

Overall there is increased awareness of the value of environmental goods (such as NTFPs) and increased awareness that people have rights to collect NTFPs from private land for sale and from reserved forests for subsistence. There has also been increased awareness that there are other NTFPs that can be



collected and sold. NTFP income is not just about *Allanblackia* now. While there is not enough data to demonstrate the extent of increased collection, the following NTFPs are now collected for sale: *Voacanga africana*, *Griffollia simplicifolia* and *Irvingia gabonensis*.

These changes can be readily attributed to LLS. The tree certificate innovation was a direct result of ideas initiated and implemented by the LLS action research team (one member of which is an officer of the Forestry Commission). Increasing awareness of the potential of other NTFPs can also largely be attributed to LLS education and awareness-raising activities.

One very tangible and positive contribution to well-being was the provision of a borehole and pump to supply water to the nursery at Nkrankrom. Before this bore was provided with LLS support, the villagers had no supply of potable water. Since it became operational there has been a vast reduction in water-borne diseases. Significantly, there has been no new case of guinea worm, a disease previously endemic. The borehole provides water for the school and for users from other villages.

Given that active engagement of LLS is fairly recent (less than two and a half years) no overall measurable increase in income could be expected. What is significant is that *a number of elements are in place which are almost certain to lead to increased income in the medium term*. LLS has not made measurable contributions to poverty reduction in two years, but the elements are in place and knowledge of options has increased notably.

The paradox of cocoa farming

While there are obvious positive impacts of the current high cocoa prices on poverty reduction in the landscape, it is important to recognize that cocoa farmers face hard economic realities. A recent book on cocoa in West Africa (Ryan, 2011) emphasizes that income from cocoa is unreliable and that, given the small sizes of cocoa farms, many cocoa farmers live rather precarious existences, depending heavily on loans, often from cocoa buyers.

Ryan discusses the high level of child labour often associated with cocoa farming. However, she argues that in the context of small farms, high labour requirements and poverty, this is not easy to resolve. It is a problem of poverty, not simple regulation.

Ryan's analysis challenges the idea that fair trade markets in cocoa are a panacea for the cocoa trade. She also points to the need for improved productivity and diversification. These comments effectively support the LLS approach.

Figure 2. Opening ceremony for the borehole at Nkrankrom

Many of these changes are directly and undoubtedly attributable to LLS. However, there are other changes to the landscape that have arisen from forces beyond local influence. One is the current (at the time of writing) high global price of cocoa. According to a brief from Worldwatch (Jaspersen, 2010), the global price for *"cocoa beans has been rising steadily since 2006, increasing by 106 percent between*

January 2007 and December 2009.... In December 2009 the price was 42 percent higher than a year earlier, and recent market indicators point to a relatively high price over the near term...".¹²

The high price of cocoa is outside LLS control, but arguably field schools for cocoa farmers have increased the capacity of cocoa farmers in the landscape to benefit.¹³ The extent to which this has happened has not been documented. These improvements need to be understood in the context of the overall limitations of smallholder cocoa production as a basis for secure livelihoods (see box, above). Improved productivity and a shift to a more diversified crop mix will also be part of the solution.

It is quite probable that LLS in Wassa Amenfi West has contributed to livelihood resilience. While this cannot be demonstrated conclusively, there are strong arguments to support the link. In the first place, increasing access to additional (not alternative or substitute) sources of income in the form of NTFPs bridges the gap between harvesting seasons and additional economic options as insurance if cocoa income reduces either for the individual farmer or for farmers in general due to crop disease or possibly reduced global prices. Potential future income from timber sales would also lead to greater livelihood resilience.

The distinction between 'additional' and 'alternative' income is important. None of the new or potential forms of natural resource-based income are intended as substitutes (alternatives) for cocoa income. In addition to increasing overall income, they are intended to complement cocoa income, at the same time providing diversity as insurance in case cocoa is reduced.

Decentralization policies have not impacted on LLS activities for poverty reduction. The Ghanaian government has had decentralization policies in place for some time. The CREMA is the outcome of a policy for decentralized resource management, but has not yet led to poverty reduction; though it has the potential to do so in future. Community Biodiversity Advisory Groups (for the GSBAs), similarly haven't led to poverty reduction, although some individuals get paid for work.

There have been no apparent negative impacts of the LLS interventions related to poverty reduction and livelihoods. A possible future threat is the issue of the sustainability of changes if LLS does not continue to work in the landscape. However, the changes do seem to have considerable momentum and there is probably little dependency, except that there may be a level of dependency in terms of awareness-creation activities, which have been directly supported by LLS.

Markets and incentives

Baseline situation

No specific market surveys or market chain analyses were carried out at the beginning of LLS activity in the Wassa Amenfi West landscape, but relevant studies were already carried out for the Allanblackia Project which preceded LLS.

Work was also carried out on exploring various aspects of NTFP marketing, especially for Allanblackia. However, the focus was on strategies for future support to marketing and did not discuss markets in detail.

The main products provided to the local market are:

¹² There is a downside to the global data, as the Worldwatch brief sees probable "moisture issues and viral disease" affecting supply in West Africa.

¹³ The Worldwatch brief describes some efforts by the International Cocoa Organization, the World Cocoa Foundation and Cocoa companies to support "a sustainable cocoa economy". These efforts include farmers' field schools and approaches that target "women farmers... [with] training activities about responses to pests and diseases and about proper production and post-harvest methods".

- Plantain and a variety of food crops;
- NTFPs, including cola, *Irvingia gabonensis* (a nut), *Griffollia simplicifolia*, honey, bushmeat, black pepper and some medicinal plants;
- Some timber is sold locally. Most of this is from chainsaw harvesting and most is illegal.

The main beneficiaries of this local market were (and remain) farmers and local collectors.

Not all medicinal plants are sold locally. Some are sold directly to local markets but others are sold to buyers. Voacanga is sold to international markets.

Apart from cocoa, the main products sold on or destined for more distant markets are Allanblackia and most cola nuts. In the case of Allanblackia, focal persons act as local purchasing agents for NOVELLA. In the case of cola, middlemen purchase from local collectors.

The main barriers in terms of markets are the distance of some villages from markets (as identified in the poverty assessment – see section on socio-economic conditions and livelihood baselines). The low price of Allanblackia has been a disincentive. Policies and regulations have not presented identified barriers and NTFPs are just treated as normal commodities.

Evolution and outcomes

Since the start of LLS there have been a few changes in the range of products sold on the local market. The major change is that some *Voacanga Africana* (a medicinal plant)¹⁴ is now sold on the local market, but this is for export and is not used locally.

Tree seedlings are a relatively new product sold locally. However, they are not sold at the local market as people go to communities to purchase them.

The only change among the stakeholders involved in marketing is that more people are involved in collecting. Overall, although there are now new products (apart from seedlings), there are above all more of many of the products available. This applies to both products traded locally and products traded more widely. No new arrangements for processing and marketing have been initiated by LLS. Market arrangements for NTFPs are built around Allanblackia; and Allanblackia marketing systems were already up and running. There have been no LLS-led interventions at any scale devoted to marketing. The emphasis has been on production and creating awareness of valuable products.

There are cooperatives in the landscape, but these are not for marketing and are not connected to NTFPs. Cocoa farming cooperatives have been formed within the landscape facilitated by the District Cooperative officer.

The first poverty assessment identified women as the main beneficiaries of NTFP markets. There is no reason to think there has been much change in this. Collectors are not especially or only the poor. Others also collect NTFPs. However, the rich generally do not bother with this activity.

On the other hand, rich people may be intermediaries in the marketing of higher priced NTFPs such as cola and voacanga.

¹⁴ *Voacanga africana* is native to West Africa. It has export value. The seeds are used by the pharmaceutical industry.

Forest and ecosystem governance

Baseline situation

Official governance arrangements are already highly decentralized in Ghana. There are formal District Assemblies, Area Councils and Unit Committees throughout the country. National governance structures, such as the Forestry Commission and the Department of Agriculture (both very important for LLS activities) are represented at the local level and cooperate closely with the District Assembly.

In addition to the formal operations of government, there are officially recognized community arrangements relevant to LLS. These include the CREMA, Community Forestry Committees and Community Biodiversity Advisory Groups (CBAGs).

These formal and officially recognized institutions at the landscape and district level and their roles include:

- The Forestry Commission which is responsible for the enforcement of forest and wildlife laws; issues permits for commercial NTFP harvesting; regulates forest concessions (issued from the FC in Accra); undertakes collaborative activities (such as education, training etc).
- Department of Agriculture which provides agriculture-related technical services including education/awareness focusing on best practices.
- The District Assembly which is concerned with infrastructure development inside the landscape (schools, etc.). The DA has also prepared a district biodiversity policy and issues by-laws for organizations such as the CREMA.
- CREMAs which are specifically concerned with natural resources outside protected areas.
- Community Forestry Committees which have roles both on and off-reserve. They assist in reducing illegal activities, receive boundary cleaning contracts and may become involved in additional income generating activities (including relevant training).
- The District Forest Forum which is a multi-stakeholder group. It is convened regularly. Resources are provided by LLS and sometimes by FAO through the Collaborative Forest Management Unit of the Forestry Commission.
- The Administrator of Stool Lands registers lands to prevent future conflict and collects land rents on behalf of the national government.

In addition to formal and officially recognized actors, are the traditional and local authorities. The traditional (tribal) authorities have strong authority and influence, although this is waning. The authority of the Stool chiefs comes from the control of land. One factor behind the waning influence of the traditional authorities is the fact that a lot of land has gone into individual hands. The chiefs still have a role in arbitration of land issues. Their role and authority is customary and recognized by law. It is, however, not codified.

There are some policies and officially promoted practices that are, or were, problematic in terms of LLS activities:

- The policy that all trees growing naturally off-reserve were vested in the government had implications in terms of incentives to plant trees.
- There was a perception that government agencies were promoting the view that hybrid cocoa trees were not shade tolerant and advocated cutting down all non-cocoa trees in plantations. This had perverse results in terms of biodiversity and mixed production systems. This has been recognized as an incorrect perception and the Cocoa Research Institute denies this was ever promoted. (In any case, this was a 'practice' not a formal policy.) It was known before LLS started that shade is

necessary and LLS assisted in popularizing the correct understanding through farmer field schools and forest governance activities at the site.

- There is a potential problem with mining concessions policy. All minerals belong to the government which can grant permits within reserves and farming land. This has not been an issue in the landscape so far, but the potential exists for mining concessions to be issued, with serious potential consequences for land use and biodiversity conservation.

The basic land tenure situation has been described in the introduction to this document. Although tenure arrangements for agriculture (including cocoa) are in place, the system is very complex and largely undocumented, leaving potential for considerable conflict, especially if land use changes significantly and if new crops impact on the value of land. As mentioned elsewhere, ownership of naturally growing trees on private land has been an issue.

In the forestry sector, there has been a degree of policy-driven decentralization, but the Forestry Commission has wanted to maintain control, with limited real devolution of power to communities. This has had some impact on the process of approval of CREMAs generally. In the case of the CREMA within the landscape the problem has been mainly that the completion of the process has taken a great deal of time.

As a general comment on the policy context, it is true to say that there are on the whole 'good' (i.e. appropriate for landscape management) policies, but implementation has been poor, mainly due to lack of political will.

Evolution and outcomes

Since the start of LLS the only new formal arrangements are the VPA Steering Committee, which is involved in review of policy and legislation, and the National REDD Steering Committee. Both of these are national arrangements, but have implications at the landscape level.

In terms of policy changes, one important change is the new policy on reforestation which supports tree planting in the landscape.

These new formal arrangements and policies have had impacts on the context within which LLS operates. There have been quite a number of changes in forest and ecosystem governance, many of which can be attributed in varying degrees to the interventions.

The CREMA has now been approved and inaugurated. The CREMA process was substantially facilitated by the LLS team which assisted with tree tenure rights, conflict resolution and facilitating meetings at community and District Assembly levels.

LLS supported a community forum in the process of the development of the District Assembly Biodiversity policy. This policy recognizes the CREMA and backs CREMA activities. The biodiversity strategy has rules and regulations and the CREMA will be establishing rules and regulations consistent with these.

There has been increased involvement in monitoring and protection by the CREMA, with greater awareness of issues as a result of the Forest Forum. The CREMA is more willing to work with the Forestry Commission, is more assertive and there is more trust between members and between the CREMA and the Commission. LLS can take a lot of the credit for these changes. Many of the fora were set up by the Customer Services Officer of the

Registering Trees on Private Land

In line with the Forestry Commission's administrative directive dated 3 August 2006 on [Registration of Private Plantations Located outside Forest Reserves](#), trees planted by farmers on their land belong to them, but need to be registered. Farmers were initially reluctant to plant trees as they had no evidence of ownership even if the trees were registered. A simple but effective LLS initiative was to design a registration form which included a copy of registration details to be kept by farmers. This increased confidence.

The 2006 directive does not apply to naturally regenerating trees on private land.

Forestry Commission and much of the work was done collaboratively with IUCN. (The Customer Services Officer is a member of the LLS Action Learning team.)

The approval of the CREMA increases the effective control of the community over the CREMA area and this is likely to lead to better management. The ability to issue hunting licences represents an effective form of tenure rights over wildlife.

Rights to trees on private land are currently limited to planted trees. There is now an interest in allowing naturally generated trees to be recognized as private trees. This important possibility is under discussion, with LLS involvement.

There is now more accommodation between customary and official tenure. LLS has brought the two together. This mainly involves support given to the Administrator of Stool Lands for education and awareness creation on land title registration. The support has mainly been in the form of funds for education and awareness creation.

According to the District Lands Officer, few farmers had registered lands with the customary land secretariat (data could not be provided) before 2009. However, in 2009 the Office received support from the IUCN LLS programme to educate and raise awareness, through radio and community outreach programmes, on the need to register lands; this resulted in a great many registrations and enquiries. The many registrations led to increased revenue generated from the ground rents for the district and therefore it was not surprising that the district was the most successful in the region in the collection of ground rents for the secretariat and was also voted the best in terms of the number of registrations in 2009 with 1,833 (1,352 males and 481 females). For 2009/2010 a total of 2,863 people (2,095 males and 768 females) registered their lands within the district. It is hoped that the support that was given to the Office to continue education and awareness creation will lead to yet a further increase in the number of registrations. This will show that lots and lots of people have come to realize the importance of the registration exercise to prevent future land litigations and receive assurances of security of tenure.

The introduction of a process for registering planted trees on private land (through a tree certificate) means that people are now more aware of the law and policy and are able to produce evidence of ownership. This was an LLS initiative. As a result of clearer, better documented tenure there is more protection and more planting. Farmers can prove ownership of their trees and will protect them. The success of Quarm Farms in harvesting and selling large amounts of teak for profit has provided a role model for farmers, showing that they can sell registered private trees and that this is a profitable option.

As there is a gradual shift away from cocoa as a more or less exclusive crop on 'leased' land, there is an emerging issue with some of the chiefs over benefit-sharing arrangements. These have been well established and clearly negotiated for cocoa but newer, sometimes potentially more valuable crops, raise uncertainty. It has become clear that landowners want a share of income from trees, similar to arrangements for cocoa, if land is planted with trees instead of cocoa. People have agreed that the main need is to negotiate when crops change. LLS has facilitated discussions on this during the district forest fora and community sensitization activities. Interestingly, in negotiation one chief offered a two-thirds share to tenants for trees planted on farms. This suggests that tenants will not necessarily lose out under the new arrangements.

One, perhaps somewhat intangible, contribution from LLS to forestry governance at the national level has been exposure of the Forestry Commission leadership to new ideas, resulting in new impetus for innovation.

While there are no major issues with decentralization at the policy level, devolution of decision-making power has been an issue generally in Ghana and the district. LLS has contributed to some extent to more effective devolution, partly through its support for the CREMA process and the willingness of the Forestry Commission to let people make decisions has increased.

Institutions

Baseline situation

At the start of the LLS intervention, relevant official institutions included the District Forest Office, the District Assembly and the Ministry of Food and Agriculture at both national and district levels. At the village level, the key institutional actors were the traditional village authorities. (See Introduction to this document.)

Of these, the Forest Services Division was especially important, having a role in most relevant aspects of the landscape, especially sustainable management of the forest estate. MOFA was also an important player with a role in promoting appropriate (and new) agricultural practices and farmer training. This included a focus on cocoa production. At the national level the Forestry Commission was (and remains) concerned with land administration, illegal logging and illegal hunting, while MOFA was strongly focused on declining cocoa production and soil fertility.

The District Assembly promotes a district level development agenda. This made it a very important actor in LLS. It was also responsible for promoting CREMA by-laws.

Other relevant institutions and actors and their concerns included:

- The Office of the Administrator of Stool Lands.
- The Centre for Agroforestry Business Development (CABUD), an NGO mainly concerned with sustainable use, NTFPs and 'community sensitization'. CABUD has strongly promoted and facilitated the establishment of the CREMA.
- The Institute of Cultural Affairs (ICA), a national level NGO. It had been an actor in the district because of its role in Allanblackia activities prior to LLS. It became a member of the LLS implementation team because of this role.
- SAMARTEX, a logging company, was invited to and attended various forums associated with LLS. Although the company was not a major partner, it was very cooperative and transparent. The main concern of SAMARTEX was for sustainable forest management, in the sense that it was looking for a long term, reliable supply of forest resources. SAMARTEX was also relevant because of its social responsibility agreements with communities.

At the village level, the main issues of concern included benefit sharing from timber harvesting and access to resources, including NTFPs.

Evolution and outcomes

During the implementation phase, LLS worked with all the actors mentioned in the previous section. It worked especially closely with the Forest Services Division on a variety of issues, including tenure, regulations, awareness and training. It also worked closely with the District Assembly on issues such as promoting the CREMA by-laws and linking with the development agenda of the District Assembly, especially regarding livelihood interventions. LLS made a contribution to schools supporting the development agenda. The LLS landscape team included representatives of the Forest Services Division and local MOFA office.

It is fairly clear that the institutional interventions and innovations that have occurred within the landscape are the key to LLS in Wassa Amenfi West. A number of new institutions evolved and other institutions changed the way that they worked.

LLS in the landscape was guided by an action research/learning team which was effectively the LLS team. This team can be equated to a small multi-stakeholder platform linking some of the main actors such as LLS staff, the Forest Services Division, the MOFA and CABUD. (Visiting LLS advisers joined the group when available.) The group met regularly and conscientiously reviewed and evaluated activities,

identified priorities and tasks and then planned new activities. The learning approach was institutionalized within this core group.

Another new institution was the CREMA. While this was not a new idea, the CREMA was newly established and the LLS intervention assisted with conflict resolution and with the bureaucratic processes necessary for its formalization. When LLS started, the formative CREMA committee already existed but lacked focus and cohesive community support. It was also the focus of some conflict resulting from unclear stakeholder agendas. These problems were resolved through LLS facilitation.

A major institutional change in the district is that government bodies have changed the way they work. They are now much more active at the community level. These changes are not about one or two individuals, but about an overall shift in the way institutions such as the Forest Services Division, the District Assembly and MOFA operate. They have taken on new tasks such as communication and awareness building at the community level. One example of this increased engagement is the Water and Sanitation Team of the District Assembly. When the borehole was provided at Nkrankrom village, the Water and Sanitation Team became involved in training a team of villagers in borehole maintenance.

Another important change relates to the Office of the Administrator of Stool Lands. The Office was not originally involved in LLS but is now active. The registration of land titles has been actively encouraged by LLS and, with LLS support, registration rates have increased greatly.

Civil society is already very active at the national level. Forest Watch Ghana, a coalition of environmental NGOs, is heavily involved in advocacy around government forest policies and acts as a pressure group on the Forest Commission. It is also engaged in building capacity among Community Based Organizations. At the landscape level, it has had some influence through the District Forest Forum. The District Forest Forum is a genuine multi-stakeholder forum which meets about four times a year. Forest Fora are also held at the national level once each year and twice at the regional level. LLS supports the forum at the district level with funding and sees these as most useful. The District Forest Forum discusses policy issues and environmental issues. LLS also supported training on forest and wildlife policy.

The District Forest Forum is a genuine multi-stakeholder platform. Members include government, civil society, CBOs, a District Assembly representative and police. The secretariat is supposed to be neutral, although, in practice it is hosted by the Forestry Commission and the District Assembly. Traditional authorities have a very important role in the forum.

Impact: how the project leveraged change

Scaling up landscape experience

The extent of the original landscape was based on the areas in Wassa Amenfi West where the Allanblackia Project was operating. Subsequently it became clear that the Allanblackia 'landscape' was not adequate as a landscape and that there was a need to take account of multiple land uses. As the new landscape-level issues were recognized LLS moved to a wider focus. This shift to a wider focus happened very early in LLS. At first, the LLS team had the whole district in mind, but the actual boundaries were not decided until July 2008, when the size decreased as previously described.

There has been little movement towards replication in other non-LLS landscapes, although some other agencies wanted to work in the Asankrangwa landscape. LLS Ghana is working in two other landscapes on a smaller scale. Priority issues include governance, tenure and poverty in one and forest landscape restoration in the other. The main emphasis on scaling up has been on the transfer of experience by way of a contribution to capacity building. People from other parts of Ghana joined in the modelling training in 2007.

The LLS experience has been influential on the government's thinking on REDD. The government is thinking of applying the LLS approach to pro-poor REDD in other sites.

In terms of country-to-country scaling up, there have been a number of elements:

- The Ghana LLS team has assisted LLS Liberia with training in the poverty assessment toolkit;
- There was a visit from LLS Mali to Wassa Amenfi to learn from and share experiences;
- A paper on experiences with tree certification was presented at the Commonwealth Forestry Conference 2010 (Adeleke, 2010).

Influencing government

The LLS project has had considerable influence on government through its national role in supporting better forest governance. At the national level, LLS has been part of 'Strengthening voices for better choices' (SVBC), a national project concerned with reducing illegal logging practices in Ghana. This is linked to VPA (Voluntary Partnership Agreements) processes and the exploration of these. While the VPA process has been separate from LLS formally, there have been strong links. In a reverse of scaling up, approaches under SVBC and VPA have been applied at the landscape level. Essentially the efforts have all been about applying multi-stakeholder processes (MSP). Instead of farmers talking only to each other, they have been talking to other actors such as loggers and the government. These MSPs have been applied to the District Forest Forum. Application of MSPs has been an explicit LLS intention.

The increase in community awareness of rights, issues and possibilities has meant that people, through the MSPs, are more willing to question government officials. It is likely that this will gradually enable greater influence on policy.

In a number of areas, lessons from the landscape have been passed to government:

- Presentations to the District Assembly have influenced the approach of the executive and of various committees. The main focus has been on oral reports of activities, showing the links between forest dependency and poverty and also reports on tenure conflicts. The report of tenure conflict (Opoku, 2009) was also presented to the District Assembly.

- At the district level, LLS influenced the decision of the district to prepare a biodiversity strategy. It also influenced the content of this strategy.
- At the national level LLS shared reports, especially on forest poverty linkages.
- LLS contributed to discussions on REDD at the national level, by showcasing different land uses as part of the discussion. The landscape has been accepted as one of the national pilots for REDD. Contributions were made using PowerPoint presentations and flyers.
- There has been an obvious impact on policy especially regarding environment and economic assets and REDD policy. The concept of the role of multi-stakeholders in multiple land use has influenced the national approach to REDD. A lot of LLS thinking has been of influence. This can clearly be attributed to REDD.
- The SVBC programme and the VPA process have had an influence on policy at the national level. IUCN has facilitation responsibility for MSPs around VPA negotiations. The outcome has been greater participation by stakeholder groups in deciding on the text for the Ghana Negotiation Position for VPAs with the European Union. In other words, IUCN influenced the process, making it more transparent and inclusive, providing an opportunity for stakeholders to negotiate. Initially there was a great deal of resistance to the idea of negotiation from many stakeholder groups as it takes time to move people from entrenched positions. (Ghana was the first country to sign a VPA with the European Union. It is now in the implementation phase.)
- As a result of the MSPs, the views from communities (including the LLS landscape) are coming into the negotiation process and information is also going 'down' to communities.
- A meeting of Dutch Supported Initiatives in Ghana occurs twice each year to update on activities and issues. LLS makes a presentation at each meeting of this group.

Influencing global thinking

LLS experiences in Ghana have been presented at a number of international fora:

- Adewale Adeleke made a presentation at the Commonwealth Forestry Conference in Edinburgh in August 2010 on "Breaking down the barriers to locally driven restoration: The key to responding to climate change". This presentation discussed the use of tree certification in the Wassa Amenfi West landscape.
- Bob Fisher presented a paper on LLS experiences on tenure at the IUFRO Congress in Seoul in August 2010 (Fisher *et al.*, 2010). The presentation included discussion of tree certification in Ghana.
- The LLS landscape was used for the field part of the Forest Dialogue on REDD Readiness for Ghana dialogue. In November 2009, twenty-five people from Ghana and twenty-five international participants visited the landscape for two days and talked with CREMA members and others. (See Mayers *et al.*, 2010)

What we've found out: reflecting on insights gained and lessons learned

Major lessons learned

A number of important lessons have been learned from LLS in the Wassa Amenfi West landscape. Some of these are quite specific to experience in the landscape. Some 'lessons' are not so much novel lessons as experiences which confirm, reinforce or provide increased understanding of existing assumptions and theories. In many ways such confirmation can be very useful.

The main lessons include:

- Experiences in the landscape have provided a better understanding of the landscape approach, especially in supporting the recognition that the landscape approach is about interactions between land uses, stakeholders and outside influences.
- The experiences provide further examples supporting the idea that institutional arrangements are at the core of a landscape approach (specifically the LLS approach). Examples are the effectiveness of new organizations/institutions such as the CREMA, new institutional arrangements for certifying tree tenure and the value of the action learning team. Each of these new arrangements enabled changes in management.
- The success of the tree certificates shows that having clear evidence of ownership increases the enthusiasm of owners and their willingness to invest time and resources. (This is a case of a lesson which reinforces a common hypothesis/assumption.)
- The tree certificates also show how simple (and low cost) changes to procedures or arrangements can have profound effects. This can be thought of as 'institutional tweaking'.
- Providing information on policies and rights to communities can empower them to make decisions and deal with government agencies more effectively. The use of public fora is an effective way to achieve this.
- Community exchange visits within a landscape can be very useful as part of a learning process. An example of this is the impact of people visiting other communities to see the extent and benefits of tree planting. People involved in CREMA from other areas in the western region visited the CREMA in the LLS landscape and were greatly motivated by the nurseries and the trees in those nurseries.

Several tools and methods were found to be very useful in the Wassa Amenfi West landscape, including:

- The action research/action learning approach was a very useful way to plan and review activities. In addition to the overall coordination of activities through the LLS landscape team, the approach was also useful when used at the community level, in an informal and relatively unstructured way.
- The poverty toolkit was very useful for understanding forest dependency especially in terms of identifying different types of and levels of dependency.
- MSPs at various levels (national, district and local) were very useful for assisting people to negotiate their interests.
- Simulation modelling was useful in the early stages of the LLS intervention for the purposes of generating discussion and raising issues. However, it was too complex for application at later stages.

Implementation: major challenges and difficulties

A major challenge for the landscape, in the future, is that customary tenure has not been codified and there is no cadastre. This has not been a great problem so far. However, this may change if the value of land changes. There have already been minor concerns about rights to planted trees on leased land as discussed earlier. REDD will be a big challenge for the future in terms of the way benefits are shared between landowners and tenants. Possibly landowners may decide there is no value in tenancy agreements. In this case, with an absence of codification and cadastre, conflicts about land ownership are very likely to arise. Changing land use is therefore potentially a major threat.

There were some difficulties related to how LLS was approached and implemented (as opposed to the context). These included:

- There was not enough information collected on baselines for biodiversity at the start of the LLS process. This is largely a consequence of problems with scale and methodology.
- The M&E system (for LLS as a global programme) was developed far too late. Apart from time spent developing local indicators and then revising the landscape-specific M&E process to fit with the global system, there was little time for changes to occur between the baseline and the end of LLS, making it difficult if not impossible to identify and measure meaningful change.
- The problem of landscape size and boundaries was underestimated when the landscape was first identified. It was just too big. Fortunately it was adjusted and the difficulty was avoided.

The following tools and approaches were very useful:

- Action learning was very effective. It helped with issues such as changing plans when problems were identified (such as changing the landscape boundaries). It also helped the LLS team to identify a whole range of issues which were followed up effectively. An example is a simple task like going to banks to see what options were available for credit. The feedback mechanism from such simple steps helped with planning future steps.
- The emphasis placed on collaboration was very important. The main element here was simply getting people together to discuss issues. Action research went beyond the LLS team. Action learning was applied in other fora.
- The poverty toolkit was very useful for identifying levels of forest use and dependency.

The LLS team did not find that any particular problems were unsolvable. Issues that appeared as challenges were solved progressively.

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