Forest Certification in Zambia

*Felix Njovu**

* Felix Njovu, M.Sc.
Forest Economist, Copperbelt University. P.O. Box 21692
Kitwe, Zambia
chinjovu@cbu.ac.zm

ABSTRACT

Interest in forest certification as a means of promoting sustainable forest management arrived in Zambia in the early 1990s. Before then, all forest management was done by the government and users were only required to obtain licenses for the use of forests. Forests cover over 41 million hectares, more than 55 percent of Zambia's surface area. Both local and national events led to development of interest in certification. Locally the need to earn higher incomes from various forest products, coupled with an increased awareness and concerns by western consumers, prompted local companies and organizations to seek forest management and chain of custody (CoC) certification. The certification efforts have, however, met a number of roadblocks and challenges arising from uncertainty, the cost of certification and the absence of tenurial rights by certified companies. The nature of tree and land ownership in Zambia is the biggest challenge, as all forests are government owned. This makes private management to meet the certification principles very difficult except in forest plantations. Presently government, the owner of forests, has no specific policy or official stand on forest certification.

Zambia's forest sector is confronted with both ecological and economic challenges. Deforestation and forest degradation are the main ecological problems, while the low contribution of forestry to GDP, despite its significant resource endowment, is the key economic challenge.

The main driving force for forest certification has been the need to gain access to foreign markets that are large and reliable, rather than better prices. The first companies to seek certification were involved in rural development and the use of natural resources as a means to combat poverty. These companies promoted forest certification for the purpose of harvesting non-timber forest products. Private sector companies came in as a result of liberalization of the national economy, which saw both an increase in competition and a decline in economic activity, resulting in a depressed local market.

Being a new phenomenon, certification's future in Zambia depends on the success of the five certificates that are currently operating in the country. The sixth certificate has been suspended due to controversy over the certificate and forest ownership. Should current certificate owners meet with success in terms of improving the management of the forests while at the same time increasing returns from the utilization of the forest resource by accessing foreign markets, then the future of certification will be bright, as more companies are likely to seek certification.

INTRODUCTION

Forest certification first gained attention in Zambia in the early 1990s during a turbulent time in which the country moved from a socialist command to a market economy. These broad macro-factors are central to any story of forest certification because the government gave up its controlling interest in most economic production ventures (including the forest sector), resulting in increased attention to, and interest in, market forces and incentives. As a result, forest certification, with its focus on market-approaches, was arguably facilitated by these broad changes in economic orientation. Whether, and how, forest owners are able to take advantage of forest certification, however, is contingent on successful implementation of these reforms, which are still at a nascent stage. Indeed, as late as 1999, the state maintained sole responsibility for authorizing forest management and the development of forest products. The total certified indigenous forest area is currently 8,485,000 hectares. This represents 11 percent of the 75,260,000 hectares of the total land area for the country.

In part for these reasons, initial interest in certification can be traced to two different international sources: export markets and international donors. The first was a response to concerns in Europe and America, where consumer awareness is relatively high. These concerns originated with the knowledge that, while Zambia is well endowed with forest resources, the last quarter century has witnessed widespread deforestation that has depleted this valuable resource. As a result, exporters found that it was not possible to export Zambian forest products without offering any assurance to the foreign markets about the quality of forest management (Malichi 2004). In view of this it was deemed necessary to satisfy the foreign market by meeting the European and American standards. To this end certification was sought with the hope that it would open export opportunities for these certified products. Whereas community-based natural resource management organizations have funded the certification for non-wood forest products (NWFP), commercial companies have had no subsidy for funding the certification process. To them it has been a business risk that has to be undertaken in order to safeguard market share. There is no guarantee that certification will bring increased profitability.

The second set of international sources consisted of donors, who were interested in promoting community forestry community development and poverty alleviation. Such efforts and resources created fewer bottlenecks than existed for commercial forestry, and as a result, it was on these forests that the first certifications were granted. However, as shown below, sustainability of the operations after the departure of donors could not be assured because of the existing macro-economic conditions Zambia was facing.

For these reasons, existing effects have been mixed. Different stakeholders view certification differently. Whereas the certified organizations view it as a way to sustain their businesses, government looks at it as a process that diminishes its power and control over forests. Consequently, government acceptance of certification has been cautious.

A decade after forest certification arrived in Zambia there is still doubt over the benefits that the practice of forest certification can bring with respect to improved management of the forest resource. At the moment, government, the owner of the forest, has shown little interest in certifying their forests, the forest companies show reluctance due to lack of assurance of the possibility of the investment in certification to pay back, while there are no strong indicators of environmental benefits on the ground.

In spite of these cautionary tales, this paper finds that the story to date is important for two reasons. First, a review identifies and addresses key bottlenecks that, if removed, might facilitate future effectiveness. For instance, as we show below, a major roadblock to forest certification was that until 1999 the private sector and forest communities were not permitted to participate in the management of the resource. However, the government has introduced a new forest policy designed to devolve responsibility to local communities. When, and if, these changes are fully implemented, forest certification arguably will have greater potential to enhance forest management. Such impacts would be enhanced to the extent that international demand for certified wood increases.

Second, there seems little doubt that, though difficult to measure, certification has also had positive social, economic and environmental impacts in terms of the ideas and norms concerning what is viewed as responsible sustainable management of the forest resource. At same time it is clear that forest certification in Zambia will only constitute a piece of the sustainable forest management puzzle and that other issues, such as indigenous forest management rights, may have to be addressed in a meaningful way through other arenas.

The remainder of this paper proceeds in the following analytical steps. Following this introduction, it identifies background factors that are central to understanding how forest certification initially emerged. It then explores trends and social, economic and environmental impacts of certification, followed by a description of the current status of certification in the country, and concludes by identifying future trends and pressing research needs.[1]

BACKGROUND FACTORS

Zambia is a landlocked country in Southern Africa surrounded by Congo DR, Tanzania, Malawi, Mozambique, Zimbabwe, Botswana, Namibia and Angola. There are two main routes to the sea, through the South African ports to the south and through the port of Dar es Salaam to the Northeast. The country belongs to a number of regional political and economic groupings such as the African Union (AU), the Southern African Development Community (SADC) and the Common Market for East and Southern Africa (COMESA).

The country is regarded as one of the highly forested countries in Southern Africa, with forest covering about 55 percent of the 752,600 square kilometer surface area, most of which is administered traditionally under customary law. Gazetted[2] protected

[1] Research for this paper included in-person interviews, as well as a review of existing primary and secondary sources. Key in-person interviews included the Acting Director of Forests, former General Manager of Muzama Crafts Ltd., the managing Director Ndola Pine Plantations Ltd., Kabompo and Mpongwe communities and the Community Development Organization. Additional information was obtained through literature review and analysis of primary data in various reports.

[2] To gazette an area is to officially designate the particular piece of land in terms of land use through legislation. In this case, the official land use is forestry.

forest reserves occupy about 9 percent of the total land area and forests in national parks[3] another 9 percent. The importance of forests and woodlands to the development of the country is widely acknowledged.

[3] Area reserved specifically for wildlife management.

Zambia's vegetation is classified into three major categories. In the first category are the closed forests which comprise *Cryptosepalum* evergreen, the deciduous *Baikiaea* forests and to a limited extent the *Parinari*, *Marquesia*, montane, riparian swamp and itigi. In the second category are the open forests (savannah woodlands), which account for 87.4 percent of the total forest area in Zambia. These woodlands are dominated by the Miombo woodlands followed by the Kalahari woodlands, Mopane and Munga woodlands to a lesser extent. The last category of vegetation is the grasslands, including wetlands and dambos[4]. Table 1 below shows the major forest types in the country. The most common tree genera in the Miombo woodlands are *Brachystegia*, *Julbernadia*, *Isoberlinia*, *Marquesia* and *Uapaca*. The soils are rather poor and the trees have thus developed in collaboration with mycorrhizal fungi. Apart from wood, the Miombo woodlands are a source of many NWFP including mushrooms and honey.

[4] Low lying depressions where the water table is close to the surface. Mostly covered with grass and other species that tolerate high water tables.

Table 1 Forest types in Zambia

Forest type	Percentage of total forest area	
Closed Forests		8.2
Dry (evergreen and deciduous)	7.7	
Swamp and riparian	0.5	
Open Forests		87.4
Miombo	58.3	
Kalahari	15.8	
Mopane	7.2	
Munga (acacia)	6.1	
Other		4.4
Termitaria etc	4.4	
Total	100.0	100.0

Sources: Makano, Ngenda and Njovu 1996

Historical Context

To understand the rise in interest in forest certification, it is necessary to know the background to the socio-economic development of the country. The main export commodity has been copper, which is exported to Europe. Within the region the major trading partner is South Africa, where a number of companies that operate in Zambia are based. The bulk of Zambian timber exports are also to South Africa. Since independence in 1964 Zambia has relied on mineral export for foreign income, but efforts are now being made to diversify the nation's economy. Wood is one of the natural resources that is abundant, but there has been little investment in this sector. The shift from a command economy to a market economy in 1991 has encouraged private sector participation in the forestry sector and this has resulted in efforts being made to export forest products. However, the world market for these products is now demanding certified products, hence various attempts to certify forest products from Zambian forests.

Domestically, two major factors have been responsible for protecting indigenous forest areas in Zambia: the need to conserve areas of biodiversity significance and the need to provide industrial wood raw material for the various industries in the country, especially the mines.

The reasons for starting plantations in Zambia were: to supplement the limited supply of timber from the low-yielding indigenous forests; to provide timber resources for the mining industry, as it was feared that the indigenous forests would be exhausted or become uneconomic due to ever-increasing extraction distances; to form the basis for the wood industries in view of the increasing consumption of construction sawn wood, wood-based panels, various types of pulp products and certain round wood products, which all had to be imported, thus exerting pressure on Zambia's foreign exchange reserves; and to provide employment for thousands of people in forest-related industries and the service sector.

Plantation development was started by the government in the 1960s on a pilot scale. To date there are over 55,000ha of industrial forest plantations in the country. The species used have mainly been pine (79 percent) and eucalyptus (20 percent). Currently the commercial plantations are being reduced, as there has not been enough replanting and/or expansion. It can be stated that the forest plantations have greatly reduced the pressure on indigenous forests in the Copperbelt. Until 1991 all forest plantations were owned by government either directly or through a parastatal company called Zambia Forestry and Forest Industries Corporation (ZAFFICO). Apart from plantations, this company also operated some softwood sawmills and a pole treatment plant. With the advent of liberalization in 1991, the industrial assets (sawmills, wood preservation plants and carpentry workshops) were sold off together with part of the plantation. Private companies now own about 2,000ha of the original 55,000ha ZAFFICO plantation.

Forestry Problems

The major forestry problem in Zambia is deforestation and forest degradation resulting from mismanagement for narrow, short-term gains (MENR 1997). Eighty two percent of the forests lie on customary lands. Government ownership is equivalent to no ownership as there is no one on the ground to control exploitation. This has promoted forest degradation through illegal harvesting. The stringent economic programmes that were implemented in the 1990s focused on liberalization and reduced state interference in the economy. These were accompanied by reduced spending on social services and loss of formal employment, thereby increasing poverty levels. The prevalence of poverty in rural areas has implications for forestry, as it remains the only resource that can provide fall-back support.

The reduced government expenditure has also meant that few resources are available for the management of forests, resulting in diminished government control in on the ground. As a consequence, deforestation has increased, encroachment is up, and there is an overall degradation in the quality of the forest resource arising from uncontrolled and illegal practices.

Policy Responses

Realizing its failure to properly manage the forest resource, the government adopted a new forest policy in 1998. The main tenet of this policy is the acceptance of communities and other stakeholders in the management of forest resources through a practice termed “Joint Forest Management” (JFM). Under the arrangement, a community or other organization may apply to the minister of Tourism, Environment and Natural Resources for permission to manage a given forest with technical assistance from the Forest Department. The benefits arising from the forest are to be shared between the two parties. The new law that grows out of this policy reflects the aspiration of government to sustainably manage the forests. Although it refers to forest and timber products, it does not give guidelines on issues of certification in the light of the market economy.

The private sector has taken advantage of the government’s laxity and increased timber production. However, since the local market cannot absorb all of the locally produced timber, companies have had to seek foreign markets, and in so doing are faced with the demand for certified forest products. Hence efforts to certify forests and forest products.

The response of NGOs has been to promote the harvesting of NWFP as a way of maximizing the value of the forest without tree cutting. Attempts have been made to obtain certification for the forests from which these NWFP are taken.

Structural Features

The main feature of the Zambian forestry system is the ownership pattern and the way in which power and rights have been distributed.

Ownership and Tenure

Legal ownership of all land and natural resources in Zambia is vested in the republican President, who administers it on behalf of the citizens. Consequently all trees are “owned” by the President on behalf of all Zambians (Forest Act Number 7, 1999). For operational purposes the administrative powers have been delegated to various institutions. Consequently, forests are administered by either the traditional chiefs or the Director of Forestry on behalf of the President. The change from a socialist to a market economy has not resulted in a change of ownership of the forest resources. What has changed is the ownership of the means of production, whereby the private sector can exploit the resources to produce goods and services. In terms of land tenure the country is classified as in Table 2.

Table 2 Land ownership in Zambia

No.	Category	Percentage
1	State land	6
2	Reserve land	35
3	Trust land	50
4	National parks	9
Total		100

Source: MENR 1997

Both trust and reserve lands are regarded as traditional land and administered by traditional chiefs and their headmen who control land allocation. Ownership is sustained through land utilization (cultivation) and may be inherited. Land, forests and wildlife resources in uncultivated areas are communally utilized (MENR 1997). Traditional land outside of protected areas (forest reserves, game management areas (GMA), national parks and bird sanctuaries) are referred to as open areas. Land designations that are relevant to forests include:

- *Forest reserves* – which are either local or national protected forests that are protected from open access because of their national value such as protection of water catchment areas for river systems. Licensed forest activities are allowed in these areas by the Forest Department.
- *Trust land* – also referred to as open areas. These are open for community subsistence use. Tree harvesting for domestic use is free; however, limited commercial harvesting is allowed through casual and pit sawing licenses obtained from Forest Department.
- *National parks* – these are managed for the protection of wildlife. No forestry activities are allowed.

Regardless of land ownership, trees remain government property. The President has delegated the authority to manage and administer all forests to the Forest Department in the Ministry of Tourism, Environment and Natural Resources. The Director of Forestry can transfer the right of utilization to any individual or organization through a license. There are four main types of forest licenses issued by the forestry department:[5] the production license, the conveyance license, the concession license and the casual license. The various forest licenses allow for the harvesting of timber from the forest. The regulations in the forest licenses only stipulate the 'proper' ways of cutting the trees and handling 'waste,' the remaining material from the cut trees. These regulations are aimed at promoting continued growth of the remaining forest. The Forest Department monitors harvesting. The forest licenses do not say anything about certification. The same licenses are applicable in both certified areas and uncertified areas. NWFP are usually collected free of charge. Although a small fee may be charged for entering the forest, it has no relationship with quantity collected.

A combination of both local and international factors led to the acceptance and adoption of the certification process by local institutions in Zambia.

[5] The production licenses are used for the commercial production of sawn timber and may either be commercial saw milling licenses or a pit sawing licenses. The main difference between the two is that one allows for the use of motorized saw milling equipment while the other is for the manual production (using hand tools) of sawn timber respectively.

The concession license gives rights to the holder to harvest trees in a given area for a specified period (usually five years). To qualify for this license, the applicant must produce a forest management plan and satisfy other requirements such as owning a sawmill. Production takes place within the forest. In most cases, concession license owners produce timber for export.

The conveyance license allows for the movement of forest produce from one area to another. The main forest produce that attracts a conveyance license is timber in its round or sawn form, firewood and charcoal.

The casual license is a general license. It allows the holder to harvest forest produce for domestic use and sometimes for sale. Where selling is involved, rough sawn timber is sold to large sawmills, construction companies and furniture manufacturers.

Local Factors

From 1972, Zambia was politically administered as a command economy by a one party government system. Under this system most of the important means of production were in government hands and administered as parastatal companies. This situation also applied in the forest sector where a number of companies were involved in industrial plantations, harvesting and processing indigenous forests, and secondary manufacturing using forest products as raw materials. With the collapse of the economy and subsequent adoption of a market economy, government had to withdraw from economic activities and assume the role of overseer. This was achieved by liberalizing the economy to allow private sector participation and also by selling ('privatizing') companies previously run by government. These two changes removed the protection that local companies previously enjoyed and also introduced more players into the market.

For some time the government had been trying to develop rural areas. To achieve this, a number of development projects were embarked upon. One of these for the Northwestern province was the Integrated Rural Development Programme (IRDP). This programme was aimed at poverty alleviation but had a limited life span. The activities that were started under IRDP were not continued under government funding. As a solution, it was decided to commercialize some of the viable activities, and this resulted in the formation of North Western Bee Products Ltd (NWBP) and Muzama Crafts Limited (MCL) in 1986. The change of economic policies in Zambia found these companies in their infancy. Whereas previously their operations were shielded by donor funding, this no longer was the case.

The fact that the local economy was seriously depressed meant that there was no money in the local economy. Privatization resulted in a number of retrenchments. Manufacturing companies had to struggle to sell their products to the 8 million inhabitants. The local market could not absorb the production taking place in the economy. A solution was to look to foreign markets in order to sell larger volumes. In addition, the pricing structure for local raw materials has not been favorable to local producers, e.g. the introduction of Value Added tax (VAT) and higher fees for tree licenses.

On the Copperbelt, the establishment of Mpongwe Development Company (MDC), a large Commonwealth Development Corporation (CDC)-funded agricultural undertaking, brought some hope to the rural area. However, a number of people live around this agricultural project and provide seasonal casual labor. Due to high poverty levels, and in an effort to improve the livelihoods of the local inhabitants, the Miombo Project for wild mushroom collection was introduced in 1996-7. One of the activities of this project is to promote the marketing of wild mushrooms that are in season at the time when the labor requirements in the coffee plantation are low. The local people have been encouraged to deploy their energy on collection of mushrooms from the surrounding forests. The Miombo Project facilitates transportation and export. Since the local people cannot, as individuals, profitably take their mushrooms to urban markets, which are already saturated with the same mushroom from nearby forests, the project sought foreign markets for the product. In the process of accessing this market, the issue of product certification came up.

International Factors

Timber certification initiatives began in 1992 following the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro. The Rio conference recognized that problems of poverty and food security were linked to deforestation and indebtedness of developing countries. A number of intergovernmental approaches and protocols provided a setting for the development of certification standards worldwide (Bass 1998). Environmental NGOs and other interested groups started the certification initiatives leading to the establishment of the Forest Stewardship Council (FSC) in 1993 (Ng'andwe 2003). Other certification schemes arose thereafter. The goal of FSC is to promote environmentally responsible, socially beneficial and economically viable management of the world's forests (FSC 2000).

After Rio, international awareness of environmental conservation increased in most countries. Other research results also showed that increased damage to the environment in one locality affects the quality of life elsewhere. An alarm was raised about the cost of ozone depletion and global warming. All these, it was realized, had origins in the uncaring manner in which natural resources were being harvested and used. In an effort to encourage better management of forest resources, it was thought wise to impose measures that would encourage sustainable management of these forest resources. European and American consumers also began to demand more natural as opposed to artificial products.

One way to respond to these multiple concerns was through forest certification. The idea was to restrict markets for those countries and organizations that do not manage their resources sustainably, and to expand them for those that do. With this restriction, it has become difficult for Zambian institutions that are trying to export forest products to do so. Local institutions are interested in either poverty alleviation or industrial development. Since the local market is small and depressed, higher incomes and increased production from forest industries can only be attained through access to international markets for both wood and NWFPs.

Zambia is a signatory to over 22 international environment-related conventions, some of which have been ratified. The conventions and treaties provide a policy framework to guide the nation's international policy on forests. The national forest policy does not mention forest certification but the main themes are sustainable management, conservation and utilization.

Markets

Before independence in 1964 and immediately after, Zambia was a net importer of forest products (mainly soft wood for construction and other industrial uses). However, with the development of the forestry plantations, the country has become a net exporter of softwood timber and timber products. Currently softwood timber from Zambian plantations is utilized locally as well as exported. All harvesting at the moment is commercial. ZAFFICO sells standing trees to private sawmill owners who produce sawn timber and boards for both local and foreign markets.

The main demands for timber are accounted for by domestic firewood and charcoal consumption. Charcoal is a significant commercial forest product and provides an important source of income for rural communities. Wood fuel is the main source of domestic energy in Zambia. Construction poles, saw logs and peeler logs are also in demand. Important non-wood products include mushrooms, game meat, honey, fruits, insects (caterpillars), fibers, and medicines.

Commercial indigenous timber harvesting has mainly supplied the local market. The main consumer has been the mining industry, which uses lumber for railway sleepers, underground pit props and copper smelting. Selected tree species of high quality (e.g. *Pterocarpus angolensis*, *Guibortia coleosperma*, *Afzelia quanzensis*, *Baikiaea plurijuga* and *Faurea saligna*) have been sawn for the construction industry and for high quality products such as furniture. Since the liberalization of the economy and resumption of trade relations with South Africa, a number of South African companies are investing in extraction of indigenous timber species for export to South Africa and other countries. Table 3 shows the importers of Zambian timber products.

Table 3 Timber exports (2001)

Importer	Value (US$)	Proportion of total (%)
Tanzania	7,000	0.20
Norway	12,000	0.39
United Kingdom	16,000	0.59
Sudan	19,000	0.61
Italy	27,000	0.87
Egypt	32,000	1.03
Congo (DR)	48,000	1.55
Malawi	63,000	2.04
Botswana	233,000	7.53
Zimbabwe	479,000	15.48
USA	840,000	27.15
South Africa	1,318,000	42.60
	3,094,000	100.04

Source: FAO STAT and Musonda 2002

Non-Wood Forest Products

Apart from subsistence agriculture, the collection of non-wood forest products is an important livelihood activity in all rural areas. Household livelihoods have traditionally been based on the consumption and trade of NWFP. The transportation and communication systems in rural areas are not developed, thus NWFP are usually marketed locally. In urban areas too, high unemployment and poverty lead to high dependence on forest products. Unemployed and poor urban dwellers rely on forests for their livelihoods and income supplementation (as firewood collectors, charcoal producers, as collectors and sellers of NWFP), while employed urban dwellers provide the market for the forest products. This is possible because of the nature of forest ownership in Zambia. Since ownership of all forests is vested in the President, access is virtually free for the collection of NWFP. Conflicts only arise in instances where one tries to settle, cultivate or cut trees in a forest area without legal authority. Depending on the land use designation, one can acquire a license for harvesting timber or a title for settling land.

This situation means that forests are viewed as common resources for all and that they do not belong to any specific group of people. However, the possibility of changing the ownership offers opportunities for private ownership. Currently it is not easy to demarcate the difference between certification and ownership. The certificate holder is required to impose restrictions that may only be done by the owner of the forest. Thus, creating the conditions for widespread certification will require accumulating powers and duties regarding forests tantamount to those of ownership.

Timber Products

On the indigenous timber front, the country has always been a net exporter of high value timber from *Baikiaea plurijuga*, *Pterocarpus angolensis*, *Guibortia coleosperma* and a few other species. Timber from the natural forests is still being utilized both locally and in the external market. The major export in this area is sawn timber. Harvesting in the indigenous forests is both subsistence and commercial. At the subsistence level casual license owners produce sawn timber by pit sawing and sell it to other users including commercial establishments. Commercial harvesting is done by concession license owners.

THE EMERGENCE OF FOREST CERTIFICATION

Interest in forest certification as a means of promoting sustainable forest management arrived in Zambia in the early 1990s. Before then, all forest management was done by the government and users were only required to obtain licenses for the use of forests. Both local and national events led to the development of interest in certification. Locally the need to earn higher incomes from various forest products, coupled with an increased awareness and concerns by western consumers, prompted local companies and organization to seek CoC or forest certification.

Initial Support

Certification has been seen as a way of getting around the non-tariff market barriers that exist in European and American markets. The fear of losing market share forced Zambian companies to enter into certification processes. Only those companies with the capacity to acquire forests from government, manage the certification process and simultaneously export their products have been able to support this endeavor on their own. Support for community forestry certification has come mainly from international donors.

The issue of certification of forests and forest products is driven by international markets. Locally there is little or no consumer awareness about forestry or forest products certification. The idea of forest product certification is to link trade to the sustainable management of forest resources by providing consumers with information on the production status of the forests from which the timber and other forest products come. In Zambia certification has not developed as a domestic process. It has been a foreign market driven process, and it began in 1990 with the organic certification of NWBP's honey, which was the first of its kind in the world (Thornber 2000). This was followed by the Muzama's certificate in 1998, which was the first Forest Stewardship Council (FSC) forest management certification in Zambia, and then the MDC certification of organic wild mushrooms in 1999.

The most recent certification has been that of 1092 ha of a private plantation in 2003. This is part of the former ZAFFICO industrial plantations that has been leased to Ndola Pine Plantations Limited (NPP). This is complemented by two chain-of-custody (CoC) certificates awarded to WPI and NZG.

Institutional Design

Almost all certified forests and forest products in Zambia hold an FSC certificate. There is no local certifying body in Zambia, nor is there a local chapter of FSC. The interested organization approaches a certifying agent who does the assessment and makes appropriate recommendations based on FSC requirements. Once these are fulfilled, FSC certification is granted.

Prior to 1990 government technocrats decided what was good for the forestry sector, the politicians adopted this as policy, and implementation was done. After 1990, however, the process changed in that wide consultation on forest matters was done at all levels (government officials, traditional rulers, civil society and other interest groups) before adoption of any standards. This is the international trend adopted in Zambia following current world approaches in forest management. This is the process through which the current forest policy was adopted. The development of forest guidelines also goes through the process of consultation with relevant stakeholders.

Standards

Except for MCOSC, which was a wild mushroom certification done by Ecocert, all cases of certification in Zambia have been under the FSC standards. These standards were not locally developed and the organization seeking certification had to satisfy them and abide by them in order to keep the certification. Modification on a case-by-case basis is possible but generally the established FSC guidelines and principles are followed. The lack of local initiatives and certifying agents has probably resulted in this situation, whereby standards that were developed elsewhere are being followed.

In contrast to the situation for plantations, for which standard management practices have been developed, there is no proven practice for the management of the natural Miombo forest that forms the major vegetation type in Zambia.

Consequently there are no known management plans (Kowero 2003). This makes it difficult to prescribe any actions for purposes of maximizing productivity of any given forest product including timber. Nonetheless, the certifying of some forest areas gives credence over time to the practices that are being applied to the forests, as monitoring is done by independent auditors. This creates confidence that sustainable management practices are being established. There is therefore an incentive to manage the forest as prescribed in the agreements.

THE REACTION TO CERTIFICATION

Key interest in forest certification has thus far been limited to companies and organizations that saw a market benefit and have had backers to assist them go through the certification. Government officials have been uninterested because, although they are responsible for all the forests, government does not sell trees or other forest products outside the country. The other reason could be that they have not been properly made aware of the benefits that certification may bring to the nation as a whole. Thirdly, it is an institutional matter. The Forestry Department does not deal with land tenure matters. These are handled by other sectors of the government. In addition, the Forest Department does not promote selling of forest produce. Their role is well defined in statutes: to manage forest resources. The issuing of permits to collect forest products and licences to harvest trees is just a forest management tool.

Forest Policy Community and Stakeholders

Forest policy makers initially had no idea what certification would or would not do. The effect on policy could not be envisaged, so the reaction was to wait and see. To date there is no specific policy on certification, as it is viewed as a marketing tool rather than a forest management tool. There is no objection for those that legally lease or own forests to certify them.

Environmental issues in Zambia are not a big agenda item that would generate wide interest unless in situations where there is an immediate negative impact. Consequently, as the practice of forest certification is not a widely talked about issue, there is little interest from other quarters such as NGOs and academicians.

Forest Owners

In Zambia the forest owner is the government. Local villagers may collect various forest products from the forest with very little management. The management is a government responsibility. Because certification encourages conservation and sustainable management of the forests, the Forest Department accepts forest certification in so far as it promotes sustainable management of the resource, but is not yet ready to give up the control of the resource (Shakachite 2004). It has, however, been possible to certify some forests because the communities have user rights for the collection of products. Certification is desirable to the communities because it gives them the capacity to sell their products to a larger market.

It must be understood that although certain forest areas have been certified, it is not the owners of the forests that have certified these areas. It is either the lessor-assigned user of the area or end products that are certified. This situation led to problems in the case of Muzama, where a large area was certified by an organization that did not own the forest.

Current Status of Forestland Certification

The current status in Zambia is that there have been six certifications, one of which is suspended.[6] The government is currently piloting the idea of joint forest management in which local communities or other organizations may be allowed to manage forests jointly with government and share the costs and benefits arising from that particular forest. A number of organizations have shown interest in this idea and also in forest certification as a tool to promote sustainable forest management. In addition, ZAFFICO, a government company that owns the industrial plantations, is considering certifying part or the whole plantation so that their customers will buy certified raw material, and, in case they are interested in certification, all they will need is the chain-of-custody certification. (Chisanga 2004). The status for the five certified organizations is as follows:

[6] The suspension of the MCL certification arose when government decided to withdraw the pit sawing licenses that were held by pit sawyers who supplied the company with timber. MCL used to pay for the licenses and then they kept the licenses. In effect, MCL used pit sawyers names to obtain licenses. The FD wanted MCL to apply for a license directly. This conflict is against FSC regulations, hence the cancellation of the forest certification.

Table 4 Status of forest certification

Certificate Holder	Area under Certification (ha)	Comment
Northwestern Bee Products Ltd.	7.5m	Honey certification
Muzama Crafts Limited	800,000	Natural forest
Mpongwe Coffee and Organic Stallholder Cooperative	185,000	Wild mushroom certification
Ndola Pine Plantations Ltd	1,092	Exotic pine plantation
Wood Processing Industries Ltd	–	Chain of custody
Norzam Glulam Ltd	–	Chain of custody

Source: Personal communication

The certification of MCL and NPP are based on forest management with the aim of producing timber products (Patel 2004). MCL certification did not yield any benefits, as the pit sawing licenses were withdrawn. For a small community-based operation such as MCL, the funds that were spent on the certification process were quite huge. The company could not afford the cost. The donor agencies that funded the certification were doing so on the understanding that this would help the rural community whose members were involved in pit sawing. There was one shipment of pit-sawn timber that was exported under certification but this was not well handled. MCL has no timber seasoning kilns and no planning machinery. The timber was exported in its rough form with no quality control.

North Western Bee Products

NWBP holds a product certification covering honey and beeswax from a 7.5 million hectare forest issued in 1990. The certifier is the Soil Association of UK. The partners or financiers for the certification were TPF and Oxfam, which have provided logistical support and funding for the certification. The motivation for certification was to gain access to export markets so that the proceeds can improve income for local inhabitants. Most of the exported honey goes to the UK and Germany. The certification for NWBP has had no impact on land tenure or any other rights of the people in the area. The social benefit initially was that higher prices were paid to producers because NWBP was able to get a price premium for certified products in export markets.

Muzama Crafts Limited (MCL)

This is a sister organization to the North Western Bee Products company. MCL deals in indigenous timber and timber products. Noting that the local prices for these products were low, the international donor organization assisted in acquiring the certification so that the company might get better prices for its timber and timber products.

MCL held an FSC forest management and CoC certification covering a total area of 800,000 hectares issued by Woodmark in 1998. Here again the motivation for certification was to gain access to export markets so that the proceeds could improve income for local inhabitants. The sponsor of the certification and inspection processes is SNV, the Dutch development agency.

Due to conflict between the Forest Department (FD) and MCL the pit sawyers licenses were withdrawn. This action contravened FSC principles, and the certificate was suspended in 1999. Efforts to have the situation restored have not yielded any positive results, and presently there is no solution in sight. It was the fear of the change in power dynamics that partially resulted in the cancellation of MCL certification. The strict management regimes that are required under certification would have excluded other forest users who, in fact, were within the boundaries of the certified area.[7] In addition, FD (representing government) would have little control over the activities in the area when they are legally the mandated institution to manage and control all the forests in the country.

Both NWBP and MCL were developed as components of an initiative between the Zambian and German governments. The technical assistance to Zambia was aimed at incomes and livelihoods of the rural people in Northwestern province. At the end of the project the Zambian government decided to turn the two components into companies owned by the local communities. Since the objective remained the same, it was necessary to find markets that would offer higher prices for both bee and forest products.

[7] The total land area of Northwestern province is 12,582,000ha, out of which 800,000ha were certified. The certified areas include three of the six towns in the province towns, villages, and public roads. Although the province is sparsely populated, it does not mean that it is all forest. The people derive their livelihoods from the areas in which they live.

Table 5 Summary of certification in Zambia

	NWBP	MCL	MCOSC	NPP	WPI	NZG
Type of certificate	Forest product certification	FSC, Forest Management and chain of custody	Forest product certification	FSC, Forest and chain of custody	FSC Chain of custody	FSC Chain of custody
Area certified (ha)	7.5 million	800,000	185,000	1050	–	–
Certifier	Soil Association	Woodmark	Ecocert	SGS	SGS	SGS
Date Certified	1990	May 1998	1999	2003	2003	2003
Funding	Partners TPF, Oxfam	Donor (SNV)	CDC/EU	Own Resources	Own Resources	Own Resources
Motivation	To gain access to export markets and improve income for local inhabitants	To gain access to export markets and improve income for local inhabitants	Forest conservation and income generation for local people	To gain access to export markets		
Status	In operation	Suspended in 2000	In operation	In operation		
Certified products	Organic honey and beeswax	Sawn timber from indigenous tree species	Organic mushrooms	Pine saw logs and chip logs	Sawn timber and chipboards	Value added timber products
Export destinations	United Kingdom Germany	United Kingdom Germany	United Kingdom Switzerland USA Netherlands	Does not export directly[8]	Does not export directly[9]	USA Norway Far East

Source: Personal communication with managers of the companies.

Mpongwe Coffee and Organic Stallholder Cooperative

Mpongwe Coffee and Organic Stallholder Cooperative holds a forest products certification for indigenous mushrooms covering a total forest area of 185,000 hectares. The certification, which was funded by Commonwealth Development Corporation and the European Union, was done by Ecocert in 1999. The motivation for certification was forest conservation and income generation for local people. The certification is still in force, and mushrooms have been exported to the USA, UK, Switzerland and the Netherlands.

Ndola Pine Plantations

NPP produces pine logs on a certified plantation. The logs are sold/transferred to NZG for processing. NPP does not sell to other companies. The incentive to certify the forest came from the expected higher prices and expanded market opportunities, as the local market could not absorb all of NZG's products.

[8] NPP does not export; they manage a forest from which WPI obtains their raw material.

[9] WPI is a mechanical forest-based industry that produces sawn timber and particleboard. A portion of these products are used by NZG to produce the value-added goods that are exported.

This certification was done by SGS in 2003 using NPP's own resources. The motivation was to gain access to the American market for soft wood timber and value added timber products. This came after the company realized that the local market was restrictive and had no appreciation for the high quality products that were being produced. The certification covers 1,092 hectares of pine plantation and timber products derived from trees growing on this piece of land. The certified area represents only 2.73 percent of the total 40,000 hectares of pine plantations in the country.

As long as NZG manages to export its products and the group of companies reaps the benefits, certification will be funded. The group of companies is a purely commercial organization driven by the profit motive so as long as profits roll in, certification will be supported.

Table 5 summarises the certification picture for Zambia.

Current Status of the Certified Marketplace

The current status of the certified market in Zambia is that the domestic consumer does not care one way or the other about certified forest and forest products. On the other hand, producers of forest products are interested in the export of their products and see certification as a key to open up foreign markets. There is wide interest to certify and the existing certificates are being keenly observed to see if the practice will produce dividends. There is also interest from the Forest Department, which is the custodian of the country's forests. The interest arises from the fact that the 1998 policy recognizes the rights of the communities that live around the forests and has accepted their involvement in the management of forests. At the moment the Department is being cautious about handing over the forests. Certification could be one way to ensure that the forests are managed properly because the system is designed to be self-policing through the use of independent inspectors. There is evidence that new certifications are being organized in Western province (Shakachite 2004). The significant fact is that these are being pushed by private companies using their own funding.

EFFECTS OF FOREST CERTIFICATION

In Zambia, the effects of forest certification have been varied. The issue of certification has been pushed or initiated by the market; as a result, it has had little effect on government, which is the landowner in the country. Since the results of certification have not been dramatic, the government has kept a low profile on the matter. The contributing factors that hinder certification are the existence of strong markets for non-certified products and the high cost of the certification process. Most producers sell their products on the Zambian or South African markets, neither of which demand certification. Since the government is currently quiescent about certification, the few instances of certification have not changed Zambian forest practices significantly.

Power

The power dynamics in Zambia have remained unchanged to date. In the two cases of certification in Northwestern province where the local communities depend on forests for their livelihoods, life has continued as before. Beekeepers have always known that their livelihood is threatened by forest destruction, and over time they have developed strategies to live in harmony with the forest, strategies that were not due to certification. In fact, it was easy for the two companies to obtain certification because the forest was in good condition. The pit sawyers in Northwestern province operate in the same forest as the beekeepers. However, only two tree species are harvested. The most valuable timber species is *Pterocarpus angolensis*, which is valueless in terms of honey production, and the other one is *Guibortia coleosperma*, which is also not a popular tree with bees.

In the case of MCL, the certification was perceived as authorization to manage the forests to the exclusion of government and also to the exclusion of other forest users. In fact, the initial certified forest was 1.27 million ha and included villages and municipalities. Hence the resistance to certification by government even after the reduction of the area to 800,000 ha.

The land tenure system in Zambia vests all power and ownership in the President. This means that forests are common property although it is possible to obtain title to land and trees thereon. It is still not easy to clearly define forest ownership, and this will continue for some time until individuals and private companies begin to own forests, or at least have long term rights. The likely power conflict will arise from the traditional leaders, the government and the local people.

Social

The social effects of certification are currently mixed. Whereas the intention was to maximize profit from the sale of forest products, this may not have been realized in the case of forest products produced by the communities. For the plantations, however, there is the potential that they will continue to sell their value-added products to the foreign markets and thus increase employment in the country. This has, however, not yet been realized.

Economic

The economic benefits would have been in terms of cash accrued – to the local communities involved in collection and production of forest products, to company workers, and to the government (taxes). It is not easy to tell, however, whether there are economic benefits accruing so far. Thus far, certification is insurance for accessibility to foreign markets.

Environmental

There are no established or accepted management practices for Miombo forests. Research is still going on to determine which practices are beneficial, so the tendency at the moment is to minimize disturbance to the natural processes and this is what is promoted by certification. There is a marked difference between ZAFFICO and NPP plantations even though these were one plantation only three years ago. NPP plantations are well managed, all silvicultural operations are being done, and the management plan is being followed, which is not the case in ZAFFICO plantations.

Currently there are a number of activities outside the certified area such as charcoal production, cultivation and forest harvest. These activities are under the control of the Zambian and Congolese governments. The surrounding area is therefore being rapidly converted to non-forestry uses although the plantation is well managed.

There are efforts to protect threatened and endangered species and also to maintain biodiversity. In the case of NPP, the start has been very good. Within the 1092 ha, some areas have been reserved as high conservation value while conservation corridors for animals have also been created. Although this is a monoculture plantation, other tree species (normally treated as weeds) are being allowed to proliferate. Impacts of usage of heavy equipment have been identified and remedial measures recommended are being implemented.

In Northwestern province people have always known the importance of maintaining the forests. The low population density (14 per km^2) has made this easy. Since forest certification has not survived there, it is not possible to tell whether it is a beneficial exercise for the forest.

For MCOSC on the Copperbelt, the opportunity to obtain money for the mushrooms through the market is an incentive to conserve the forests rather than convert the land to agriculture.

CONCLUSION

Two major forest problems – ecological and economic – have been identified in Zambia. The expectations are that forest certification should help solve these problems by forcing forest managers to manage their forests sustainably and in an environmentally acceptable manner. In return, products from the well-managed forests should fetch returns that would pay for the management of these forests as well as improve the livelihood of the communities that live in and around the forests. The following conclusions have been drawn from the author's observations and comments of those in the management of forests in Zambia.

Summary

Certification in Zambia emerged through the desire of local companies and development organizations to gain accessibility to foreign markets. The liberalization of the Zambian economy and introduction of a free market in all industries, coupled with the government's sale of controlling interests in the forest products industry through privatization, has led to a mushrooming of forest-based industries in the country.

Most of these forest industries are mechanical timber industries that are now competing within the small Zambian economy. This competition has been a motivating factor for companies to seek out foreign markets. The demand for certified products by the European and American markets is viewed simply as an economic trade barrier to prevent African products from entering those markets. In view of this, many other companies are closely watching the certified company to see if there are improved business prospects after certification. The cost of the certification process has forced many to approach this matter with caution.

Of the six certificates issued so far in Zambia, one was suspended, two are CoC certifications, and the other two are non-wood forest products certifications. In effect, there is only one forest management certificate case (by NPP) that involves actual forest management practices, and this is in a pine plantation.

The major expected benefit of certification has been the possibility of export business opportunities. The FSC certificate assures would-be importers of the quality of the products and the commitment of the exporter to sustainable management and an acceptable level of production ethics. Since there is no local certifier/inspection agency, certification is a very costly exercise for Zambian organizations, as they have to rely on foreign-based certifiers.

Roadblocks and Challenges

The low returns for local forest products are mostly due to lack of market or, where markets are available, the low prices offered for forest produce. In an effort to open up new markets and also to seek higher prices for the products, producers (in the case of companies) or those that are addressing poverty alleviation through sustainable forest utilization, have faced roadblocks and challenges. These roadblocks are at both international and international levels.

The international roadblocks and challenges arise from the fact that Zambian forest products cannot be accepted in the international markets because of two reasons, namely, the unacceptable quality of the products themselves and the environmental concerns of the informed consumers in those markets. Therefore, the importer wants quality assurance and the assurance that the source of the product is sustainably managed, and that consumption of the product will not promote environmental degradation elsewhere. Hence the need for certification by a widely recognized body to assure the origin and quality of the products.

Since forest certification is a new idea globally and there are many certifying bodies, some bodies may become over zealous to certify forest in an effort to gain recognition as the one that has certified the largest possible forest area or largest number of clients. In one instance, an FSC certification has been issued to a company that neither owns nor manages any forest. The company simply buys forest products that they want to export.

The local challenges arise from the fact that the certification issue is not well understood by the people who own and manage the forests. The implications may not be analyzed and understood by government officials. What, for example, is the role of government in the certification process or as the owner of the forest being certified through a process initiated by a private company that does not own the forest?

Being a new phenomenon, there are no local agents and no local certifiers. This means that all technical expertise has to be imported at high cost. Holding a forest certificate is no guarantee to more markets and increased prices. Therefore funding for the initial and subsequent inspections has been a challenge. Even where the above roadblocks have been overcome, the next challenge is the choice of a certifier.

Local community projects depend on donor funding. In Zambia the challenges were sorted out by the donor. The identification of markets (sometimes even the price negotiations), identification of certifiers, and payment of the assessors has been done by the donor. The private sector industries have to overcome all the roadblocks on their own.

The Zambian government has adopted the policy of joint forest management (JFM) as a way to ensure sustainable management of forest resources. It is envisaged that, once fully operational, this policy will enable local communities or other organizations to enter into agreements with government to jointly manage the forests. This applies to the forest reserves. The objective is that the revenues realized from such forests will be shared among the stakeholders. Local forest fees are still low and the sharing of benefits will only be meaningful if better prices can be obtained for the forest products. This is where certification and research should look at how communities can benefit from communally-owned forest resources.

Future Developments

There are four critical factors that will influence future developments in certification in Zambia: the new forest policy, the government's economic diversification policy, increased environmental awareness, and the establishment of local initiatives.

- *The Forest Policy*. The 1998 forest policy emphasizes involvement of local communities and other stakeholders in forest management. In effect, the government is moving away from the ownership of the forest resource and transferring it to other stakeholders. It is expected that these stakeholders will manage the resource better since they are close to the resource and the benefits will accrue directly to them. Forests will therefore be easier to certify as the managers will be identifiable as owners and decision makers. The aim of the 1998 policy is to maximize productivity of the forests and distribute benefits fairly (GRZ 1998).
- *National Economic Diversification*. Prior to 1991, the emphasis has been on mining as the mainstay of the economy. The government is now encouraging "non-traditional sectors" to develop and this is seen in the amount of promotion that these sectors are receiving. Forestry is one such sector that has experienced an increased level of investment. Since the local market cannot absorb all the production, the target will be the foreign market and accessibility to this market requires certification of the source of the products.

- *Increased Environmental Awareness*. The citizens are becoming aware of the devastating effects of environmental degradation, which include deforestation and forest degradation. In response, the government in 1999 set up the Environmental Council of Zambia (ECZ) through the Environmental Pollution Control and Protection Act, which among other things, requires that for investment to be approved, there should be an environmental impact assessment (EIA). This Act compels all investors, including logging companies, to conduct an EIA of their activities. Forest certification will act as an assurance of proper environmental management.
- *Establishment of Local Initiative*. Realizing that there is a lot of interest in forest certification, local experts are seriously considering the establishment of a local certification initiative that will spearhead certification in the country. Various environmental NGOs and forest experts are consulting on this.

Future Research

Being a new practice to the country, there are still a number of issues that need to be resolved with respect to forest certification. Forest certification is expected to bring about better forest management and also enhance incomes of those dealing in products from certified forests. Research is needed in this area to ascertain the actual impact of certification in terms of improving forest management and improving incomes of forest products manufacturers and traders.

The following are important aspects of research that should be done in Zambia:

- *Ecological Baseline Studies*. A lot has been said about the degraded status of forests. This has, however, not been quantified and documented to provide comparative baseline data so that once certification has been implemented, it would be possible to measure the impact of management regimes on a particular forest area.
- *Economic Baseline Studies*. Whereas certification is hailed as bringing about increased economic returns, there is need to quantify the economic impact of certification on various economic sectors such as the community, the timber companies, and the economy as a whole, in order to ascertain whether the improvements in incomes are actually due to certification or better management of businesses.
- *Establishment of Better Practices/Standards*. Indigenous forest management practices do not exist in Zambia, although there is a lot of information on how to manage forest plantations. There is therefore a need to establish best practices and adopt these as standards of forest management. At the moment the best practice is to cause as little disturbance as possible to the forest environment. There is no data to justify this as the best practice for the Miombo forest that is prevalent in the country.

REFERENCES

Anon. 1995. Forest Action Plan (ZFAP) Revised issues paper. MENR.

Bass, S. 1998. Introducing timber certification – A report prepared by the timber certification advisory group (FCAR) for DG VIII of the European Commission. European Forest Institute.

Chisanga, E. 2004. Personal communication with General Manager, ZAFFICO.

CIFOR. 2000. Criteria and indicators for sustainable forest management.

De Boer, C. 2003. Certified organic mushroom collection in Zambia. Organic Producers and Processors Association of Zambia.

Forest Department. 2004. Annual Report 2003. GRZ.

FSC. 2000. Principles and criteria for forest management. Document no. 12. http://www.fscogx.org/principal.htm.

GRZ. 1998. National Forestry Policy. Ministry of Environment and Natural Resources. Zambia.

Kowero G. 2003. The challenge to natural forest management in Sub-Sahara Africa rural development: Experiences from the Miombo woodlands of Southern Africa. In *Policies and Governance Structures in Woodlands of Southern Africa.* Godwin Kowero, Bruce Campbell and Ussif Rashid Sumaili. CIFOR, Indonesia.

Makano, Ngenda, and Njovu, F. C. 1996. The contribution of the forestry sector to the national economy. A task force report. Lusaka. ZFAP secretariat/ MENR Lusaka.

Malichi, B. 2004. Personal communication with General Manager, Northwestern Bee Products Limited.

MENR. 1997. Zambia Forestry Action Plan. GRZ.

Musonda, M. C. 2002. Wood and wood products exports 2001. Export Board of Zambia.

Ng'andwe, P. 2003. Timber certification, optimization and value added wood products – A case study of Zambia. M.Sc. Thesis. University of Wales.

Njovu, F.C. 1994. National Environmental Action Plan. Forest sub-sector issues paper. GRZ.

Njovu, F.C. 2001. Mission report on the evaluation of SNV technical assistance to Muzama Crafts Limited. Forestry component of Uchi-Mukula Trust forest programme in Kabompo.

Patel. 2004. Personal communication with Managing Director, Wood Processing group of Companies. Ndola. Zambia.

Shakachite, O. 2004. Personal communication with Acting Director of Forestry Department, Ministry of Tourism, Environment and Natural Resources, Zambia.

Thornber, K. 2000. Forest certification in Zambia: Demonstrating sustainable forest management and improving rural incomes? A Case of Muzama Crafts Limited.

ACRONYMS

AU	African Union
CDC	Commonwealth Development Corporation
CDO	Community Development Organization
COMESA	Common Market for Eastern and Southern Africa
ECAZ	Environment Conservation Association of Zambia
EIA	Environmental Impact Assessment
ECZ	Environmental Council of Zambia
FD	Forest Department of the Republic of Zambia
FSC	Forest Stewardship Council
GMA	Game management area
Ha	Hectare
IRDP	Integrated Rural Development Programme
JFM	Joint forest management
Km	Kilometer
Ltd	Limited
MCL	Muzama Crafts Limited
MCOSC	Mpongwe Coffee Organic Smallholder Cooperative
MDC	Mpongwe Development Company
MENR	Ministry of Environment and Natural Resources
NGO	Non-governmental organization
NPP	Ndola Pine Plantations Ltd
NWBP	North Western Bee Products Ltd
NWFP	Non-wood forest products
NZG	Norzam Glulam Limited
SADC	Southern African Development Community
SGS	Société Générale du Surveillance
SNV	The Dutch Development Agency
UK	United Kingdom
UMT	Uchi-Mukula Trust
UNCED	United Nations Conference on Environment and Development
USA	United States of America
VAT	Value-added tax
WPI	Wood Processing Industries Limited
ZAFFICO	Zambia Forestry and Forest Industries Corporation