

A REVIEW OF THE FORESTRY SECTOR IN GHANA

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INTRODUCTION

Over the past decade, the Ghana timber industry has experienced major changes that have subjected the industry to severe pressure regarding raw material availability and a struggle for efficient use of limited available timber.

After drafting the 1994 Forest and Wildlife Policy, the Ministry of Lands and Forestry decided to develop a forestry sector development master plan (MLF, 1994). The plan details strategies and steps for their implementation. The intention is to ensure sustainable forest management, and thus, a sustainable forest product trade.

In the mid-1990s, Ghana's forests were under excessive exploitation, illegal harvesting was rampant and there was utter neglect for established harvesting procedures. In addition, forestry institutions had become demoralized and inefficient because of continued underfunding.

As a result, a working group drawn from Government, the private sector and communities developed the Forestry Sector Development Master Plan (FSDMP) (MLF 1996, Ghana Gazette 1996). Before completion of the plan in 1996, interim emergency measures were in operation up to 1995 because of wanton forest destruction that was taking place. These measures were the setting up of task forces to control illegal felling, introduction of a felling permit system for outside forest reserves and introduction of a log export auction system (FD 1994, Ghana Gazette 1996).

Although the working group provided a broad set of strategies, the major framework for the forest sector development emanated from the Year 2000 Objective of the International tropical Timber Organization of which Ghana is a producer member (Poore and Chiew 2000).

The Year 2000 Objective was a declaration made by ITTO member countries in 1990 (with some changes in 1991, 1994 and 1998) to source all exports of tropical timber products

from sustainably managed forests by the year 2000. Accompanying this noble objective was the 1998 ITTO Libreville Action Plan with stipulated broad priority areas (ITTO 1998). The areas with direct bearing on the industry were: a) ideal mix of goods and services, b) improvement in use of the resource to give greatest possible social benefit and c) limit timber harvesting to sustainable levels. The central focus of these actions was long-term development of suitable forest-based industries in producing countries.

Although most ITTO member countries managed their own forests according to individual management plans, the Year 2000 Objective has been the main driving force that has spurred ITTO member countries to work towards sustainable forest management within the past decade. The declaration provides broad principles, criteria and indicators (PCI) on which countries can develop plans adaptable to their unique needs.

The Year 2000 Objective highlights major issues focusing on forest products; reducing pressure on the natural forest through harvest limits, the use of an ideal mix of species, and efficient use through value adding processing.

In Ghana, the strategies in use for offsetting pressure on the natural forest involve decreasing the annual allowable cut² (AAC) and encouraging diversification of species used. Ghana has also introduced initiatives geared towards improving woodworking skills which improve utilization efficiency. Export of air-dried products is also discouraged in favor of kiln-dried products, which could further promote in-state value-added processing. Some currently preferred species exported as air-dried lumber face levies ranging from 10 to 30 percent FOB³, depending on rareness of species (MLF 1996b).

² The volume of timber estimated to be available for harvest on a sustainable basis. This is based on what the forest will grow.

³ Free on Board – a condition of shipment requiring goods to be placed on board a vessel for an agreed price.

In comparison to other African countries, the ITTO has praised Ghana for adhering to the principles of Year 2000 Objectives (Poore and Chiew 2000). The ITTO recently issued a general progress report on the Year 2000 Objective that underscores Ghana's successes (Poore and Chiew 2000). But within Ghana itself, the program has come under criticism from the industry. According to the Ghana Timber Millers' Organization (GTMO), the industry is on the verge of collapse because of rampant government interventions and levies (GTMO 2000).

So far, there has been no scientific study of the impact of the FSDMP on the Ghanaian forest products trade. There is a need for scientific evaluation of the forestry FSDMP to identify its impacts on the Ghana forest sector. Such an evaluation could serve as a guide for other ITTO member countries currently or considering participating in the Year 2000 program. This research evaluates the impact of government interventions in the forest product trade and the marketing implications.

A Brief Description of Ghana

This brief description of Ghana is a summary of information from the World Factbook (1999) with some updates:

Geography

Ghana is roughly between longitudes 0° and 3° west and latitudes 5° and 11° north of the equator. Togo borders Ghana on the east with a boundary 877 km, Cote d'Ivoire on the west (668 km) and Burkina Faso on the north (548 km).

The southern border is the Gulf of Guinea (Atlantic Ocean) with a coastline of about 537 km. Ghana has a land area of 22.7 million hectares and a forest cover of 28 percent with a

deforestation rate of 1.72 percent (FAO 1999). Half of the country is below 152 meters above sea level, and the highest point, Mount Afadjato is about 880 meters above sea level.

The climate of Ghana is generally tropical with warm and dry conditions in the southeast, hot and humid in the southwest while the north is hot and dry. Ghana's main natural resources include gold, timber, industrial diamonds, bauxite, manganese, fish and rubber. Ghana's Volta Lake used mainly for generating electricity and water transport is the largest artificial lake in the world.

Environmental concerns include drought in the north (that has affected agriculture), deforestation, threats to wildlife and inadequate potable water particularly in the northern sector. In addressing these problems, Ghana is involved in a number of international environmental agreements including biodiversity, climate change, desertification, endangered species, environmental modification, law of the sea, nuclear test ban, ozone layer protection and ship pollution. The rest are tropical timber 83, tropical timber 94, wetlands, whaling and marine life conservation.

People

Ghana's population growing at about three percent is approximately 20 million with 54 percent in the youth age group. Life expectancy in Ghana is 57 years and infant mortality rate stands at 78 per 1000. The average male to female ratio is about 0.9. The people of Ghana are 99.8 percent black Africans in major tribal classifications as 44 percent Akan, 16 percent Moshi-Dagomba, 13 percent Ewe, 8 percent Ga and 2 percent other. English is the official language and about 65 percent of the population can read and write.

Politics

Ghana's independence from Britain took effect on March 6, 1957. The Republic is currently governed by a constitutional democracy after a number of military interventions in the administration of the country. The country's new constitution, which was approved in April 1992, was developed through national consultative assemblies held in all districts (Anonymous 2002a). Currently, the two main political parties are the National Patriotic Party (NPP) and the National Democratic Congress (NDC). Ghana's legal system is based on English common law and customary law (Anonymous 2002a). Ghana's national flag has three equal horizontal bands of red (top), yellow (middle) and green (bottom) with a large black five-pointed star centered in the yellow band. There are 10 administrative regions with 110 districts (Figure 1.1). Ghana's capital city is Accra and three other largest cities are Kumasi, Tema and Sekondi-Takoradi.

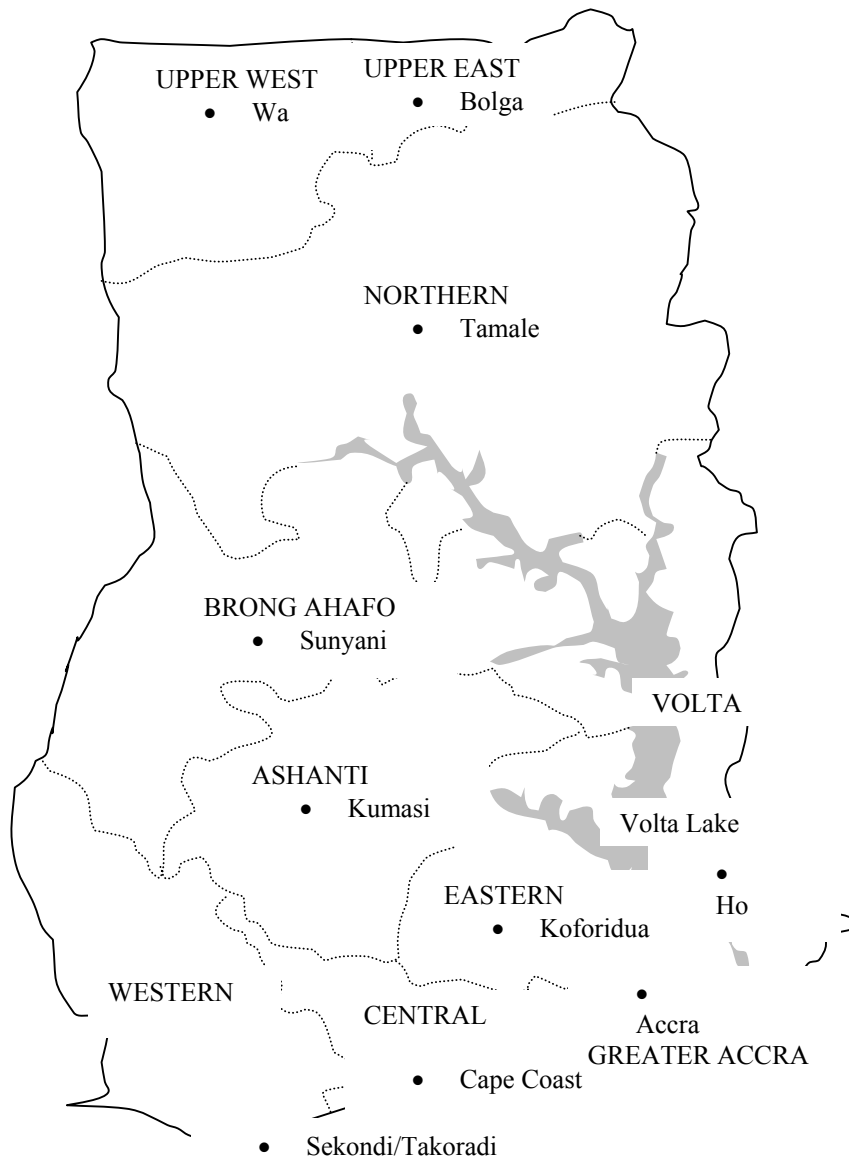


Figure 1.1: Map of Ghana showing Regions and Capital Cities.

Economy

Despite the rich endowment with natural resources, Ghana continues to rely largely on international financial assistance. The country depends mainly on gold, timber and cocoa as major foreign exchange earners. Subsistence agriculture is the main employer taking 60 percent

of labor and contributing 36 percent of GDP (Anonymous 2002b). Ghana's GDP amounts to US\$ 34.47 billion with a per capita value of US\$ 1,765. The total debt of the country is about US\$ 5.5 billion with a debt service ratio of 24.3 percent and a balance of payment deficit of US\$ 80 million. Inflation rate is 15.2 percent and a growth rate of 4.5 percent; the national currency, the cedi (GHC), currently exchanges at GHC 8,000 to US\$ 1 (Anonymous 2002b).

Ghana has since 1983 struggled through its economic management with the IMF, under very harsh conditions but with slow progress particularly in infrastructural development.

Communication and Transport

Ghana's communication has seen recent improvement in telephony with the privatization of Ghana Telecom, although there is still room for much improvement (Anonymous 2002c).

Also the airwaves are now freed for operations of private FM radio stations, which are currently proliferating at a faster rate. Although television broadcasting remains largely under state control, a few private stations have emerged mainly as repeaters. There are also cable/satellite services.

Major improvement in Ghana's highways, which started over a decade ago, is still in progress. Currently, almost all the major cities have paved roadways. Railways, however, has probably not responded very well to a recent rehabilitation program (Personal observation).

Waterways, including Ankobra and Tano rivers provide 168 km of perennial navigation for launches and lighters while Lake Volta provides 1,125 km of arterial and feeder waterways.

THE FORESTRY SECTOR

The Pre-intervention Forestry Sector Situation in Ghana

The reviewed forest and wildlife policy, approved in November 1994, was a notable achievement in Ghana, targeting conservation and sustainable development of the nation's forest

and wildlife for maintenance of environmental quality and sustainable generation of benefits to all parts of society (MLF 1994). The policy had the following objectives:

- i) Management and improvement of Ghana's permanent forest estate for preservation of soil and water, conservation of biological diversity, environmental stability and sustainable production of domestic and commercial products;
- ii) Promotion of efficient forest-based industries, in secondary and tertiary processing, to use timber and other products from forests and wildlife and satisfy domestic and international demand with competitively priced products;
- iv) Promotion of research-based and technology-led forestry and wildlife management to ensure forest sustainability, socio-economic growth and environmental stability;
- v) Development of effective capacity and competence at district, regional and national levels for sustainable management of forest and wildlife.

The 1994 Forest and Wildlife Policy was the impetus to develop a comprehensive plan of action intended to guide forest sector policy objectives and strategies to the year 2020 (MLF 1996). This effort brought together three working committees supervised by Ministry of Lands and Forestry, comprising both the private and public sectors, to prepare development proposals for forest and wildlife management as well as forest industries. Until 1994, detailed clearly defined forest policies specifying goals, objectives and strategies for development of forest and the future direction of the timber industry were not in existence (MLF 1996). At that time low fines and a lack of legal sanctions encouraged illegal forest harvesting. Alienation of forest communities from policy formulation contributed to these conditions although such communities were expected to help in protecting the forests (MLF 1996).

As a result, forest degradation intensified through illegal cutting and encroachment for agricultural purposes (Boateng 1994). The situation became worse with concessionaires selectively felling only preferred commercial timber species (FIMP 1994).

Areas requiring urgent attention included policy reforms, legislative reviews, fiscal controls and measures aimed at securing the forest base, incentives and training in the private sector for wood industry development, and community and international collaboration.

General Forestry Sector Description

The forestry sector comprises government and private entities involved in administration, development and use of forest and wildlife, wood-using industries and related areas. Important government agencies and other entities are:

- Forestry Department - responsible for protection and management of the forest estate.
- Wildlife Department - responsible for protection and management of wildlife and protected areas.
- Forest Products Inspection Bureau - responsible for certification of product standards in the timber industry.
- Timber Export Development Board - responsible for marketing intelligence on forest products and promotion of improved industrial processing.
- Forestry Commission - responsible for advising the Minister on forest and wildlife policies.
- Forestry Research Institute of Ghana - responsible for undertaking research to solve forestry and forest industry problems.
- Land Owners - on whose behalf the government manages the forest and wildlife, in the national interest.
- Logging companies - which work timber concessions to supply processors with wood raw material.
- Wood-processing companies, which convert timber to secondary wood products, mainly for export.

Efforts to improve the industry through Ghana's 1983 Economic Recovery Program did help in increasing production but resulted in added pressure on the forests (ERP 1983).

The Government of Ghana had been carrying out a national forestry program through the Forest Resources Management Project (FRMP) with the support of international donors (MLF 1996); the donors included International Development Agency of the World Bank (IDA), the

Danish International Development Agency (DANIDA) and the Overseas Development Administration of the United Kingdom (ODA). The main focus of the FRMP had been institutional strengthening of Forestry sector agencies, including infrastructure development, training, development of policy planning, monitoring and evaluation ability (MLF 1996).

After the approval of the forest and wildlife policy in late 1994, agencies continued performing those strategies that had already taken off in the form of interim measures. In addition were initiatives to improve management of the permanent forest estate, further development of collaborative forest management approaches and inventory of off-reserve forest areas (Smith et al. 1995).

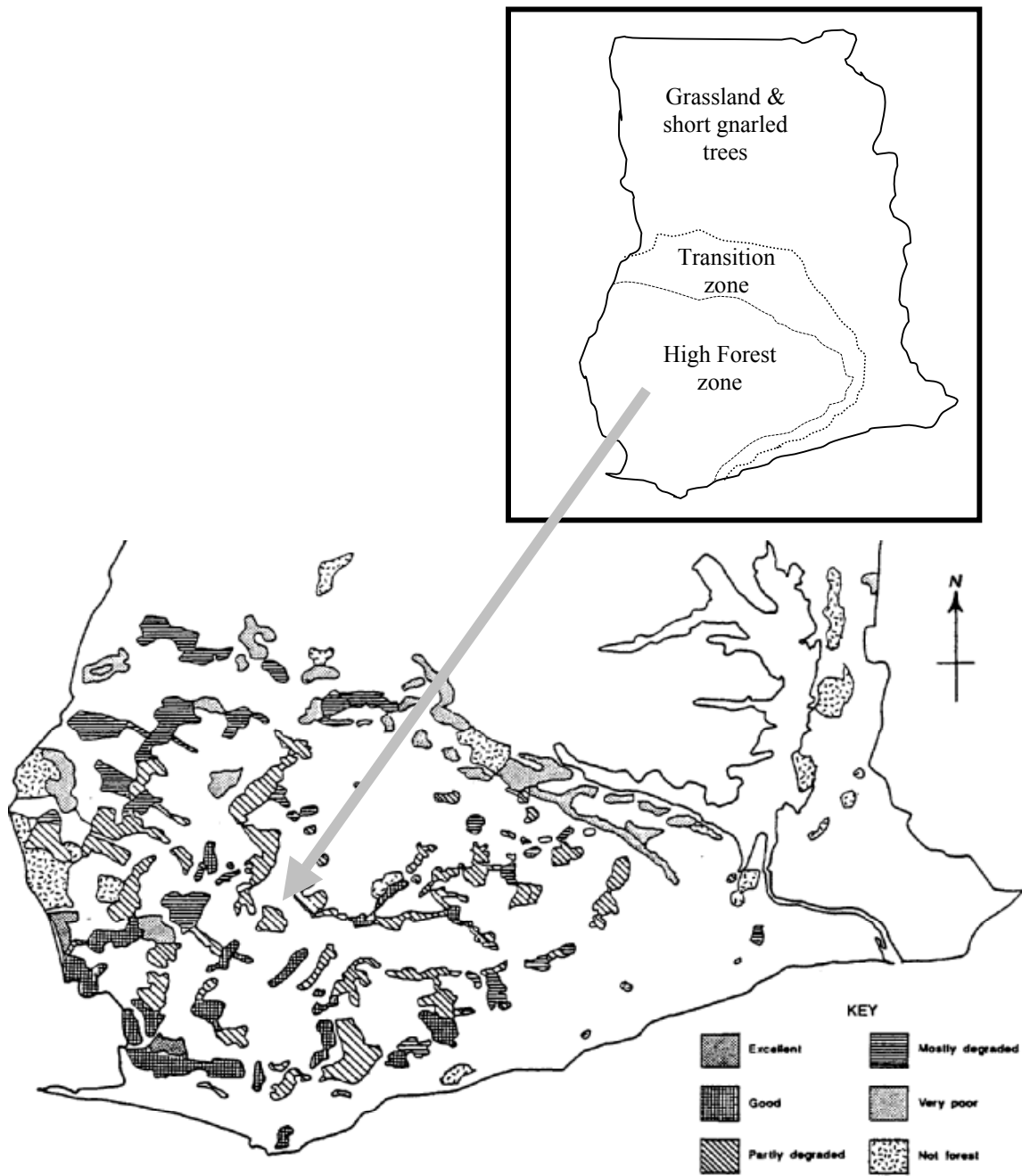


Figure 1.2: Forest Reserves in the High Forest Zone of Ghana
 (Source: Hawthorne and Abu Juam, 1995)

Sustainability of Forests

Ghana has 266 forest reserves, 216 of which occupy 1,634,100 hectares in the high forest zone (Figure 1.2) (Hawthorne and Abu-Juam 1995). The forest reserves were originally established to promote ecological stability, watershed protection and windbreaks, while seeking to guarantee the flow of goods and services for socio-economic development. In 1993, it was estimated that in areas outside permanently reserved forests, there was extreme deforestation pressure, leaving an estimated 400,000 ha of forest cover ("off-reserves") from which comes most timber supply (FD 1993). Within forest reserves, there are some 15,000 ha of timber plantations (mainly *Tectona grandis*, *Cedrela odorata* and *Gmelina arborea*) that provide the key source of transmission poles for rural electrification (FD, 1993). Recognizing the economic and environmental benefits from such plantations, private interests and communities have planted trees on an increasing scale around the country.

Based on the forest inventory, which started in 1986, forest reserves in the high forest zone are in classes according to the condition of the estate (Ghartey, 1989; Wong, 1989). From Figure 1.3, apart from timber-production⁴ and protection⁵ areas, 32 percent of the forest reserves is in a degraded state. There is a need for rehabilitation by natural convalescence⁶ of some 122,000 ha and reforestation by conversion of 397,000 ha to timber plantations to increase their productive ability.

⁴ Mainly targeted for timber harvesting purposes

⁵ Mainly reserved for purposes other than timber production, e.g., ecological, wildlife, watershed protection, etc.

⁶ To be left to recover naturally by itself from deforestation shock

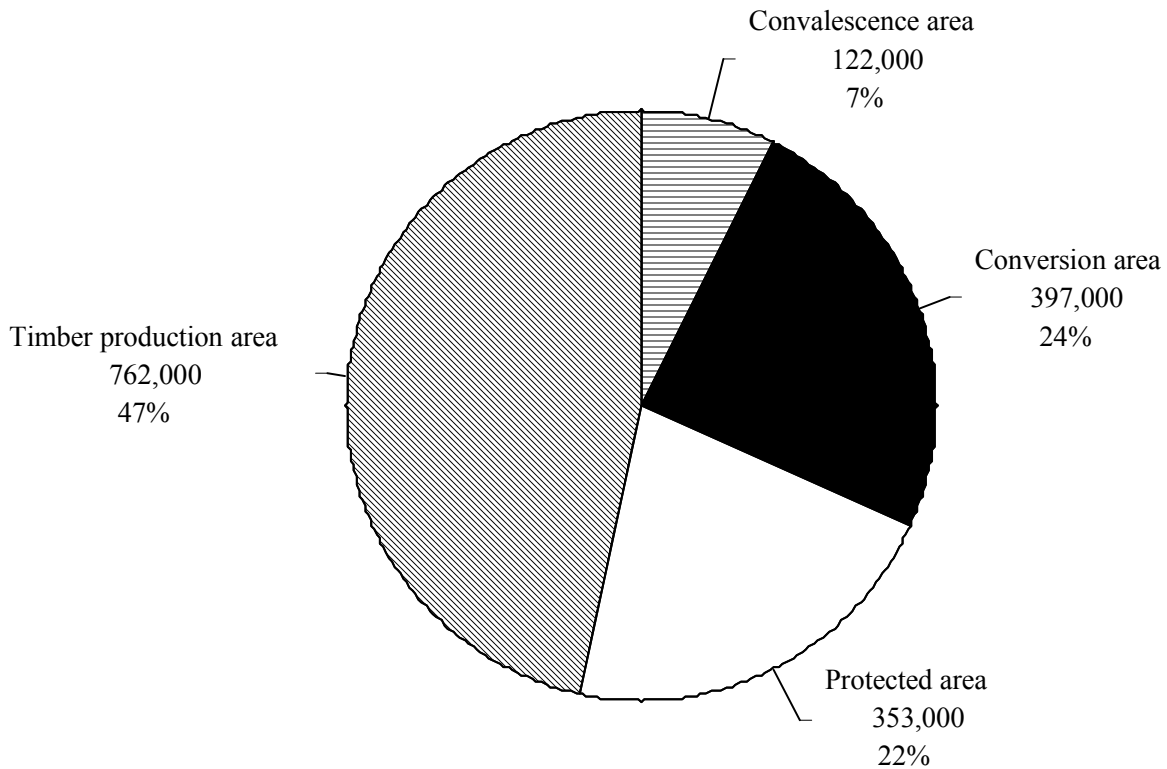


Figure 1.3: Area of Forest Reserves (in hectares and percentage) Showing Management Categories in the High Forest Zone

Prior to completion of the forest inventory in 1994, the sustained yield or Annual Allowable Cut was at 1.2 million m³, an average of 100,000 m³ per month (FD/FIMP 1995). However, the log export boom coupled with low monitoring ability resulted in exploitations way above the limit (Figure 1.4) (FPIB 1996). In late 1995 the Ministry of Lands and Forestry (MLF) temporarily suspended log export. This was to halt the exploitation trend and to give the FD extra time to tighten its felling controls over the off-reserves (FD 1995b). The policy was that log exports could resume only if there was a surplus of timber, not be needed for use by local processors.

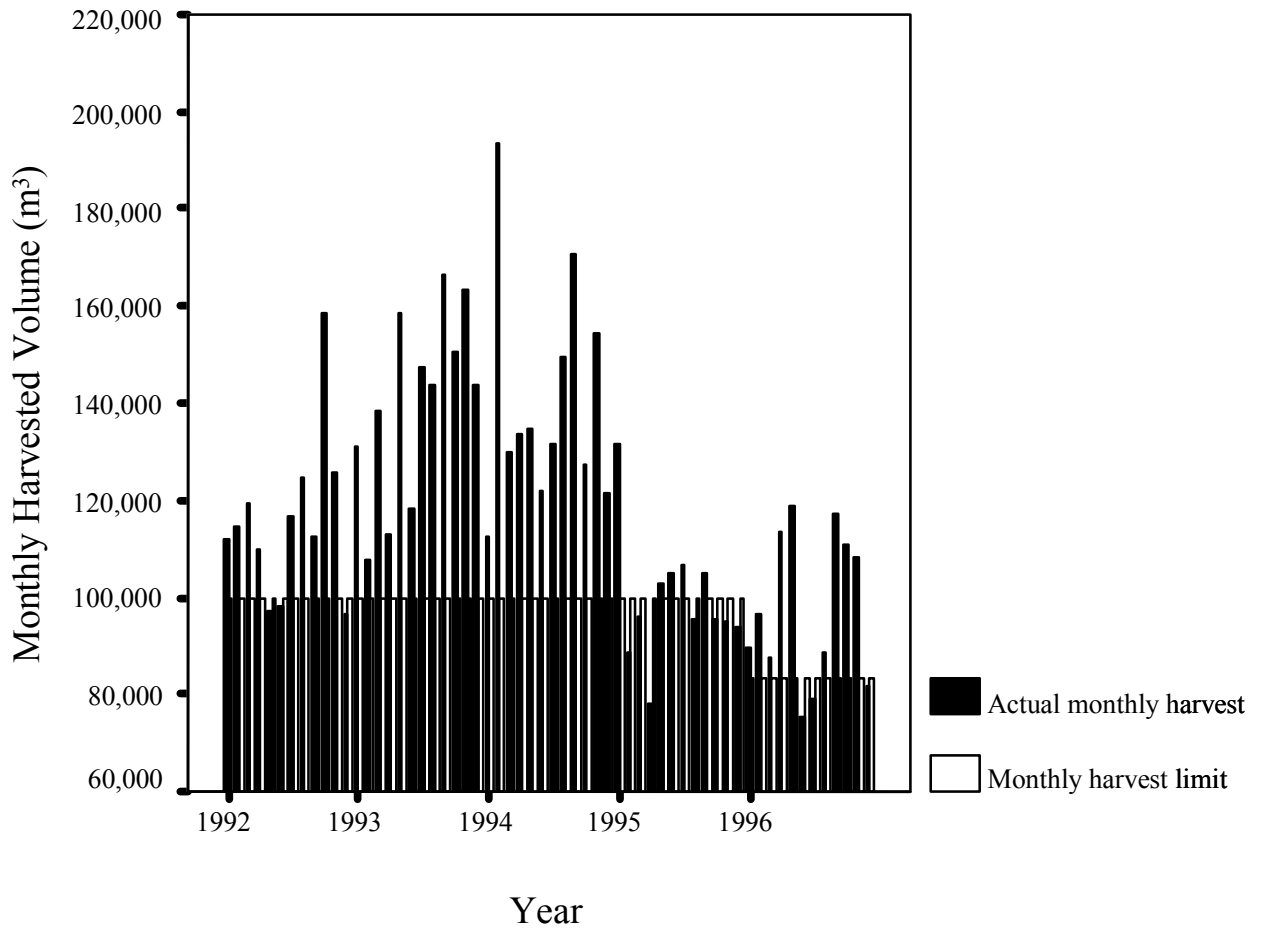


Figure 1.4: Monthly Harvesting Levels from Forests of Ghana (1992-1996)
(Data source: FPIB, 1996).

Figure 1.5 presents a 1995 revision of allowable annual sustainable yields from the timber production area of forest reserves (FD/FIMP 1995). This revision took into account the need to retain seed trees, protect rare tree species, limit the size of openings in the forest canopy, and protect slopes and stream banks. Three groups were defined according to the utilization levels of 64 merchantable timbers, namely:

- 15 Scarlet Star species comprising the main traditional timbers now under imminent threat of extinction
- 17 Red Star species consisting of other traditional timbers for which current rates of exploitation present a significant danger of extinction

- 32 Pink Star species - lesser-known species that are in use but not yet at a rate to cause concern for their future.

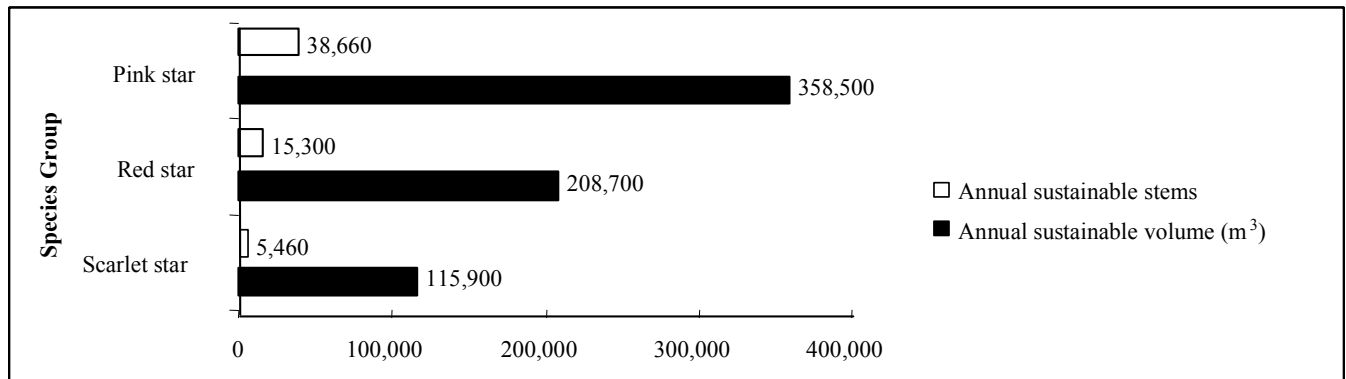


Figure 1.5: Annual Sustainable Number of stems and Volume of Major Species Categories from Permanently Reserved Forest (Data source: Hawthorne and Abu-Juam 1995)

In sustainable production, the 32 Scarlet and Red Star species favored by industry should be no more than 0.3 million m³ a year (FD/FIMP 1995). If promotion and marketing can achieve increased commercial use of 0.2 million m³ of the Pink Star species, then the total on-reserve harvest could increase to 0.5 million m³ annually (FD/FIMP 1995).

Forest Protection

The forest protection problem in Ghana is multifaceted. Preferred commercial species have attracted intensive logging in the semi-deciduous zone, a sensitive environment under threat of desertification. Also, illicit logging increased to take advantage of the FD's incapability in checking timber felling and ensuring concessionaires' compliance with prescriptions (FIMP 1994). FAO (1999) identified these problems:

- Slashing and burning of forest and grassland is part of the traditional bush fallow cultivation. Usually, the long fallow would allow enough vegetal cover to develop. However, increasing population growth over the last two decades has not only shortened the fallow period but also

increased demand for land. Increased cash cropping, urbanization and development have compounded such a demand.

- Bush burning has been the cause of most forest degradation in the moist semi-deciduous zones. Pioneer trees of little economic merit dominate burned forests and are more prone to fires in the future. Fire could be the greatest threat to the long-term survival of the forested area in Ghana.

Mining and quarrying, especially by small-scale operators, and large-scale mining of bauxite, manganese and gold pose serious threats to forests in the High Forest Zone (FIMP 1994). Because of these impacts, the FD embarked on a forest protection strategy in 1994, aimed at protecting the diversity, quality and sustainability of the forest estate. “Fine-grained protection” as a strategic tool applies to all forest uses, including harvesting, plantation development, farming and mining. The tactic ensures that such disturbances take place only after careful environmental impact evaluation. Fine-grained measures aim at keeping the integrity of the forest ecosystem and its biological content to ensure endemic status of species. “Large-grained protection” forbids disturbance in whole blocks of forests to ensure environmental stability and biodiversity conservation (FIMP 1994, Richards 1995).

Timber Industry and Wood Processing

The timber industry dominates the forestry sector comprising approximately 250 logging firms and 130 sawmill, veneer and plywood companies (FPIB 1996b). According to FPIB export records, wood processing contributed an estimated 6 percent of GDP in 1996.

The industry has traditionally concentrated on exports, to the neglect of the local market. This condition was limited in 1995 by increased controls on off-reserve harvesting and the temporary suspension of log exports. These actions, in combination with the export levy on air-

dried lumber influenced an increase in exports of further processed products while exports of air-dried lumber decreased (FPIB 1996) (Figure 1.6).

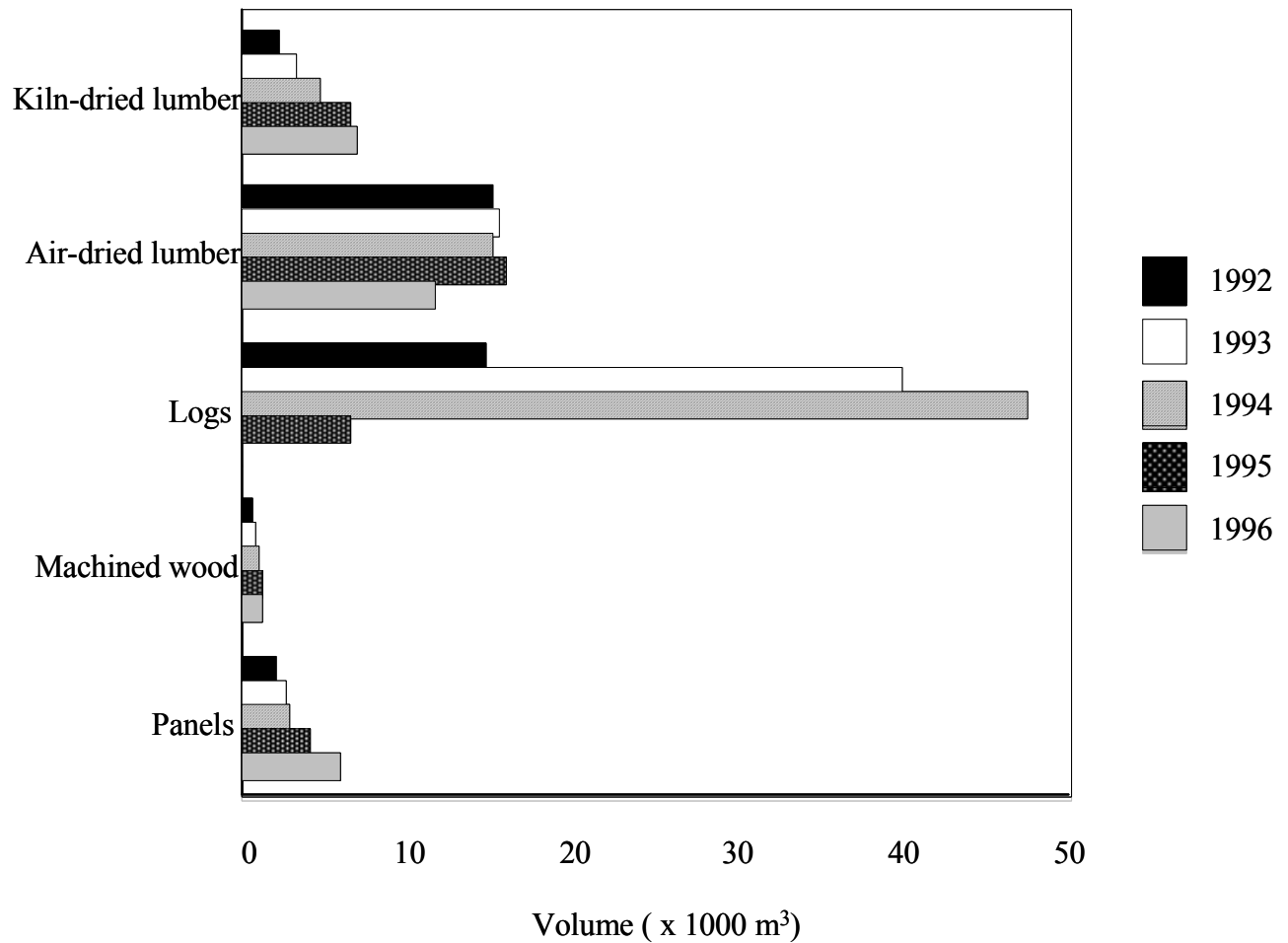
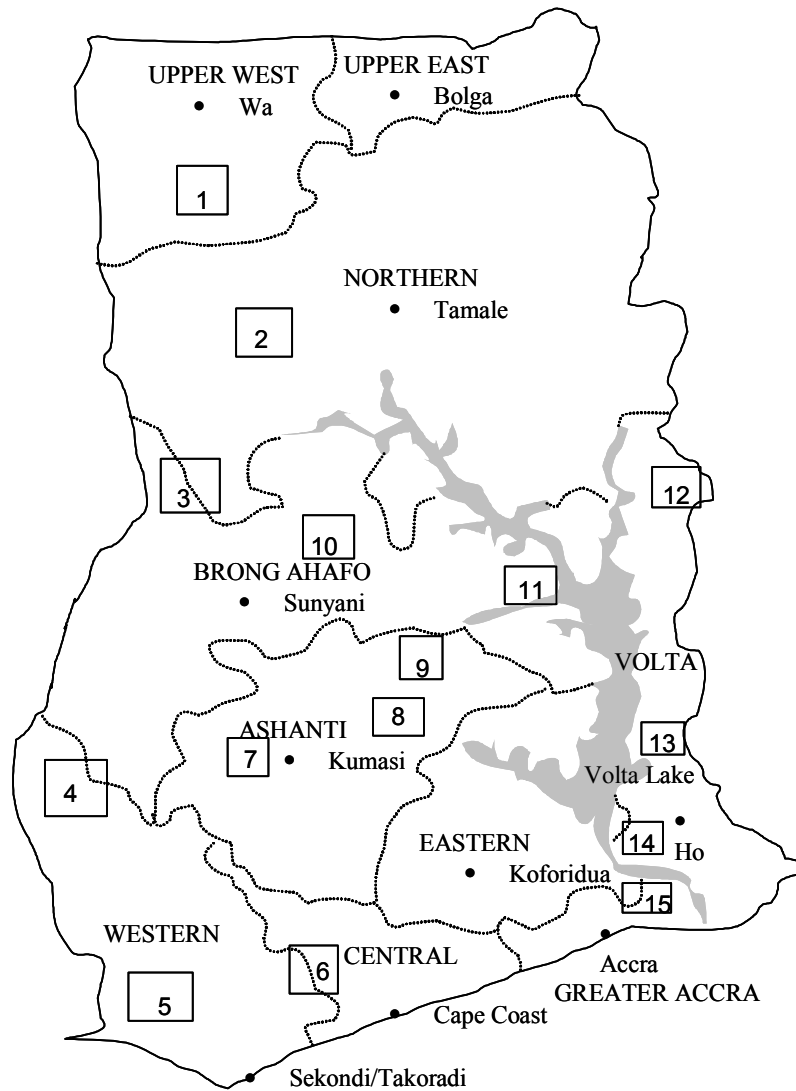


Figure 1.6: Monthly Export Volumes of Major Forest Products (m³), 1992-1996 (Source: FPIB, 1996b)

Conservation of Wildlife and Biodiversity

The country's wildlife estate comprises 15 permanently protected areas occupying approximately 13,000 km² (5.3 percent of the land area) (WD 1996, World Bank 1998). These include six national parks, six reserves, two wildlife sanctuaries and one strict nature reserve (Figure 1.7). Management plans based on biological and sociological surveys have



LEGEND	
1. Gbele Resource Reserve (565km ²)	9. Kogyae Strict Nature reserve (360 km ²)
2. Mole National Park (4,840 km ²)	10. Boabeng-Fiema Wildlife Sanctuary (4.4 km ²)
3. Bui National Park (1,821 km ²)	11. Digya National Park (3,478 km ²)
4. Bia National Park (300 km ²)	12. Kyabobo National Park (360 km ²)
5. Ankasa and Nini-Suhien Forest Reserve (490 km ²)	13. Agumatsa Wildlife Sanctuary (3 km ²)
6. Kakum and Assin Atandanso Reserve (350 km ²)	14. Kalakpa Resource Reserve (320 km ²)
7. Owabi Wildlife Sanctuary (13 km ²)	15. Shai Hills Resource Reserve (49 km ²)
8. Bomfobiri Wildlife Sanctuary (53 km ²)	

Figure 1.7: Wildlife Protected Areas in Ghana (Source WD 1996)

been prepared for eight protected areas. Ghana's wildlife protected areas have a potential for tourism, and tourist visits are increasing steadily. The most developed protected area is the Mole National Park, but the standard is still low. Shai Hills Reserve, because of its proximity to Accra (Ghana's capital) and Tema, is a potential tourist attraction (WD 1996).

Public Participation in Forestry Activities

The Forest and Wildlife Policy stresses public participation in district forest management and protection. Forms of participation are investments in tree planting and wood production, conservation and propagation of wildlife, value-added processing and marketing of finished products, investment in wood industry modernization and support for awareness and training by NGOs and trade associations (CFMU 1993). To encourage local people to care about the forest and trees, it is important that they take part in decision-making on management of the forest; they must benefit from the use of traditional non-timber products of the forest (FD 1995a). Forests play an important role in the lives of most Ghanaians and, for survival of the forests, it is essential that all Ghanaians become aware. Through their increased awareness, rural residents could be involved in the protection, care and management of forests in their neighborhood (CFMU 1993).

Within the forest reserves, there have been some 397,000 ha estimated suitable for planting, and if attained, the added tree cover would occupy 10 percent of the present area of the forest estate (MLF 1996). Implementation of the tree-growing scheme would largely be through mobilization of private participation, with the Government providing technical advice, promotional incentives and public education. This would involve people in special projects that would reforest denuded lands and streambanks, reforest understocked forest areas and rehabilitate mined-out lands, plant and care for trees on farms and set up and manage industrial plantations (MLF 1996).

Consumption of Wood Energy and Non-timber Products

In rural communities, dependency on wood fuel is high. The rights of land-owning communities to collect these products from the forest exist. The collaborative forest management approach has made progress in renegotiating these rights for an assessment of the existing resource base and drawing acceptable rules on sustainable harvesting and development (FD 1995a, Smith et al. 1995).

Recent Policy Advances

In developing the forestry sector development master plan, industry specialists proposed steps to deal with the problems (MLF 1996). First, competitive allocation of timber harvesting rights, increased royalty rates and enforced industrial standards seeking to limit obsolescence; this would leave surviving mills to improve efficiency leading to sustainable management of available timber supplies. Second, investment incentives, skill development, greater diversification of production and marketing should begin to foster sustainable domestic and export demand. With the prospect of expanded sustainable raw material supplies from plantation forests, planning for value-added should occur.

The first set of the recommendations was tackled using legal approaches (Avoka 1998):

- *The passage of the Timber Resources Management Act No. 597 in December 1997.* This law corrected an anomaly in the 1962 law (Act 124), which did not enjoin any forest sustainability responsibilities to concessionaires operating in the forests. Act 547 requires operators to enter into a Timber Utilization Contract (TUC) with government in which is embodied forest sustainability responsibilities. To qualify for a TUC, a Timber Rights Evaluation Committee (TREC) must certify that a concessionaire is capable of reforesting 10 percent of an area

granted as concession; and as incentive, the planted timber is owned by the concessionaire. TREC must also ensure that concessionaires have efficient processing facilities to reduce waste, professional foresters on staff, plans to offset likely environmental impacts and agreements with land owners to meet social responsibilities.

- *Legislative Instrument (LI) on Act 547 for stumpage fees and royalties*

This LI generally raised stumpage fees according to star rating of species. Scarlet star (highly used) species attracted 20 percent FOB of air-dry lumber prices, red star (normally used) species had 10 percent while pink star (lesser used) species had five (5) percent FOB as stumpage fees. The motive was to penalize excessive use of the popular species and encourage more use of LUS. Also, increased prices meant improved efficiency in utilization of raw material.

- *Transformation of the Forestry Department into a Forest Service*

In late 1999, the Forestry Department was removed from the civil service and made semi-autonomous to enable better conditions of service and well-motivated staff. The action was also expected to generate private sector interest in partnership with the Forest Service for reforestation programs.

Strengthening of Forestry Commission

In order to improve the level of coordination among the forestry sector institutions, the Forestry Commission was in 1999 made the umbrella institution with the responsibility of managing the three main divisions – Forest Services Division (FSD), Timber Industry Development Division (TIDD) and Wildlife Services Division (WSD) (Ghana Gazette 2000a). The

eleven-member board of the Commission carries the responsibility for planning for the protection, management and development of forest and wildlife resources in a sustainable manner.

Advances in Forest Certification

Ghana's preparation towards forest certification, which dates back to 1996 was field tested in March 2000. This field-testing was carried out with support from the Natural Resources Institute of the U.K. The work culminated into a "Draft of a field standard and checklist for forest certification in Ghana" containing over a hundred indicators of good forest practices (Ghana Gazette 2000a, b). Ghana hopes to implement these sustainability standards in preparation for a third-party certification in the long run.

Summary and Conclusions

Ghana has come far in pursuing sustainable management of her forest resources. Dating back to 1994 the country as a member of the International Tropical Timber Organization (ITTO), and thus committed to the ITTO Year 2000 Objective set off to face the challenges in the management of the forest and wildlife resources.

Through a forestry development master plan, Ghana's forestry institutions have been strengthened to be able to carry out the new task of offsetting exploitation of forest and wildlife resources and sustaining its forest products trade. Community awareness of advantages of the forest has been heightened which has subsequently generated involvement of local communities in forest management. This occurrence has largely been facilitated by the amalgamation of the government institutions into a new Forestry Commission which generates extreme level of coordination among the then segregated bodies.

In view of the complex nature of forest management challenges facing the country, it must be emphasized that although sustainability level may not be optimal at this time, Ghana is undoubtedly heading the desired global direction.

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