Ghana: A Country Study within the Framework of the Evaluation of the Netherlands Government's Policy on Tropical Rainforests

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Contents

Acronyms and abbreviations

AAC	annual allowable cut
AfDB	African Development Bank
AFLEG	Africa Forest Law Enforcement and Governance
ATO	African Timber Organisation
Bemo	*Beoordelingsmemorandum,* project appraisal memorandum
CBAGs	community biodiversity advisory groups
CBD	Convention on Biological Diversity
CBO	community-based organisation
CBUD	Centre for Biodiversity Utilisation and Development
CFC	community forest committee
CREMAs	community resource management areas
CSIR	Council for Scientific and Industrial Research
DA	district assembly
DFID	Department for International Development (UK)
DGIS	Directorate General for Development Cooperation (Netherlands)
ECOWAS	Economic Community of West African States
ERP	Economic Recovery Programme
FAO	UN Food and Agriculture Organisation
FC	Forestry Commission
FD	Forestry Department
FIMP	Forest Inventory and Management Project
FORIG	Forestry Research Institute of Ghana
FPIB	Forest Products Inspection Bureau
FRMP	Forest Resources Management Project
FSC	Forest Stewardship Council
FSD	Forest Services Division
FSDP	Forest Sector Development Project
FST	forest savannah transition zone
FWP	Forest and Wildlife Policy
GSBA	globally significant biodiversity areas
GEF	Global Environment Facility
GHS	Ghanaian cedi (¢)
GPRS	Ghana Poverty Reduction Strategy
GTA	Ghana Timber Association
GTMO	Ghana Timber Millers' Organisation
HFZ	high forest zone
IAC	International Agricultural Centre, Wageningen UR
IOB	Policy and Operations Evaluation Department
ITTO	International Tropical Timber Organisation
IUCN	World Conservation Union
KNUST	Kwame Nkrumah University of Science and Technology
MLFM	Ministry of Lands, Forests and Mines
MDBS	multi-donor budget support
MLFM	Ministry of Lands, Forestry and Mines
MoFA	Ministry of Food and Agriculture
M&E	monitoring and evaluation
NC-IUCN	Netherlands Committee for IUCN

NDC	National Democratic Congress
NEPAD	New Partnership for Africa's Development
NGO	non-governmental organisation
NLG	Netherlands guilder
NMR	natural resources management
NPP	New Patriotic Party
NRMP	Natural Resource Management Programme
NTFP	non-timber forest product
NTP	Netherlands Programme for Institutional Strengthening of Post-Secondary Education and Training Capacity (Nuffic)
ODA	Official Development Assistance
PA	protected area
PNDC	Provisional Defence Council
PRSP	Poverty Reduction Strategy Paper
RMSC	Resources Management Support Centre
RTR	*Regeringsstandpunt Tropisch Regenwoud* (government policy on tropical rainforests)
R&D	research and development
SEA	strategic environment assessment
SRA	social responsibility agreements
SSCA	Small-Scale Carpenters' Association
SWAp	sector-wide approach
SZ	savannah zone
TA	technical assistance
TBI	Tropenbos International
TEDB	Timber Export Development Board
TIDD	Timber Industry Development Division
TRP	Tropical Rainforest Rolling Programme
TUC	timber utilisation contract
UNEP	United Nations Environment Programme
VPA	voluntary partnership agreement
VTLP	Validation of Legal Timber Programme
WAG	Woodworkers' Association of Ghana
WD	Wildlife Division (Forestry Commission)
WUR	Wageningen University and Research Centre

1 Introduction

1.1 Background and justification

The Netherlands government's policy on tropical rainforests (*Regeringsstandpunt Tropisch Regenwoud,* RTR) was approved by parliament in 1991. This interdepartmental policy aims at 'promoting the conservation of the tropical rainforest by realising a balanced and sustainable land and forest use, to end the present, rapid progress of deforestation and the encroachment and degradation of the environment.'

The policy contains a financial commitment: an annual amount of €68 million will be spent on forests, of which at least one third will be targeted at tropical rainforests. These funds are 100% ODA. Although different ministries are responsible for the implementation of the RTR, the financial target is mainly the responsibility of the Ministry of Foreign Affairs.

This country study is part of an evaluation of the RTR policy, covering Dutch ODA expenditures targeted at tropical rainforests over the period 1999–2005. For the purposes of this evaluation, partner countries on three continents that have received a substantial proportion of the total expenditures on tropical rainforests – Colombia, Ghana and Vietnam – were selected for study.

1.2 Objectives and central questions

The overall objective of this evaluation study is to assess the relevance, efficiency and effectiveness of the ODA inputs for the preservation of the tropical rainforest in Ghana. Therefore, the central questions for the evaluation were:

1. What was the relevance of the RTR and the activities that were financed within its framework?
2. How effective have the RTR inputs been for the preservation of tropical rainforests?
3. What was the efficiency of use of the RTR inputs for the preservation of tropical rainforests?
4. What was the role of poverty reduction in the RTR and its implementation?

For a more detailed description of the objectives of and the questions addressed in the evaluation, see the terms of reference in Annex 1.

1.3 Organisation and methodology

The first step in this evaluation study was to determine the inputs targeted at tropical rainforests in Ghana through bilateral, regional or worldwide programmes. For this purpose, the Proforis database maintained by the support group Environment and Water at the International Agricultural Centre (IAC) at the Wageningen University and Research Centre (WUR) was used. This database contains all the financial commitments and expenditures to bilateral, regional and worldwide programmes that are wholly or partially targeted at tropical rainforests

and/or forests. For each financial contribution in the database, it is decided what percentage can be attributed to forests in general, and to tropical rainforests in particular. In that way it is possible to determine the extent to which the annual financial targets set in the RTR have been achieved. It should be noted that activities funded through the Dutch co-financing organisations or through Nuffic are not included in the Proforis database.

For this evaluation, Netherlands-funded bilateral activities in Ghana were selected that met the following criteria:

- approved after 1 January 1999 and before 1 January 2006.
- at least 50% of funds could be attributed to tropical rainforests.

The Proforis database was used as it was updated to mid-2006.

In addition to these bilateral activities, worldwide and regional programmes funded by the Netherlands were screened to identify activities and inputs aimed specifically at Ghana.

Documentation of the selected activities, notably the appraisal memoranda (*Beoordelingsmemoranda,* or Bemos), reviews and evaluation reports, were studied. Activities were screened for their contribution to the development and execution of national forest policies and programmes, their alignment with the nine policy lines of the RTR, and their contribution to poverty alleviation.

Additional documentation was reviewed with regard to the condition and changes of the condition of the forests in Ghana, the national policy of Ghana on forests and the relation between the forest sector and the country's poverty reduction strategy (PRSP).

1.4 Scope and limitations

This evaluation considers the contribution of the Netherlands to the development and implementation of a national forest programme in Ghana, within the context of poverty reduction, and not so much on the actual state of the Ghanaian tropical rainforest.

In Ghana, as in many countries, data on the exact state and changes in that state of the tropical rainforest are unreliable and are rarely up to date. Investments in forests usually serve long-term objectives. Hence, the main research question in this evaluation was to establish whether and, if so, how the Netherlands has contributed to creating the necessary conditions for the development and implementation of a national forest programme that aims at sustainable land and forest use, including poverty reduction.

Due to the lack of proper baseline studies it is difficult or impossible to assess actual outcomes such as the preservation of tropical rainforests and improvement of livelihoods. The timeframe for this evaluation also did not allow the sustainability of the results to be determined.

1.5 Structure of the report

This study starts with a description of Ghana in general (chapter 2). Chapter 3 describes the Ghana's forests and the relevant forest sector institutions and organisations. It then describes in detail the management of land, forests and wildlife resources, including the extent of community participation, benefit sharing and production functions, and the economic role of forests in Ghana to determine their socio-economic relevance.

Chapter 4 describes the Netherlands development cooperation with Ghana in general and the forest sector in particular. Chapter 5 presents the findings and conclusions on activities in Ghana funded through bilateral, regional and worldwide programmes, and outlines the Netherlands inputs at the policy level, i.e. the PRSP and the Natural Resource Management Programme. Finally, chapter 6 presents a synthesis of the conclusions of this evaluation study.

2 General context of Ghana

2.1 Political background

Ghana was the first sub-Saharan African country to gain independence, on 6 March 1957, and was proclaimed a republic in 1960. The socialist leadership of the first President, Dr Kwame Nkrumah, became increasingly authoritarian, and led to a military coup in 1966. By 1981 Ghana experienced nine changes of government, alternating between military and civilian regimes. There was dissatisfaction over poor economic management and perceptions of corruption. In 1981 soldiers under the command of the leftist Flight Lt Jerry John Rawlings took power and founded a military technocratic regime. The new Provisional National Defence Council (PNDC) focused on domestic security and fighting corruption. In an attempt to reverse the severe economic downturn, despite internal struggles, the government implemented one of Africa's first and longest-running structural adjustment programmes (the Economic Recovery Programme) from early 1983 to 1988. This stabilised the economy and brought several years of growth.

In 1992 Rawlings won the presidential election and his newly founded National Democratic Congress (NDC) won the majority of seats in Parliament. He was the second elected president since independence. Rawlings was re-elected in 1996, but his support soon dwindled because of poor economic management and accusations that his previous regimes had been involved in large-scale human rights abuses. The main opposition, the more right-leaning John Kufuor and his New Patriotic Party (NPP), defeated Rawlings at the 2000 presidential and parliamentary elections. The smooth transfer of power was a big step in Ghana's democratisation process. Kufuor and the NPP won the elections again in 2004. Although improvements in living standards were not visible in its first term of office, the electorate did appreciate its success in stabilising the economy. This led to high expectations of tangible benefits in its second term.

The NPP has always been a pro-Western party, supporting liberalism and free enterprise. Since the smooth transfer of power in 2000, the government has received a lot of support from major Western donors. President Kufuor has put considerable effort into enhancing Ghana's international status. He built friendly relations with neighbouring countries and facilitated conflict resolution within the Economic Community of West African States (ECOWAS). He was appointed to the rotating chairmanship of ECOWAS and Ghanaian troops have been based in Liberia and Ivory Coast as part of ECOWAS peacekeeping forces. Kufuor also strongly supports the New Partnership for Africa's Development (NEPAD), including its underlying principles of good governance and peer review. Ghana was the first country to undergo examination under NEPAD's peer review mechanism.

2.2 Economy

Agriculture has always been one of the driving forces of the Ghanaian economy, and contributes 35–45% of GDP. Cocoa, gold and timber are the most important export products. This makes the Ghanaian economy very vulnerable to shocks caused by fluctuations in international commodity prices and in rainfall, and by pests. At independence, Ghana's economic prospects were positive and living standards were relatively high. Nkrumah pursued rapid industrialisation financed by export revenues. Inadequate planning and decreasing world market price of cocoa prevented this and resulted in an increasing budget deficit, an overvalued currency (the cedi), foreign exchange shortages, high inflation and falling production. This put severe pressure on the provision of the domestic markets and had devastating consequences for the export sector. In the early 1970s, Ghana controlled one third of the world cocoa market, but by 1990 this share had decreased to 13%.

Economic mismanagement continued until the mid-1980s. To reduce macroeconomic imbalances and restructure the Ghanaian economy, in 1983 the government launched a comprehensive economic recovery programme in consultation with the IMF and World Bank. Trade and the exchange rate were liberalised, fiscal and monetary discipline was established, financial and public sectors were reformed and many state-owned enterprises were privatised. In the build-up to the 1992 and 1996 elections the reform process was delayed because of substantial increases in government spending.

After 1998 the reform process started to show positive results and macroeconomic stability was realised. In 1999 and 2000 the government aimed at consolidating this stability and at the same time go ahead with structural reforms directed at real growth and poverty reduction. The cocoa and energy sectors were liberalised, state-owned companies were privatised, the banking system strengthened, public sector reformed and trade further liberalised. But world market prices of cocoa and gold fell sharply and oil prices increased. The government missed out on important export revenues while the costs of imports went up, resulting in a balance of trade deficit. Also the fiscal deficit increased considerably to 9% of GDP in 2001. Only after the newly elected President Kufuor strengthened control over fiscal

expenditures, coupled with improved revenue collection and administration, was the fiscal deficit reduced to 6.8% of GDP in 2002, 4.4% in 2003, 3.6% in 2004 and around 2% in 2005.

GDP growth was reasonably strong between 1995 and 1999 with an average real GDP growth rate of 4.4% per year. Despite a downturn in 2000 because of the macroeconomic instability, real GDP growth between 2000 and 2003 continued at an average of 4.4%. With the stabilising measures of Kufuor's regime, real GDP growth accelerated, reaching 5.2% in 2003 and 5.8% in 2004. This economic growth was led by the agricultural sector, because of the agricultural expansion that followed the downturn in 2000. In 2004 the sector grew by 7.5% largely due to the strong performance of the cocoa sector.

In 2005 real GDP grew to 5.9%. However, at about the same time, agricultural growth fell to 4.1% because of poor weather conditions. Now the services and industrial sectors grew substantially, at 6.9% and 7.7%, respectively, and became the main drivers of economic growth. Key to the growth in the industrial sector was the expansion of the mining subsector, especially bauxite with 21.8% and diamonds with 16.6%. Also the electricity subsector grew more than before.

One critical factor to Ghana's economic growth and poverty reduction is its heavy debt burden. External debt reached USD 7.2 billion in 2002. In early 2001 Ghana decided to join the Heavily Indebted Poor Countries (HIPC) programme.

2.3 Ghana's human resources

Ghana's population is 21.2 million (2003, FAO estimate). The average population growth rate declined from 2.8% between 1985 and 1994 to 2.2% between 1995 and 2002 (World Bank). It is estimated that around 3 million Ghanaians live abroad. In 2000 the average population density was 79.3 per km^2. With 895.5 people per km^2, greater Accra is the most densely populated region, followed by Central and Ashanti.

Ghana's labour force is estimated at 9 million, of which 49.2% are employed in agriculture, animal husbandry and forestry, followed by sales and services at 18.2%. Ghana uses an income of 900,000 cedis (GHS) per year as the poverty line. Following this poverty line, the percentage of Ghanaians considered poor declined from almost 52% in 1991–1992 to less than 40% in 1998–1999. However, this decline was concentrated in Accra and the forest zones. The disparities between these and the poorest areas in the Northern, Upper West and Upper East regions are reflected in healthcare and education access rates.

Although the health sector lacks resources and healthcare expenditures accounted for just 1.2% of GDP in 2003, some aid officials say that the quality of services has improved. Average life expectancy increased from 50 years in 1970 to 60 years in 2003. Still the government estimates that the access rate to healthcare is only 58%, with big regional differences. Access to healthcare in the Greater Accra

region is close to 81%, while in the Northern, Upper West and Upper East regions these rates are 35%, 30% and 27%, respectively.

After a major decline after 1975, illiteracy rates fell from 58% of females and 36% of males in 1985 to 34% of females and 18% of males in 2002 (World Bank). Ghana is committed to achieving universal access to primary education by 2015, and primary enrolment rates rose to 83.3% in 2005 (Ministry of Education and Sports), but significant geographical disparities remain. The demand for tertiary education is substantial and growing, but supply does not meet this demand. The quality of most public universities is problematic due to backlogs, inadequacies of some of the programmes offered, large class sizes and the lack of effective tutoring. This has led to the opening of private universities.

2.4 Poverty Reduction Strategy Paper

During the mid-1990s, the Ghanaian government developed the National Development Policy Framework, or Vision 2020. The goal of this 25-year perspective was 'to improve the quality of life of all Ghanaians by reducing poverty, raising living standards through sustained increase in national wealth and a more equitable distribution of the benefits therefrom' (GPRS, 2003, p.1). This Vision 2020 was divided into five-year development plans. The first Medium-Term Development Plan (MTDP) 1996–2000 –called Vision 2020, the First Step – covered economic growth, human development, rural and urban development and the creation of an enabling environment. It was based on collaboration between ministries, departments, agencies, regions, districts and consultations with civil society. There appeared to be little coordination between different institutions and a lack of political commitment to implement the plan, so its impact was very limited.

The first phase of Vision 2020 failed to lay the foundations for sustained poverty reduction. This led to the preparation of the Interim Poverty Reduction Strategy (I-PRSP) for the period 2000–2002 in an attempt to formulate a more poverty-focused initiative. This I-PRSP formed the basis for the preparation of the PRSP 2003–2005, which paid more attention to the participation of the different stakeholders.

The government's focus on stabilising the economy gradually shifted towards achieving distinct development gains. In 2003 Ghana finalised its first PRSP, the Ghana Poverty Reduction Strategy (GPRS), which focused on achieving the anti-poverty objectives of the UN's Millennium Development Goals (MDGs) with an emphasis on 'stabilising the economy and laying the foundation for a sustainable, accelerated and job creating agro-based industrial growth' (GPRS, p.i). This was to be achieved by:

- ensuring sound economic management for accelerated growth;
- increasing production and promoting sustainable livelihoods;
- direct support for human development and the provision of basic services;
- providing special programmes in support of the vulnerable and excluded;
- ensuring good governance and increased capacity of the public sector; and

- encouraging the active involvement of the private sector as the main engine of growth and partner in nation building.

In 2006 the Growth and Poverty Reduction Strategy (GPRS II) was agreed upon. 'The central goal of the new policy is to accelerate the growth of the economy so that Ghana can achieve middle-income status within a measurable planning period' (GPRS II, p.i). However, GPRS II mentions two major constraints to achieving increased prosperity and poverty reduction:

- The vulnerability of the economy due to the persistent reliance on export earnings from a few primary commodities; and
- the social structure with a high proportion of children and youth with the incidental high dependency ratio, low level of literacy and skills, especially among women and the rural population.

Accordingly, GPRS-II focused on the following priorities (GPRS II, p.6):

- continued macroeconomic stability;
- accelerated private sector-led growth;
- vigorous human resource development; and
- good governance and civic responsibility.

3 Forests and forestry in Ghana

3.1 Biophysical characteristics

The Republic of Ghana is located on the west coast of Africa, situated between latitudes 4º and 11.5ºN, with a land area of 23.86 million ha and a coastline of 567 km. The country is bordered by Togo on the east and by Côte d'Ivoire on the west, with Burkina Faso to the north and the Atlantic Ocean to the south.

3.1.1 Climate

Ghana has a tropical climate. The annual rainfall decreases from about 2200 mm in the high forest zone (HFZ) in the southwest to about 1200 mm towards the northern part of the zone. The HFZ has a two peak rainfall periods in April–July and September–November, with a comparatively short dry season in January and February. The relative humidity is always high and is seldom below 85%.

The mean annual temperature falls in the range 25–27ºC and is fairly constant throughout the year. The savannah zone (SZ) has a one peak rainfall period in August–September, which is followed by a long dry season of four or five months when the humidity is low. The unimodal rainfall (800–1200 mm) is erratic and frequently undependable. This, coupled with the long dry Harmattan winds, makes tree planting and survival difficult.

3.1.2 Ecological zones

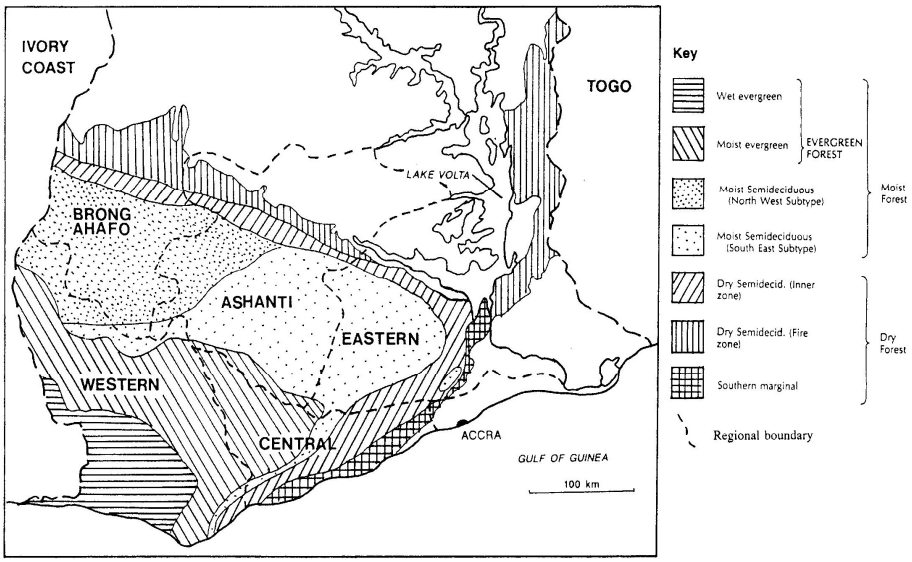
Ghana is divided into two main ecological zones: the high forest zone (HFZ) in the south, with an area of 8.2 million ha (34%), and the savannah zone (SZ) with 15.7 million ha (66%). These two zones merge in the forest savannah transition zone (FST) (see Table 1). Most of the natural vegetation in the SZ has been cleared for agriculture and there is a great shortage of wood for all purposes.

The HFZ includes the wet and moist evergreen forest (WE and ME), moist and dry semi-deciduous forests (MS and FST). The moist evergreen (ME) forest contains about 27% of the commercial or economic tree species, while the moist semi-deciduous (MS) forest has up to 17% of such species. It has been estimated that the wet evergreen (WE) forest is relatively poor in economic species (9%). The south-east outlier and the southern marginal forests contain no commercial timber.

Table 1. Ghana's vegetation zones and forest reserves.[a]

Ecozone	Vegetation zone	Area (number) of forest reserves (thousand ha)	Area of vegetation zone (km^2)	% of land area
High forest zone (HFZ) ***- main zone of commercial timber logging***	Wet evergreen (WE)	1,634 (266)	657	2.75
	Moist evergreen (ME)		1,777	7.45
	Moist semi-deciduous (MS)		3,289	13.78
	Upland evergreen (UE)		29	0.12
	Dry semi-deciduous (FST)		2,144	8.98
	Southern marginal (FST)		236	0.99
	Total (HFZ)	***1,634*** (20% of HFZ)	***8,132***	***34***
Savannah zone (SZ)	Southeast outlier	836 (24)	2	0.008
	Guinea savannah		14,790	61.98
	Sudan savannah		190	0.79
	Others (thicket, swamp, grass, etc.)		750	3.14
	Total (SZ)	***836*** (5% of SZ)	***15,732***	***66***
Grand total		**2,470** (10.3% of total)	**23,864**	**100**

[a] Forest reserves are legally defined and demarcated areas of forest that have been designated for management and protection in perpetuity.
Source: Odoom (1998), compiled from Hall and Swaine (1981). The extent of vegetation cover in each ecozone may have dwindled since 1981. The characteristics of vegetation in the HFZ are described in Annex 2.



Source: Ashie-Kotey *et al.* (1998).

3.2 Forest sector institutions and organisations

The key government agencies involved in administration, development and utilisation of forest and wildlife resources include the following:

The Ministry of Lands, Forests and Mines (MLFM) has overall responsibility for sector planning and policy direction and for monitoring sector programmes to attain national objectives. Its mission is to strengthen its capabilities to ensure that an enabling environment and adequate capacity and infrastructure are provided for both private entities and public agencies to perform at their best in implementing development programmes. It is also responsible for maintaining links with other ministries and agencies that have an interest in the forest sector. These are the Ministry of Finance and Economic Planning, Ministry of Food and Agriculture, Ministry of Local Government, Rural Development and Environment, Ministry of Energy, and the Environment Protection Agency. (Note that before April 2006 there was a separate Ministry of Environment and Science.)

The Forestry Commission (FC) is responsible for advising the Minister on policies to regulate the management and utilisation of forest and wildlife resources. Act 571 (1999) was promulgated to improve the efficiency and effectiveness of the FC. Under the Act, the former Forests Products Inspection Bureau (FPIB) and the Timber Export Development Board (TEDB) were brought under one umbrella as the *Timber Industry Development Division (TIDD)*.

The new corporate FC created under Act 571 was meant to provide an efficient and cost-effective institutional framework for the successful implementation of forestry policies and programmes. Financing and capacity building to facilitate the FC reform process was provided through technical assistance by the UK Department for International Development (DFID) through the Forest Sector

Development Project (FSDP) II component of the erstwhile NRMP. The reform of the FC included the implementation of a framework to make the Commission self-financing in the future. The restructuring is yet to be completed, while the support from FSDP II expired when the NRMP came to an end in 2003.

The FC links up with the MLFM through its board of commissioners. The Parliamentary Subcommittee on Lands, Forestry and Mines is expected to monitor the performance of the MLFM, while the Minister of MLFM monitors the FC Board. The MLFM policies are expected to be translated into strategic corporate plans and annual plans by the respective sector agencies, and the execution of the plans is expected to be monitored and evaluated by the MLFM.

Within the Forestry Commission there are three main operating divisions. The *Forest Services Division (FSD)* is responsible for protection, management and control of the forest estate both within and outside the forest reserves. The *Wildlife Division (WD)* is responsible for protecting and managing wildlife and protected areas, but has been constrained by limited funding and needs to be strengthened in order to fulfil its responsibilities. The *Timber Industry Development Division (TIDD)* is responsible for a forest industry rationalisation programme. Other responsibilities include inspection and certification of timber products, their measurement and grading, as well as their sale and pricing in addition to market intelligence. It is supported by an export levy. Although the TIDD previously concentrated very much on the export market, it is gradually becoming more concerned with the domestic industrial sector, including training.

At the FC headquarters centralised support divisions are expected to serve the three operating divisions (WD, FSD and TIDD). The *Resources Management Support Centre* (*RMSC*) is the focal point for technical information and advice concerning all aspects of all forest and wildlife resources in Ghana. It has no authority over field operations, but it has mandate to advise the FC on field offices that fail to comply with regulations and operating standards. In spite of extensive inputs by DFID in the past, the RMSC's capacity in the core function of forest planning remains very weak, while there is virtually no effective monitoring of forest operations. The conservation of the natural forest requires that whatever regulations and plans do exist are effectively monitored and controlled.

The *FC office in London* has been involved with the provision of trade and intelligence information to the TIDD. Its mandate is expected to be expanded to provide a broad range of services to the FC as a whole.

The Forestry Research Institute of Ghana (FORIG), under the Council for Scientific and Industrial Research (CSIR), carries out research for management and industry in the fields of plantation development, natural forest management, wood and non-wood product utilisation and marketing. As a policy of the CSIR, the FORIG – like the other CSIR organisations – has to find 30% of its funding from contracted research that may not be assured.

Training and education in the sector is provided at several levels. The Faculty of Forestry Resources Technology (FFRT) at Sunyani provides technical training and diploma courses for forest officers, together with a programme of short courses for forest and wildlife guards. Tertiary education to graduate and postgraduate levels is provided by the Faculty of Renewable Natural Resources (FRNR) in Kumasi. The FFRT is linked to the FRNR. Most management staff in the sector are FRNR graduates. The Wood Industries Training Centre (WITC), near Kumasi, has been established as a subsidiary of TIDD to offer technical training, consultancy and extension services for the wood industry.

The district assemblies (DAs) are the local authorities within districts and may in the future have a major role to play in the planning, management and control of off-reserve forest resources within their districts. The weak nature of the environmental subcommittees of these assemblies has made it difficult to institutionalise natural resource planning and management within the district assembly development plans and annual budgets. In general it can be said that there is decentralisation but no actual delegation.

3.2.1 The involvement of the private sector

The private sector consists of the landowners on whose behalf the government manages forest and wildlife resources, logging companies that operate timber concessions to supply the industry; wood processing companies; and chainsaw operators who produce rough sawn wood products for the domestic market. There are several private sector timber trade associations, such as the Ghana Timber Association (GTA), which represents logging companies, and the Ghana Timber Millers' Organisation (GTMO) whose members are processing companies, but there is little unity among them. Their cooperation with forest sector agencies in implementing sound forest management practices has not been as expected.

There are other smaller associations that are not as powerful as the GTA or the GTMO despite their numbers. Together, the Small-Scale Carpenters' Association (SSCA) and the Woodworkers' Association of Ghana (WAG) have 40,000 members. Since furniture factories and carpenters are heavily dependent on 'traditional' timber species that are in short supply, the SSCA and the WAG are under pressure to supply sufficient raw material. As a result, they rely on the currently illegal chainsaw lumber to a great extent.

3.2.2 Inter-sector coordination and collaboration

Inter-agency coordination in planning and monitoring of natural resource use, particularly at the regional and district levels, is weak. Cross-sector cooperation and coordination is important for the promotion of efficient land-use planning, policy formulation and implementation, as well as for poverty reduction/food security and environmental improvement (MDGs 1 and 7). This kind of inter-sector coordination is vital for the efficient management of Ghana's natural resources in general, and for alleviating rural poverty in particular.

An attempt was made to use the NRMP as a platform for natural resource management involving all the relevant ministries[1] to adopt a sector-wide approach (SWAp) for development projects in the natural resource and environment sector. Unfortunately, this did not work out as expected and the decisions that were reached were not followed up. An evaluation of the reasons for the failure of such collaboration and to identify realistic means of achieving it in practice would be invaluable.

In 2005 and 2006 several joint analytical studies related to natural resources, environment and economic growth and poverty alleviation were undertaken, including the Country Environmental Analysis (World Bank, AfDB, Netherlands embassy, DFID) and an Environmental Sector Study (Netherlands embassy, UNDP, CIDA). These studies brought donors and government closer together and some ongoing activities (2007) are based on these studies. Since early 2005 an active Environment Natural Resource sector group has been engaged in policy dialogue with the MLFM on a regular basis.

3.2.3 Overview of development partner support and coordination

3.2.3.1 Sector reform projects

In the decade 1973–1982, Ghana's economy declined dramatically and the value of timber exports fell from USD 183 million to USD 15 million. Previously, timber had been the country's third largest export product after cocoa and gold. In 1983 inflation spiralled to 123% and the national debt rose to USD 1.5 billion. Ghana consequently embarked on an Economic Recovery Programme (ERP) with the support of bilateral and multilateral donors to revitalise the traditional export sectors, including gold, cocoa and timber. The ERP was intended to reverse the crisis caused by the collapse of these foreign exchange sectors, and by the poor state of the related ports and harbour infrastructure during the so called 'lost decade' (1970–1980).

The first phase of the recovery programme focused on improving fiscal policies and enhancing the export sectors of the economy. Support in the form of loans on soft terms was given to pre-identified timber companies. The logging and sawmilling industry absorbed about 89% of the facility. Although these resulted in increased export earnings, they also increased the national debt and disproportionately benefited a small class of timber concessionaires. There was a sevenfold rise in export earnings to USD 80 million a year, as compared to USD 30 million annual debt repayments on transport alone (Amanor, 2003). The investments led to an increase in the number of primary processing plants (horizontal growth) rather than an expansion of downstream or value-added processing capacity (vertical growth) of the industry.

[1] The Ministries of Lands, Forestry and Mines (MLFM) as lead ministry, Food and Agriculture, Environment and Science, Energy and Local Government and Rural Development.

By the end of the 1980s the timber industry was back on its feet and the number of log exporters had tripled. Illegal logging was rife and some contractors flexed their political muscle and declined to pay timber royalties. Under the ERP the need to improve the balance of payments appears to have obscured everything else.

An exposé published by Friends of the Earth in 1992 caused development partners to re-evaluate their strategies. It was recognised that sustainable development could not be promoted by disbursing funds for commercial logging without allocating funds for forest conservation and management. The second phase of the ERP therefore sought to provide assistance to the forestry sector with the aim of ensuring that the resource base would be able to sustain the level of exports and economic growth achieved during the first phase of the programme.

DFID funded a comprehensive stock assessment study (the Forest Inventory and Management Project, FIMP) covering the entire high forest zone from 1985 to 1995. The results showed, *inter alia*, that the total volume of timber harvested was about three times higher than the annual allowable cut (AAC). The study therefore recommended that the AAC be reduced to 1 million m^3.

The Forest Resources Management Project (FRMP, 1989–1997) that followed the ERP aimed to upgrade the capacity of forestry sector institutions to manage the country's forest resources more effectively and to regulate the forest industry according to a sustainable yield. The FRMP encouraged conservation and tree planting on farms, but failed to address adequately the issue of ownership of trees on farms. It also provided support for an on-the-job skills upgrading programme for the wood industry in order to improve processing efficiency and to reduce waste. Under the FRMP, the Ministry of Lands, Forests and Mines was expected to increase royalties on timber and to introduce the allocation of concessions through competitive bidding. The achievements under the FRMP were considered insufficient to move it to the planned second phase. One lesson learned was that an effective sector policy environment and efficiently operating sector institutions need to be in place before wide-scale resource management is initiated.

The main focus of both the FRMP and NRMP has been the institutional strengthening of forest sector agencies, including infrastructure and training, and development of policy planning, monitoring and evaluation capabilities.

3.2.3.2 Donor coordination

In order to prevent the implementation of piecemeal development assistance programmes by development partners, leading to conflicting recommendations and in some instances to uncoordinated actions, the government of Ghana initiated the sector-wide Forest Resources Management Project (FRMP) in 1989, followed by the Natural Resources Management Programme (NRMP) in 1999, with the support of the World Bank, DANIDA, DFID, the Netherlands embassy, the World Food Programme (WFP), the European Union (EU) and the German technical cooperation agency (GTZ). JICA followed suit later.

A major problem that arose during the implementation of the NRMP phase I was the lack of adequate integration of donor-supported activities under the programme. Some donors preferred to develop and manage their own projects even though the initial objective was for the World Bank to coordinate support to the forestry sector.[2] Different development partners had varying work programmes. In addition, either late or non-fulfilment of financial pledges made the synchronisation of some activities quite difficult. Under such circumstances, it was difficult for Ghanaian programme staff to exert control over activities being carried out by some development partners. The executing agency, the Ministry of Lands, Forests and Mines (MLFM), had neither the capacity nor the necessary systems in place to lead or drive the programme agenda. With regard to future programmes for the sector, there is a need for strong leadership by the executing agency, in addition to more effective coordination among development partners and better synchronised work programmes.

In early 2005, the development partners formed an environment and natural resources (ENR) sector group for dialogue related to the general budget support. Targets were agreed in the performance assessment framework of the multi-donor budget support 2005 and 2006 on environment and natural resources (specifically forestry). Currently, a joint donor budget support programme (the Netherlands embassy, World Bank, African Development Bank, EU, DFID) is being developed for the ENR sector.

The problem of the lack of pooling of programme funding into a single source has been virtually resolved with the advent of multi-donor budget support (MDBS). But financial and progress report formats that are acceptable to all the participating development partners have yet to be developed. In addition, a mechanism to minimise and eventually eliminate the tendency for donors such as JICA and GTZ to operate more or less independently must be formulated through discussions between the Ministry and development partners. This should allow for greater integration of projects and ensure the greater accountability of programmes to the executing agency.

DFID has historically supported the forest sector and forest policy reform through the Forest Services Development Project (FSDP I and II). The main thrust of the latter was to raise the Forestry Commission's interest in and capacity to oversee forest management and regeneration, and to move away from a focus on forest exploitation. However, DFID's Ghana Country Assistance Plan (2002–2005) indicated a complete shift away from future support to the forestry sector towards support to civil society and advocacy for forest and land policy reform, the MDBS, public service reform and governance.

FAO supports, *inter alia*, the National Forest Programme (NFP), the Land Administration Programme (LAP) and a Participatory Forest Management Programme (PFMP). It is also piloting a Conflict Management for Natural

[2] Examples include DFID, JICA and GTZ, who tended to operate on their own. The Netherlands Embassy is regarded by the executing agency as the most flexible.

Resources Programme (CMNRP), which aims to develop appropriate training modules for forest, land and fisheries conflicts in Ghana and to train a cadre of experts capable of facilitating conflict management.

GTZ is active in agricultural policy, sustainable agricultural development, and support to local governance through both sector-wide support and projects. The agency also supports the Forest Protection and Resource Use Management Project (FORUM) in the Volta region.

The Japanese International Cooperation Agency (**JICA**) is undertaking forest reserve management and plantation development in the transition zone in the Brong Ahafo region.

With the closure of a large land and water management project and a traditional energy component within the NRMP, **DANIDA** is no longer directly involved in natural resources management. But it is keen to support NGO efforts in natural resource management, particularly in northern Ghana.

3.3 Management of land, forests and wildlife resources

3.3.1 Land use

Land use in Ghana can be grouped into seven major categories: forest reserves (approximately 11% of the total land area); wildlife reserves (5%); unreserved high forest (2%); unreserved savannah woodlands (30%); perennial tree crops such as oil palm, coconut and cocoa (7%); annual crops (5%), unimproved pasture (15%); and bush, fallow and other land (25%). In cases where forest reserves have been created, the status of land and forest ownership has not changed, but the state (through the Forestry Commission) manages and protects the resource in trust for the communities who own the land and the resources.

Occupancy and agriculture are not permitted within the reserves. However, some agricultural lands within certain forest reserves were included as admitted farms at the time the reserves were gazetted. The government has acquired most of the protected areas (PAs) but in some cases has not yet paid the necessary compensation, leading to litigation and conflicts with landlords and settlements.[3] Within some PAs, 'special utilisation areas' (zones for farming where hunting is not allowed) have been created for some settlements as a temporary measure until funds become available for their relocation. Problems have been encountered in some PAs with respect to opinion leaders who have failed to comply with the conservation measures introduced by the Wildlife Division.

3.3.2 Land and tree tenure

Since the promulgation of Act 123 and Act 124, farmers and landowners have lost all rights to the commercial exploitation of timber trees on their farms. Migrant

[3] Based on discussions with the Wildlife Division management.

farmers may not plant trees on lands allocated to them, nor do they have any rights to naturally regenerated trees on their farms without the consent of the landowners, even though they may be the ones who nurture them. Generally, there is lack of clarity regarding tree tenure on farms with regard to landowners and tenant farmers, as well as the ownership of nurtured naturally regenerated indigenous species on farms. The conservation of trees on farms consequently requires the strengthening of farmers' claims to the revenue generated from naturally regenerated trees that they nurture, and thus tree benefit-sharing arrangements between the landowners and farmers. This, in conjunction with the legalisation of the commercial utilisation of trees on farms, will ensure the equitable sharing of benefits and encourage the nurturing of trees on farms.

Those who plant trees have unrestricted utilisation rights to them by law. This is much more feasible to implement in the case of, say, woodlots, which are more discernible on the ground, than isolated trees, especially in terms of future inheritance. A system for identifying individual trees may be necessary (e.g. by registration) to serve as an incentive for the cultivation of such trees. It is generally necessary that the ownership of trees on farms is explicitly defined by policy and law.

The method of assessing compensation to be paid to farmers whose crops are destroyed due to timber harvesting or infrastructure development is not fully transparent and the right of appeal is unclear. The modalities with respect to the right of appeal by farmers who are dissatisfied with compensation for damage during logging have to be explicitly established. These should be as simple as possible for farmers to comprehend and implement.

3.3.3 Management of the forests

The landholding 'stools'[4] own the forest land and the timber trees thereon, while in practice, the land and trees are managed by the central government in trust for the landowners with little or no input by stools, village communities and local authorities. In accordance with the Forest Ordinance (Cap. 157), forest reserves may be managed by the owner or owners under the direction of the Forest Services Division (formerly the Forestry Department), or by the government at the option of the President (Section 18(2)). The former option has never been applied, probably out of ignorance on the part of the landowners. The state has therefore had all rights relating to determining what, where and when access is given to the forest resources in forest reserves and areas outside forest reserves that fall within timber concessions.

There is an expressed legal opinion that the Forestry Commission does not have exclusive rights to manage and protect all forest reserves and protected areas. It has therefore been concluded that clarification of the Commission's management responsibilities from a legislative point of view is required.

[4] In Ghana a wooden chair or "stool" represent social maxims and spiritual ideologies of the leadership and the leadership itself

Management of forest reserves
The productive forest reserves in the high forest zone have been classified into working circles – areas of forest under a unique system of forest management. Table 2 shows that about 47% of the forest reserve area in the HFZ is potentially available for timber harvesting.

Table 2. Classification of forest reserves according to working circles.

Area category	Basal area (m^2/ha)	Area (thousand ha)	%
Timber production	> 15	762.4[5]	46.6
Permanent protection	–	352.5	21.6
Convalescence	5–15	122.0	7.5
Conversion	< 5	127.2	7.8
Not inventoried (conversion)	< 5	270.0	16.5
Total reserve area	**–**	**1634**	**100**

Source: Forest Services Division (1995).

The forest reserves in the HFZ have been grouped into 52 forest management units (FMUs), each of which usually contains three or four forest reserves. Each FMU covers an area of about 500 km^2 and is found within one forest district or forest type. The FMU is the basic unit for sustainable forest management, and working plans have been prepared for them.

Forest reserves
The Forestry Commission has estimated (Hawthorne, 1995) that the extent of total forest reserve area that has the lightest or no disturbance in recent history ('good to excellent') was about 16%. About 55% of the reserve area is 'degraded' while 29% is in 'very bad condition'. The condition of forest reserves in the HFZ is illustrated in figures 1 and 2.

Mangrove forests
The Forestry Commission has made no conscious effort to implement any system of management for the mangrove forests, which are generally located outside the forest reserves. Nevertheless, fuelwood and poles are being harvested unsustainably from some mangrove forest areas. However, the Wildlife Division implemented a Lower Volta Mangrove Project (1996–1998) to protect wildlife in that habitat.

Multiple uses of forest resources
In Ghana, timber utilisation contracts (TUCs) or forest concession rights are related to the timber in the forest only. There is therefore a tendency for the holders of TUCs to maximise the timber benefits and to disregard other values that they cannot claim or may even harvest (e.g. non-timber forest products (NTFPs), bushmeat/wildlife, etc.) at no cost. This leads to potential losses of revenue to the

[5] The FSD forest inventories show that the area of productive forest reserves in the HFZ decreased from 1.16 million ha in 1989 to 719,300 ha in 2001.

landowners and the state. It is therefore important that modalities for the management of multiple resources on the same piece of land – either through an individual or a group of individuals – be formulated to increase revenue generation from timber harvesting.

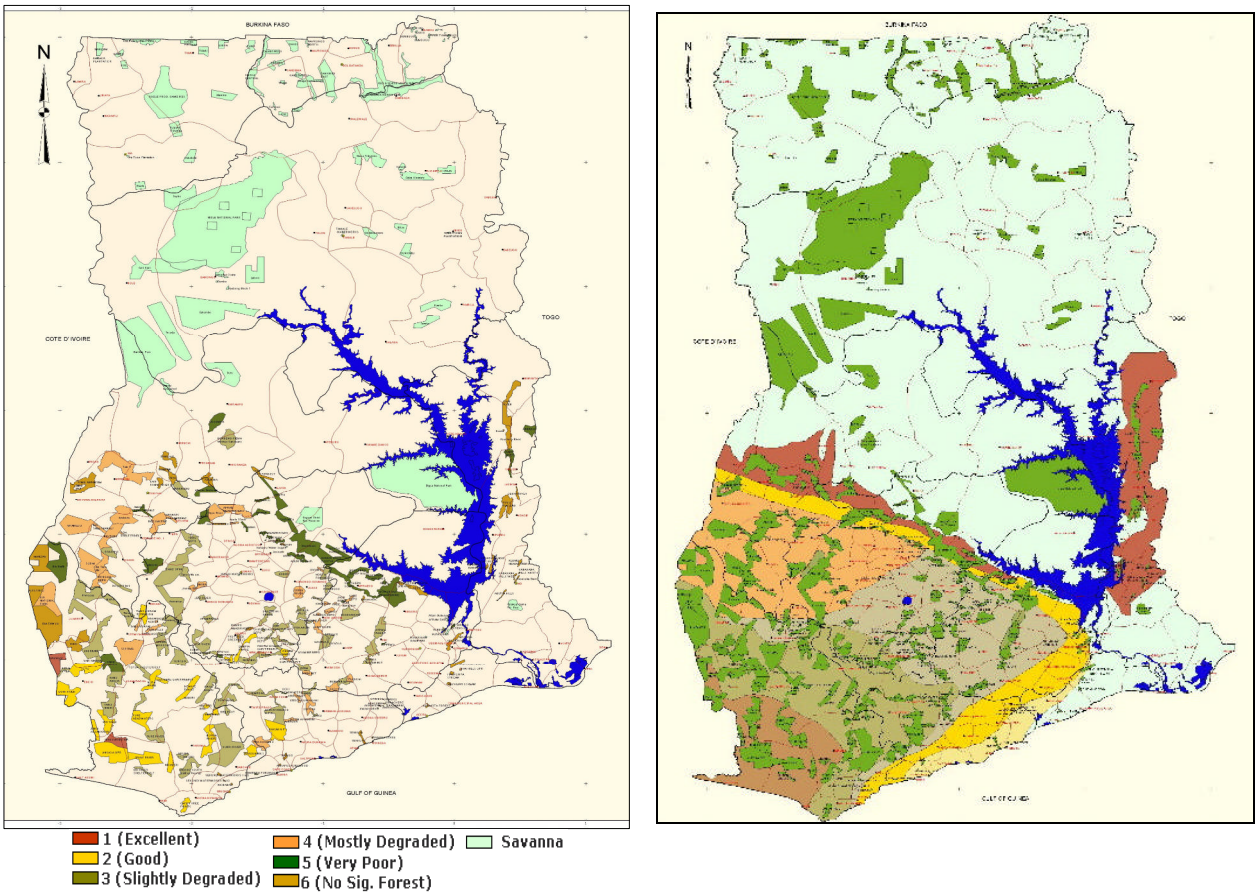


Figure 1. Status of the degradation of Ghana's forest reserves (1995).

Deforestation

The area covered by forests declined from 23% in 1972 to 13.3% in 1990 and 10.2% in 2000. The area deforested between 1972 and 2000 was 307 km^2 at an estimated annual rate of about 3%. Over the years, the 8.2 million ha area of high forest that existed at the turn of the last century was reduced to an estimated 2.46 million ha in 2000, representing a loss of 70%. The annual economic losses due to environmental degradation in Ghana were estimated at 4.5% of GDP in 2003, more than half of this due to forest depletion.[6]

[6] World Bank *et al* (2006).

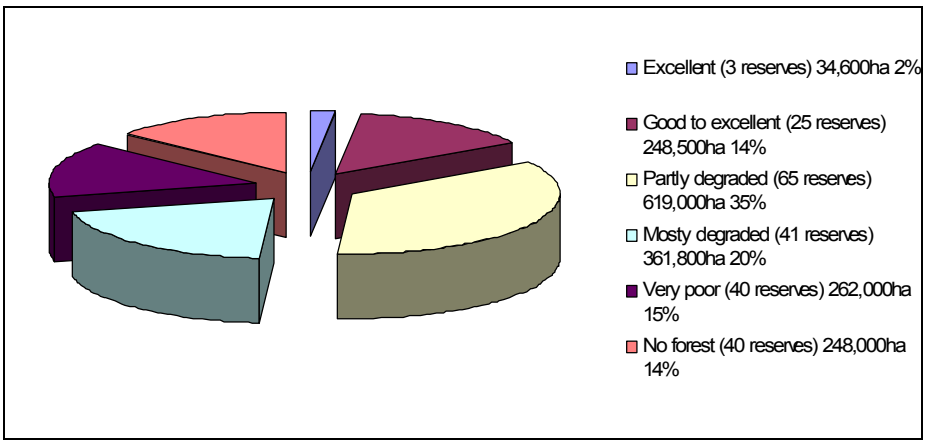


Figure 2. Status of forests within forest reserves (1995).
Source: EPA (2005).

Most of the remaining forests are found only in statutory forest reserves, with small patches of traditionally protected forests occurring as sacred groves outside the reserves representing less than 2% of the total forested area (EPA, 2005). These reserves include relics of the continuous forest cover that existed prior to large-scale conversion to permanent farmland, shrines or sacred forests/groves (which are usually protected from exploitation by customary edicts), forests established by villagers to provide *inter alia*, protection, fruits, building materials, fuelwood, trees grown in home gardens and on other farmland under various agroforestry systems, village trees, trees growing on fallow areas, and shrubs and trees on other wooded lands. Attempts are being made to bring the forest resources outside the forest reserves under sustainable management. Farmers are being empowered to monitor timber harvesting on their farms and to veto any logging where necessary. Even though the forest/tree mosaics outside the forest reserves are major sources of wood, wood products and NTFPs, very little information is available about their contribution to the economy, so they tend to be neglected. However, these areas are known to provide more than 50% of the annual log production.

The factors that have contributed to the widespread deforestation and land degradation include policy failures, the weak institutional capacity of the Forestry Commission; weak inter-sector coordination in the planning of appropriate integrated land use; insufficient involvement of communities in the management of the forests, and inequitable distribution of the revenues that accrue from the harvesting of forest resources. According to the Forestry Commission, fires affect almost 50% of the total area of forest reserves every year, many of which are set deliberately. Mineral prospecting and mining affect about 2% of the total forest reserve area.

Farming is a major cause of deforestation in Ghana. Factors that are related to farming and contribute to deforestation in the HFZ include the lack of incentives for farmers to nurture trees on their farms as they cannot benefit commercially

from them. Generally, in the HFZ, the traditional authorities insist that migrant farmers clear the primary forest on lands allocated to them within about two years, or risk losing the uncultivated portions for re-allocation.[7] This may encourage farmers to clear more land than they require. So widespread are migrants throughout the HFZ that in many situations landowners no longer comprise the majority of the rural population. In the old cocoa-growing areas in other parts of the HFZ, yields are declining as a result of land degradation and loss of soil fertility, encouraging migration to the Western region.[8] The more recent migrants tend to be concentrated in heavily forested areas, while indigenous populations are clustered in centralised settlements where services are likely to be available. The traditional authorities usually do not have the necessary means to monitor objectively the extent of forest clearance in their areas. This, coupled with the need to clear land within a specified time, as well as the existing tree tenure system in the HFZ – whereby any trees left standing on a farm belong to the landowner – is having adverse effects on the integrity of the 'last frontier forests' in the Western region of the country.

The introduction of new light-tolerant strains of cocoa to replace the shade-dependent *Tetteh quarshie* varieties is aggravating the situation. Cases of clear felling of forests for the establishment of the new cocoa varieties have been reported, especially in the Western region. Despite the Economic Plants Protection Decree (AFRCD 47, 1979),[9] trees on cocoa farms are felled with the farmers' consent, either in times of financial need or to prevent any possible damage to the cash crop through illegal felling and extraction of timber.

3.3.4 Forest plantations

Between 1963 and 1987, the state (FSD) established approximately 75,000 ha of plantations in 88 forest reserves in the HFZ, of which about 21,000 ha have been assessed as useful and productive. Local communities and private institutions planted a further 10,000 ha and 2000 ha, respectively (Cobbinah *et al.*, 2001), with species such as teak, as well as Eucalyptus, Gmelina, Cedrela, Triplochiton, Terminalia and Ceiba on a trial basis. There has been no systematic assessment of the performance of these species, and some appear to be growing very well, even though site–species matching is rarely done. The main activities after planting have been production thinning, during which stems that should have been left standing to form the final crop were the ones that were removed as a result of ineffective harvest control measures by the FC. The quality of the final crop may therefore be poor. It may therefore be better to replace most of the old teak plantations with genetically improved planting material and proper plantation management techniques.

[7] The adverse effects of these issues are being addressed under an ongoing CARE International project in parts of the HFZ.

[8] It has been estimated that the Western region contains about 70% of Ghana's remaining forests.

[9] This decree prohibits the felling of standing trees on farms where specified plants (mainly cocoa) are cultivated. This is to prevent the destruction of farms by timber merchants, although it is known that such trees are felled with the consent of most farmers.

Between 2003 and 2005 about 45,000 ha of forest plantations were established in degraded forest reserves under a 'Modified Taungya system' (MTS).[10] It has been assessed that without support, the future expansion of plantations under the MTS system is unlikely. The resources of the farmers become limited as the plots allocated become more distant from their places of habitation. A further 29,000 ha were planted in 2005 under the Highly Indebted Poor Country (HIPC) programme, including planting in urban areas (Dr V. Agyeman, personal communication).

The most ambitious plantation initiative is the Subri Industrial Plantations Project (SIPL), where between 1971 and 1997 the government, with the assistance of African Development Bank (AfDB), established about 4200 ha of Gmelina plantations for pulp. The pulp mill was never built, however, and the government is now considering divesting the plantations. The main technical constraints to plantation formation in Ghana can be summarised as follows:

- the limited experience with successful commercial forest plantation development means that there are no proven technical packages and no competent local silvicultural management firms to develop plantations on behalf of potential investors;
- the lack of information packages detailing environmental and other requirements, and codes of practice that foreign/local investors must comply with before investments can be approved;
- the availability of adequate supplies of genetically improved planting material – a crucial determinant of profitability – is limited;
- the lack of information on available land and site typing, even though there appears to be no shortage of gross land area; and
- most operators in the timber industry are currently not adapted to small diameter milling.

The economic factors that may hinder commercial plantation development include:

- Long- and medium-term loans for schemes such as forest plantations are not available in Ghana, and commercial lending rates are very high (the Ministry plans to set up a venture capital scheme for the purpose in the future);
- Lack of institutionalised incentive packages to make large-scale investments in forest plantations competitive with alternative investment opportunities;
- Lack of packages to demonstrate the financial viability of forest plantations to attract potential investors;
- Non-availability of the appropriate security for long-term investments in forest plantations; and

[10] The MTS involves the interplanting of trees with food crops by the FSD in conjunction with farmers and local communities under a benefit-sharing scheme to serve as incentive for communities, resource owners and farmers. The farmers are expected to tend the trees to maturity.

- The illegal chainsaw logging and timber trade, coupled with other distortions in the domestic timber market (e.g. low local prices for logs from natural forests and the illegal trade in timber).

3.3.5 Management of the wildlife estate

The Wildlife Estate of Ghana was established to protect representative samples of Ghana's various ecosystems. The estate consists of 25 sites, all administered and managed by the Wildlife Division of the Forestry Commission. It includes 18 protected areas (PAs) comprising seven national parks, six resource reserves, four wildlife sanctuaries, and one nature reserve. The 18 gazetted PAs extend over 13,048 km² and represent 5.5% of the nation's land area. There are also five coastal lagoons that have been designated as Ramsar sites, and two national zoos. In all, these sites represent 6.3% of the land area of Ghana. The infrastructure (particularly roads) in the PAs is generally very poor, while the Wildlife Division is ill-equipped and lacks suitable vehicles. As a result, large sections of the reserves are seasonally inaccessible.

Most protected areas have been acquired by the government, but the necessary compensation has yet to be paid, leading to litigation and conflicts with landlords and settlements in some cases.[11] For some settlements within the PAs, Special Utilisation Areas (zones for farming where hunting is not allowed) have been created as a temporary measure until funds become available for their relocation. Some problems have been encountered in some PAs with respect to certain opinion leaders who have failed to comply with the conservation measures introduced by the Wildlife Division.

The Ramsar sites provide sanctuaries for more than 80% of the migratory birds stopping in Ghana. The country is ranked among the top 25% of African countries with regard to the number of species in all major groups. There are 220 species of mammals, 721 birds and 850 butterflies. The country provides refuge for a significant number of species considered to be at risk of extinction – the 'Red Data Book' species – including 34 plants, 17 mammals, 10 birds, 5 reptiles and a butterfly.

Production and trade in wildlife products

About 21 animal exporters have been registered. Each of them employs a team of 10–100 collectors and hence provides employment for several thousand rural people. There is a substantial market in animal and plant products used in traditional medicine and cultural practices, with an assessed retail value of at least USD 13 million.

Substantial wildlife resources exist outside the protected areas. Attempts to ensure their sustainable use include that hunters are required to obtain and pay for a licence to hunt during the designated hunting season. Group hunting is outlawed, and different species are given varying degrees of legal protection through their

[11] Discussions with the WD management.

inclusion in appropriate legislative schedules. The Wildlife Division is responsible for issuing licences and for enforcing regulations throughout the country. Bushmeat traders are also required to operate under licence, issued since 1994, by district assemblies (Forestry Commission, 1998). With the breakdown of traditional controls and the Division's inadequate resources, these measures are rarely enforced, and wildlife is regarded as a free resource.

3.4 Community participation in forest and wildlife management

The Forest and Wildlife Policy (FWP) of 1994 aimed to involve all stakeholders in the efficient management of forest resources for their benefit. The response of the Forest Services and the Wildlife Divisions (Forestry and Wildlife Departments) was the creation of the community forest committees (CFCs) for the forest reserves, and community resources management areas (CREMAs) for wildlife management outside the reserves. These instruments are meant to be used to explore and develop the potential for local people to become involved in effective and efficient forest and wildlife management.

The Timber Resource Management Act (TRMA, 1997) – the legal instrument for the implementation of the FWP – concentrates on commercial timber utilisation. There is therefore an inadequate legal framework for the practical implementation of the collaborative spirit implied in the FWP. This creates legal insecurity and is a disincentive for the communities to collaborate with state agencies to ensure sustainable forest management.

Several community-based organisations (CBOs) have been formed under different resource management contexts. These include the community forest committees (CFCs) and the community resource management areas (CREMAs) as described below. Generally, the operation of the CFCs and CREMAs has been project based, which makes the expansion and sustainability of these concepts uncertain without external support, as assistance from the FC is not reliable.

3.4.1 Community forest committees (CFCs)

The Resource Management Support Centre's (RMSC's) Collaborative Resource Management Programme (CRMP) seeks to involve local communities in the planning, implementation and monitoring of forest reserves. For this, the programme is promoting community forest committees (CFCs) in the forest fringe communities, which enter into contractual relations with the forestry service to perform management functions. These include boundary maintenance, firebreak establishment, tree planting within reserves, facilitating and monitoring social responsibility agreements (SRAs) with timber concession holders, and policing the forest reserves to prevent illegal encroachment. In essence, the communities provide labour services rather than participate in forest management planning. However, financial constraints within the Forestry Commission have led to problems related to payment of communities for their services such as maintaining the boundaries of some forest reserves.

The findings of an evaluation of the CFCs in 2000 indicated that the enabling legal framework for their operation, the necessary strategies for them to be self-supporting, as well as training of community members in rudimentary forest management skills are crucial for their effective functioning and sustainability (Asare, 2000).

While the 1994 Forest and Wildlife Policy was intended to establish a framework for participatory management, it actually created the conditions for the further erosion of farmers' rights by centralising off-reserve forest management in the hands of the Forestry Commission. With the timber utilisation contract (TUC) system consolidated on farmland, it is difficult for local craftsmen, for example, to access trees for the production of mortars, canoes and wood carvings.

3.4.2 Community resource management areas (CREMAs)

The Wildlife Division is making efforts to engage communities in off-reserve areas by the development of the concept of CREMAs. This is based on the principle of devolving responsibility for wildlife off-reserve to registered CREMAs that commenced in 1994. The concept is being developed on a pilot basis in the communal lands of Amokwasuaso that border the Ankasa Conservation Area in the Western region. An enabling bylaw has been developed and (partially) reviewed by the Jomoro District Assembly, but has not yet been formally approved. Protected area management advisory units/boards (PAMAUs/PAMABs) are being established in the protected areas to serve as platforms for exchanging ideas on natural resources management with the surrounding communities and the district assemblies involved. First started in the Shai Hills in Greater Accra in 1995, CREMAs are being extended to other areas through the Wildlife Division Support Project (WDSP). The Wildlife Division is an *ex-officio* member of the CREMAs and provides mainly technical advice.

Economic activities such as the opening of visitor centres as tourist attractions have begun in some areas. Communities near the Agumatsa Wildlife Sanctuary in the Volta region, where the scheme was first introduced, have benefited from a revenue-sharing arrangement whereby 57% goes to the communities, 23% to the Wildlife Division, and 20% to the district assembly. This provides an example for the other communities to emulate based on their respective socio-economic settings.

The Division has developed a policy on collaborative/community-based wildlife management, but it is yet to be accorded the necessary legal backing. Aside from the recent authorisation of district assemblies to issue permits for trade in bushmeat and to retain of some of the revenue, all other local participation has remained at an informal level.

Sustainability of the CFCs and CREMAs

The future funding of their activities to ensure the independence and sustainability of the CFCs and CREMAs without support from projects is uncertain, as is the case with the community forest committees under the FSD. The importance of such CBOs in the future forest and wildlife resources management requires that

their harmonisation, future sustainability and independence be explored, including the development of community forest laws.

3.5 Benefit sharing and social responsibility agreements (SRAs)

There are several factors that make the rural population work against their own forest-related long-term needs and interests. For instance, there is inequitable distribution of forest revenues and no trickling down of forest revenues to the forest fringe communities. The distribution of forest revenue is skewed in favour of the Forestry Commission, and rural communities are marginalised. Over the period 1990–1999, the Commission's share of the total revenue was 75–90% (see Table 5).

Table 5. Share of forest revenues, 1990–1999 (%).

	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
FC	88.3	89.9	90.1	90.8	88.0	75.1	75.1	85.6	83.8	80.1
of which										
-Stumpage	*25.9*	*18.3*	*11.0*	*16.7*	*15.3*	*12.2*	*12.7*	*21.3*	*23.8*	*29.3*
-User fees	*6.4*	*6.6*	*11.3*	*11.1*	*9.5*	*26.9*	*25.7*	*21.9*	*18.1*	*11.0*
-export levies	*56.0*	*65.0*	*67.8*	*63.0*	*63.3*	*36.1*	*36.7*	*42.4*	*42.0*	*39.8*
OASL*	11.1	9.5	9.2	8.8	11.6	24.6	24.7	14.2	15.8	19.6
Farmers	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Others**	0.6	0.6	0.6	0.4	0.3	0.2	0.2	0.2	0.3	0.3

* Office of the Administration of Stool Lands.
**District courts, exporter associations.
Source: Forestry Commission (2001).

The forest fringe communities are generally unaware of forest sector issues such as forest use rights; the modalities of the application of social responsibility agreement (SRAs); policies pertaining to the management and utilisation of forest resources; the commercial value of wildlife, wildlife products and timber trees on farms; and the share of the proceeds they can expect from timber harvesting. Inefficiencies in the timber processing industry do not facilitate the payment of prices close to the prevailing international prices for the raw material, leading to a loss of revenue for both landowners and the government. Under these conditions, the landowners as well as migrant farmers see few incentives to cooperate in the protection and sustainable management of the forests.

The 1994 Forest and Wildlife Policy recognised that the future of the forestry industry depends upon farmers preserving and planting trees. But this policy ran into resistance from vested interests, who argued that forest tenure laws could not be reformed since they were enshrined in the national constitution. In the end, a rather vague SRA was introduced as a compromise, in which concessionaires agreed to provide communities with payments. In accordance with the terms of the agreement, the holder of a timber utilisation contract (TUC) is obliged to allocate 5% of the stumpage value to infrastructure projects in the neighbouring

communities in return for the right to exploit the timber resources in their area, including forest reserves, farms and fallow land. This is regarded as an unsatisfactory solution, not only because the benefits of individual farmer efforts were redistributed to the community, but also because the chiefs frequently dominated this process and defined the forms that SRAs should take. In several cases, this included the chiefs signing the SRAs rather than the communities, for instance. The implementation of the SRAs is considered too cumbersome by those TUC holders who have to deal with several sub-chiefs in their area as the demands on them are multiplied.

3.6 Production functions of the forests

3.6.1 Wood products

Lumber
In 1995 it was estimated that the total volume of lumber required for domestic consumption was about 456,000 m^3 (TEDB, 1995). The vibrant local lumber market is virtually ignored by the timber industry. On the basis of a conversion rate of 40%, this amounts to 1.14 million m^3 of round logs, which is more than the current annual allowable cut (AAC). There is no doubt that with continued population and economic growth in Ghana, actual consumption is even higher.

Poles
Thinnings from the Forestry Commission's teak plantations have been the main source of raw material for the wood pole treatment industry in Ghana. The current demand, however, exceeds supply and some pole treatment plants have been importing poles of softwood species to supplement local supplies. The export of poles was, in principle, suspended in November 1995.

Woodfuel (*charcoal and fuelwood)*
The Commission estimates that in 2000 about 79% of the total primary energy consumption was in the form of fuelwood and charcoal. 89% of fuelwood (about 5.546 million tonnes) is consumed in the rural areas, while 73% of charcoal (651,600 tonnes) is used in urban areas mainly for cooking. Some 600,000 small-scale commercial enterprises such as chop bars and street food vendors depend on firewood or charcoal as their main source of energy (FAO, 2000). Since 1980, average woodfuel consumption increased by about 725,000 m^3 per year, to about 27 million m^3 in 2000 (FAO, 2004) and, assuming the trend continued, to 30 million m^3 in 2005. The dependence on woodfuel is likely to increase as a result of low incomes and poverty of the rural population.

The proposed strategy for meeting the demand for woodfuel, and for relieving the pressure on existing forests and woodlands, has focused on community forest management, agroforestry and woodlots, complemented with a policy promoting liquid petroleum gas. The sustainability of the increasing demand for woodfuel is in doubt in view of the lack of appropriate management of woodland/forest sources, coupled with the very slow progress in establishing plantations. Despite dwindling

timber resources, some timber species (e.g. Celtis) that are suitable for the production of valuable products are being harvested for fuel.

Charcoal production is concentrated in the transition zone between the forest and savannah. It has been estimated that of the total roundwood harvest in Ghana, 91% is used as fuelwood and for charcoal. The remaining 9% is used as industrial roundwood (mainly timber). As 'slash and burn' agriculture recedes, the availability of fuelwood from off-reserve areas will decrease and the pressure on forest reserves may increase.

3.6.2 Non-timber forest products

Non-timber forest products (NTFPs) have a great potential to contribute to food security, poverty reduction and the amelioration of the environment. The collection, processing and marketing of NTFPs, including bushmeat, are the major forest sector activities in the HFZ of Ghana. These are very important for the meeting subsistence needs and improving the livelihoods of forest fringe communities. With the slow growth of the formal economy, the informal forest-based sector will continue to be important to rural communities and the urban poor. Some of the most important NTFPs are described below.

Bushmeat

Bushmeat is an important source of animal protein for both rural and urban populations. Forest streams provide habitats for freshwater fish and crabs. Increasing urban demand and dwindling supplies of game have made bushmeat a luxury item. While its production appears to be declining, its popularity is not. The high value of bushmeat in urban markets has led to the rapid growth of commercial hunting. For example, it has been reported that bushmeat has developed into a multi-million-dollar industry, mainly in Accra and Kumasi. Increasing demand by Ghanaian emigrants has expanded the market for the product, resulting in well established networks for international bushmeat trade.

Bushmeat is the most important use of wildlife in Ghana, estimated to account for about 94% of the total in terms of value. The annual consumption of bushmeat in Ghana is estimated at 225–385,000 tonnes, worth about USD 205–350 million. At least 50% of this amount enters the formal monetary economy and is traded in rural and urban markets throughout the country. There are about 270,000 self-employed 'professional hunters' who supply bushmeat through a network of traders and chop bar owners.

Bushmeat is important for the livelihoods of many rural households, and its trade makes a significant contribution to the rural economy. The Ministry of Food and Agriculture estimates that the current level of self-sufficiency of meat in the country is about 30%. Hence the sustainable development of the bushmeat trade has the potential to provide import substitution to reduce the country's meat import bill.

Commercial exploitation of bushmeat is poorly controlled, and the existence of several animal species are threatened or endangered. Some animals, such as the

porcupine, which are seen as symbols or totems by some clans, have almost disappeared. Commercialised bushmeat production will significantly reduce the wildlife population to such an extent that soon it will undermine the availability of bushmeat for subsistence consumption, with serious consequences for the livelihoods of rural communities.

Medicinal plants
Medicinal plants are highly valued and form the main source of medicines used by the vast majority of both rural and urban people in the HFZ. It is reported that more than 80% of the population use medicinal plants and over 40% of the urban population depend on traditional medicine (FAO/AFWC, 2002). The application of plant-based medicines, usually in conjunction with mystical and ritual practices and beliefs, demonstrates the connections between such forest resources and traditional healing and spiritual values.

The most important use of medicinal plants is as self-administered first aid where women play a central role by usually being the first to diagnose and treat their children. Plant medicines are generally the first recourse for rural households before they turn either to traditional healers or Western-type medicines. Even though many medicinal plant species can be collected from fallow areas, most are gathered from the forest areas.

Bamboo and rattan
The two most significant non-timber forest products (NTFPs) in Ghana are bamboo and rattan. Their cultivation and utilisation are being promoted under the Bamboo and Rattan Development Programme (BARADEP) to supplement the supply of timber to the industry (MLFM, 2003).

Four varieties of bamboo are used in Ghana, with the *Bambuza vulgaris* variety making up about 90% of the supply. Propagation trials with seed and rhizomes have been undertaken by the Forestry Research Institute of Ghana (FORIG) in the Western region. One variety, *Bambuza gigantium,* is known to be very good for the rehabilitation of degraded land and for extracting poisonous substances from the soil.

The potential of bamboo and rattan was recognised as far back as the 1960s when the government of the first Republic established cottage and small-scale industries for bamboo at Manso Amenfi, Assin Fosu and Axim, and for rattan products at Ngyiresi and Asamankese. Even though the operation of these factories could not be sustained, small-scale utilisation of rattan and bamboo for furniture and construction have been on the increase. The use of bamboo for furniture and scaffolding is also increasing, but it needs to be treated to extend its lifespan during use.

Both rattan and bamboo are regarded as non-traditional products, and exports are increasing without appropriate regard to the capacity of the raw material base to support them. The sources of rattan and bamboo are consequently being 'mined'. The main supply of rattan that used to cover the HFZ is now confined to the

wildlife reserves in the Western region. The stocking levels of bamboo and rattan are not known. The 2001 multi-resource inventory by the Resource Management Support Centre (RMSC) was limited to production areas within the forest reserves, while most of the stocks of especially bamboo are located within the protected forest reserve areas and outside the reserves.

3.6.3 Biodiversity conservation

Forest resources

In 1992 the FSD completed an extensive botanical survey of the forest reserves. Using the results of the survey, a star rating system was introduced to indicate the conservation priority for each species. Black star species have the highest priority for protection followed by gold, blue and green stars, respectively. The star values have been used to identify genetic hotspots throughout the high forest zone. The numerical value related to the hotspot is known as its genetic heat index (GHI). Forest reserves or parts of reserves with a high genetic heat index are designated as special biological protection areas where timber production is permanently prohibited to ensure their conservation.

With regard to production forest reserves, fine–grained protection measures that detail specific rules about tree felling are prescribed to prevent environmental degradation. The protection measures prescribed in accordance with the Forest Protection Strategy have been poorly implemented due to the lack of adequate resources and inadequate capacity of the FC.

Ghana is a signatory to the Convention on Biological Diversity (CBD), and introduced a National Biodiversity Strategy in 2002, aimed at creating and strengthening the management of the system of protected areas, including:

- permanently protected forests (forest reserves);
- globally significant biodiversity areas (GSBAs);
- important bird areas;
- biological corridors;
- wildlife reserves; and
- community resource management areas (CREMAs).

An accompanying action plan to guide the implementation of the strategy is yet to be produced, and no single organisation has been charged with coordinating and overseeing the implementation of the strategy. Existing institutions have inadequate capacity for environmental and biodiversity management and there is a huge dearth of current scientific data on the nation's biological resources.

Two biodiversity conservation projects under the NRMP are being implemented in the HFZ and SZ to increase the ecological security of Globally Significant Biodiversity Areas (GSBAs), especially within the threatened tropical moist forest ecosystems.

Wildlife resources
Ghana is signatory to several international conventions, including the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the African Convention on the Conservation of Nature and Natural Resources, the Bonn Convention, UNESCO's Man and the Biosphere (MAB) programme, and the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention).

Wildlife was not consciously included in the biodiversity conservation projects under the Ministry of Lands, Forests and Mines. Hence, the Wildlife Division (WD) has entered into a memorandum of understanding with the Forest Services Division (FSD) with regard to cooperation in the management of the network of Globally Significant Biodiversity Areas (GSBAs), hill sanctuaries and fire protection blocks established by the FSD in the forest reserves.

Watershed management
Several of the forest reserves were established to protect watersheds. Even though most of the reserves in the HFZ are being managed mainly for the supply of timber, the importance of some of them as watersheds is significant. These include the Kakum and the Assin Attandaso forest reserves, which are a source of freshwater for over 300,000 people, including major towns in the Central region. The River Volta plays a significant role in the provision of hydroelectric power, and has headwaters that extend to the Mole, Digya and Bui Wildlife Protected Areas in the north of the country. It has been estimated that the watershed of the River Volta has lost about 97% of its original forest cover (WRI, 2000).

The Forestry Commission has no specific policy with regard to watershed management. The Water Resources Commission (WRC, under the Ministry of Water Resources, Works and Housing) is responsible for all water bodies in Ghana. There is also a Water Research Institute under the CSIR. Apparently, the FC does not play a role in the WRC despite the importance of forestry and agriculture in the maintenance and rehabilitation of watersheds. However, there is legislation with regard to non-cultivation/farming or tree felling within 50 metres of major rivers and 25 metres of minor rivers. These requirements are not effectively observed on the ground, leading to pollution and sedimentation of some rivers, and subsequent reductions in fish stocks, water quality and the biodiversity of rivers and streams. The FC has attempted to charge the Ghana Water and Sewerage Company for the services provided by some forest reserves to protect of some sources of water (discussions at the Resources Management Support Centre, RMSC/FC), but the Commission appears to lack the capacity to calculate the cost of managing such reserves.

Participatory programmes to rehabilitate sections of degraded water catchment areas due to poor land use practices, bushfires, and excessive harvesting of woodfuel were piloted under the Savannah Resource Management Project (SRMP, NRMP) in the savannah zone. These programmes were intended to promote the more efficient productive use of land and forest resources, improved marketing of products and helping the communities to improve their living conditions based on

their culture, needs and capabilities. The Ministry of Food and Agriculture (MoFA) and forestry extension officers worked as a team with the local communities on the SRMP project and prescribed integrated watershed management plans using improved technologies for increasing soil fertility and reducing erosion. The Forestry Commission could build on the lessons learned to develop similar plans for the relevant watersheds in the HFZ.

3.7 The wood industries

The wood industry is predominantly export-oriented with Europe as the main market. There are about 250 and 180 companies involved in primary and secondary operations, respectively, and more than 200 in tertiary processing. The industry is undercapitalised, operations are labour-intensive and most equipment is obsolete.

Middle-level technical manpower constraints have been the main obstacles to improved production and increased exports by the wood industry. The Wood Industries Training Centre (WITC) does not have the appropriate array of training machinery for most of its courses. The budget allocation for the centre is low for training materials and consumables. Due to the shortage of adequately trained staff with the requisite experience with the wide range of machinery used in the wood industry, the capacity of the WITC to provide effective, customised training on factory premises is low.

Illegal timber harvesting

A massive injection of capital into the timber industry (especially the logging and sawmilling sections) to increase the equipment and machinery holdings under the Economic Recovery Programme (ERP, 1983–1988) encouraged excessive logging of Ghana's forests. Hence, the second phase of the ERP aimed to ensure that the resource base would be able to sustain the level of exports and economic growth achieved within the first phase. The ERP also did not consider the ability of the forest resource base to provide sustainable supplies of raw materials to feed the increased processing capacity it encouraged. The opening of the aggressive Far East log markets in 1993 spurred illegal speculative logging especially in the outside forest reserves (OFRs). The overcapacity of the industry in relation to the annual allowable cut (AAC) puts pressure on sustainable harvesting of the forests. Together with the current institutional weakness of the Forestry Commission, this overcapacity has led to extensive illegal logging.

A comprehensive stock assessment study, the Forest Inventory and Management Project (FIMP) funded by DFID, was consequently undertaken over the whole of the HFZ from 1985 to 1995. As mentioned in 3.2.3 the results showed, *inter alia,* that the total volume of timber harvested was about three times higher than the AAC. The study therefore recommended that the AAC be set at 1 million m^3. The introduction of the revised AAC resulted in severe hardships for a large number of timber companies that had increased their capacity under the first phase of the ERP. Most of the affected companies subsequently resorted to illegal exploitation to satisfy their need for wood.

In spite of the measures that have been put in place to strengthen the regulatory mechanisms for sustainable forest management, there has been a dramatic rise in illegal exploitation, mainly by logging and sawmilling interests, as well as by chainsaw operators. The Forestry Commission estimates that in 1999 chainsaw operators accounted for about 1.7 million m^3 of timber harvested. Illegal logging also accounted for about 0.9 million m^3, which together with an annual allowable cut (AAC) of 1.1 million m^3, brought the total timber harvest to 3.7 million m^3 (FC, 2001).

The increasing overcapacity of the wood industry is the result of relatively cheap raw material. The resulting high profitability has encouraged further private investment in processing capacity, and this in turn has increased the pressure on timber resources without concomitant reductions in waste and inefficiency in log processing companies.

3.8 The domestic timber market

The wood industry has always been mainly export-oriented, and has virtually neglected the local market. Since the construction boom during the ERP era (1983–1988), demand for lumber has increased to the extent that legal backing had to be given to chainsaw operators in 1991 (L.I. 1518, 1991) to satisfy the increased demand. The chainsaw permit system that ensued was grossly abused, while the control measures were ineffective. Chainsaw logging was consequently outlawed in 1997,[12] but has been on the ascendancy and those involved have become hardened in the protection of their operations. The lives of the FC staff involved in the control have consequently been at risk and some fatal confrontations with the chainsaw operators involved have been reported.

Chainsaw operations are recognised to provide employment and cheap sources of wood for the local market. They also make prompt payments of benefits to landowners and forest fringe communities, in contrast with the lack of trickling down of the shared benefits from the formal exploitation of timber utilisation contracts (TUCs). Unfortunately, chainsaw operations generate large amounts of financial resources that are inequitably distributed to private pockets that constitute losses to the forest owners, communities. With prices of lumber rising on urban markets, chainsaw timber has become the preserve of highly organised illegal operations with the influence to arrange all the necessary inducements to pass through or evade checkpoints.

Special timber permits were issued to selected small and medium-scale mills in 1999 to guarantee supplies of raw materials for the local market. In addition, the Forestry Commission issued directives to TUC holders to supply 20% of their lumber production to the local market. These measures have not been sufficient to satisfy the increasing local demand for lumber.

[12] L.I. 1518 was repealed and the Timber Resources Management Act, 1997 (Act 547) and the related L.I. 1649 (section 32 (1 and 2)) enacted to ban chain sawing.

The major wood processing companies are moving into the export free zones where they *may* supply a maximum of 30% of their output to the local market. This is not obligatory, and they may choose not to supply the local market at all. Hence, the issue of supply of legal lumber to the local market is still unresolved, and does not augur well for the control of especially illegal chainsaw lumber. A reduction in timber exports (especially lumber) through some form of fiscal measures, accompanied by realistic domestic pricing, may be required to increase the supply of lumber to the local market.

4 Netherlands development cooperation with Ghana

4.1 General

Until 1991, Ghana was a so-called 'sector country' within the Netherlands development cooperation and received support in the fields of rural and industrial development. Ghana also received substantial balance of payment funds from the Netherlands through the World Bank until the early 1990s. After 1991, Ghana's status within Netherlands development cooperation was changed to a 'regioland', or a country in a region that would receive structural support, focusing on food security and health care. The country screening in 1997 by the Netherlands Ministry of Foreign Affairs resulted in the selection of Ghana as one of the partner countries for development cooperation. Due to the introduction of the sector-wide approach as the leading principle of Netherlands development cooperation in 1998, partner countries were asked to select preferred sectors for cooperation. The Ghanaian government chose the fields of health and the environment. In 2005, support to the education sector was also established through a silent partnership with DFID. In addition to this sector support, in recent years Ghana has been a major recipient of Dutch ORET/MILIEV programme funds.[13]

4.2 The forestry sector

Around 1998 the Ghanaian government together with the World Bank formulated the Natural Resources Management Programme (NRMP), and donors were requested to supply grants to finance it. DFID, DANIDA, the GEF, the European Commission (EC) and the Netherlands were the major donors to respond. This resulted in the forest sector being selected as one of the two sectors for Netherlands development cooperation.

With respect to the NRMP, the Netherlands has focused its support on the Wildlife Division of the Forestry Commission and on wildfire management within the programme, since wildfires are an important cause of loss of forests in Ghana. DFID and the GEF concentrated on the high forest zone, DANIDA and GEF on the savannah area of northern Ghana, and the EC on the timber industry. Thus,

[13] ORET/MILIEV is a development and environment related export transactions programme.

initially, the implementation of the NRMP was largely covered by grants, and a concerted effort could have been made.

JICA and GTZ also invested in the NRMP, but were hardly involved in the harmonised donor approach that was major part of the NRMP process. The first donor to withdraw from the programme was DANIDA. Following a change in government in Denmark in 2001, there had been a complete overhaul and trimming down of Danish foreign policy, including development cooperation, and the closure of Danish embassies in some countries. In Ghana, Denmark redirected its support from the energy sector, to governance and the road/transport sector. As their support to the savannah area within the NRMP involved mainly woodfuel production and trade, this implied a complete withdrawal of Danish support to the NRMP.

The EC had concentrated its support to the timber industry on the export of timber. However, the timber industry in Ghana is mainly producing for the export market. The inadequate supply of lumber from the sawmills created a vacuum that was filled by chainsaw logging operations. The latter, which were one of the main causes of problems in this sector, could not be adequately controlled and resulted in increased illegal forest harvesting. The EC therefore felt that there was too little control of the timber industry sector and withdrew its support in 2003, but continued to support the Forestry Commission's Wildlife Division.

The withdrawal of DFID support to the forest sector had much to do with the failed restructuring and reorganisation of the Forestry Commission, which it had financed. There were, however, some positive changes including decentralised management, the introduction of competitive bidding, a forest management information system, improved revenue collection, and some legislation and policy reforms. The institutional reform to make the Commission self-financing and semi-autonomous failed as a result of internal problems. No donor or government funds were available within the NRMP to finance redundancy payments and the necessary staff changes could not be implemented, although some restructuring took place. This led to the retention of members of the 'old guard', many of whom have tended to continue to use old methods to run the new system. Hence, an overall change in the Commission's corporate culture could not be effected. Therefore, DFID completed its support to the restructuring of the Commission, but withdrew in 2003 and instead provided multi-donor budget support (MDBS) for the government to use the funds as it deemed fit.

The World Bank was and is still involved in the Northern Savannah Biodiversity Project as part of the NRMP, but since 2003 has faded as a lead agency of the NRMP process. The Ghanaian government and some donors have been unhappy with the way the Bank led the donor group with respect to the NRMP. The Bank's main contribution was the management of a GEF grant of USD 2.5 million to be given out as credit. It was felt that as a 'minority' stakeholder in the process, the Bank should have been less overbearing, but that it did not make enough use of its expertise to develop new initiatives. The Bank requires grants such as those supplied by DANIDA to support credits. This, coupled with a paradigm shift

within the Bank towards the PRSP (especially education, health, etc.), caused it to withdraw from the NRMP.

The implementation of Dutch support to the Wildlife Division, wildfire management and two national parks (Mole and Kyabobo) was much delayed due to the lack of institutional capacity of the Forestry Commission, mainly in the field of finance and administration. There was poor connectivity between the parks and the headquarters in Accra, and there were no finance officers at the parks. Financial reports were below par. Payments, and thus project implementation, were slowed down until the quality of the reports had been brought up to standard, also with Dutch support. The restructuring of the Wildlife Division is facing problems with funding for redeployments, as neither the Ghanaian government nor any development partner is willing to support this. The Netherlands Embassy in Accra has requested a restructuring plan from the Wildlife Division to facilitate support to it under the pending forest governance project by the embassy.

In 2003, discussions on multi-donor budget support (MDBS) started, which included the forest sector. Any interest donors may have had in the NRMP therefore waned even further, and the NRMP as a framework for effective donor collaboration had by then collapsed. The MDBS process includes sector working groups (including development partners and NGOs), one of them the Environment and Natural Resource Sector Group, which was chaired by France and the Netherlands in 2005, and by the Netherlands since December 2006. The Ghanaian government is invited to some of the meetings focusing on government commitments and progress. The World Bank environmental analysis report has refocused the sector. Since then the government has co-hosted the group with the development partners.

How much of the funds generated by the MDBS are being funnelled to the Forestry Commission is not clear, but it is certainly not a large amount, as the Commission's budget still only covers salaries and facilities. The situation at the end of 2005 was as follows:

- The Netherlands was left as the biggest bilateral contributor to the forest sector. Due to delays in the implementation of projects this situation continues. Joint sector studies have been carried out by groups of donors.
- The NRMP process has been overtaken by the MDBS, to which the Netherlands is also contributing.
- The emphasis of the Netherlands development policy with regard to Ghana is now moving towards support to governance, including in the forestry sector, preferably through sector budget support.

5 Netherlands support for the preservation of tropical rainforests

5.1 Policy dialogue

As described in section 2.1.4, the government finalised the Ghana Poverty Reduction Strategy (GPRS) in 2003. Despite the involvement of the Netherlands embassy in the discussions on the GPRS, the strategy does not mainstream the environment in activities aimed at poverty reduction. Therefore, the formulation and implementation of the Strategic Environmental Assessment and the Natural Resource Management Programme were used as instruments to monitor the actual impact of the GPRS on the environment. Although the Ghanaian government welcomed Dutch support for the environment, in recent years the embassy has reported that the ministries concerned lack the motivation and institutional capacity to play the role of lead partners. This is one of the main reasons why other donors have left the sector one by one. In 2004 the embassy concluded in its strategic multi-annual plan that strengthening environmental governance in Ghana is of the highest strategic importance, but that there is 'no structural dialogue on the environment either between local partners or with donors'.[14] The plan also noted that 'Forestry sector development [is] negatively influenced by ineffective governance, industry lobby and vested interests of communal leaders', that 'programmed implementation of forestry sector policy has recently failed', and that there is 'no collaborative framework shared between local partners'.

The environment is not an important issue in Ghanaian politics, and this has hampered the effectiveness of the policy dialogue with the Netherlands. The lack of political will also has translated into weak governance in the environment sector, governance in general not being one of Ghana's strong points. Within individual projects and in the framework of the strategic multi-annual plan, the Netherlands has been addressing this issue by supporting (and insisting on) programmes aimed at improving governance.

5.2 Natural Resource Management Programme (NRMP)

Within the framework of the NRMP the Netherlands has supported four projects: the Wildlife Division, wildfire management, the Mole and Kyabobo National Parks, and the NRM-NGO platform. When preparing this country study only the support to the Kyabobo National Park and to the NMR-NGO platform met the criteria for the evaluation, the crucial one being that at least 50% of expenditures should contribute to the conservation of tropical rainforests. Preliminary communications with the Netherlands embassy revealed that the support to wildfire management in the transition zone was contributing considerably to the protection of tropical rainforest in Ghana, as uncontrolled fires in the dry forest

[14] *Strategic Multi-annual Plan on Development Policy 2004–2007*, Royal Netherlands Embassy, Accra, February 2004.

zone are a menace to the bordering forest if they are not kept in check. It was therefore decided to include this project in the study.

For the other NRMP projects it should be mentioned that the Kyabobo National Park does not contain forest that meets the definition of tropical rainforest used in the RTR policy document, i.e. forest with annual rainfall exceeding 1800 mm. Mole National Park is entirely situated in the savannah zone, so that this project was not included in this study.

5.2.1 Kyabobo Area Natural Resources Development Plan

Activity	**Kyabobo Area Natural Resource Development Plan**
Responsible organisation	Ministry of Lands, Forestry and Mines
Activity number	GH009006 / 617
Implementing organisation	Forestry Commission / Wildlife Division
Period	1/8/2002 – 31/7/2007
Budget	€3,045,775 (plus €27,438 for review and evaluation)
Objective	Conserve and manage Kyabobo National Park effectively, as part of a national/subregional system of protected areas, to conserve Ghana's biodiversity and contribute to the wellbeing of women and men in local communities and other stakeholders.

This project is considered to be the second investment programme within the NRMP framework with financial support from the Netherlands, executed by the Wildlife Division, the first being the Wildlife Division Support Project (GH-009002/615). Formulation of the project was based on the findings of a community-based wildlife resource management pilot project – the Kyabobo Area Management Participatory Project (KAMPP) – that ran from April 2000 to December 2001. KAMPP was managed by the Wildlife Division with technical assistance from SNV-Netherlands. KAMPP provided a background paper on a possible collaborative management structure for Kyabobo National Park. The intended results were:

- to develop an adequate management model;
- to build management capacity within the Wildlife Division and relevant stakeholder organisations;
- to put in place adequate infrastructure; and
- to identify additional and alternative economic activities related to specific stakeholders.

Kyabobo National Park lies in the Volta region near the border with the Republic of Togo at the boundary between the savannah and forest zones. It covers a montane area of 222 km^2 and shares a common border with the far more extensive Fazao–Malfacassa National Park in Togo to the east.

The Kyabobo Management Plan 2005–2010 describes the history of the establishment of the park as follows:

'In the 1980s the former Department of Game and Wildlife became interested in the Kyabobo area for the following reasons:

- An appeal by FIt. Lt. Jerry Rawlings to set up a national park in the area.
- The Fazao-Malfacassa National Park in Togo presented opportunities for international cooperation.
- Several reports to WD had suggested the area was biologically interesting.
- Many bushmeat licences were issued by the Nkwanta District Assembly, indicating substantial large mammal populations.

This resulted in a preliminary survey of the area in 1989 by N Ankudey for WD, which recommended the Kyabobo area as suitable for a new wildlife reserve.

Kyabobo Range National Park was demarcated in 1991 but there was no formal assessment of local needs and communication with communities was minimal. In 1993 an Executive Instrument (E.I. 20 of 16/09/93) was passed, which legally recognised the area as an accepted National Park.

Subsequently the local people appealed regarding a) the significant number of farms that they said lay inside the national park and b) the lack of information on how the government would set up the park and compensate farmers and landowners.

A WD team visited Nkwanta District in 1994 to help resolve these issues. Discussions with local chiefs and government officials helped clarify the situation but also highlighted the need for a review of the boundary and for integrating local people in park management and raising environmental awareness.

It was then agreed to re-demarcate the boundary in order to exclude many of the farms that were inside the park. This re-demarcation took place in 1995. Local people were still not satisfied with the boundary and again appealed to WD but there were no funds for further surveys and re-demarcation. Hunting was still continuing on a large scale and, knowing that the area would soon be protected, many local and commercial loggers were illegally removing timber.

In 1995, the Kyabobo Conservation Project (KCP) was formed. KCP was a non-governmental organisation that worked with WD and local people to facilitate community oriented conservation activities in and around the park.

In 1996 all the communities except Shiare and Kyillinga accepted the boundary and since 1999 the only dissenting village has been Shiare.

In 1998 the Wildlife Development Plan (Vol 4) established that there would be a strong policy emphasis Community Conservation.

It can be added to this history that in 2001 a conflict arising from the final demarcation led to the murder of two rangers of Kyabobo National Park by members of one of the neighbouring communities. As the rangers had been recruited from another neighbouring community tensions grew and the police had to move in to quell the unrest. The crops of all affected farms have been evaluated and compensation is pending. The use of the farmlands as shares in the park proceeds is being contemplated.

The Netherlands first provided support for the Kyabobo National Park in 2001 through the Wildlife Division Support Project (WDSP). The five-year Kyabobo

Area Natural Resources Development Plan was added in August 2002. The main achievements of this project at the end of 2005 are:

- Training, especially in effective law enforcement.
- Building of a new headquarters and outposts at Laboum and Nazeni.
- Construction of six satellite camps in the park.
- Provision of a VHF radio system.
- Establishment of the use of GPS for better control of patrols and the recording of geographical information about wildlife and poaching, etc.
- Establishment of the KyaMAB (Kyabobo Management Advisory Board).
- Promotion of additional economic activities for communities, especially beekeeping.
- Ornithological survey; fire management planning survey; and herpetological survey.'

Findings

The Kyabobo park is an important biodiversity site (IUCN category 2), and is the only one in the transition zone between the savannah and forest in the Dahomey Gap. The demarcation process was slow and complicated due to the conflicting interests of local communities.

The park manager and staff are competent and highly motivated and the park is well managed. To prevent too close relations with the nearby communities the staff are rotated on a regular basis between the different national parks. The staff and the management consider the recently provided infrastructure such as staff housing and equipment for the rangers adequate to support them in doing their jobs. It could not be established whether the Ghanaian government budget will be sufficient to pay for the upkeep of the park when the project support comes to an end.

The tourist potential for the park seems to be low, for several reasons:

- it is situated in the Volta region, which is separated from the larger western part of the country by the huge Lake Volta. Not many other tourist attractions can be found in the Volta region, so tourists will have to make a special effort to visit the park;
- the park's wildlife is not easy to see due to the density of the forest, and of the 'big five', only buffalo can be found; and
- the many biting insects can make walking or staying in the park uncomfortable.

On the positive side it can be mentioned that due to a lack of animals dangerous to humans the park offers opportunities for camping, hiking and mountain biking, but any projected income from tourism for the park at this time is speculative. The original plan of operations included market research on tourism and a corresponding publicity campaign, but these activities have not yet been executed.

The main threat to the conservation of the area is encroachment by neighbouring communities. Because there are too few staff to police the area effectively, it will

be essential to maintain good relations with these communities, to give them fair compensation for the land and its uses they lost when the park was created, and to support them through the project with alternative livelihoods. The limited time available to the team meant that it was not possible to establish whether the communities were being supported in an effective and sustainable way. It could only be observed that the park manager had good relations with the chief of one of the communities.

However, a study[15] by the GEF evaluation office had looked into livelihoods in the fringe zone of the park. It concluded that 'project financing delays and the lack of proper designs for the community development trust fund meant that no alternative livelihood activities had been undertaken after many years of project implementation'. The park manager reported that one beekeeping enterprise had been a success, and that there was good demand for the honey produced, but due to time limitations the team was unable to verify this.

Conclusions
From the conservation point of view, the Kyabobo National Park is a worthy cause for support, and the project can therefore be considered relevant. The project has supplied the means for installing an effective and efficient management. The project has delivered adequate infrastructural outputs, although somewhat later than planned. Sustainability in financial terms has still to be proven. The potential of the park to generate income by attracting tourism is low.

Livelihood support to the neighbouring communities is part of the project, but the income-enhancing effects of this support remains to be seen, as well as the expected reductions in encroachment, illegal logging, poaching and other forms of unsustainable harvesting of non-timber forest products from the park.

5.2.2 NRM-NGO platform

Activity	**Establishment of the NRM-NGO platform**
Responsible organisation	
Activity number	GH011602 / 623
Implementing organisation	
Period	1/12/2001 – 31/3/2002
Budget	€ 69,627 (database) USD 68,497 (Bemo)
Objective	Support to the establishment of the NRM-NGO platform and two capacity-building workshops.

In 2001 the Netherlands embassy approved financing support to establish a NRM-NGO platform in Ghana. This platform would be a financially viable institute owned by the NGO community and would function as a dialogue partner with the Ghanaian government on NRM policy issues. All partner organisations of SNV-Ghana active in the field of NRM were invited to participate. Two capacity-

[15] GEF Evaluation Office (2006) *The Role of Local Benefits in Global Environmental Programs,* p.54.

building workshops were held and a business plan was developed within the framework of the project.

Findings
The NRM-NGO platform has never functioned as such. Several informed sources told the team that early on the platform was hijacked by someone who was not trusted by the rest of the NGO community, and was regarded as an opportunist who was in the game for the funding rather than for results. Most NGOs therefore joined the Forest Watch, a network established in 2003 with support from DFID. The structure of this network is seen as meeting the needs and aspirations of the NGO community much more than the NRM-NGO platform.

It should be noted that there is some mistrust among NGOs in Ghana. Some NGOs are regarded as extensions of government that are run or even staffed by civil servants. There is a suspicion that civil servants guide bilateral donors to these NGOs for funding. One NGO leader blamed the sector-wide approach (SWAp) for the fact that NGOs now receive less support, as all aid now goes to the government. He also commented that the government had made it difficult for the NGO community to be involved in the formulation of the Ghana Poverty Reduction Strategy. Only selected NGOs were invited to meetings, usually at very short notice, and little or no information was provided beforehand.

5.2.3 Wildfire management in the transition zone

Activity	**Wildfire Management Project in the Transition Zone (WMPTZ)**
Responsible organisation	Ministry of Lands and Forestry
Activity number	GH008902 / 614
Implementing organisation	Resources Management Support Centre (RMSC) (formerly the Forest Management Support Centre), Forestry Commission.
Period	1/11/2000 – 30/9/2006
Budget	€ 12,189,898
Objective	• Rehabilitation of degraded forest vegetation by preventing and managing forest fires in the transition zone between the rainforest and the savannah; • Recovery of lost economic, social and environmental benefits.

The Wildfire Management Project (WMPTZ) evolved from the NRMP and was in preparation for a long time. During identification missions in 1992, 1995 and 1998 for Dutch financing in the forestry sector in Ghana, the Ghanaian authorities raised the issue of forest fires. Initial preparations for the project began in 2000, but actual implementation started only after some delays in 2002. Now it forms a key part of the high forest component of the NRMP. The project document states:

- The project goal is: to rehabilitate fire-degraded forest and to recover lost economic, social and environmental benefits.

- The project purpose is: to implement effective methods to prevent and control forest fires in the semi-deciduous forest type (transition zone).
- The project outputs will be as follows:
  1. Public awareness, knowledge and warning systems for fire risks and hazards implemented.
  2. Role of fire in farming systems understood and improved systems developed.
  3. Incentives for reducing the incidence of wildfire outbreaks established.
  4. Firebreaks and fuel treatments established.
  5. Effective fire detection and communication systems implemented.
  6. Increased capacity for interagency support and active fire suppression in forest fringe communities.

The project was to cover forest reserves in the entire transition zone except in the Volta region. In early 2006 an independent mid-term review recommended, *inter alia,* that the project be extended to the Afram plains and the Volta region.

Findings
The implementation of the project has been slow, but by any standards its ambitions are high. It aims to reach all forest fringe communities and recruit volunteers who will be trained and equipped to fight wildfires. To control fires adequate and affordable communication networks have to be established. Many government agencies are involved and this implies a complicated management structure. On the positive side, it can be mentioned that wildfires are a considered a common enemy and there is much support at government level and in the communities for measures to prevent them.

Like the other NRMP projects, implementation has been hampered by the lack of adequate financial management. During the project this had to be improved, which caused the delays.

Some outputs have been delivered and the lead agency, the Resource Management Support Centre (RMSC), states that it can be deduced from satellite images that the incidence of wildfires has already been reduced. The Environmental Protection Agency, which is responsible for monitoring and evaluating the project, measured a decline of 60–70 % in the number of wildfire outbreaks since the start of the project. People on the ground also perceived a decline in the number of wildfires. Satellite images confirm that from 2000 to 2004 the number of observed fires declined from 96 to 45, but that this figure rose again to 75 in 2005. At the time of the writing, figures for 2006 were not yet available. The RMSC is also responsible for forest inventories and is therefore in a good position to monitor the impacts of the project on the forest situation. The inventories are not conducted on a continual basis, however, and cover only the forest reserves, and not the natural forests in protected areas. Information on the quality of the forest reserves is only collected when areas designated for logging are surveyed. No reliable figures are available on the amount of illegal logging or the extent of overexploitation, which happens when licensed logging firms exceed the designated amount or annual allowable cut (AAC).

Conclusions
As wildfires are a great threat to Ghana's natural resources and to the tropical rainforest bordering the transition zone, the Dutch support to the Wildfire Management Project is highly relevant, and has been effective. However, its sustainability has yet to be proven by more comprehensive monitoring to assess the outcomes. Efficiency in implementing the project until now has been low, due to institutional constraints within the Ghanaian government agencies involved.

5.3 Validation of Legal Timber Programme (VLTP)

Activity	**Validation of Legal Timber Programme**
Responsible organisation	Forestry Commission
Activity number	13207
Implementing organisation	Forestry Commission
Period	15/11/2005 – 31/12/2006
Budget	€ 402,356
Objective	Support the legalisation of timber

Ghana's timber processing capacity is well in excess of the sustainable yield from its forests. This fact, coupled with the size and poor regulation of the domestic market, tree tenure insecurities and inequities in benefit sharing with regard to forest resources are significant drivers of illegal timber harvesting. The transition to a system of allocating timber resources through competitive bidding has been problematic, with a history of considerable administrative allocation. The formulation of modalities for timber allocation, to satisfy the demands of both domestic and international markets, will be necessary to achieve sustainability. Ghana's objectives are to protect and sustainably manage its forests and ensure that all its timber exports originate from legal and sustainable sources.

There exists in Ghana a paper-based system for recording trees and logs at harvest time, and for checking and measuring them during transport. However, the system involves considerable paperwork, and can be slow and cumbersome, while leaving opportunities for unregistered wood products to pass through the system.

Measures to rectify anomalies in the existing system were introduced in 1999–2000. An adaptation of SGS's Logtrak system that was in use in other African countries was piloted. This involved two forest district offices (Asankrangwa and Enchi), two sawmills in these districts in addition to two logging systems from forest reserves and 'outside forest reserve' (OFR) areas. The objective was to track logs reliably from the forest to the sawmill log yard by uniquely identifying them with a bar-coded tagging system. The expected benefits included:

- the fulfilment of the requirement to document the chain of custody of wood products so that Ghana can sell to the growing European market for certified wood products;
- contribution to improved forest management and preservation of the natural forest resource base, by minimising the time for administering the existing

log-tracking forms and maximising the time for monitoring forest management and exploitation;
- timely log and tree data analysis, detection of infringements and action against the defaulting timber concessionaires that may be involved at the forest district level; and
- the introduction of handheld computers (HHCs) and desktop computers in district forest offices in rural settings, as well as the training of relevant Forestry Commission staff in their use.

The piloting of the log tracking system was expected to have been extended to the Western region initially, and to cover timber exploitation in the HFZ. The strategy was revised in 2002–2003 when Ghana became involved in the Africa Forest Law Enforcement and Governance (AFLEG) Ministerial Conference. It was not until November 2005 that the Forestry Commission entered into an agreement with the Netherlands embassy in Accra to co-finance the implementation of the Validation of Legal Timber Programme (VLTP). The objectives include strengthening the Commission's regulatory capacity by developing a national electronic log-tracking system to verify legal compliance that will replace the current paper-based system. The programme also aims to improve the governance environment, as well as to establish a timber licensing scheme under the proposed voluntary partnership agreement (VPA) between Ghana and the EU. The establishment of a new Timber Validation Agency (TVA) within the Commission is part of the VLTP. The Commission has contracted SGS Ltd, a certification company, to assist with the implementation of the VLTP and the establishment of the TVA.

Phase 1 of the programme commenced in 2005 with stakeholder consultations, the definition of the legal and fiscal implications of the introduction of the VLTP, the creation of the TVA and the shift from the paper-based to a digital mapping, forest management planning and yield regulation system.

Voluntary partnership agreements (VPAs)
There has been increasing international concern in recent years about the social, economic and environmental consequences of illegal logging and the related trade worldwide. Illegal logging contributes to significant losses of development capital in producer countries, fuels conflicts, distorts international market prices for timber and creates trans-border ecological problems. This has resulted in a number of regional schemes to resolve the issue, including the EU's Forest Law Enforcement, Governance and Trade (EU FLEGT), the African Forest Law Enforcement and Governance (AFLEG), the US President's initiative on illegal logging, and the East Asian FLEG.

The EU FLEGT Action Plan was adopted in 2003. A key element of the Action Plan is a proposal to establish bilateral voluntary partnership agreements (VPAs) between the EU and timber-producing countries to ensure that only legally sourced timber products are imported into the EU from these partner countries accompanied by an export licence. Under these agreements the EU will provide assistance to improve governance and law enforcement, and to put in place

systems to verify the legality of timber. The broad and cross-cutting elements of the agreement that have to be negotiated by interested producer countries are:

- a definition of legal timber,
- a system of verification of legality,
- a chain of custody system, and
- independent monitoring of the system.

Ghana has made commitments under the AFLEG and has focused on the EU FLEGT since Europe imports over 50% of Ghana's timber products by volume and value. At about the same time, discussions were initiated on a VPA, which is expected to reinforce/complement the VLTP. Consultations between Ghanaian stakeholders on a possible VPA started in March 2005. A national multi-stakeholder meeting in May 2005 confirmed interest in furthering the discussions. In December 2006 Ghana announced its intention to proceed with formal negotiations on a VPA in Brussels. An EU team visited Ghana in February 2007 to discuss the scope and key elements of the agreement and to prepare a 'road map'. The negotiations were expected to be concluded before the end of 2007. DFID has agreed to provide assistance for a VPA. Ghana is the first timber-exporting country to go for the VPA.

Conclusions
The Validation of Legal Timber Programme started in November 2005, and consultations on a voluntary partnership agreement between Ghana and the EU were initiated in March 2005. In view of the timeframe for the RTR evaluation (1999–2005), it is not possible to assess their effectiveness and efficiency. However, it is assumed that the intention to proceed with the two interventions implies their relevance to Ghana.

5.4 Centre for Biodiversity Utilisation and Development (CBUD)

Activity	**Centre for Biodiversity Utilisation and Development (CBUD), phase 2**
Responsible organisation	KNUST
Activity number	GH006403
Implementing organisation	KNUST
Period	1/5/2002 – 30/9/2006 including extension
Budget	€ 1,398,000
Objective	1. To contribute to the conservation of biological diversity in Ghana; 2. To support sustainable development through the promotion of use of neglected products of this biodiversity and the development of new commodities; 3. To design and implement projects in support of these projects in collaboration with a diverse group of stakeholders; 4.To set up a partnership structure in which these stakeholders become active participants in the advancement of CBUD's goals; 5. To develop and implement strategies for human

	resource development, and to make available publications and other documentation on topics related to the conservation of biological resources.

Phase 1 of the CBUD programme has been completed. Since all staff were on leave at the time of the evaluation, and so were not available for interview, the following assessment is based mainly on the final programme evaluation report (2007). The conclusions of that final evaluation concerning the lack of attention to the commercialisation and marketing of biodiversity products correspond with the observations of this mission during visits to projects supported by the Netherlands Committee for IUCN (NC-IUCN; see section 5.5.1).

The expected outcome of the CBUD programme is to contribute to the conservation of biological diversity and to support sustainable development by promoting the utilisation and development of products of this biodiversity. The six objectives of the programme are to:

1. develop partnerships and institutional frameworks;
2. initiate, identify, develop and coordinate the implementation of projects to develop biodiversity products;
3. enhance the professional and scientific capacity of the staff of CBUD and its partners, and support research on CBUD-related subjects;
4. strengthen the capacities of local partners (particularly farmers) in biodiversity product utilisation by making use of various communication, information and training instruments;
5. strengthen the capacities of CBUD and its partners in the commercialisation, marketing and small-scale enterprise development (CMSSED); and
6. formulate a strategy for fundraising and establishing a trust fund (no budget line).

The programme has been implemented since 1999 by the Kwame Nkrumah University of Science and Technology (KNUST). Initially CBUD was considered a programme within the Institute for Renewable Natural Resources (IRNR) at KNUST. In 2005 the university adopted a college structure, and CBUD formally became a centre under the wing of the College of Agriculture and Natural Resources. Due to its peculiar nature (no teaching mandate) and the generous funding from the Netherlands, the programme has retained a somewhat 'independent' status within KNUST.

The final evaluation of the CBUD programme 2002–2006 considered it very relevant in trying to address the identified environmental problems in Ghana, while simultaneously aiming to alleviate poverty in the selected areas of intervention. The evaluation report noted that: 'The CBUD programme has resulted in numerous partnerships with like-minded organisations and client relationships with a growing number of organisations who are in demand of (and are willing to pay for) CBUD programme services. CBUD has played a pivotal role over the years in identifying and developing biodiversity products at the interface of biodiversity conservation and development, achieving this by playing

a catalysing role amongst its network of partners, hereby carving out a unique niche in the environmental sector in Ghana.'

CBUD by its mandate is primarily a facilitator and promoter, linking research to end users, and feedback from end users to research. CBUD was not supposed to deliver actual services. The effectiveness of the CBUD programme interventions was negatively affected, however, by delivering services to demand-driven clients with respect to more conventional agricultural products (including buying/selling breeding stock), and microcredit. Thus CBUD played a developmental rather than facilitating role, threatening its potential as innovation-driven centre at the cutting edge of research and development. By acting as an implementer rather than a facilitator, CBUD was competing with its partners rather than playing a supportive and complementary role. This, coupled with the considerable bias towards production, and the lack of emphasis given to commercialising and marketing of biodiversity products, research, capacity building, forming strategic alliances, providing resources and technical assistance, has defeated the aim of the programme and threatened the sustainability of its results. Thus producers reached the marketing stage very slowly, and did not know how or where to sell their produce.

The total approved project budget was €1,398,000 for the three-year period 1 April 2002 to 31 March 2005. The staffing and running cost components of the budget were overspent, while the total activity budget lines were generally underspent. About 91% (€1,276,839) of the total budget was spent over a four-year period (May 2002 to September 2006).

The strategy of awareness raising and capacity building, even though successful in expanding knowledge of the potential of biodiversity products to generate sustainable development, has been threatened by the lack of emphasis on commercialising and marketing of products. The project interventions are supply-driven rather than market-driven. CBUD offered a generic type of training to the beneficiaries. The final evaluation report commented that a 'training of trainers' module with a post-course module on backstopping and advice would have yielded more effective results.

CBUD has been instrumental in raising awareness of the potential for further development of biodiversity products such as snails and grasscutters,[16] traditional vegetables such as *prekese* and *krobonko*, and other non-timber forest products. Research information has been successfully transferred to capacity building programmes that will directly benefit intermediate organisations as well as the projected beneficiaries. A 'product identification protocol' has been formulated (one page), but it does not specify the participatory involvement of stakeholders, targeting the poor and women, and the projected linkage with biodiversity

[16] The grasscutter (*Thryonomys swinderianus*) is the second largest African rodent after the porcupine. Its meat is preferred by people from almost all tribes in Ghana and many other African countries. www.knust.edu.gh/cbud/grasscutter.htm

conservation. The final evaluation noted that the efforts to develop additional biodiversity products had slowed down with the shift in focus to meet the demands of client/partners.

The evaluation team found no evidence of the development of viable small-scale businesses in the CBUD intervention areas that were successfully exploiting biodiversity products. The evaluation's findings include that the Ministry of Food and Agriculture (MoFA) and the target beneficiaries had limited insight into the financial viability of the ventures being promoted.

CBUD and its partners established a microcredit scheme using Netherlands embassy funding for its operation. Operating such a fund was not within CBUD's mandate, however, and its effectiveness in generating viable small businesses to alleviate poverty and in conserving biodiversity is questionable. The microcredit scheme was folded up, and the remaining funds were channelled into the CBUD Endowment Fund, instead of being returned to the relevant budget line, which is contrary to common financial administration practice.

The CBUD Endowment Fund was established in 2003 with income derived from the provision of services to third parties, the purchase and sale of biodiversity products, and funds from the microcredit scheme. The gradual build up of the Endowment Fund to ensure the sustainability of the CBUD programme can be regarded as a major achievement. The fund is managed by a committee established by CBUD's board of directors, but a 'fund management strategy' does not exist.

The final programme evaluation therefore recommended intensive consultations with both KNUST and the embassy to ensure the transparency of the fund management process. The Endowment Fund stood at nearly 1 billion cedis (GHS) in December 2004 (annual report, 2004), but this fell to GHS 586 million in 2006. The final evaluation report recommends that clear guidelines or a strategy are needed, specifying what the fund can be used for, and when and how it can be accessed. In addition, for enhanced accountability, the evaluation report suggested that the fund must publish annual financial accounts, and make them available to all relevant stakeholders.

CBUD was able to tap the development market of clients to pay for services in its areas of intervention. Such services, however, were executed by staff of the Centre using resources provided through embassy-funded budget lines. This raises concerns about the possibility that services to partners unrelated to the embassy are being subsidised through the Centre's embassy budget lines. Embassy-funded activities and externally generated project activities were mixed, a practice that did not facilitate an input–output (efficiency) analysis.

Box: Overview of the Community Investment Fund (CIF)

The CIF is a microcredit scheme funded by GEF as a revolving fund using rural banks. Borrowers must repay loans within a period of one or two years, at an interest rate of about 13%, plus bank charges for monitoring the projects and advice on cost/benefit projections set at 10% (i.e. a total of 23%). Most 'projects' are aware of the total charges. The targeting of beneficiaries was not controlled, and communities were requested to elect beneficiaries from among themselves. This *laisser-faire* approach probably resulted in the selection of some well-off people who do not really need loans but who planned to repay it from the sales of the subsequent year's crop. It appeared that the 'groups' tend to dissolve into or one or two individuals.

Most beneficiaries have no idea about cost/benefit projections and the financial repercussions of loan repayment. For instance, snail farmers may not understand that at a local market price of, say, 20,000 cedis (GHS) for three large snails, they would have to sell 3000 snails in order to repay a loan of GHS 20 million – excluding interest, bank charges, labour, feed, maintenance, etc. Thus snail rearing may not have a positive impact on poverty. Most, if not all, CIF beneficiaries were convinced that CBUD would buy their produce and market it, and so did not explore alternatives. It was also assumed that in new project areas CBUD would buy snails and grasscutters as breeding stock to sell to farmers as income-generating activities, and channel the proceeds into the CBUD Endowment Fund.

CBUD's role as a buyer of breeding stock is of concern as this creates a serious conflict of interests in its perceived role in facilitating linkages between producers and the open market. The raised expectation among producers that CBUD or the FSD (an R&D institute and government department) would buy their produce is also a matter of concern that threatens the sustainability of the intervention. It appears that all ventures are well set up, but they are supply (donor) driven. Entrepreneurial skills seem to be limited, and little attention has been paid to proper market development in remote areas. The efforts to build capacities for biodiversity product development have focused on the production/cultivation of products and far less on viable enterprise development, product design and marketing.

CBUD has a board headed by a chair and a secretariat headed by the CBUD director. There are also ten committees and subcommittees responsible for overseeing various aspects of programme implementation. This structure could offer opportunities to improve representation of various stakeholder groups in society, and to tap into the knowledge of board/committee members and their networks. However, it was observed that meetings have been held far less often than scheduled, and with the exception of board meetings (which were stopped altogether in 2004), the occasional one-day meetings were unlikely to have had a substantial impact on CBUD's performance. This raises questions about the efficiency of the multiple-committee management structure. The final evaluation report indicates conflicts of interests between the roles and responsibilities of board members, committee members and staff who have acted as paid consultants to offer services to CBUD.

In the domain of biodiversity conservation and poverty alleviation there are many uncertainties that require 'experimentation, adaptation and learning' approaches.

This is the scene of a vibrant and challenging discourse that includes the interests of academics and development practitioners from beyond Africa. Exploring the interlinkages between biodiversity conservation and poverty alleviation requires cutting-edge academic knowledge, R&D capacity, constant innovation and adaptation, as no blueprints are available or universally applicable. In most Southern African countries, for instance, the practice and experiences in this discipline are far better developed than they are in Ghana. The strategic position of CBUD as part of KNUST has the potential for the programme to link up with international networks of academics and practitioners, and as such to act as a conduit for exchanges of knowledge and experiences between academia and the outside world. This is considered very relevant in this domain and has been an important role and achievement of CBUD.

It is essential, however, that KNUST/CBUD's communication and cooperation are streamlined, with stronger linkages with other (local and international) R&D networks in the same domain, in order to facilitate sharing of knowledge and approaches, more efficient matching of demand for research and supply, and more effective programme implementation. The R&D partners (together with their partners in development) engaged in multiple programmes at the interface of environment and poverty alleviation stand to gain from the knowledge thus generated from research and experimentation for improved policy development.

The budget as approved by the Netherlands embassy in 2002 included separate international technical assistance (ITA) and national technical assistance (NTA) budget lines. Very early in the programme implementation, however, the ITA and NTA budgets were merged and virtually no international expertise was brought in to assist the programme. Hence, the wealth of international knowledge appears not to have been tapped.

The institutional structure of CBUD does not include a functional monitoring and evaluation (M&E) component. The lack of an M&E system has not encouraged the creation of the necessary learning environment within the institution. Since the mid-term review of June/July 2001 no external evaluation of the CBUD programme was conducted, despite planned external reviews after the first year (2003) and towards the end (early 2005) of CBUD phase 2. The lack of an effective M&E system is reflected in the lack of a clear strategy for following up on CBUD's numerous activities. The final evaluation of the programme reported the lack of a strategy document systematically outlining and prioritising how the CBUD intends to achieve its objectives. In some cases, the evaluation mission noted differences between the strategy in theory and in practice. Consequently, there is no evidence to substantiate claims that very significant impacts have been made towards poverty alleviation and biodiversity conservation in CBUD's intervention areas. Gender was not part of the CBUD approach or of its planning and implementation framework. The final evaluation report indicates that improved and more proactive ways of targeting beneficiaries (especially the poor) – through agreements and an M&E system for learning – are needed if CBUD is to achieve its objectives of alleviating poverty and achieving gender equality. This evaluation recommends that the Netherlands embassy in Accra play a more

proactive role in ensuring critical reflection and learning activities, by insisting on the design and operation of an M&E system as well as by commissioning independent consultants to carry out an external review.

Summary

Relevance
The CBUD programme 2002–2006 is considered very relevant in trying to address identified problems in the environmental sector in Ghana, while simultaneously aiming to alleviate poverty in selected areas of intervention. The current development context and institutional structure of the environmental sector in Ghana continues to offer scope for the CBUD programme.

Effectiveness
The innovative role of the CBUD programme in its domain and its outputs have been impressive. The Centre has played a pivotal role in identifying and developing biodiversity products at the interface of biodiversity conservation and development, thereby carving out a unique niche in the environmental sector in Ghana.

In implementation, however, the effects and impacts of the programme have not been as desired. Neither the benchmarks set in 2001 nor the programme objectives have been fully reached. The effectiveness of the CBUD programme interventions was negatively affected by delivering services to demand-driven clients with respect to the more conventional agricultural products and microcredit. This made CBUD play a development role rather than its mandated facilitating one. There was significant bias towards production and less emphasis was given to: commercialisation and marketing of biodiversity products; research; capacity building; the formation of strategic alliances; providing resources; and technical assistance. The staffing and running cost components of the budget were overspent, while the total activity budget lines were generally underspent. There is no evidence to substantiate claims that very significant impacts have been made towards poverty alleviation and biodiversity conservation in CBUD's intervention areas.

Efficiency
To improve the efficiency of the implementation of the CBUD programme, the final evaluation report (2007) suggested: an organisational assessment for the restructuring of CBUD during a transition phase towards increased integration into KNUST (while retaining its mandate), and a change in management style. It also suggested that increasing KNUST support and strengthening the capacity of CBUD to generate its own funding would eventually enable CBUD to reduce its dependence on donor support.

Last, but not least, the mission observed that other donors and local NGOs have copied the approach of promoting the development of biodiversity products, mainly grasscutters, with the same lack of attention to commercialisation and marketing as CBUD.

5.5 Worldwide programmes

5.5.1 Netherlands Committee for IUCN (NC-IUCN)[17]

Activity	**TRP3 (Tropical Rainforest Rolling Programme, 3rd phase)**
Activity number	WW073906 / 3447[18]
Implementing organisation	different local NGOs
Period	1/5/2001 – 30/4/2006
Budget	NLG 25,000,000 worldwide (€9,256,511 database)
Objective	Protection and sustainable management of tropical rainforests, including the poverty issue of local communities and international consultation and networking.

The Tropical Rainforest Rolling Programme (TRP), or Tropical Rainforest Small-grants Programme was started in 1994 to accelerate the realisation of the Netherlands government's policy on tropical rainforests (RTR). The Netherlands Committee for IUCN (NC-IUCN) was asked to manage and execute this programme because of its role as platform of NGOs, institutions and government, its involvement in conserving tropical rainforest, and its national and international network.

NC-IUCN/TRP's long-term objective is identical to that of the RTR: '*to promote the conservation of the tropical rainforest by realising a balanced and sustainable land and forest use, to end the present, rapid process of deforestation and the encroachment and degradation of the environment*'. This RTR objective was specified after the 1993 evaluation as *'protection and sustainable management of tropical rainforests, including the poverty issue of local communities and international consultation and networking'*. The programme provides a maximum of USD 75,000 for small projects aimed at this objective, set up and executed by NGOs. It is assumed that NGOs often have good knowledge of the local situation, are involved with local communities and are able to respond much more quickly than governments. Also NGOs can halt certain negative developments and have a multiplier effect.

The first phase of the TRP[19] had a budget of NLG 4 million, took 18 months and was judged positive in the final evaluation.[20] The second phase[21] ran for five years and was evaluated in 1999. Again, the conclusions were very positive, and the need for such support to small-scale projects in the field of tropical rainforests was

[17] Information from appraisal memorandum WW073906 (34470, Project List West Africa for IUCN MAP, IUCN NL/ Unit Financing of Nature from September 2005 until end 2006), and the Proforis website.
[18] Midas / Piramide numbers.
[19] Activity WW073901.
[20] Activity WW073902.
[21] Activity WW073903.

confirmed. The continuation of the programme in a third phase was strongly supported. (Note that the evaluations mentioned above did assess the relevance, but not the effectiveness of the projects funded.)

The objectives of the third phase of the TRP are:
- to provide flexible and specialised financial support to small-scale field projects, with a view to protecting tropical rainforests;
- to build the capacity of (local) NGOs and grassroots organisations (to stimulate and catalyse the NGO community);
- to increase opportunities for NGOs to influence policy, in particular (inter)national forest policy;
- to strengthen the position of women as the executers and target group of projects aimed at the protection and sustainable management of tropical rainforests;
- to strengthen the position of indigenous peoples as administrators of tropical rainforests;
- to provide relevant information on rainforest issues to specific target groups in the Netherlands.

In this third phase six activities have been implemented in Ghana: the Buoyem Sacred Grove Conservation Project, the Community-Based Initiative Sacred Grove Conservation, Conservation of Krokusua Hills Forest Reserve, Court action against Bonte Goldmines Ltd, Sustainable Management of Mangrove Ecosystems, and the Takoradi Monkey Hill ecotourism project. The smallest contribution was €5000 to support a court case against a mining company; the other activities received contributions ranging from €28,000 to €48,000. The duration of activities in the latter category was from one to three years, and all of them had more or less the same objectives: raising awareness among local communities of the need to protect the forest, capacity building, introducing alternative livelihoods and promoting ecotourism. The evaluation team interviewed four of the NGOs involved and visited three project sites.

Findings
The NGOs interviewed typically had a small core staff of 2–5 individuals, additional staff only being hired on a temporary basis for project implementation. All of them participated in Forest Watch, a platform for environmental NGOs, and all had left the NRM-NGO platform.

In the communities involved in the projects, management committees had been established; people had been trained in alternative livelihoods and provided with means to start small-scale enterprises such as grasscutter and snail rearing and mushroom growing. The benefits from these activities were not yet apparent, and expectations were not based on market surveys.

At one project site a tourist lodge including an information centre had been built. Some 90% of the income generated from the lodge was planned to be put into community projects, but as all the income until now had been used to cover the running costs, no projects had been supported. Even the guides showing the

tourists around the forest were not being paid and were working on a voluntary basis. In this project fuel-saving stoves had also been introduced.

At another project site the community had planted indigenous trees to regenerate the badly degenerated forest, but the area was still very open. There were plans to create a firebreak zone around the forest, but as the contribution from NC-IUCN had ended, no funds were available to continue the work. At this site there were expectations about the potential for developing ecotourism, but no concrete action had been taken during the project to promote it.

From discussions with members of the communities involved it appeared that awareness of the importance of protecting the forest had been raised.

Conclusions
Judging by the interest shown by the target groups the NC-IUCN funded projects are relevant. They had raised awareness among the communities and were in that sense effective. The alternative livelihood activities were not as yet contributing to the incomes of the communities, and certainly had not generated enough funds to initiate other projects. Whether these activities will help to increase incomes cannot be predicted as no market surveys have been carried out. The projects have therefore not been effective in reducing poverty. Only increased awareness can contribute to the protection and sustainable management of the tropical rainforest.

Little can be said about the efficiency of the NC-IUCN projects, as the team had no time to go into the detail of checking all outputs versus inputs. From the community members interviewed there were no complaints about the delivery of outputs. Only in one project could it be established that setting up ecotourism facilities had been part of the project plan, but had not been cost effective.

5.5.2 Tropenbos Ghana

Activity	**a. Tropenbos Programma 2000–2004 / b. Tropenbos Programma 2001–2005**
Responsible organisation	Stichting Tropenbos
Activity number	a. WW026805/WW026806 b. WW026807
Implementing organisation	Tropenbos International Ghana (TBI-Ghana)
Period	a. 1/1/2000 – 31/12/2004 b. 1/1/2001 – 31/12/2005
Budget	a. NLG 19,800,000 + NLG 200,000 budgeted; actual expenditure in database € 1,452,097 worldwide b. € 9,075,604 expenditure worldwide
Objective	a. Conservation and sustainable management of tropical rainforest in countries where Tropenbos is active + 3 to be newly identified countries. b. Conservation and sustainable management of tropical rainforest by generating knowledge, understanding and methods in countries where Tropenbos is active. Poverty reduction and capacity building in countries where Tropenbos is active.

The TBI-Ghana programme commenced in May 2000 with a partnership agreement between TBI and the government of Ghana. The programme aims to bridge the gap between forest policy, management and science; to provide a forum for discussing rainforest issues; and to undertake relevant research and training.

TBI-Ghana is a legally registered organisation in Ghana. The mission, goal and purpose of the programme are:

- *Mission*: to provide distinctive scientific inputs on sustainable forest management in Ghana through local and international cooperation.
- *Development goal*: to contribute to the achievement of the sustainable management and use of Ghana's high forest resources.
- *Programme purpose***:** to increase knowledge, management capacity and uptake of results in support of sustainable integrated management of Ghana's high forest resources.

The objectives of TBI-Ghana correspond well with the priorities on the international agenda for tropical forests. The relevance for the national agenda has been ascertained through an elaborate and transparent process of priority setting that resulted in the selection of key thematic areas where research interventions could contribute to achieving sustainable forest management. These are:

- multi-purpose forest use;
- effective stakeholder collaboration; and
- effective planning, policy formulation and implementation.

Stakeholders identified corruption, land use and wildlife as important issues to be included in research priorities during the mid-term review in 2004.

Research

The process of programme development that culminated in the call for expressions of interest and the submission of proposals is given in figure 3. The following research projects were selected:

1. Modelling the composition and performance of timber tree regeneration after selective logging.
2. Silvicultural interventions in Ghana's tropical moist forest: an assessment of forest responses.
3. Managing natural resource conflicts: the role of empowerment. A case of forest conflicts in Ghana.
4. Geo-information applications for off-reserve tree management in the Goaso forest district of Ghana (GORTMAN project).

Outputs from the key research areas were expected to be synthesised to produce results for regional and national application. This would involve a careful process of participatory problem analysis and priority setting involving representatives of government forestry agencies, research organisations and many other stakeholders. In addition to the above research projects, financed by TBI funds from DGIS and

contributions from the research partners, other proposals included the NC-IUCN-funded project 'Bridging science and society'.

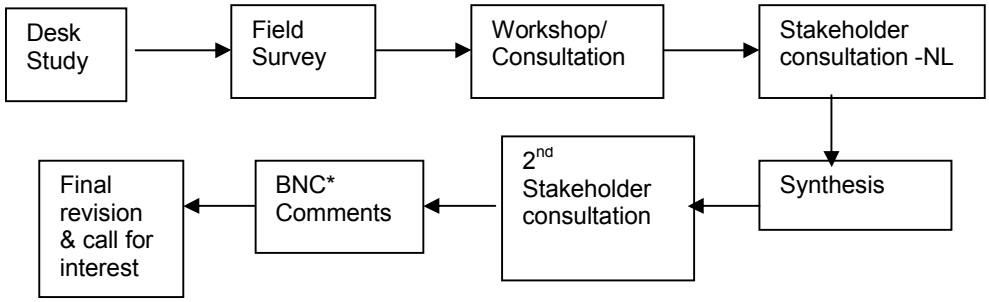


Figure 3. Flow chart of the programme development process in Ghana.
*BNC – Bi-National Steering Committee.
Source: TBI (2004).

The programme preparations started in May 2000 and were concluded in September 2002. One of the lessons learned was that the process could have been much more efficient. In retrospect, the investment in terms of time and effort was considered as not being the most efficient when measured against the reduced number of research projects with rather limited budgets. Nevertheless, the mid-term review concluded that the preparation efficiency should be viewed differently because those efforts provided a firm basis for TBI-Ghana's facilitating role and platform function. The lessons learned in Ghana have led to improvements in the preparation processes for TBI-programmes in Vietnam and Suriname.

Platform function
TBI-Ghana has demonstrated the ability to make the best use of the potential of a TBI country programme to create platforms for discussion and agenda setting. The programme has been able to maintain the interest of stakeholders by organising other events that produced results of interest to them and in line with TBI's objectives. Examples include the support for and participation in a national NGO forum and a district forestry forum for stakeholder collaboration, and focus group meetings on chainsaw logging, and equity in benefit sharing and professionalism in forestry, which led to national and international discussions. TBI-Ghana has hosted one stakeholder consultation on the VLTP and three regional forest forums, and is now considering forming a platform for Netherlands-supported NGOs, projects and programmes in Ghana.

Capacity building
In capacity building, groups of professionals and students have received training in a number of relevant subjects, such as communication techniques and skills, and in proposal writing, the cost of which was covered by the participants. The training in proposal writing to seek funding has been highly appreciated by the Faculty of Renewable Natural Resources (FRNR) at the Kwame Nkrumah University of

Science and Technology (KNUST) in Kumasi. A small grants programme for undergraduates to work with TBI is another example of a cost-effective way to combine learning and capacity building. Four PhDs (three Ghanaians, one German), 15 Masters and one project-based MPhil have been completed.

Another innovative activity is the 'Student Platform', which brings together groups of students of different nationalities for several weeks to work on assignments of applied investigation about the TBI-Ghana research/study site. There have been Dutch/Ghanaian student exchange programmes on community-level natural resource problems. One Dutch student has been attached to the Mole National Park.

Partnerships

Partnerships are one means of achieving TBI's objectives, where a partner is defined as an organisation or individual that shares with TBI the commitment to a common objective, engages in agreed TBI activities with contributions from their own resources, including contributions in kind, and agrees to be held accountable for their actions related to TBI. It is expected that TBI will increase its local impact through partnerships with such organisations.

TBI-Ghana has entered into partnership agreements with national and international institutions for support, forestry research and capacity building activities. Through such collaborations, the programme and the scientific coordinators have been seconded to the project management unit (PMU) by the Forestry Commission and the FRNR (KNUST), respectively. Other collaborating institutions include the Ministry of Lands, Forestry and Mines (MLFM), the Forestry Commission, the Forestry Research Institute of Ghana (FORIG), the University of Ghana, and KNUST.

The international partners include TBI, Wageningen University and Research Centre (the Netherlands), the International Institute for Geo-Information Science and Earth Observation (ITC, the Netherlands), the University of Freiburg (Germany), the University of Aberdeen (UK), and the Centre Suisse de Recherches Scientifiques (Côte d'Ivoire). TBI-Ghana intends to encourage others to become involved in its programme. Other (former) TBI sites in West Africa have expressed their desire to collaborate.

TBI's role in brokering research funds and creating platforms has been appreciated, as these have catalysed collaboration in academia and have facilitated the advancement of development-oriented research.

The first phase of TBI-Ghana was completed in December 2005. Approval for the second phase was given in October 2006.

Conclusions

Relevance

The objectives of TBI-Ghana correspond well with the international priorities for tropical forests. The relevance for the national agenda has been ascertained

through an elaborate and transparent process of priority setting, even though issues such as corruption, land use and wildlife were not covered. To ascertain the relevance of the research components, the underlying assumptions – that the results will inform policy decisions, that there is an information gap, and that research will be able to provide necessary information within the timeframe of the programme – need to be tested.

Effectiveness
Although the TBI-Ghana programme has been in operation for only a few years, it already has a positive image in Ghana. Consequently there is need for follow-up actions beyond the first phase. There has been significant capacity building in disciplines relating to tropical forests, mostly at higher levels. Rudimentary and appropriate sustainable forest management and utilisation skills now need to be extended to rural communities.

Efficiency
Even though the programme preparation was considered inefficient, the consultation processes involved has enhanced TBI-Ghana's facilitating role and platform function. In addition, the lessons learned h used to improve the preparations for the TBI-programmes in Vietnam and Suriname.

5.5.3 Forest Stewardship Council (FSC)[22]

Activity	**Capacity building for sustainable forest management**
Responsible organisation	Forest Stewardship Council
Activity number	RF 071501 / 3394
Implementing organisation	FSC Africa
Period	1/10/2002 – 30/9/2005
Budget	€450,000 regional
Objectives	• Ensure proper management of forest concessions in Africa; • Ensure that timber from these forests has access to markets in the North.

FSC Africa was launched as a not-for-profit NGO in April 2005, based in Kumasi. The development objective of the FSC Africa project is to ensure that Africa's forests are well managed and that the timber from these forests has access to markets in the North. Financial support is provided by DANIDA (Denmark), DGIS (the Netherlands) and Novib. The establishment of the FSC Africa regional office is an important step in longer strategy:

- to ensure the participation of different stakeholders in Africa in decision making within forest management;

[22] The FSC regional director was travelling outside Ghana at the time of the evaluation. The report on FSC is therefore based on FSC reports and one telephone conversation with F.K. Odoom with the regional director.

- to ensure that the Africa region participates in the global development of the FSC; Africa is important in the global timber market but so far has had little influence on decision making within the FSC; and
- to create a base in Africa for promoting and communicating good forest management, according to the FSC system.

Initially, the FSC Africa regional office is expected to focus on timber production and exports in four countries in West and Central Africa: Cameroon, Congo Brazzaville, Gabon and Ghana. The FSC's work will extend to other countries that have shown interest but have not yet developed contacts – Central African Republic, Equatorial Guinea, DR Congo, Kenya, Nigeria and Zaire. A Ghana country office has been set up, and offices in Cameroon, Congo Brazzaville and Gabon are in their incipient stages.

Ghana's Forest and Wildlife Policy of 1994 includes a more responsive approach to collaborative and sustainable forest management. In response to the latter, a National Committee on Forest Certification (NCFC) – which includes representatives of a cross section of stakeholders together with a technical working group (TWG) – was formed to oversee the forest certification process in the country. Through stakeholder consultations, the TWG compiled a 'Ghana Forest Management Standards & Checklist' under the supervision of the NCFC, which was field-tested and discussed at an international workshop in 2000. Subsequently, a National Governing Council (NGC) and a subsidiary National Working Group (NWG) were formed in 2003 and a governance structure and working methods developed. A Ghanaian NWG has already been established and legally incorporated as a NGO, and is now moving towards obtaining FSC endorsement.

The FSC regional office currently hosts the Ghanaian NWG in Kumasi, and is assisting in the development of national standards. Of the four initial countries, only Ghana has developed its final draft national forest stewardship standard even though no forest has yet been certified. The final draft standard has been reviewed and compared with the principles and criteria of the FSC as well as those of the African Timber Organisation/International Tropical Timber Organisation (ATO/ITTO). A national stakeholder workshop was scheduled for April 2007 to endorse the standard. Once it is endorsed nationally, the NWG plans to submit it to the FSC for endorsement. However, prior to this the NWG has to be accredited by the FSC.

The FSC regional office is also building the capacity of relevant stakeholders in sustainable forest management and raising awareness about forest certification. In 2005 FSC Africa organised a training workshop, which was attended by 54 traditional chiefs and representatives of NGOs, government agencies in charge of forestry, tree growers, civil society, landowners, research and higher education institutes and independent bodies, as well as three staff members of FSC Africa and two resource persons from the FSC International Centre. The workshop was officially opened by the Deputy Minister of Lands, Forestry and Mines, Mr Adjei Yeboah. The objectives of the workshop were to:

(i) provide an overview of forest resources, rural communities and prospects for sustainable forest management and certification based on the report of the study commissioned by FSC Africa;
(ii) raise awareness of the FSC and its certification scheme and the work of the FSC Africa regional office;
(iii) discuss the potential of forest certification as a tool for promoting sustainable forest management in the project countries/Africa;
(iv) provide a forum for discussions/dialogues and, even, debates on sustainable forest management and certification in the project countries/Africa;
(v) discuss the status of the national initiatives in the project countries and the way forward; and
(vi) seek guidance from stakeholders in the project countries on the way forward for FSC/FSC Africa.

The Ghanaian NWG has also held meetings to discuss its action plan and budget and to review of the draft forest stewardship standard. It also organised a training session for 10 timber companies on the forest certification process, at the end of which the participants agreed to adopt the FSC certification scheme. Eleven timber companies in Ghana are said to be proceeding with obtaining FSC certification for their operations.

The FSC regional office has no formal relationships with either the Validation of Legal Timber Programme (VLTP) or the voluntary partnership agreement (VPA) between Ghana and the EU. The interactions have mainly involved the exchange of documents and reports.

Conclusions
Although the FSC programme was launched in October 2002 it only started in Ghana in April 2005. Hence in the light of the time frame for the RTR evaluation (i.e. 1999–2005), it was not possible to assess its relevance, effectiveness or efficiency. However, it is assumed that the intention to proceed with capacity building is still relevant to Ghana and its forests.

5.5.4 Global Environment Facility (GEF)

Activity	**Global Environment Facility – 3rd replenishment**
Responsible organisation	World Bank
Activity number	WW022609 / 3424
Implementing organisation	World Bank, UNDP, UNEP
Period	2002–2006 (Bemo); 2003–2012 (database)
Budget	€ 85,980,000 (Bemo); € 90,542,529 (database)
Objective	Protection of the global environment: • preservation of biological diversity; • tackling climate change; • tackling pollution international waters; • reverse the adverse effects of the ozone layer .

The Global Environment Facility (GEF) Small Grants Programme (SGP) in Ghana provides support to community-level initiatives that contribute to protecting the global environment in the main GEF focal areas. These include conserving biological diversity, mitigating the causes of global climate change and preventing land degradation (primarily control of desertification and deforestation) through community-based approaches.

The SGP's biogeographic focal areas are currently the wet evergreen, southern marginal forests and the northern savannah woodlands ecosystem (see figure 4). The areas cover about 10% of the area of Ghana and consist of the high tropical forest, dry semi-deciduous forests and guinea or tall savannah, and the Sudan or short grass savannah. A large proportion of these areas fall within globally significant biodiversity areas (GSBAs), important bird areas, biological migration corridors and Ramsar wetland sites. The SGP is participating in the following programmes and policies:

- national wetland policy;
- national strategic energy plan;
- national wildfire policy;
- national woodfuel policy; and
- draft national policy on traditional knowledge for agriculture and health.

The objectives of the programme include strengthening local capacity for effective and efficient operations in the priority GEF/SGP focal areas; and promoting the conservation and sustainable utilisation of biodiversity in the forest and coastal savannah ecosystems within the biological hot-spots outside the gazetted forest reserves. The programme has adopted two approaches to encourage local involvement – the formation of the community biodiversity advisory groups (CBAGs) or community resource management areas (CREMAs) in the high forest and northern savannah areas, and has set up a Community Investment Fund (CIF) to provide financial support for alternative, ecologically sustainable livelihoods for communities whose livelihoods depend on the reserved biological hot-spots.

The thematic activities supported under the programme include: the development and management of community-based ecotourism to support biodiversity conservation; poultry and livestock production (pigs, sheep, goats and chicken); grasscutter rearing; beekeeping; mushroom production; fish farming; and processing and adding value to non-timber forest products. These activities were selected because they enhance biodiversity conservation, mitigate climate change, conserve land and promote sustainable land management; they seek to reconcile global environmental goals with poverty reduction and wealth creation, thus contributing significantly to national poverty reduction strategy and the achievement of the Millennium Development Goals. Women may use the incomes they earn for trading, soap making, dressmaking and other traditional livelihoods. The GEF Evaluation Office case study (2004) suggests exploring opportunities for providing technical training for youth (especially migrants) in forest fringe communities (e.g. carpentry, masonry, and tailoring) in order to reduce illegal chainsaw logging and other forms of forest exploitation.

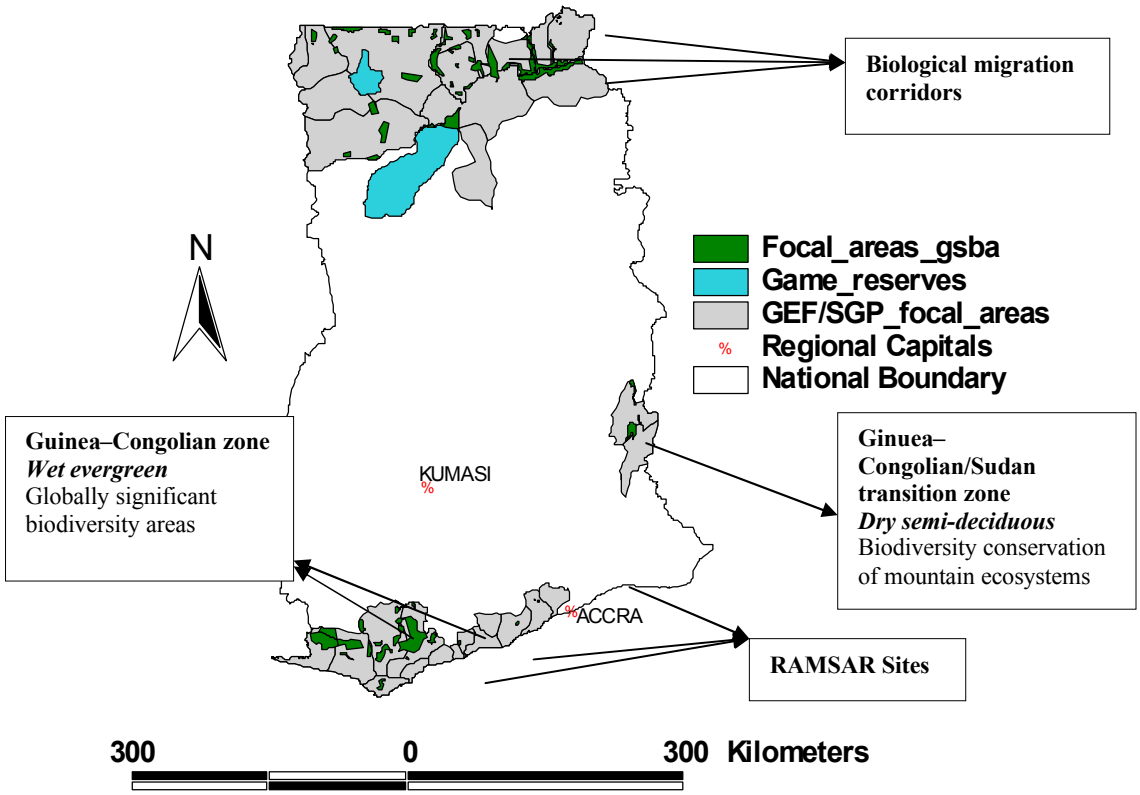


Figure 4. Forest reserves, globally significant biodiversity areas, and Ramsar sites in the GEF/SGP focal areas
Source: GEF (2004).

Positive effects

The programme's educational and awareness-raising campaigns in the communities has contributed to the empowerment of local institutions in decision making on the enactment of bylaws to protect and manage natural resources at the district level. People's behaviour and attitudes to rules and regulations on natural resources conservation and management has improved dramatically. This, coupled with the enforcement of forest protection and resource conservation rules and regulations by the CBAGs, has led to marked improvements in areas of forest reserves that have been planted and improved, especially in contrast with the general deterioration of other nearby forests outside the reserves. Local people admit that illegal tree felling, group hunting and the seasonal reductions in the volume of water bodies have been reduced. The use of poisonous chemicals for fishing has ceased, with the consequent prevention of such diseases as cholera and dysentery. Community members have become aware of their rights and responsibilities in managing the forest reserves, and timber concession holders are now more aware of their social responsibilities and obligations to local communities.

Negative effects

Forest fringe communities have been denied access to globally significant biodiversity areas (GSBAs) for the purposes of farming or the harvesting of NTFPs and other forest products. This has caused hardship in the short-term, especially for migrants and poorer households who depend on the income from the collection and sale of forest products to meet seasonal or other cash flow needs. Limited access to NTFPs has led to the substitution of bushmeat for fish and poultry products. The scarcity of fertile land for farming has resulted in the overexploitation of the community farmland. The results of all these factors include the loss of job opportunities and relocation of the youth who depended on the forest reserves for their livelihoods. Theft of farm produce has also increased.

Institutional issues

The community biodiversity advisory groups (CBAGs) are active and performing well but their morale and performance could be improved by meeting some of their concerns. These include the provision of logistics such as uniforms, raincoats, insurance cover, credit to expand farm activities and to trade, means of transport for patrolling, communication devices (walkie-talkies), food for work and payment of regular financial allowances (either monthly or quarterly), and training in sustainable livelihoods

No training was given to the communities on the livelihoods schemes in preparation for the disbursement and use of the CIF. The undue delays in the disbursement of the fund threaten the future sustainability of the CBAGs and the conservation of the GSBAs.

The CBAGs need adequate incentives to sustain their enthusiasm. These include basic and essential operational tools and equipment (e.g. walkie-talkies), insurance to cover the risky parts of their work, and allowances to cover the costs of attending meetings.

The NRMP and biodiversity conservation

The biodiversity conservation component (BCC) of the Natural Resources Management Programme (NRMP), financed by the GEF, is meant to identify and document priority areas of global importance for biodiversity conservation to be excluded from future logging. Like the GEF/SGP, the strategy for implementing the BCC includes:

- the development and implementation of community-based management plans for the protection of the GSBAs; and
- the provision of financial support to the affected communities for alternative livelihood schemes.

The BCC is also expected to provide for ongoing monitoring and evaluation of biological and social indicators of programme performance. The BCC has two components. First, the Northern Savannah Biodiversity Conservation Project (NSBCP) is supporting communities with capacity building programme to train them in wildlife management. It was designed with strong inputs from the SGP that participated in the project design, inception and implementation. Second, the

High Forest Biodiversity Conservation Project (HFBCP) is to establish effective systems for the protection of globally significant biodiversity areas in order to increase their ecological security within the tropical high forest biomes of Ghana.

About 118,000 ha of land in 30 forest reserves have been demarcated as GSBAs, with over 100 CBAGs formed around 20 GSBAs. The legal gazetting of the GSBAs is in progress. Eleven forest reserves are now wholly protected, while the remaining 19 are partially covered. Timber harvesting has been prohibited in the GSBAs. Baseline socio-economic and eco-tourism studies have been conducted in some critical areas. Floral surveys of the GSBAs have been done and a faunal survey is under way.

Conservation International (CI) conducted studies on how the CIF should be invested and disbursed to the beneficiary communities. Eventually, it was agreed that the disbursement of the CIF should be undertaken through the banks.

Conclusions

Relevance

The system of creating GSBAs has global and national relevance and significance. The fringe communities realise the long-term benefits to them. The two approaches[23] adopted by the project to encourage local involvement were appropriate. But they require to be implemented with the minimum of hardship to the fringe communities whose livelihoods are dependent on the forest areas – especially in the short term.

Effectiveness

The programme has helped the CBAGs and the community members in improving their decision making on forest management. Community members have become more aware of their rights and responsibilities in the management of the forest reserves. The formation of the CBAGs, which include representatives of community-based organisations (CBOs), has strengthened the interrelationships among the organisations that existed before the project.

It is essential that the CBAGs do not face the fate of similar project-based CBOs in the past. Hence, it is necessary that project design seeks to promote the accumulation of internally generated funds by the CBAGs to cater for their future requirements in terms of tools and equipment to ensure their health and safety during patrols and other operations in the forest. Sources of such funds may include the sustainable harvesting and marketing of valuable non-timber forest products (NTFPs) from the GSBAs such as medicinal plants, as well as appropriate benefit-sharing schemes for other revenues generated in such areas.

Efficiency

The implementation of the programme could be improved by such measures as: the efficient and timely delivery of the CIF; the effective revolving of the initial

[23] That is the formation of the CBAGs and the setting up of the CIF to provide financial support for alternative livelihoods to communities who depend on the forest reserves.

CIF to cover a wider section of the affected communities; the organisation of training programmes on relevant sustainable livelihoods for the CBAGs and other interested community members in order to forestall the possibility that CIF funds are diverted, in addition to networking with the relevant sectoral ministries, such as Food and Agriculture (MoFA), and Lands, Forests and Mines (MLFM), as well as organisations/institutions to provide complementary support. Services from MoFA and natural resource NGOs could sustain the alternative livelihood schemes on cessation of project inputs, while coordination with the district assemblies to improve the basic social and communication infrastructures in the communities concerned could enhance the market potential of alternative livelihood schemes.

5.5.5 UN Food and Agricultural Organization (FAO)

Activity	**FAO 2002 – Associate Experts (AD) Programme**
Responsible organisation	UN Food and Agricultural Organization
Activity number	WW 173738 / 4790
Implementing organisation	FAO Regional Office in Accra
Period	2002 – 2008
Budget	€ 12,319,179 worldwide
Objective	Contribute to FAO activities by financing Associate Experts

The Netherlands has in recent years financed an associate expert programme of the FAO. The evaluation team interviewed a Dutch associate expert on wildlife management and protected areas in the region, stationed in Accra within the Regional Forestry Department Group. She had been involved in promoting alternative strategies to keep elephants away from agricultural land, and in organising a regional conference on grasscutter breeding. In performing her job she felt hampered by the fact that FAO's main objective is food and food security. Her work was judged as being in the field of nature conservation, and thus outside FAO's main mandate. However, her superior judged her work to be relevant for the FAO programme in Ghana and expressed a strong wish to see her contract extended.

5.5.6 Nuffic NTP projects

The Netherlands contributions to the Nuffic NTP[24] projects with the Kwame Nkrumah University of Science and Technology (KNUST) in Kumasi are not included in the Proforis database and do not contribute to the expenditures for conserving tropical rainforests. As one of the projects is on natural resources management (NRM), and because of the link with the Tropenbos Ghana activities and CBUD, the evaluation team considered it opportune to meet the NTP project coordinator, the director of the Bureau for Integrated Rural Development and the Provost of the Faculty of Renewable Resources.

[24] Netherlands Programme for Institutional Strengthening of Post-Secondary Education and Training Capacity (NTP).

The NTP cooperation on NRM started mid-2005 after a long period of preparation, and involves mainly staff training and student exchanges. In the past, student exchanges had taken place but financed under the Tropenbos Ghana programme. An MSc programme would be added to the BSc programme as part of the project. It was also foreseen that short courses on participatory management and governance would be organised for professionals from outside the university. For the 150–160 NRM students who graduate each year, finding employment in relevant sectors had not been a problem, although employers in the forestry sector were more used to recruiting people with diploma level education rather than graduates.

6 Summary of findings and conclusions

Inputs

- Criteria for earmarking inputs as contributing to the Netherlands government policy on tropical rainforests have not been clearly defined.
- Contributions to projects in areas that did not meet the criteria for tropical rainforest used in the policy, i.e. rainfall exceeding 1800 mm/year (Kyabobo), were included.
- Contributions to projects that (indirectly) contributed to the preservation of tropical rainforests (wildfire management) were not included.

As mentioned in section 1.3, projects were selected using the Proforis database maintained by the support group Water and Environment at the Wageningen University and Research Centre. Decisions as to whether a bilateral project is contributing to the preservation of tropical rainforests are taken by the Netherlands embassy, usually by the environmental sector expert. This expert also judges to what degree the project contributes to the preservation of the tropical rainforest. As there are no criteria or guidelines for this judgement, it is left to the wisdom of the expert to determine what percentage of the project budget can be attributed to rainforest preservation. During the period covered by this evaluation there was a change of environmental experts at the Netherlands embassy in Accra. The first expert reasoned that as the wildfire management project was executed in the dry forest and savannah zones it was therefore not relevant to the tropical rainforest zone in Ghana. His successor reasoned that a case could be made that preventing wildfires in the dry forest and savannah area eventually also prevented harm to the adjacent rainforest zone. As the wildfire management project was already marked down for zero contribution, this expert decided to take the next environmental project *not* relevant for the tropical rainforest, i.e. Kyabobo, but with a budget comparable in size to that of the wildfire management project, and mark that one as contributing to the preservation of tropical rainforest.

Relevance

- The Netherlands decision to support the Natural Resource Management Programme (NRMP) was relevant, considering the importance of NRM in the

Ghanaian context, the support for the programme within the Ghanaian government and the initial commitment of a large part of the donor community. The same goes for the current support to the Validation of Legal Timber Programme (VLTP).
- The support to establish an NGO platform was not relevant as it appeared too much donor driven and did not meet the needs of the NGO community.

Effectiveness
- The Netherlands-funded interventions can be rated as effective from the conservation point of view, but at the moment less effective in reducing poverty.
- On poverty reduction, the effectiveness of the interventions has still to be proven as the success of the strategies being implemented for livelihood schemes is still uncertain. If no sustainable increase in incomes for the communities arises from these strategies, the effectiveness of the conservation of the project areas might come under pressure.

Efficiency
- The efficiency of the supported interventions was hampered by the lower than expected institutional capacities and capabilities of Ghanaian institutions.

Policy dialogue
- The Netherlands embassy put considerable effort into assisting the development of the NRMP.
- Although the embassy adopted a flexible stance in the NRMP, no donor harmonisation resulted.
- The Ghana Poverty Reduction Strategy (GPRS) addressed deforestation, but not the important issue of reforming the land tenure system.
- The embassy ended the Local Environment Fund in 2002 as support to NGO activities was considered less relevant within the context of the SWAp. Another motive might have been the labour intensity of the fund.

Conservation strategies in Ghana
- Funds have not always been available to conduct proper inventories of flora and fauna. In some cases only the flora was covered.
- Due to population and natural resource use pressure, the demarcation of protected areas requires lengthy and thorough consultations with the forest fringe communities.
- Adequate training has been offered to provide management and staff with the capabilities to run protected areas.
- Adequate infrastructure and facilities have been made available

Livelihood strategies in Ghana
- Tree planting to diminish/prevent firewood collection from protected areas, often in combination with the introduction of fuel-efficient stoves.
- Ecotourism.
- Breeding grasscutters (rodents) and snails, Ghanaian delicacies

- Growing mushrooms.
- Beekeeping.
- No strategies have been developed for improving land-use methods (no proper intersectoral cooperation).
- No proper need surveys, or market surveys for products.
- The introduction of a fair national land/tree tenure system is of far greater importance for the communities than local income-generating activities.

Capacity building

- In Ghana a career in forestry is considered as providing good opportunities.
- The evaluation team members met a considerable number of people in Ghana who had been trained in the Netherlands (WUR, ITC, ISS).
- Dutch support is mainly aimed at training for individuals already employed in the forestry sector. There were no reports of people leaving the sector after receiving training.

Worldwide programmes

- As the bulk of the activities to which the Netherlands has contributed reflected the Netherlands government's policies with regard to forests and poverty reduction, the contributions have been relevant.
- As mentioned under livelihood strategies, most strategies used in the activities so far have not shown great effectiveness.
- There were no findings related to efficiency.

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Annex 1 Terms of reference

1 Summary

The Dutch Government's Policy on Tropical Rainforests (RTR) came into effect in 1991 and is still the basis for the Netherlands foreign policy on forests and forestry. The RTR comprehends policy lines on domestic and international/multilateral level and within the framework of development cooperation. Also the RTR implies an ODA commitment of € 68 million per year for forests, of which at least one third will be spend on activities targeting tropical rainforests.

This evaluation is focused on assessing the relevance, the effectiveness and the efficiency of the Dutch expenditure between 1999 and 2005 targeting tropical rainforests within the framework of development cooperation, including its impact on poverty reduction.

The evaluation will include country studies in Vietnam, Ghana and Colombia. In these countries the bilaterally financed activities will be assessed. Also the coordination and coherence of these activities with tropical rainforest activities executed in these countries within the framework of worldwide or regional programmes to which the Netherlands have financially contributed.

2 Justification for the evaluation

In 2002 the Dutch Minister for Development Cooperation announced in a letter to Parliament that: "In two or three years time I will ask the Policy and Operations Evaluation Department to evaluate the adjusted policy on tropical rainforests and its results to the fullest extent."

Also without this commitment the expenditure within the framework of the Policy on Tropical Rainforests would have justified an evaluation by the Policy and Operations Evaluation Department (IOB) around this time:

- the minimal yearly Dutch ODA-expenditure for forests is € 68 million, of which at least one third is targeted on tropical rainforests, and;
- the last external evaluation took place in 2000.

3 The framework of the Dutch Government's Policy on Tropical Rainforests (RTR)

3.1 History of the development of the RTR

Influential reports like "The Limits to Growth" of the Club of Rome of 1972 and the Brundlandt report "Our common future" of 1987 contributed to the awareness and the acceptance of the concept of sustainability in development thinking. By the end of the eighties there was a growing awareness nationally and internationally that tropical rainforests were being threatened by the increase of local human population and the large-scale exploitation to satisfy the ever growing demand for forest products elsewhere in the world. Also the effects of industrialisation on forests was made visible by the acid rain. Finally there was a growing worry what the (negative) effects of these developments might be on the global climate.

Internationally this led in 1985 to the establishment of the Tropical Forestry Action Plan by the FAO and the founding of the International Tropical Timber Organisation.

The European Community adopted a resolution in 1990 on the importance of the conservation of tropical forests.

Around the same time in the Netherlands environmental ngo's exerted rising pressure on the government to make a bigger effort for tropical rainforests. Till than Dutch development policy was aimed at dry forests in the Sahel region to combat desertification and to provide for wood fuel. The Dutch policy document "A world of difference" of 1990 explicitly made a link between poverty and environmental issues. A policy paper on tropical rainforests was announced, because "*the problematic nature relating to tropical rainforests is very complex and therefore demands a coordinated and coherent government policy*".

The Dutch Government's Policy paper on Tropical Rainforests (RTR) was presented to parliament in 1991 by the State Secretary of Agriculture, Nature Conservation and Fisheries and the Minister for Development Cooperation, also on behalf of the Minister of Housing, Spatial Planning and The Environment and the State Secretary of Economic Affairs. In a later stage the Minister of Transport, Public Works and Water Management shared in the responsibility for implementing the RTR. Presently the RTR is still the basis of the Dutch foreign policy on forests and forestry. This was confirmed in the forest sections of the Programme International Nature Conservation 1996-2000 and the Policy Programme Biodiversity International 2002-2006.

The RTR was strengthened by important international conference on biodiversity, climate and sustainable development, successively in Rio (1992), Kyoto (1997) and Johannesburg (2002).

In 200 the last evaluation of the RTR took place. However, the evaluation report was approved, as not all the conclusions were covered by the findings.

3.2 Contents of the RTR

The main objective of the RTR is "*to promote the conservation of the tropical rainforest by realising a balanced and sustainable land and forest use, to end the present, rapid process of deforestation and the encroachment and degradation of the environment.*"

To realise this objective the RTR puts down policy lines for the Netherlands on the domestic and the international/multilateral level and within the framework of development cooperation.

The main objective and the naming of the RTR suggests that the policy only concerns tropical rainforests. However, the policy is concerned with all forest types with a rich biological diversity. This is also reflected by the ODA commitment in the RTR of € 68 million per year on forests, of which at least one third will be targeted on tropical rainforests.

3.2.1 Policy lines of the RTR

The policy lines are formulated as follows:

1. Active protection of surviving virgin rainforest
2. In principle, no collaboration with projects and developments that are harmful or potentially harmful to the rainforest
3. Encouraging planned land use and land management along with sustainable agriculture and forestry
4. The tropical timber trade: controlled harvesting; encouraging the formulation and implementation of long-term planned timber production
5. National and international encouragement for afforestation and reafforestation projects
6. strengthening institutions and legislation; empowering local populations
7. strengthening the political and social base in tropical nations
8. Improving economic relations and relieving the debt burden
9. Increasing scope for national and international rainforest policy by strengthening research and institutions

In 2002 there was only one significant change in these policy lines: for "rainforest" one should read now "all forests with a rich biological diversity".

3.2.2 Policy targets

In the RTR and in the forest section of the later document Policy programme Biodiversity International (BBI) a number of targets has been set:

- At least 25 % of the world's forest area will be protected nature reserves (NB. No target date is set.)
- At least 25% of the timber on the Dutch market will be demonstrable sustainably harvested in 2005
- Yearly net growth of forested area of 12 million hectare from 2000 onwards
- In 2010 globally binding agreements on the protection and sustainable use of forests will be drawn up

As the Netherlands is also committed to the MDG's it is worthwhile to mention indicator 25 of target 9 of the Millennium Development Goal number 7 on the environment: "Proportion of land covered by forest".
In the year 2000 the percentage of wood covered areas in Sub Sahara Africa, Latin America and Southeast Asia were respectively 27.1, 47.8 and 48.6. In the Dutch foreign policy budget for 2006 it is stated that the Dutch government aspires to no further decline of these percentages in 2015.

3.2.3 Policy programme

The forest section of the Policy programme Biodiversity International (BBI) contains in addition to the afore mentioned targets eight programme items for the period 2002-2006:

- The Netherlands advocates the integration of forest programme's in poverty reduction strategies;
- Within the WTO and other frameworks, the Netherlands will commit itself to measures that promote stimulate sustainable forest management and discourage trade in illegally harvested wood;
- The Netherlands will integrate conservation and sustainable use of forests in its overall development cooperation policy and will promote this integration within multilateral organisations, banks and national governments;
- The Netherlands stimulates and initiates action on the development of systems for setting the value of and compensating for presently non-marketable functions of the forest;
- The Netherlands encourages the use of national forest plans in the implementation of forest policy;
- The Netherlands will promote rural development in line with the sector-wide approach for agro-forestry;
- The Netherlands supports certification at home and in other countries as an instrument to promote sustainable forest management and the use of wood and other forest products from sustainable sources;
- The Netherlands will promote the use of sustainably produced wood at home.

It is significant that the forest policy in these items is explicitly linked to poverty reduction and that in none of these programme items tropical rainforests figure as a separate subject.

3.3 Organisation and implementation

The RTR is a common responsibility of the ministries of Agriculture, Foreign Affairs, Environment, Economic Affairs and Transport and Water Management. With respect to the contents the Ministry of Agriculture, Nature Conservation and Food Quality has the lead. The Ministry of Foreign Affairs, i.c. the Minister for Development Cooperation, is the main responsible for the ODA part of the RTR. As the RTR has three dimensions, i.e. domestic, international/multilateral and development cooperation, which contain overlapping responsibilities, the implementation of the RTR demands interdepartmental consultations and a clear division of roles.

3.3.1 Consultative structure

Different consultative structures under different names have existed in the past fifteen years, their existence being justified by the policy subjects at hand. Presently the most active consultative structure is occupied with the EU-initiative FLEGT, i.e. Forest Law Enforcement, Governance and Trade. In addition to the aforementioned ministries also Customs, the Internal Revenue Service and the Justice Department participate in these consultations.

However, the interdepartmental consultations do not comprise the decision making process on the financing of development cooperation interventions within the framework of the RTR. These decisions are mainly taken within the Ministry of Foreign Affairs and the Netherlands embassies.

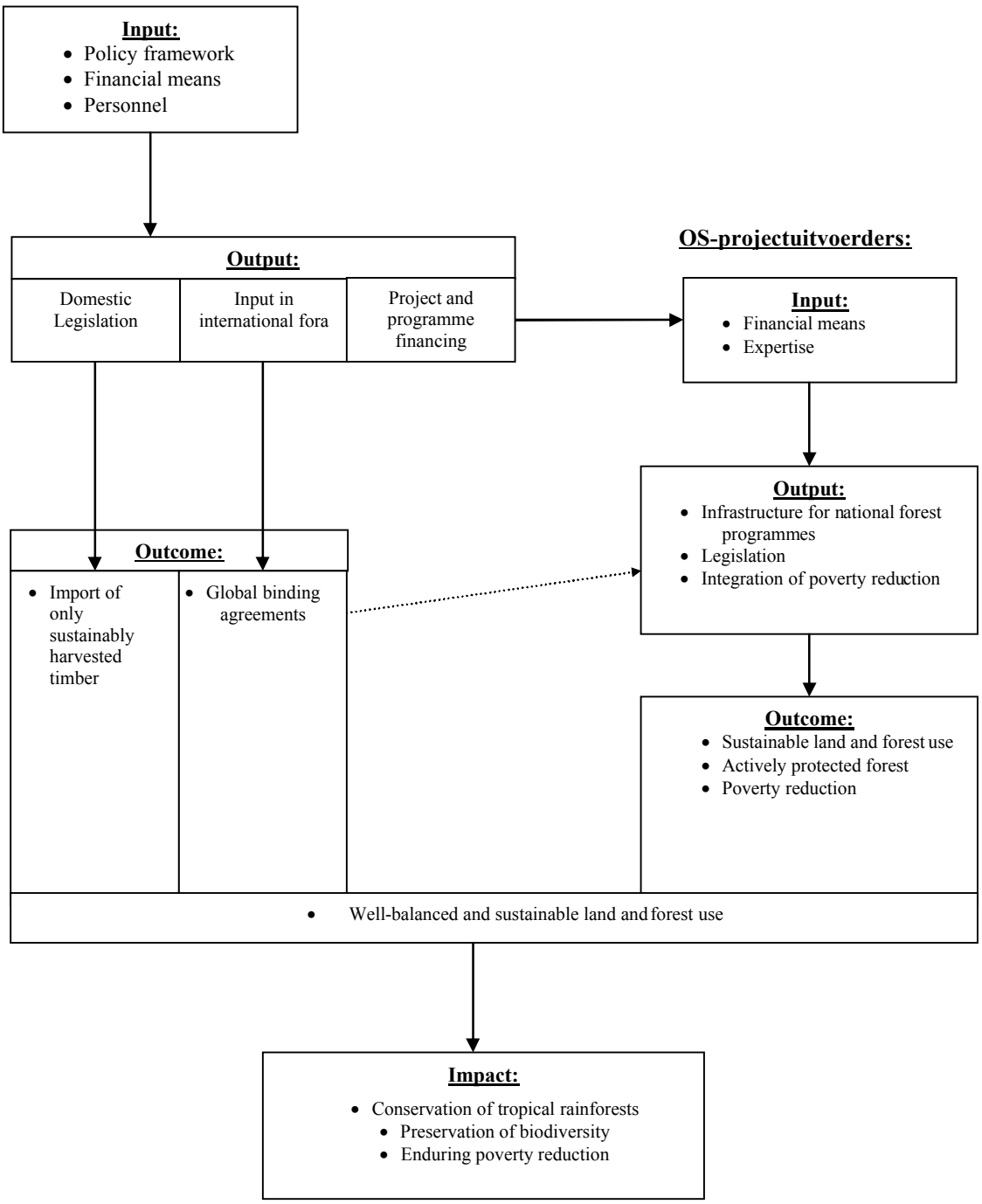
3.3.2 Division of roles

The description of the division of roles is bases on interviews with concerned civil servants and institutions.

Domestic policy
The domestic RTR-policy is a consequence of the international ambition of the Netherlands to promote sustainable forest management and to end as soon as

Figure 1: Reconstruction policy theory Dutch Government's Policy on Tropical Rainforests

Involved ministries:
Agriculture, Foreign Affairs, Environment, Economic Affairs, Transport and Water Management



possible the harvesting of virgin forests, and thereby ensuring a long-term future for the production and export of tropical hardwood.

In 1994 a private member's bill was put before Parliament on the promotion of the import of sustainable produced timber by means of certification. In 2002 the Senate agreed that the proposed bill should be amended, as the European Commission had objected against the proposal in its present form. In 2005 the amended proposal was put before Parliament and has not been discussed yet.

Meanwhile an assessment directive for certification is in the making which might be approved by Parliament before the proposed bill. If that will be the case, than the bill will be withdrawn.

Multilateral/International
The Ministry of Agriculture, Nature Conservation and Food Quality is responsible for the contents of the RTR and reports to Parliament on the progress. In this role it also is delegation leader to international conferences (UNEP, UNFF, FAO, ITTO, IFAD) on subjects covered by the RTR.

Development cooperation
As mentioned before the bulk of the ODA funds for the RTR, i.c. € 68 million/year, are within the Foreign Affairs budget. Therefore FA reports to Parliament on the expenditure of these funds. From 1997 onwards the administration of a larger part of these ODA funds has been delegated to the Netherlands embassies in developing countries.

Other ministries do not seem to have a significant say in the expenditure of ODA funds for the RTR. Only the Ministry of Agriculture, Nature Conservation and Food Quality has a separate allocation of € 2,5 million/year, for which it can submit proposals to FA for financing.

Dutch funding of bilateral projects within the framework of the RTR is limited to those developing countries which have been selected for support in the environmental sector. This selection has been revised a couple of times in the past fifteen years. In 1999 the sector-wide approach was introduced in Dutch development cooperation which changed the way of decision making for all bilateral funding.

3.4 Expenditure of ODA

As stated before there is a yearly commitment of € 68 million within the framework of the RTR, of which at least one third (€ 23 million) on tropical rainforests.
This commitment is not linked to one budget line, but spread over several. Also budgets of individual projects can be partly attributed to the RTR in general and/or to tropical rainforest in particular . To check if the commitment has been fulfilled every year a registration system has been set up to calculate the expenditure on forests in general and on tropical rainforests in particular. The description,

dimensions and CRS-codes of every activity is checked for possible attribution to the RTR. For example: for the year 2004 4200 activities have been checked on possible attribution. A first sifting produced 382 activities in roughly fifty countries. Of these 382 activities 76 could be attributed for 100 % to the RTR and these 76 accounted for 71 % of the expenditure. The other 306 could be partly attributed and this could mean for 5 % or 75 % or any percentage in between.

NB. This registration system does not take into account the activities implemented by the so-called co-financing organisations. These are Dutch NGO's who are active in development cooperation. They receive private contributions, but also roughly halve a billion Euro from the Netherlands ODA-budget. With these funds projects in health and education, but also in environment, including (rain)forests, are implemented. This implies that an unknown, but maybe considerable amount of Dutch ODA is spend on (rain)forests in addition to the above mentioned budget.

3.4.1 Tropical rainforests

In the years 2002, 2003 and 2004 € 48 million, € 33,2 million and € 36,6 million has been spent respectively on tropical rainforests.

The greater part has been spent on projects and programmes in Latin America (on average € 15 million/year). The contributions to worldwide programme's come in second and amount to € 10 million/year. The RTR expenditure in Asia has declined from € 10 million in 2002 to € 5 million in 2004. That is still higher than the € 4 million which has been spent in on projects in Sub-Sahara Africa.

3.5 Scope of the evaluation

Not only is the RTR addressing problems of a complex nature, the way in which it is implemented also has its complexity. It involves five ministries, it knows many instruments, like international consultations, Dutch legislation, many subsidies and funding of hundreds of projects, and it has ambitious local and global objectives. Therefore, as regard content and for practical reasons choices had to be made for this evaluation.

As mentioned before three arena's of implementation of the RTR can be distinguished: domestic, international/multilateral and in the framework of development cooperation.

As the last arena involves the bulk of the RTR-funds and as accountability is one of the two main reasons for this evaluation, learning lessons being the other, the evaluation of the ODA expenditure is an obvious choice. The fact that the last evaluation was six years ago and that this expenditure is the responsibility of one instead of five ministries, makes it even more attractive.

The two other arena's are characterized by the involvement of many players and few tangible means and actions. Anyway, if international treaties are expected to

realize tangible objectives, then this realisation will in most cases be financed with ODA funds as tropical rainforests are mainly found in ODA eligible countries.

For these reasons the choice was made to limit this evaluation to the expenditure of ODA funds within the framework of the RTR. This still meant a quite large geographical scope (over fifty countries) . By limiting the evaluation to only those expenditures for tropical rainforest activities the geographical scope was brought down to roughly twenty countries.

Not only the hoped for beneficial impact on tropical rainforests will be examined, also the effect on poverty will be within the scope of this evaluation, as all the funds are ODA. The RTR policy paper emphasises the necessity of the participation of the local population to make conservation efforts and sustainable management of forests a long-term success. The Policy programme Biodiversity International 2002-2006 states the objective to integrate forest programmes in poverty reduction strategies without specifying how this can come about. Measurement of the actual outcome and impact on poverty reduction through rainforest activities will have to be limited to analysing already available relevant research, decentralized evaluation reports and impact studies.
From interviews with Dutch stakeholders it appeared that there was a particular interest to learn from this evaluation about the effectiveness of the capacity building within the framework of the RTR.

4 Design of the evaluation

4.1 Objectives

The overall objective of the evaluation is to get an understanding of the relevance, efficiency and effectiveness of the ODA inputs for the conservation of the tropical rainforest. The coordination and coherence of these inputs with the efforts in the international/multilateral and domestic arena will also looked in to.

An analysis of the RTR will also be part of this evaluation in order to obtain an understanding of the considerations which led to the formulation of the RTR.

4.2 Central questions

The description and analysis of the RTR will cover the whole policy, including the ambitions on international/multilateral and domestic level, and supplemented with the policy items laid down in the Policy Programme Biodiversity International 2002-2006. These ambitions and intentions will be looked at against the background of the efforts of the international community to protect and/or sustainably manage forests.

In the description and analysis of the RTR Attention will be paid to the following questions:

- How is the intended coordination and coherence of the implementation of the RTR pursued?
- How is the RTR linked to the policy of the international community on forests in general and tropical rainforests in particular?

In figure 1 on page 8 input, output, outcome and impact are schematically represented. This evaluation is focussed on assessing if and how the inputs have contributed to the conservation of the tropical rainforest and its biodiversity and to poverty reduction.

National forest programmes (nfp) are the basis for Dutch development cooperation on forest issues. Nfp is a generic term for a broad range of approaches to policy, planning and implementation in which integration with poverty reduction is a main consideration. Therefore, questions on the relevance and effectiveness should be linked to nfp's as the basis of the policy.

5. What was the relevance of the RTR and the activities which were financed within its framework?
    - How did the objectives of the RTR address the problems in the receiving countries?
    - Are the RTR and its projects coherent with the policies of the receiving countries, i.c. the nfp's, and how?

6. How effective have the RTR-inputs been for the conservation of the tropical rainforest?
    - To what extent has the RTR contributed by means of developing and implementing nfp's towards sustainable land and forest use and active protection of tropical rainforests?
    - Has the status of tropical rainforests in the receiving countries been monitored in the receiving countries in general and in the project areas in particular and, if so, what can be concluded in respect to the conservation of the tropical rainforest, the preservation of its biodiversity and the contribution the RTR has made to these developments?

7. What can be said about the efficiency of the RTR-inputs for the conservation of the tropical rainforest?
    - What role has efficiency played in the decision making process on the inputs?
    - What can be said about the efficiency of the projects in relation to costs versus output and the timeliness of the deliverance of the planned output?

8. What was the role of poverty reduction in the RTR and its implementation?

- To what extent was poverty reduction integrated in the nfp's supported by RTR-inputs?
- What role did social economic dimensions play in the design and the monitoring of RTR-projects?
- How have nfp's been integrated in poverty reduction strategies, for instance PRSP's?
- Did nfp's have an impact on social economic developments and, if so, in what way?

4.3 Delimitation of the evaluation

4.3.1 Research period

The research will be limited to the period 1999-2005, taking into consideration financial contributions approved since 1st of January, 1999. The total number of activities financed over this period is 387 with a financial volume of € 144.873.649. If the financial contributions are limited to those activities of which at least 5% can be allocated to the RTR, 199 activities with a total amount of € 113.873.863, are concerned.

4.3.2 Geographical delimitation

Given that the evaluation is aimed at the tropical rainforest, the key areas are the Amazon, the Congo basin and S.E. Asia. Almost all projects which are aimed for at least 50% at the tropical rainforest, are situated in these three regions, in a total of 20 countries.

Detailed studies will be undertaken in a sample of countries in order to evaluate efficiency, efficacy and policy relevance. The selection is based on geographical location of the countries in key rainforest areas, with particular attention to the level of RTR expenditure. Furthermore, the choice is based on concentration countries of Dutch development assistance, so that recommendations may contribute to future assistance. The selection does not take into account the share of worldwide programmes which contribute to RTR objectives, given that these contributions cannot often be identified with particular countries.

The above mentioned selection criteria have lead to the following choice of countries:

- Colombia (€ 19,8 million)
- Ghana (€ 1,9 million)
- Vietnam (€ 6,0 million)

Through this sample, 24% of the RTR expenditure over the period 1999-2005 will be studied in detail. Together with the worldwide programmes (€ 24 million) which will included in the research, 45% of the overall financial contribution over

the period will be analysed, which is considered sufficient for an appreciation of efficiency, efficacy and relevancy.

In these three countries, 73 activities or projects which contribute to the RTR have been executed. Among these projects, 46 meet the criteria of inclusion in the research (at least 50% contribution to the RTR). It is felt that projects which contribute to the RTR objectives for less than 50% should be excluded from the research given that it will be difficult to estimate their outcome and impact in RTR terms.

4.4 Research methods and resources

The evaluation will consist of:

1. A description an analysis of the RTR policy, together with the forest section of the International Biodiversity Policy (BBI);
2. Identification and appreciation of the efficiency, efficacy and relevancy of the ODA with respect to the tropical rainforest part of the RTR/BBI.

The first part mentioned here will be done through a desk study and through interviews of resource persons in the ministries concerned, the international agencies, the NGO's and the research institutions.

The second part of the evaluation aims at a description and appreciation of inputs, outputs, outcomes and, to the extent possible, impacts. An evaluation matrix has been prepared which provided indicators and relationships for each level of the evaluation. The conceptual framework is based on the OECD/DAC 2002 "Glossary of key terms in evaluation and results based management".

4.5 Design

A description of the country specific context will be prepared in order to understand inputs and outputs, and also to appreciate the role of external factors which may have influenced outcome and impact. This description will be aimed at the overall development in the sample country with respect to the tropical rainforest. The extent and the nature of the forest as well as tendencies will be included in the description, along with national institutions, policies and infrastructure important to the rainforest. The way in which sustainable management evolves through certification and protection, and changes in biodiversity will be incorporated. This description will be limited by the availability of information.

The possible synergy between the activities of bilateral projects and worldwide programmes will then be analysed for these countries. The consistency between activities financed by the Netherlands and national strategies will be analysed, but also between strategies of the Netherlands and those of other major financial

partners. At this level, the following questions will be asked through interviews in the Netherlands and in the countries concerned:

- Has there been debate and cooperation in matters of forest policies and programmes involving all key stakeholders ? (national institutions, Dutch embassy, other partners)
- Has there been debate and cooperation between bilateral and multilateral partners with respect to the national (rain) forest policy ? How did this influence donor policy on matters of tropical rainforest ?
- What are the relations or interactions between bilateral activities and those financed through worldwide programmes ?

The following questions will be important for analysis of design and execution of projects:

- Did the outputs contribute to the development and execution of national forest programmes ?
- Have socio-economic considerations been taken into account in the project design ?
- How has monitoring been undertaken ?
- How have project and programmes been executed, in relation to design ?

Given the RTR and BBI policies and the existing data base, it appears that Dutch funded activities aimed at the tropical rainforest have primarily used the following strategies:

- Capacity development
- Research
- Technical assistance
- Training and education
- Participation

4.5.1 Inputs

A desk study will be undertaken in order to determine inputs and outputs of the approximately 50 projects in the three sample countries, and of the components of worldwide programmes which contribute significantly to the RTR objectives. The Proforis data base will be the starting point for the characterisation of activities, especially so in terms of the 9 above mentioned policy elements of the RTR. The data base will be extended to include information about availability of external project evaluations and other valuable date for the RTR evaluation.

Activities will be clustered around core projects which account for the large majority of funds, given that activities such as 'project formulation' or 'review' may be counted as separate activities in the selection of 77 projects. This will help to select a limited number of projects (and programmes) for detailed documents analysis and finally, for field research. The Ministry's internal decision making notes (Bemo's) provide most of the information at the first stage, followed by project documents and external reviews at a later stage.

4.5.2 Output

Selected projects and programmes will be analysed on the basis of project documents and external reviews in order to measure outputs. While documents are available in the Netherlands with respect to worldwide programmes, they are only available in the Three selected countries for projects and programmes which are administered by the embassies. An important part of this work will therefore be done in the countries.

4.5.3 Appreciation of outcome

The expected outcomes include sustainable forest utilisation, conservation of high value forests and poverty reduction. It is expected by the RTR that an effective national forest policy respects these three objectives.

Based on the established outputs, outcomes and their viability in the three sample countries will be evaluated through the following questions:

- How has capacity development been used ? (tools: publication and appreciation of research capacity, training by trainers, professional profile of those who have benefited from training, appreciation by directors, clients and users, etc.)
- How has forest planning been reinforced ? (tools: participation by local and higher level stakeholders, and their appreciation of the planning process, participation of key decision making institutions, incorporation of national forest plans in higher level national planning tools, share of external financial contributions which fit in the national plans, etc.)
- How have the legal and tax frameworks improved (tools: participation and other qualities in the reform processes, general knowledge of new laws and regulations, efficacy of fiscal tools, etc.)
- How have activities contributed to poverty reduction ? (tools: poverty reduction nature or scope of research and training activities, effective participation by all relevant stakeholders in planning and monitoring, etc.).
- How has technical assistance contributed to these themes ?

The key evaluation activities are data analysis, document analysis, interviews and stakeholder meetings. Annex I presents a detailed matrix of research questions and tools which address the indicators.

4.5.4 Measuring and assessing of impact

The appreciation of outcomes will help to evaluate the impact of the RTR activities undertaken bilaterally or through worldwide programmes. To the extent that information is available, the evolution of the tropical rainforest in quantitative and qualitative terms, over the period 1999-2005, will be described. The degree of poverty reduction may be described and analysed for certain areas and certain

periods. To the extent possible, the relationship between ODA in and around specific tropical rainforest zones, and the forest conservation and sustainable use as well as poverty reduction, will be established. The following questions will be of particular importance:

- Has the tropical rainforest been conserved, or is degradation reduced, and is forest utilisation sustainable ? (tools: national inventories, other forest statistics, GIS information, existing comparative studies with/without ODA, local cartographic/GIS evidence, impact studies, corruption statistics and studies, statistics on trade and certification, etc.)
- Has poverty been reduced in the context of RTR activities ? (tools: impact studies, PRSP monitoring reports, comparative studies).

See annex I for more detailed information.

4.6 Organisation of the evaluation

The evaluation will be executed under responsibility of Jan van Raamsdonk, IOB inspector. He will carry out the evaluation together with Marjol van den Linden, research assistant, and the principal consultant, Paul Kerkhof. National consultants will be identified for research in each of the three sample countries, and they will carry out research before and during the major phase of field work.

The description and analysis of the RTR and preparation of the synthesis report will be done by the IOB inspector. The consultant will prepare a research plan at the start of the assignment. The desk study of projects in the three selected countries and of the contributions of worldwide programmes will be done by the consultant. Two of the country studies will be carried out by the consultant (Vietnam and Colombia) and the third study (Ghana) will be carried out by the IOB team. Vietnam will be the first field study, followed by Ghana and Colombia. The results of the first field study may lead to some methodological adjustment for the subsequent studies.

Two inspectors of the IOB will contribute throughout the evaluation process. A reference group has been established which will review and contribute to the evaluation at various stages. This group consists of representatives of key ministries, research institutions and NGO's in the Netherlands.

4.7 Reporting

The following reports will be produced during the evaluation process:

- A literature study
- A detailed research plan and programme
- A mid-term report which describes and analyses the RTR policy
- Three case study reports, one each of the selected countries
- A mid-term report on the contribution of worldwide programmes
- Concept of the final report

4.8 Planning of activities

Recruitment of the principal consultant	October 2006
Literature study	October-November 2006
Description and analysis of the RTR	November 2006
Desk study	November-December 2006
Field research Vietnam	December 2006
Field research Ghana	January 2007
Field research Colombia	February 2007
Concept final report	March-April 2007
Final report	May 2007
Report printed	June 2007

I MATRIX OF RESEARCH QUESTIONS FOR THE RTR EVALUATION

Research question	Indicator	Methods, sources	Explanatory notes
Output			
1.Which institutional development: planners, researchers, managers, knowledge, law, etc.	1.Number of people whose capacity has been developed, per category	1.1 Available reports	1.1 Available reports" are reports made available to the immediate partners, those (co)financed by the Ministry. These reports will answer an important part of the research questions. The following table presents methods or tools for further information collection.

	1.2.How has new capacity been used	1.2 Available reports and organigrammes (which express reinforcement) 1.3 Publication of research results (in the case of researchers) 1.4 Number of people trained (for trainers) 1.5 Key role in planning processes (planners) 1.6 Professional profile 1.7 Interviews users/clients/directors	1.3 The efficacy of research is related to the nature of the research (is it aimed at or related to RTR objectives ?) and publication, including peer reviewed publication. This can be established for a sample of researchers supported by RTR related funding. 1.4 The nature of training (RTR related) and the number of people trained provides insights in the efficacy of this element of capacity development 1.5 Training of planners may have contributed to an increased profile in planning processes 1.6 This concerns professionals in the TRF which have had long term training (such as PhD students) and who are have been working for some time in the country. A short career description may provide insights in efficacy of the training provided in the RTR context. 1.7 Users may be NGO's or community leaders who have played a role in improved forest planning processes ; private sector field technicians may be clients of training courses provided by trainers whose capacity has been reinforced ; directors may be a useful source of information on the performance of researchers or planners in their organisation. These are examples of how interviews may contribute to better understanding of efficacy.
	1.3 Which research has been carried out	1.3 As in 1.2 and 1.3 above	1.3 As in 1.2 and 1.3 above

	1.4 Number of national forest programmes	1.4.1 Available reports 1.4.2 Number of plans 1.4.3 Participation stakeholders (number, categories) 1.4.4 Participation cross-cutting ministries (decision makers) 1.4.5 Degree in which forest plan have been represented at higher level planning (PRSP, Rural Development Plan, etc.)	1.4.3 Improved planning involves stakeholders and ensures that their concerns are taken into account (*"did they take us seriously ?"*). At the local level, evaluation field research will include stakeholder meetings for the most important groups: indigenous peoples, immigrants, commercial groups, local government, etc. The composition evidently depends on local conditions. Meetings may be organised in which key issues can be presented and debated among groups with, in some cases, opposing interests ('*forum contradictoire*'). This may lead to lively exchanges and useful insights for verification of analysis in available documents. 1.4.4 Sector planning may or may not be done in relative isolation of cross-cutting ministries such as the Ministry of Economy/Finance, Prime Ministers Office, or the Ministry of Development Planning. What is the comprehension and position of those concerned in these ministries, have they participated to some degree in the nfp planning process, do they share the vision ? Document analysis on the quality of the planning process and interviews will contribute to answer this research question. 1.4.5 Analysis of higher level planning papers, particularly those produced since the (first) nfp, provides insights as to how forest planning is incorporated in higher level planning. An improved institutional framework may be an outcome of proper linkages between nfp's and PRSP's.

	1.5 Laws improved, tax laws improved	1.5.1 Available reports 1.5.2 Comparison old/new laws 1.5.3 Quality of law reform process 1.5.4 General knowledge of new laws 1.5.5 Application: legal monitoring, tax collection reports	1.5.2 Existing documents may well provide this sort of information. If not, it will require additional work of the national evaluation consultants. 1.5.3 Is law reform essentially a paper exercise or has it ensured broad participation ? Existing analyses may have to be complemented with interviews in order to understand the nature of the law reform process. 1.5.4 The degree to which new laws are known, can be taken on in the fieldwork. Existing reports may provide sufficient information. 1.5.5 An improved legal and/or fiscal framework which is applied for some time: what are the available statistics on application, sanctions, absolute and relative amounts of tax collected, etc.
2. Integration poverty reduction policies	2. What research, planning, training, participation in matters of socio-economic development	2.1 Available reports 2.2 Analysis of nfp's 2.3 Participation of relevant socio-economic groups 2.4 Share of socio-economic research, training, etc. in the overall project/programme	2.2 Poverty reduction objectives and strategies may be expressed in the nfp's. The priorities for investment which are an outcome of the plan (in an annex or in a separate nfp paper) may allow to appreciate poverty reduction concerns in a quantitative manner. 2.3 Degree to which socio-economic stakeholders (incl. NGO's, CBO's) feel involved and have been involved in TRF initiatives funded by the Netherlands. 2.4 What part of the research, training, etc. funded by the Netherlands is devoted to poverty reduction ? An inventory of reports and publications may contribute to answer this question.

Outcome				
1. Sustainable land and forest utilisation	1. Execution of nfp's (or similar planning tools)	1.1 Available reports 1.2 Number of financial partners 1.3 Level of finance of plans and programmes (99-05) 1.4 Share of the national budget in nfp (99-05) 1.5 Respect of monitoring, and update of plans	1.2 The number of financial partners which contribute to the execution of the nfp as compared to the total number of institutions which finance the TRF. 1.3 The same question, in financial terms. What is the financial contribution to the nfp's (including the national budget) as compared to the overall contribution to the TRF ? 1.4 Contribution of the national budget to the nfp's in absolute and relative terms, and trends over the period 1999-2005. 1.5 Is the nfp a static product, is it dynamic ? Is it monitored by national and local institutions ?	

2. Active protection of high value tropical forest	2. Percentage protected areas	2.1 Available reports 2.2 National land use, park and forest statistics, GIS, cartography 2.3 Local GIS/cartography	2.2 The national statistics are generally available for overall land use, forests and parks, although they may not be up to date. These statistics will be collected (a recent analysis may have been done and provide all the information which is required for the RTR evaluation). The period 1999-2005 is of particular interest. By default, any year between 1991 and 1999 may serve as a base year. It is unlikely that this type of information covers exactly the RTR evaluation period. 2.3 In many projects GPS and cartographic tools have been used over the period 1999-2005 in order to monitor changes in forest and land use. This will contribute to better understand rainforest conservation and sustainable use at the impact level on a local scale (case studies).
3. Poverty reduction	3. Focus on PRSP's, on poverty reduction	3.1 Available reports 3.2 Analysis PRSP's 3.3 PRSP monitoring reports 3.4 Comparative studies 'with/without' financing	3.2 If poverty reduction has been properly incorporated in the nfp's this should be reflected in the PRSP's, which can be verified through document analysis. 3.3 Same, for PRSP monitoring reports: has poverty been reduced in regions of TRF ? How does it compare to poverty reduction in non TRF regions (zones) ? 3.4 Analysis may be available in existing documents, impact analyses, and PRSP monitoring reports may contribute to this kind of analysis (see 3.3, above).

Impact				
1. Conservation and sustainable use of TRF and biodiversity	1. Surface area TRF, diversity of plant and animal species	1.1 Available reports 1.2 Impact studies 1.3 National forest inventories 1.4 Comparative studies 'with/without' financing 1.5 Inventories biodiversity 1.6 GIS information 1.7 Information on corruption (general) 1.8 Information on corruption in forest sector	1.3 As in Outcome 2.2, above 1.4 Forest inventories in comparable areas with/without investment in the TRF may be useful for an assessment at impact level, however, in practice this is rarely done. In areas where several financial partners contribute to similar objectives, the impact of the financial contribution provided by the Netherlands may be expressed as a percentage of the overall input. 1.5 Although they are often available at a very limited scale they will contribute to an appreciation of impact of the RTR related financial contribution. 1.6 See 1.3, 1.4 and 1.5, above. 1.7 Corruption may be a key issue when it comes to impact level. Trends in overall corruption may be traced through existing monitoring systems, e.g. that of Transparency International. Detailed information about corruption in the sector may be obtained from more specific sources e.g. local NGO's. Important events such as conflicts may contribute to understand corruption and the fight against corruption, and they may be included in the evaluation.	

2. Sustainable poverty reduction	2. Sustainable socio-economic development	2.1 Available reports 2.2 Impact studies 2.3 PRSP monitoring reports 2.4 Comparative studies 'with/without' financing	2.3 See Outcome 3.3, along with macro-economic statistics and specific statistics of the TRF sector and timber trade. 2.4 See Outcome 3.4 above

Annex 2 Characteristics of forest types in the high forest zone of Ghana

(*Source*: EPA, 2005)

Forest Type	Characteristics
Wet evergreen (WE)	Restricted to the highest rainfall zones, exceeding 1700–2000 mm in places. Trees are vertically compressed and rarely exceed 40 m.
Moist evergreen (ME)	Floral diversity up to 170 species. Tallest trees about 43 m. Poor soils and some steep hills.
Moist semi-deciduous (MS)	Height of trees exceeds 50 m. Annual rainfall between 1200 and 1800 mm.
Upland evergreen (UE)	Occurs on isolated ridges at elevation of 500–750 m. Trees similar in height to those in the MS. Deciduous canopy trees are rare. Ancient bauxitic soils.
Dry semi-deciduous (DS)	Widespread in West Africa. Continuous canopy but lower height than in the MS ecozone. Annual rainfall between 1250 and 1500 mm.
Southern marginal (SM)	This type falls within the coastal thicket/scrub vegetation. Vertical structure fairly well developed with trees exceeding 35 m in height. Annual rainfall between 1000 and 1250 mm.

Annex 3 Historical overview of Ghana's forestry sector

(*Source*: World Bank *et al.,* 2006)

Year	Regime	Policy / Theme	Catalogue of events / outcomes
1830	Colonial Administration	Introduction of cocoa into forest zone of southern Ghana	
1880s	Colonial Administration	First colonial treatise on forestry[25]	• Response to evidence during 1880s from Ghana and other colonies of degradation of resource base • Call for conservation and protection of forests
1890s	Colonial Administration	Attempts to create Crown Lands for Forestry: • 1894 Lands Bill • Governor Maxwell drafts a new Bill (1895) • Lands Bill of 1897	• Resistance from chiefs, and the Gold Coast Aborigines' Rights Protection Society • Forced acquisition of land by the state seen as untenable
1900s			• High forest zone seen as not sustainable • Establishment of the Forestry Department (1909) • Timber trade regulated • Formalised native authority of paramount chieftaincy and traditional council.
1910s – 1920s		Forest Ordinance Law, 1927 (Cap. 157) [still in force]	• Cap 157 enabled the constitutions and (compulsory) constitution of forest reserves • Vested in central government the power to constitute and manage the reserves.
1930s		1939 Concession Ordinance Law	• Colonial foresters introduced a system of timber harvesting rights and revenues • Establishment of an extensive system of forest reserves covering almost 21% of the country.
1940s		Gold Coast Forest & Wildlife Policy	• Export markets for timber established • The conservation and management of permanent forest estate • Liquidation of off-reserve forest
1950s	Nkrumah	Protected Timber Lands Act - Local Government Ordinance	• Postwar boom • Election of local council system introduced • Decline in informal influence of traditional authority
1960s 1966-69	K.A Busiah (Progress Party) Afrifa	Administration of Lands Act, Concession Act, Forest Improvement Act -	• Economic stagnation • Forest Improvement Fund (FIF) created • Vested in central government the management of stool lands, collection of revenues and the right to grant timber concessions.
1970s 1969-72 1972-79	Military Regime K. A. Busiah Gen. Acheampong Gen. Akuffo J.J. Rawlings	Trees and Timber Decree, Forest Protection Decree	• Economic stagnation • Prohibition of any activity in the forest without the consent of the Forestry Department.

[25] Moloney (1887) *Sketch of the Forestry of West Africa*

1980s 1980–81 1982–91	Dr Liman (Peoples National Party) J. J.Rawlings (PNDC) Minister (J.G.A. Renner, 1982-86)	Control of Bushfires Law, 1983 (PNDCL) – criminalises negligent or reckless starting of fires DFID (ODA) funded Forest Resource Management Project (FRMP) FD authorised to manage off-reserve forests, and collect revenues from the resource (previously these were collected by the Lands Commission)	• Drought and major bushfires throughout West Africa in 1983 destroy thousands of hectares of forest in transition zone; cocoa yields are halved • Export Rehabilitation Project (ERP) • Soft loans given to industry to aid in recovery • Huge investments in plants and machinery, but majority older machinery • Attempts to control bushfires first by criminalising offenders and more lately through the regulation and organisation of early burns by district assemblies.
1985–90	Minister (George Adamu, 1986-87)		• Industry back on its feet • Log exporters tripled • Discretionary allocation of concessions on loose terms
1991	Ministers Peprah (1991) Danso (1992) Amankwa (1993)		• Peak logging period, a lot of it illegal
1992		• 1992 constitution sets out revenue sharing arrangements (art. 267); Parliamentary approval of natural resource concessions (art. 268) and created natural resources commissions (art. 269). • Management of off-reserve forests transferred to FD; replacing unclear arrangements between communities, OASL, FD	• Resulted in lack of funds for forest rehabilitation • Timber industry no longer needed to negotiate with communities re access to off-reserve forests. This lead to an acceleration in exploitation of the forests.
1993	MLF CTA – Kofi Smith appointed		• The FIA was no longer drafted, so that the FD continued to rely solely on foreign aid • FC established (original)
1994	Minister Kwabena Adjei	• Forest & Wildlife Policy, which aimed to dismantle the old political economy and replace it with a new legislative framework • Trees and Timber Amendment Act (493) , introduces 6 monthly issuance of property marks and levies on exports of logs	• Introduction of present policy on forest and wildlife • biannual renewal of property marks. • Deloitte report on institutional reform (to create a forest service agency for the FD) • illegal logging went into overdrive • FD starved of revenue • timber trade regulated through permits and levies
1995	Johnney Francois retires as CCF	• Interim Measures to Control Illegal Timber Harvesting Outside Forest Reserves • Deloitte & Touche report on creating a Forest Service able to retain funds	• 'Interim measures' introduced (date) and widely seen as a success • Suspension of export of round logs • Massive reduction of illegal logging (paramilitary task force of FD and police) • More value added processing of logs • Steep increase in revenue • System of regulating off-reserve logging (including farmer right of veto and compensation for crop damage

			• Proposed content for a new forest Act tabled
1996	Minister Kwabena Adjei		• Forestry Development Master Plan was established, outlining strategies, programmes and scheduling for implementing forest and wildlife policy • Document on contents of proposed new consolidated law prepared – based on discussions • Proposals for private participation in plantations flounder (CDC withdraws) • Forest Sector Development Project phase 1 (FSDP I) started (created Forest Service) • Development in forest conservation • Annual allowable cut (AAC) set at 1 million m^3
1997	Minster Cletus Avoka	Timber Resource Management Act (TRMA) 1997, ACT 547	• Introduces Timber Utilisation Rights / SRAs • Govt puts the 'cream' into packages of timber utilisation contracts (TUCs) to be allocated by auction • Competitive 'procedures' study thwarted by industry lobby • TRMA, together with LI 1649, did away with 'interim procedures' – the expectation that the procedures would be reflected in the new law did not happen.
1998	Minster Christiana Amoako Nuamah Kofi Smith leaves	Timber Resources Management Regulations, 1998 L.I.1649	• Directors for new Forest Service recruited through an open competitive process • Forest management manuals developed for TUCs • Plans for forest services meet challenge vs. constitutional role of the FC • 'reform overload'
1999	CCF FD Kofi Nksenkyre appointed head of the FC	Natural Resource Management Programme (NRMP) for sustainable management of resources The Forestry Commission Act, 1999 Act 571	• Plans for forest services meet challenge vs. constitutional role of the Forestry Commission • 'reform overload' • Established new integrated FC as a corporate body • Sun Systems accounting introduced and embodied into the Forest Services Dept (FSD) • Ban on chainsaw logging introduced • 2000 FC staff made redundant and retraining provided
2000	NDC/NPP Kwaku Afriyie Sam Appiah appointed CE of FC		• FSDP II starts • 2001 wood export ban study commences; undertakes scenarios • FC structure review • Challenge to formation of a unified FC by Wildlife Division and environmental NGOs. Reform plans changed.

2001	Minster Kassim Kassanga FC CE removed from office and acting replacement Executive Director WLD Nic Ankudey		• Wood industry study results and outline of policy reforms – recommends a 'soft landing' scenario • Imposition of export duty on timber exports (National Reconstruction Export Levy) • Pursuit of revenue objective by GoG • Policy and institutions reform debate set as agenda under the NRMP • Efforts to harmonise donor support to sector increased when it is discovered that 4 pilot collaborative forestry programmes (6 pilots each) are being run due to different donor requirements
2002	ASK Boachie Dapaah appointed FC CE	TRMA Amendment Act 2002, Act 617	• Forest Policy Advisory Committee reviewed • Enforcement of competitive bidding • FC publishes its service charter • FC publishes first disbursement report (SRA/royalties)
2003	Minster Dominic Fobih	Timber Resources Management (Amendment) Regulations, 2003 L.I. 1721 - for competitive bidding for TUCs Africa Forest Law & Governance (AFLEG) Ministerial Declaration (13-16 Oct 2003)	• competitive bidding system started (pilot plantation auction) • 1st competitive bidding for plantation timber (21 March 2003) • Forest forums piloted • MLF directly manages HIPC plantations programme (distorting effect on FC-managed programmes)
2004		Phase 1 Forest Fiscal Reform initiative - rationalisation of forest tax system	• MLF run cancellation of NREL • all export duties in the timber industry • 1st competitive bidding for high forest (30 April 2004) • FC produces first set of audited, consolidated accounts • Validation of Legal Timber Programme (VLTP) starts – contract signed with SGS.
2005	Boachie-Daapah retires as CE of FC John Ottoo appointed Acting CE		• Cancellation of NREL • All export duties in the timber industry • FC Board term of office ends (Sept 2005) but continues. • FSDP II main works ends with extension of support for a) Parliamentary sub-committee, and b) final work in MoFEP • Wildlife Division launches tender for forest sector investment in Mole, Kakum (May 2005) • FC transfers responsibility for CRNR (the Sunyani Forest School) to KNUST • PFM project established under DFID financial aid to support roll-out of a decentralised FMIS (Adum)
2006	Noble Biney appointed as Finance Director by Board		• FC board continues in office (long delay in approving new board) • FC Board challenges decisions of MoFEP and MLFM on amendment to export levy • AG rules that the levy is legal

Annex 4 Places visited and people interviewed

Itinerary	Activity and people interviewed
18 February, Sunday	• Arrival – Jan van Raamsdonk (JVR) and Marjol van der Linden (LMV) from the Netherlands. Airport reception by the Netherlands Embassy • Travel F.K. Odoom (FKO) from Takoradi to Accra *Night in Accra*
19 February, Monday	• Introductory meeting at the ***Netherlands Embassy***: o Wilma van Esch, Environment Advisor o Jan van Raamsdonk o Marjol van der Linden o F.K. Odoom • Visit to the ***Wildlife Division*** o Alex N. Akoviah (Ag. Director) o Nana Edu-Nsiah (Project Coordinator) o Moses Sam, Regional Officer, Takoradi • Visit to the ***VLTP office*** o Dr Marc Parren o Chris Beeko • Visit to ***FAO*** Regional Office for Africa o Michel Laverdiere, Regional Forestry Officer o Lonneke Bakker, APO *Night in Accra*
20 February, Tuesday	• Visit to ***Forestry Commission*** HQ o Oppon Sasu, Team Leader – Forestry Projects • Visit to ***SNV*** office o Peter de Haan, Country Director • Meeting with Michel Bierkens, Deputy Ambassador, head of Development Cooperation, Head of Economic Division • Visit to ***UNDP-GEF*** office o George B. Ortsin, National Prog. Coordinator *Night in Accra*
21 February, Wednesday	• Travel by road: Accra to Nkwanta (***Kyabobo National Park***) o Luri Kanton Bahia, Park Manager o Hon. J.B.Y Denteh, District Chief Executive o Chief of Nkwanta • Travel by road: Nkwanta to Hohoe *Night in Hohoe (Evergreen Guest House)*
22 February, Thursday	• Travel by road: Hohoe to Kumasi via Koforidua *Night in Kumasi (Royal Basin Hotel)*
23 February, Friday	• Visit Rural Development Youth Association (***RUDEYA***) o Kofi Kyeremanten o Stanley Kweku Manu, Ag. Project Coordinator o Alex Owusu Asare, Snr. Forestry Officer • Visit Forestry Research Institute of Ghana (***FORIG***) o Dr Ernest Foli, Head Plantation Production Division o Dr Dominic Blay, Head Natural Forest Man. Division o Dr Joseph Ofori, Ag. Director • Visit ***Tropenbos-Ghana*** Office

Itinerary	**Activity and people interviewed**
	○ K.S. Nketiah, Team Leader ○ Dr Kyere Boateng, Scientific Coordinator ○ Dr Ernest Foli, FORIG ○ Night in Kumasi (Royal Basin Hotel)
24 February, Saturday	• Visit to ***Subi Fetish Grove***, Edwumakase Kese (near Kumasi) ○ Alex Owusu Asare, RUDEYA ○ Kofi Brobbey, Farmer ○ Yaw Annor, Farmer, Management Com. Member ○ Osei Asibey, Farmer ○ Yaw Boakye, Farmer, Management Com. Member ○ Kwabena Poku, Farmer ○ Adwoa Donkor, Farmer • Travel by road: Kumasi-Buoyem-Kumasi • Visit ***Buoyem Sacred Grove*** Committee ○ Okumafo Dwamena Akenten IV, Paramount Chief, Buuoyem Traditional Area ○ Nana Yeboah Esuama, Chairman ○ Maggie Akodaa, Committee Member ○ Nana S.Y. Ampomah, Secretary ○ Paul Ofori, Tour Guide, Comm. Member ○ Nana Adjei Ameyaw, Tour Guide Comm. Member ○ Night in Kumasi (Royal Basin Hotel)
25 February, Sunday	• Literature review
26 February, Monday	• Visit to Resource Management Support Centre ***(RMSC)*** ○ Oheneba A. Agyeman, Director ○ Edward Obiaw, Manager – Wildfire Project ○ Richard K. Ninnori, Asst. manager – Wildfire Project ○ Kees de Groot, Management Advisor ○ Affum Baffoe, Head – Mensuration and Inventory Unit ○ Mercu Owusu-Ansah, Head-Community Resource Man. Unit ○ Francis Agurgo – Head – Remote Sensing Unit • Visit to ***NUFFIC NPT Project Committee***, Kwame Nkrumah University of Science and Technology (KNUST) ○ Prof. S.A. Osei, Provost, Faculty of Renewable Natural Resources, Chairman ○ Dr S.E. Edusah, Coordinator ○ Yaw Amo Sarpong, Research Fellow, BIRD ○ Ernestina F. Andoh, Research Fellow, BIRD ○ K.S. Nketiah, Tropenbos-Ghana ○ Ebenezer Attah, Research Assistant, BIRD ○ Philip Preprah-Yeboah, Research Assistant, BIRD, National Service ○ Eunice Adjabeng, technical assistant, NPT Project ○ Night in Kumasi (Royal Basin hotel)
27 February, Tuesday	• Travel by road: Kumasi to Accra • Visit to the ***Netherlands Embassy*** ○ Wilma van Esch *Night in Accra*

Itinerary	**Activity and people interviewed**
28 February, Wednesday	• Visit to Green Earth Organisation offices o Goerge Ahadzie, Executive Director • Visit Ministry of Lands, Forestry and Mines (***MLFM***) o Fredua Agyeman, Technical Director (Forestry) o Joseph Osiakwan, Planning Officer • Visit to Environmental Protection Agency (***EPA***) o J.A. Allotey, Executive Director • Report-writing (Netherlands Embassy) *Night in Accra*
1 March, Thursday	• Literature review • Report writing
2 March, Friday	• Debriefing meeting, the Netherlands Embassy o Michel Bierkens, Deputy Ambassador o Wilma van Esch, Environment Advisor o Jan van Raamsdonk o Marjol van der Linden o Peter de Haan, SNV Country Director o F.K. Odoom o Samual Amoako-Mensah, Water & Sanitation Programme Officer • Wrap-up meeting and departure of consultants