# An assessment of the conservation status, management and regulation of the trade in *Pericopsis elata*

# By

# Barney Dickson, Paul Mathew, Simon Mickleburgh, Sara Oldfield, Daniel Pouakouyou & Jamison Suter

# February 2005

(To be cited as: Dickson, B., Mathew, P., Mickleburgh, S., Oldfield, S., Pouakouyou, D. & Suter, J. (2005). *An assessment of the conservation status, management and regulation of the trade in* Pericopsis elata. Fauna & Flora International, Cambridge, UK)



Fauna & Flora International Great Eastern House Tenison Road Cambridge CB1 2TT UK Tel. +44 1223 571000 Fax +44 1223 461481 Email: barney.dickson@fauna-flora.org

# Contents

Acronyms and abbreviations	3
Introduction	5
Cameroon	9
Congo	20
Democratic Republic of the Congo	37
Implementation by importing states in the European Union	50
Conclusions and recommendations	52
Bibliography	59
Appendix 1	63



This project received funding from the European Community

The sole responsibility for the contents of this report lies with the authors and the European Commission is not responsible for any use that may be made of the information contained herein.

# Acronyms and abbreviations

	Annual Allowable Cut
AAC	Annual Allowable Cut
ANAFOR	Agence National d'Appui au Developpement Forestier (Cameroon)
ATIBT	Association Technique Internationale des Bois Tropicaux
CAR	Central African Republic
CIB	Congolais Industriel de Bois
CITES	Convention on International Trade in Endangered Species of Wild
	Fauna and Flora
CNIAF	Centre National des Inventaires et Aménagements Forestiers et
	Fauniques (Congo)
COMIFAC	Commission des Ministres responsables des Forêts d'Afrique
	Central
DGF	Direction de Gestion Forestière (DRC)
DRC	Democratic Republic of the Congo
DRFC	Direction de Gestion Faunique et de Chasse (DRC)
EU	European Union
FAO	United Nations Food and Agriculture Organisation
FCFA	Franc de la Communauté Financière Africaine
FECBOIS	Comité Professionel Bois de la Fédération des Entreprises du
	Congo
FMU	Forest Management Unit
FOB	Forward On Board
FRCF	Fond de Reconstitution du Capital Forestier (DRC)
GDP	Gross Domestic Product
ICCN	Institut Congolais pour la Conservation de la Nature (DRC)
IJZBC	Institut des Jardins Zoologiques et Botaniques du Congo (DRC)
IMF	International Monetary Fund
ITTO	International Tropical Timber Organisation
IUCN	International Union for the Conservation of Nature (Now known as
	the World Conservation Union)
MAB	Man and the Biosphere programme (UNESCO)
MAV	Maximum Allowable Volume
MECNEF	Ministère de l'Environnement, Conservation de la Nature, Eaux et
	Forêts (DRC)
MED	Minimum Exploitable Diameter
MFEE	Ministry of Forest Economy and the Environment (Congo)
MINEF	Ministère de l'Environnement et des Forêts (Cameroon)
MPEFP	Monitoring Programme for Exploited Forest Products (Congo)
NGO	Non-governmental organisation
NTFP	Non-Timber Forest Product
OCC	Office Congolais de Contrôle (DRC)
OFIDA	L'Office des Douanes et Accises (DRC)
ONADEF	Office National de Développement des Forêts (Cameroon)
SGS	Société Générale de Surveillance
SNPFE	Service Nationale de Produits Forestière Exporté (Congo)
SPIAF	Service Permanent d'Aménagement et d'Inventaires Forestiers
NI 11 11	(DRC)
SRG	Scientific Review Group
TFAP	Tropical Forest Action Plan (Congo)
	ropieur rotost rieton r iun (Congo)

UCBD	Union pour le Commerce des Bois Durs dans l'Union européenne
UCC	Unité Centrale de Contrôle (Cameroon)
UFA	Unité Forestière d'Aménagement
UNESCO	United Nations Educational, Scientific and Cultural Organization
WCS	Wildlife Conservation Society

# Introduction

This report provides an account of the conservation status, management and regulation of the trade in *Pericopsis elata*. This species is a tropical hardwood which is found in the Guinean equatorial forests and the Congo Basin. Commercial exploitation has taken place for over 50 years particularly in West Africa, where stocks are reported to be much reduced. For the past few years the largest exporters have been Cameroon, Congo and the Democratic Republic of the Congo (DRC). The biggest importer is Italy.

*Pericopsis elata* has been the subject of considerable interest and action by international and regional bodies concerned with the conservation status of the species. It is recorded as 'Endangered' in the 2003 IUCN Red List, based on the IUCN Red List Categories and Criteria version 2.3 (IUCN, 1994). The species was included on Appendix II of CITES in 1992. A CITES Review of Significant Trade was undertaken for the species in 2003. The report was presented to the Fourteenth Meeting of the CITES Plants Committee in February 2004, which endorsed a set of recommendations to be presented to Cameroon, Central African Republic (CAR), Congo and DRC. The European Union has suspended imports of *Pericopsis elata* from Cameroon and Congo at different times because it was concerned about the sustainability of the trade. Both suspensions were subsequently lifted.

This report is one of the two main outputs of a project funded by the European Commission. The report offers assessments of the distribution, abundance and conservation status of *Pericopsis elata* in Cameroon, Congo and DRC, together with a review of the implementation of CITES provisions for the species in these countries. It also includes a brief review of the importing procedures with the EU member states. The report offers a number of recommendations for the improved regulation, at national, regional and international levels of the trade in *Pericopsis elata*.

The other main output of the project is a re-evaluation of the IUCN global Red List assessment for the species. That assessment recommends that *Pericopsis elata* be re-classified as 'Vulnerable', which is a category that implies a lower threat status.

In addition to desk-based work, the preparation of this report involved visits by twoperson teams to Cameroon, Congo and DRC. These visits were carried out in September and October 2004 and each lasted for at least 1 week. In all cases the project team met with CITES Authorities, other relevant government agencies, timber companies, NGOs and others to seek information on the conservation status, trade and regulation of *Pericopsis elata*. Two members of the project team attended the Thirteenth Conference of the Parties to CITES in Bangkok (October 2004). Whilst there, they met with the CITES Management Authorities of Cameroon and DRC, and with the CITES Secretariat to discuss issues relating to the trade in *Pericopsis elata*. The project has consulted regularly with the CITES Secretariat.

The project sent a questionnaire on the regulation of the trade in *Pericopsis elata* to the CITES Management Authorities of all European Union Member States. Responses were received from ten states. The project has also met with Association Technique Internationale des Bois Tropicaux (ATIBT) in Paris and with Union pour le Commerce des Bois Durs dans l'Union européenne (UCBD) in Brussels.

The structure of this report is straightforward. It begins with separate assessments of the conservation status, trade and regulation of *Pericopsis elata* in Cameroon, Congo and DRC. Each section begins with a characterisation of the forestry sector and its regulation, before looking at *Pericopsis elata*. Each of these sections ends with a number of conclusions and recommendations based on those conclusions. The report then examines the import procedures for the species within the EU. In a final section the conclusions and recommendations from the earlier three sections are reproduced, together with some more general conclusions and recommendations.

Before embarking on the main part of the report, some remarks will be made, in the remainder of this introduction, on topics that are relevant to each of the country sections.

# Ecology and life history

*Pericopsis elata* is a semi-gregarious species with a limited but widely dispersed distribution. It is locally abundant in parts of its range. The species occurs in moist semi-deciduous forests with annual rainfall of 1000 – 1500 mm. Some observers suggest that it may favour water courses and seasonally water-logged soils. Swaine and Whitmore (1988) consider this species to be a true pioneer, stimulated to germinate by gaps in the canopy. The lack of natural regeneration for this species has been widely noted (Ampofo, n.d.; Anon, 1979; Hawthorne, 1995). Forni (1997) studied *Pericopsis elata* in unexploited forest in south-east Cameroon and reported low recruitment and regeneration levels under closed canopy conditions.

Ripe, indehiscent pods, which may be wind-dispersed in strong winds, are produced at the beginning of the dry season (August – November) (Hawthorne, 1995). Each pod contains between 1-3 flat seeds. Years of abundant seed generation have been recorded but in many fruiting years germination is said to be poor (Howland, 1979). Seedlings are reported to be drought tolerant. Saplings tend to have a spreading, bushy habit. In suitable conditions growth may be rapid, up to 1 cm increment in diameter per year.

## Situation in other exporting countries

The Review of Significant Trade for *Pericopsis elata* (CITES 2004a) showed that the levels of trade from four other range states (Central African Republic, Cote d'Ivoire, Ghana and Nigeria) was at low levels in the period up until 2001. This picture has been confirmed in subsequent years. The CITES Trade Database shows that in the years 2000-2003, Central African Republic exported only in 1 year (2003) and the exports amounted to 23 cubic metres of sawn wood. Cote d'Ivoire exported 50 cubic metres of sawn wood in 2000, 25 cubic metres in 2001 and none in the subsequent 2 years. Ghana exported 16 cubic metres in 2000 and none in the subsequent 3 years. There were no recorded exports from Nigeria in this period.

# **Requirements of a CITES Appendix II listing**

With regard to countries that are exporting *Pericopsis elata*, the important requirements are set out in Article IV Paragraphs 2 and 3. These paragraphs are as follows:

2. The export of any specimen of a species included in Appendix II shall require the prior grant and presentation of an export permit. An export permit shall only be granted when the following conditions have been met:

(a) a Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of that species;

(b) a Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora; and

(c) a Management Authority of the State of export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment.

3. A Scientific Authority in each Party shall monitor both the export permits granted by that State for specimens of species included in Appendix II and the actual exports of such specimens. Whenever a Scientific Authority determines that the export of specimens of any such species should be limited in order to maintain that species throughout its range at a level consistent with its role in the ecosystems in which it occurs and well above the level at which that species might become eligible for inclusion in Appendix I, the Scientific Authority shall advise the appropriate Management Authority of suitable measures to be taken to limit the grant of export permits for specimens of that species.

One important aspect of the Appendix II listing of *Pericopsis elata* is that it includes an annotation that has the consequence that only logs, sawn wood and veneer sheets made from this species are subject to the provisions of Appendix II. This means that where *Pericopsis elata* has been processed into parquet flooring blocks (a common end use) within the range state, the exports of those blocks are not subject to the provisions of Appendix II.

## The Significant Trade Review process

The provisions of the Significant Trade Review process are set out in CITES Resolution Conf. 12.8 (Rev CoP13). *Pericopsis elata* was originally selected for the Significant Trade Review process at the Twelfth Meeting of the CITES Plants Committee in May 2002. The initial review was carried out by Fauna & Flora International and the results presented at the Fourteenth Meeting of the CITES Plants Committee in February 2004 (CITES 2004a). That meeting decided that that the category 'Species of Possible Concern', for which it is not clear whether or not the provisions of Article IV paragraph 2 (a) and (b) are being implemented, would include Cameroon, Central African Republic (CAR), Congo and DRC. Specific recommendations were formulated for each of these countries. These recommendations are discussed in the main part of this report. Cameroon and CAR were given 6 months to act on their recommendations and Congo and DRC were given 12 months. The category of 'Species of Least Concern' was applied to Cote d'Ivoire, Ghana and Nigeria and so these latter countries fell out of the Significant Trade Review process.

It appears that the recommendations were transmitted by the CITES Secretariat to Cameroon, CAR, Congo and DRC in letters dated 3rd September 2004. As a result of discussions between the Secretariat and the Chair of the Plants Committee the time limit for DRC was reduced to 6 months, and some changes made to the wording of the central recommendation. DRC was also informed in this letter that it had been placed in the category 'Species of Urgent Concern', although this was a mistake. The project team has not seen the letters that were sent to the other Parties, but a similar mistake may have been made in those letters.

It is the responsibility of the CITES Secretariat, in consultation with the Chairman of the Plants Committee to determine whether the recommendations have been implemented and to report on this to the CITES Standing Committee. If the recommendations have been met, the Party should be informed that the species was removed from the process. If the recommendations have not been implemented, the Secretariat, having consulted with the Chairman of the Plants Committee should recommend appropriate action to the Standing Committee 'which may include, as a last resort, a suspension of trade in the affected species with that State' (Resolution Conf 12.8 (Rev CoP13)).

## The European Union wildlife trade regulations

The European Community is not a Party to CITES, but it does implement the provisions of the Convention. It currently does this through Council Regulation 338/97 and Commission Regulation 1808/2001. These Regulations go beyond CITES in several respects. In connection with CITES Appendix II listings and the trade in *Pericopsis elata*, the most important aspects of these Regulations are as follows.

Annex B of the EU Regulations corresponds to Appendix II of CITES. Most of the species on CITES Appendix II are listed on EU Annex B. However, whereas CITES requires (for Appendix II species) simply an export permit from the exporting states, the EU requires (for Annex B species) that an import permit be issued if the specimens are to be imported into the EU. Moreover, imports can be restricted, in spite of the fact that the exporting country has issued a CITES permit.

Import restrictions were introduced as a result of the EU's Scientific Review Group (SRG) on Trade in Wild Fauna & Flora, passing a 'negative opinion'. A negative opinion is arrived at when 'The species is in trade or is likely to be in trade and introduction to the Community from the 'country of origin at current or anticipated levels of' trade is likely to have a harmful effect on the conservation status of the species or the extent of the territory occupied by the species'. (European Commission 2004)

A negative opinion can be changed to a 'positive opinion' when 'The species is in trade or is likely to be in trade and introduction to the Community from the country of origin at current or anticipated levels of trade will **not** have a harmful effect on the conservation status of the species or the extent of the territory occupied by the species.' (European Commission 2003)

In the case of *Pericopsis elata*, the SRG passed a negative opinion for Cameroon on29th November 2001. The SRG reversed this, with a positive opinion on2nd February 2002. The SRG passed a negative opinion for Congo on5th September 2002. The SRG reversed this with a positive opinion on 19th April 2004 (subject to the outcome of the Significant Trade Review under CITES).

# Cameroon

#### The forestry sector in Cameroon - background

Cameroon adopted a new forestry law (Law No.94-01 – To Lay Down Forestry, Wildlife and Fisheries Regulations) in 1994. A regulatory instrument to implement the forestry regulations of this law (Decree No.95-531-PM) was passed in 1995. The law was designed, among other things, to improve forest management in Cameroon and to improve transparency in the management of the sector (Nguiffo 2003).

Until very recently, the control of timber exploitation has been the responsibility of the Ministère de l'Environnement et des Forêts (MINEF) with control measures at the point of felling, along transport routes, at processing operations and at the points of export. In 2000, a Unité Centrale de Contrôle (UCC) was set up by MINEF to coordinate forestry controls nationally and to support provincial *Brigades de Contrôle*. To reinforce transparency in control measures MINEF appointed an independent observer, the NGO Global Witness (MINEF, 2002).

Following the Presidential elections in October 2004 there has been a re-structuring of the MINEF and it is understood that the environmental functions of the ministry have been moved to a different ministry. The precise implications of this change for the forestry sector are not yet clear.

In the view of a number of observers, corruption and illegal logging remain significant problems within Cameroon.

## Allocation of Unité Forestière Aménagement (UFAs)

The maximum size for a UFA is 200,000 hectares. No company may have more than 200,000 hectares in total. UFAs are allocated by a process of competitive tendering. A company must make a financial bid and a technical bid. These are then ranked. When a company wins a UFA there is a probationary period of 3 years. In this period the company is expected to carry out an inventory, build a saw mill and develop a management plan. The inventory must be carried out by an approved agency. These are sometimes independent of the company holding the concession, although these companies are developing their own inventory capacity. If the management plan is judged as satisfactory by the Ministry then an *Assiette de Coupe* for a 2,500 hectare block can be issued.

By September 2004, 72 UFAs had been allocated. There have been some delays in the development and approval of management plans. Of the 72 UFAs, 22 have approved management plans. The Ministry was requiring that management plans for all the UFAs allocated up to 2000, must be approved by 2003.

## Export of timber

Most timber from Cameroon is exported through the ports of Douala and Kribi. In 1999 Cameroon banned the export of logs of 23 species (including *Pericopsis elata*). Customs officials indicated to the project team that there were some weaknesses in the control of goods passing through Douala port. Specifically it was suggested that customs officials

are technically limited and are not able to identify the different species of timber bound for export. It is also difficult to check on the volume of timber being exported.

# Pericopsis elata

# Distribution

*Pericopsis elata* is said by MINEF to be found exclusively in the south-east of Cameroon in the river basins of the Dja, Boumba, Ngoko and Sangha rivers; this covers an area of nearly 4,071,857 hectares, which is around 19% of the national forest estate (MINEF 2004b). Around 42 % of this distribution is made up of areas that are subject to managed exploitation; of these areas, 1,652,961 hectares is made up of UFAs and 63,501 hectares of communal forest. Just over 15 % of the total distribution area is described as being subject to multiple use, and the remaining 43 % is under complete protection (see below) (MINEF 2004b).

A technical official at Agence National d'Appui au Developpement Forestier (ANAFOR) informed the project team that in addition to the main distribution area in the south east of the country there were also three other, much smaller areas where *Pericopsis elata* is found, including in the Dom and Mamfe areas.

# Occurrence in Protected Areas

Within the main distribution area outlined above, there are three national parks (Parc National de Boumba-Bek, Parc National de Nki and Parc National de Lobeké) which cover an area of 777,729 hectares, and an ecological reserve (Réserve Ecologique Intégrale de Messomesso) covering 51,797 hectares. In addition there are nine UFAs reserved for the protection of biodiversity. These areas, amounting to around 43% of the total distribution area are said to consist of virgin forest which has never been exploited. These areas are subject to complete protection (MINEF 2004b).

# Population and stock size

MINEF have produced inventory data covering 23 of the 24 UFAs (in which exploitation can occur) within the *Pericopsis elata* distribution area (MINEF 2004b). This shows a total of 829,000 stems (above 20 cm diameter at breast height) in an area of 1,602,209 hectares, giving a density of 0.52 stems per hectare.

MINEF do not attempt to extrapolate from these figures, but if this density was found across the whole of the main distribution area, it would imply a total of over 2,100,000 trees (above 20 cm diameter at breast height) in Cameroon.

The data on which these calculations are based are provided management inventories. The sampling intensity of these inventories is a function of the size of the UFA. This level is at least 0.5 % for those in an area bigger than 50,000 hectares and at least 1 % in the other cases (MINEF 2004b).

What is not clear is when these inventories were conducted. However, what is clear is that the information becoming available to MINEF should enable a more accurate picture to be built up over time. Where logging companies wish to apply for a *Permis de Coupe* 

they will have to carry out an exploitation inventory which involves 100 % sampling intensity, which will provide much more accurate information, albeit for much smaller areas.

The Direction des Forets says that it is acquiring more reliable statistics on this species, with data obtained from the management inventories already carried out in the UFAs. These data would be further strengthened by the national inventory that is planned. (MINEF 2004a)

#### Regulation, harvesting and exports

## Regulation of the harvesting and trade in Pericopsis elata

Cameroon has a number of regulations that either deal explicitly with *Pericopsis elata* or are directly relevant to its harvesting and export. First, the Minimum Exploitable Diameter (MED) for *Pericopsis elata* is set (in Decree No.74/357 of 1974) at 100 cm. This contrasts with the 80 cm MED that used in DRC although ATIBT has suggested that the MED is not consistently observed in Cameroon (ATIBT 2002).

Second, regulations governing concessions have implications for the harvesting of *Pericopsis elata*. As was noted earlier, a company with a licence to exploit a UFA is obliged to produce a management plan. The *Rapport Technique sur Pericopsis elata* (MINEF 2004b) states that this plan must be based on a minimum rotation of 30 years. It appears from the same report that MINEF interprets this requirement as implying – in the case of *Pericopsis elata* – that over the 30-year period all trees that are shown in the inventory data as being equal to or above the MED of 100 cm can be harvested. It matters to the interpretation of this requirement which inventory data are being used, and there are other aspects of it that are not clear. Nevertheless, this requirement, if adhered to, would appear to represent a sustainable approach to the exploitation of *Pericopsis elata*. MINEF's own data (see Table 1) shows that in one UFA (10029) 1190 trees were harvested from 1998 to 2003, whereas the inventory data indicated that there were only 508 stems equal to or over the MED. MINEF states that action has been taken to stop this abuse (MINEF 2004b).

MINEF has also stated that only 7.5% of trees in the UFAs where exploitation is occurring, will be harvested over a 30-year period (MINEF 2004b). It is not made clear how this figure is arrived at, but it is roughly consistent with the approach described in the previous paragraph. According to the inventory data presented in MINEF (2004b), there were 75,135 stems equal to or greater than the MED in the 23 UFAs surveyed. This represents about 9.1% of the estimated total number of stems.

Third, *Pericopsis elata* is one of 23 species for which export in the form of logs has been forbidden since 1st July 1999. The purpose of this is to promote the secondary processing of *Pericopsis elata* within the country and according to ATIBT (2002) this goal has been achieved, at least in part. Cameroon has also noted that two of its neighbours (CAR and Congo) continue to export this species in the form of logs through the port of Douala in Cameroon (MINEF 2004b).

## Domestic use

According to an official in Cameroon (Forestry Post in Douala, Mr Mba'ath) the domestic consumption of *Pericopsis elata* is insignificant and poses no threat to the species. It was pointed out that the species is found in remote areas where the density of the human population is extremely low, with no demand for hardwood. While some furniture is made from this wood in Cameroon, this may be obtained from abandoned logs that can be sawn locally.

#### **Exports**

A summary of the production of *Pericopsis elata* in 23 UFAs is show in Table 1. Unfortunately, the harvest figures are given in terms of the number of individual trees harvested, rather than in cubic metres. This makes a comparison with the export figures difficult.

UFA	N° TITRE	Tiges >= DME	98/99	99/00	00/01	01/02	02/03	2003	TOTAL	Possibilité annuelle
10 001 10 002 10 003	1025	9 877	165	31	169	162	134	168	829	329
10 004 10 005	1051	8144				164	176	49	389	271
10 007 10 008	1010 1052	<u>3791</u> 572		257	157	107	41	82	644	126 19
10 000	1032	2121		189	290	192	33	0	704	71
10 010	1053	6426				40	45	6	91	214
10 011	1013	1020	275	233	34	51	4	4	601	34
10 012	1016	2726	253	89	306	94	8	0	750	91
10 015	1004	4525			4	23	0	0	27	151
10 018	1003	3337	285	26	72	39	129	75	626	111
10 020	1038	557			4	5	4	0	13	19
10 021	1018	8736			71	137	63	97	368	291
10 022	1039	203			151	142	184	68	545	7
10 023	1007	2999	504	143	264	91	236	226	1464	100
10 029	1014	508			198	816	14	162	1190	17
10 030	1054	644				11	7	7	25	21
10 031	1041	676			371	145	58	27	601	23
10 037	1042	300			1	1	1	0	3	10
10 063	1048	4273			51	13	7	34	105	142
10 064	1060	13700					30	36	66	457
T	otal	75 135	1 317	<i>937</i>	1 974	2 071	1 040	<i>873</i>	8 212	2504

 Table 1 Harvesting of Pericopsis elata (from MINEF 2004b)

*Pericopsis elata* is exported from Douala and Kribi ports. Table 2 shows the export figures for 1993-2003. It is based on information that is held in the CITES Trade Database. It can be seen that exports were at their highest in the period 1994 – 1999 when they were never lower than 17,000 cubic metres. They peaked in 1997 with exports of over 27,000 cubic metres. After 1999 exports fell to between 6000-8000 cubic metres for each of the next 4 years.

Country of	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
import	m <sup>3</sup>	m <sup>3</sup>	<b>m</b> <sup>3</sup>								
Belgium	48	1175	313	1895	2338	4225	4096	2591	2960 + kg	1967	2393
China					106	16	299		54	27	
Cote d'Ivoire				26		39	9				
Cyprus					31					30	32
Denmark	180			19*					27	240	22
France	756	911	865	1660	1499	680	2774	229	106	102	
Germany	59	343	58	60	29	281	142	24	Kg	22	118
Ghana	179										
Greece		67			15	26	21				60
Hong Kong			903	5948	2637	100	517	1207	21	810	152
Ireland			114	60							
Italy	3810	6411	3410	1778	5713	6669	8954	3146	3036*	2720	3674
Japan	5596	8712	4253	3987	5493	770	866			32	32
Liechtenstei n	20										
Malaysia									19		
Morocco	948	301	172			113	115	101			
Netherlands						15		57		22	
Portugal		19	37	26	43	328	28				
Singapore			2015	1709			76				
South Africa		68			15			54		54	79
South	31	12	13	22							
Korea Spain		179		14	878	2239	85	85			35
Sweden		117	52	17	0,0						
Switzerland	343	48		530	117		357	62		34	26
Taiwan	155	2734	2875	7488	8105	3042	2400	15			
Thailand			1470	402							
Tunisia		108	72		78	ļ	85	ļ	ļ		
Turkey					109						
UK	881	1103	879	325	277	350	158	39	37		
US		51	171	199	172	80	174	30		461	727
XX						102	223		76		
TOTAL	13006	22242	17672	26165	27655	19075	21379	7640	6230	6521	7350

higher and indicated with an \*

The figures supplied by the Provincial delegation of MINEF for the Littoral Province for exports of *Pericopsis elata* from Douala and Kribi sea ports show exports of 9,287 cubic metres in 2003. This is larger than the exports that appear in the CITES Trade Database, which were 7,350 cubic metres. The difference could be explained if the reports from MINEF refer to total exports, and the figures in the CITES Trade Database exclude (as they should) parquet flooring made from *Pericopsis elata*. The project team was not able to determine whether this was the correct explanation of the difference.

# Threats and conservation status

The conversion of *Pericopsis elata* habitat to agriculture appears not to be a significant phenomenon. The project team received no concrete information on the level of domestic consumption although the view was expressed that such consumption is very low. If these two assessments are indeed sound, then the chief threat to Pericopsis elata in Cameroon is likely to be production for export. Nevertheless, if the management measures described above are as described and are adhered to, and the species is protected from any form of exploitation in 43% of its main distribution area in Cameroon, then the statement from MINEF that *Pericopsis elata* is not in danger of extinction (MINEF 2004b) is certainly correct. Moreover, MINEF has also cited ATBIT in support of the view that since *Pericopsis elata* has a low regeneration rate in a closed canopy, regeneration will actually be promoted through selective logging, because of the breaks in the canopy that this creates. But if these regulations are not adhered to then there might be reason to revise this assessment. There is certainly evidence (including that provided by MINEF itself) that the MED is not adhered to, but there is little indication of the overall scale of the problem. The export figures would provide some overall check if they could be compared to production figures.

# **CITES** implementation

## Management Authority and Scientific Authority

CITES Parties are obliged to nominate both a Management Authority and a Scientific Authority. On the CITES website the Management Authority is listed as MINEF, and this Ministry has, in recent years, been fulfilling this function. The Scientific Authority for flora is said to be the Office National de Développement des Forêts (ONADEF). However, ONADEF has ceased to exist as an institution. There was some uncertainty amongst officials the project team met in Cameroon as to which institution had taken on the role. The Agence National d'Appui au Developpement Forestier (ANAFOR), which was established in 2002 has taken over some of the functions formerly carried out by ONADEF, but it was not clear whether these included the functions of the Scientific Authority.

## Export permits and quotas

MINEF has stated that export permits for *Pericopsis elata* are only issued to exporters who have legal title (either a *Concession Forestière* or a *Vente de Coupe*) and who have an annual exploitation permit, obtained after presenting the results of an exploitation inventory.

The project team were not able to obtain from MINEF a description of the process for issuing CITES export permits for *Pericopsis elata*. The team did learn that export permits for this species are signed by the Director of Forestry within MINEF, and that export permits are checked at the Forestry Post of the main port of export, Douala.

It appears that there is no export quota for this species. However, as described earlier, the requirement for a management plan for holders of UFAs, when combined with the demand for a minimum rotation period of 30 years and the MED of 1 metre, does appear to constitute a *de facto* harvesting quota. For it seems that these requirements, as interpreted by MINEF, set the maximum number of *Pericopsis elata* stems that can be harvested in the 30-year period in that UFA. This figure is provided by the number of stems of the MED and over, as shown in the inventory figures.

#### Enforcement issues

MINEF has reported that a range of fines and penalties are place for breaches of the CITES regulations.

Global Witness is an NGO that has been appointed as independent observer to supervise the implementation of the forestry regulations. But it has concentrated its work in the east of the country and has not undertaken field work in the south-east of Cameroon where *Pericopsis elata* occurs.

Customs officials reported a number of issues relating to *Pericopsis elata* that is exported through Douala but originates in Congo or CAR. It was said that *Pericopsis elata* from those countries crosses Cameroon without a CITES export permit and then when it arrives in Douala Cameroonian customs officials have to request the country of origin to issue a CITES export permit. It was also suggested that some companies operating in Cameroon export their timber using labels and official papers from neighbouring countries such as Congo and CAR to avoid taxes, although *Pericopsis elata* was not specifically mentioned in this context. Finally it was said that cross-border activities between Cameroon, CAR and Congo were not well monitored.

## Adherence to the requirements of an Appendix II listing

As has been noted, there is a lack of clarity concerning the identity and role of the CITES Scientific Authority in Cameroon including its role in the permitting process. The project team were unable to obtain detailed information about the process for issuing export permits. If the specific management measures for *Pericopsis elata* that are indicated in MINEF documents (especially MINEF 2004b) are indeed implemented they would provide the basis for making a non-detriment finding for the species.

## Attitudes to Appendix II listing

The Chief of the Forestry Post in Douala said that the Appendix II listing for *Pericopsis elata* is not based on sound data. An official from the Provincial Delegation of MINEF in Littoral Province said that although there should be no concern about the future of *Pericopsis elata*, the Appendix II listing should not be changed until more evidence is gathered.

A view which was forcefully put to us by the Director of Forestry within MINEF was that Cameroon could not understand the continued inquiries into the trade and regulation of *Pericopsis elata*. In his view ample proof had been provided that the species was sustainably managed within Cameroon and no further investigations were necessary.

# EU wildlife trade regulation

In 2001, the Scientific Review Group (SRG) convened under EU legislation, on which member States' Scientific Authorities are represented, formed a negative opinion on the conservation effects of imports of *Pericopsis elata* from Cameroon, resulting in an effective suspension of imports. The grounds for this decision, which was based on a proposal from Belgium, were doubts as to the legal provenance of much of the timber being exported. This decision was reversed following consultation with Cameroon. The SRG was sufficiently reassured to allow imports to resume, pending the outcome of the Significant Trade process (O'Criodain, in litt. 2003).

# Significant Trade Review process

At the Fourteenth Meeting of the CITES Plants Committee in February 2004 it was confirmed that for Cameroon *Pericopsis elata* fell into the category of 'Species of Possible Concern'. It was also agreed that, within 6 months Cameroon should act on the following recommendation:

"Notwithstanding information available from other sources, the Scientific and Management Authorities should provide to the Secretariat confirmation that the existing policies in place provide an adequate scientific basis for the formulation of non-detriment findings for *Pericopsis elata*, the procedures for issuing export permits on the basis of the non-detriment finding and for monitoring the volume of exports in accordance with the requirements of Article IV."

The following additional recommendation was agreed for all exporting states:

"The exporting states should be encouraged to work together to share experiences in the implementation of Article IV, to exchange information on procedures in place and to take common steps to improve monitoring of trade in the species."

The CITES Secretariat conveyed the recommendations to Cameroon and the other exporting states in September 2004.

As understood by this project, Cameroon has made two responses to these recommendations. In April 2004 (i.e. before the recommendations had been formally communicated to it), a letter was sent from MINEF to the CITES Secretary General, in which a number of points were made, including that:

- *Pericopsis elata* is found in the south-east of Cameroon in an area of very low human population density, so there is very little pressure to convert forests to agriculture.
- 46% of the distribution area is under complete protection, where no harvesting is authorised.

- In the UFAs where management inventories have been carried out, there is an average of 0.4 stems per hectare, with an exploitable volume of 0.667 cubic metres per hectare.
- Export requires an export permit, and these are only issued to those who have legal title to the forestry area and who have an annual exploitation permit obtained after presenting the results of an exploitation inventory.
- The Direction des Forêts within MINEF is gradually acquiring more detailed and reliable inventory data, and a national inventory is being planned.
- The implementation of management plans under the strict control of the authorities ensures the protection of this species.
- In the view of MINEF the requirements of CITES Article IV paragraphs 2(a) and (b) are fully respected.

The second response was sent in reply to a letter from the CITES Secretariat (dated 7th September 2004) informing MINEF of the forthcoming visit to Cameroon of this project team. This response consisted of a covering letter (MINEF 2004c) and the *Rapport Technique sur Pericopsis elata (Assamela/Afromosia)* (MINEF 2004b). The information in these two documents showed that:

- The total distribution area of *Pericopsis elata* is 4,071,857 hectares;
- 43% of this area is under complete protection;
- Only 7% of the potential of this species will be exploited over the course of the next 30 years;
- All the UFAs in the distribution area have been subject to management inventories (which have an intensity of at least 0.5% in UFAs over 50,000 hectares and at least 1% in smaller UFAs);
- It emerges from the inventory data that about 829,000 stems exist in area of 1,602,209 hectares, at a density of about 0.52 stems per hectare;
- Pericopsis elata is not in danger of extinction in Cameroon.

## Implementation of Significant Trade Review Recommendations

The main recommendation issuing from the Significant Trade Review (as formulated at the Fourteenth Meeting of the Plants Committee) required Cameroon to provide confirmation to the Secretariat on three issues:

- That existing policies in place provide an adequate scientific basis for the formulation of non-detriment findings for *Pericopsis elata;*
- The procedures for issuing export permits on the basis of the non-detriment finding;
- The monitoring of the volume of exports in accordance with the requirements of Article IV.

With regard to the first issue, it can be argued that the policies outlined in MINEF documents do provide an adequate basis for non-detriment findings. With regard to the second issue, the project has not acquired detailed information about the issuing of export permits (although this information may have been provided to the CITES Secretariat). With regard to the third issue, Cameroon is monitoring exports of *Pericopsis elata*. The project team was not able to determine how accurate the Cameroon records are, but there was no specific reason to think that they are substantially inaccurate.

# **Conclusions**

1. The main distribution area for *Pericopsis elata* in Cameroon is said to cover 4,071,857 hectares in the south-east of the country in the river basins of the Dja, Boumba, Ngoko and Sangha rivers.

2. Of this main distribution area, 42% is covered by UFAs which are subject to managed exploitation, 15% is subject to multiple use, and 43% is subject to complete protection in which no exploitation takes place.

3. Inventory data indicate that in an area covering most of UFAs in which exploitation can take place, the density of *Pericopsis elata* is about 0.52 stems (above 20 cm in diameter) per hectare, giving a total population in that area of 829,000 stems. The date of these inventory data are not known, but more accurate and up-to-date information is becoming available to the Ministry as concession holders carry out inventories in their UFAs.

4. The Minimum Exploitable Diameter (MED) for *Pericopsis elata* in Cameroon is 100 cm. It appears from MINEF documents that within a 30-year period concession holders will only be allowed to harvest trees that are equal to or above the MED at the start of the 30-year period. If this is indeed the case and this requirement is adhered to, it would ensure that the harvesting of *Pericopsis elata* is sustainable.

5. The CITES Trade Database indicates that for the 7-year period, 1993-1999, the exports from Cameroon averaged just over 21,000 cubic metres. Over the subsequent 4 years (2000-2003), the average was just below 7,000 cubic metres. This marks a significant reduction. It is not clear whether it is linked to the ban on log exports, which came into force in 1999.

6. In the light of the data available to the project, and if the proposed management measures described above are adhered to, it would appear that there is not a significant threat to the population of *Pericopsis elata* in Cameroon.

7. MINEF expressed some dissatisfaction to the project team regarding the regular requests for further information about the trade in *Pericopsis elata* which originate from CITES and the European Union. MINEF did not supply the project team with much additional information, beyond what is contained in documents sent to the Secretariat (MINEF 2004b & 2004c)

8. MINEF holds that the requirements of an Appendix II listed are adhered to. The project team were not able determine the detailed process for the granting of CITES export permits.

9. There are some uncertainties regarding the identity of the CITES Scientific Authority in Cameroon and the role that it plays in advising on export permits for *Pericopsis elata*.

10. If the management measures for the harvesting of *Pericopsis elata* outlined in MINEF documents are adhered to then the Cameroonian authorities will have good grounds for determining that the exports deriving from that harvest will not be detrimental to the survival of the species.

11. The main recommendation issuing from the Significant Trade Review (as formulated at the Fourteenth Meeting of the Plants Committee) required Cameroon to provide confirmation to the Secretariat on three issues:

- That existing policies in place provide an adequate scientific basis for the formulation of non-detriment findings for *Pericopsis elata;*
- The procedures for issuing export permits on the basis of the non-detriment finding;
- The monitoring of the volume of exports in accordance with the requirements of Article IV.

With regard to the first issue, it can be argued that the policies outlined in MINEF documents do provide an adequate basis for non-detriment findings. With regard to the second issue, the project has not acquired detailed information about the issuing of export permits (although this information may have been provided to the Secretariat). With regard to the third issue, Cameroon is monitoring exports of *Pericopsis elata*. The project team was not able to determine how accurate the Cameroon records are, but there was no specific reason to think that they are substantially inaccurate.

# Recommendations

1. There is a need for Cameroon to clarify the identity of the CITES Scientific Authority and its role in the issuing of CITES export permits.

2. There is a need for Cameroon to ensure that management plans are put in place and adhered to in all the UFAs in which *Pericopsis elata* is currently being harvested.

3. Cameroon should clarify the specific management measures proposed in MINEF (2004b) and ensure that they are adhered to.

4. If Cameroon was to make available information derived from the more recent inventory data it is acquiring from concession holders and data on the harvesting of *Pericopsis elata* they might be in a stronger position to demonstrate the sustainability of current harvesting.

# Congo

# General situation in the Republic of the Congo

The Republic of the Congo covers 34.2 million hectares with a population of 3.1 to 3.4 million. The highest population density is found in the south, particularly in and between the two major cities of Brazzaville and Pointe Noire. With a total population of around 120,000, the rural populations in the heavily forested north are thought to number less than 1 person per square kilometre.

Congo is bordered by DRC, Gabon, the Central African Republic, Cameroon and Angola (the Cabinda enclave). The capital, Brazzaville, is on the Congo River, situated opposite Kinshasa, the capital of DRC. The main port and financial hub is Pointe Noire. This is the centre of the oil industry which represents the largest industry by far: 50% of GDP (worth approximately €3.16 billion in 2003), 70% of government revenues and 80% of exports (IMF, 2004). The non-oil sector is composed of forestry, traditional agriculture (largely subsistence), services and public administration. Forestry represents the second largest export sector of the Congo, worth under 5% of GDP but which represented between 4% and 12% of exports from 1997 to 2003 (IMF, 2004), averaging 7.2% over this period. Agriculture employs about one-third of the active population and accounts for another 5% of GDP. The public administration accounts for the majority of the remainder of GDP. The currency is the Central African Franc (FCFA), fixed at 655.957 to the Euro. Inflation has hovered at around 3% per year for the last decade.

# General situation in the timber industry

Congo is estimated to contain roughly 10% of Central Africa's closed forests, approximately 20 million hectares. Roughly 60% of the country is covered in forest. This forest is divided into three principal blocks: the Mayombe coastal forests covering approximately 1.5 million hectares, the Chaillu block in the south-centre along the southern Gabonese border (3.5 million hectares), and the north, covering approximately 15 million hectares adjacent to DRC, Cameroon and Gabon.

Under half of the total forest area, 8.85 million hectares, is recorded as concession. The remainder consists of flooded/seasonally flooded habitat considered sensitive or inappropriate for logging, strictly protected areas (national parks, nature and faunal reserves), and unclassified areas that have not been surveyed and proposed for logging or conservation. The forest can be split into two distinct ranges in the north and south. The southern range of about 5 million hectares has been historically harvested to a greater extent, with the timber exported through Pointe Noire. The north is far larger and is currently the focus of development for most large-scale timber operations.

Due to security concerns in the south, the majority of timber harvested in the north has recently been exported through Cameroon to the port of Douala, although this was not always the case. The main export species of the north are members of the Meliaceae family, notably sapelli (*Entandrophragma cylindricum*) and sipo (*Entandrophragma utile*). *Pericopsis elata* is one of the 10-15 primary timber species in the north. Due to the very low local demand for timber in the north (low local population), essentially all commercial logging is for export.

At a national level, annual deforestation is very low, with estimates varying from 0.06% to 0.2% of total forest cover. Forest loss has occurred predominantly in the south, although the armed conflicts from 1993-1999 slowed many large-scale timber enterprises there, while those in the north were less affected.

Conflict in the south has resulted in inadequate maintenance of the railway from Brazzaville to Pointe Noire, and continuing security concerns. One result is that the four or five main border crossings into Cameroon and the Central Africa Republic from northern Congo represent a more secure option for exporting timber than floating logs along the river network to Brazzaville where they are taken to Pointe Noire by train, even though exporting via river/rail/Pointe Noire reduces costs by approximately €20 per cubic metre compared to via Cameroon.

IMF (2004) cites Ministry of Forestry & Fisheries<sup>1</sup> statistics that show timber exports grew steadily from 771,000 cubic metres in 1997 to an estimated 1,433,000 cubic metres in 2003 (although the statistics are not always consistent<sup>2</sup>). The associated Forward on Board (FOB) values increased from €63 million in 1997 to €269 million in 2003 (ibid.). The International Tropical Timber Organisation (ITTO, 2002) cites an estimate that the Congo could produce an annual sustainable volume of 2 million cubic metres

Twelve European companies, four Lebanese companies, two Asian companies and one Libyan company hold 6.08 million hectares, 1.46 million hectares, 0.86 million hectares and 0.45 million hectares of concessions respectively. The European companies are generally regarded as being at the forefront of recent logging reforms. The main explanations offered the team for this were European companies' greater sensitivity to markets demanding responsibly produced timber, and their greater capitalisation which permits them to invest in the inventories, planning, infrastructure and equipment required for 'modern, responsible', low-impact logging, often aided by NGOs and consultants.

The area under forest plantations is 63,000 hectares, with no new plantations established in the period 2000-2003. The majority of this is *Eucalyptus*, replacing southern coastal forests, although there are forest enrichment programmes in the north.

Local processing is below national targets at about 40%, but the rate is increasing as timber companies set up more processing units. Most processed timber is exported as sawn wood, veneer and plywood rather than tertiary products. General production figures and estimated growth reflect this, with production of roundwood set to increase from 1.1 million cubic metres in 2003 to 1.6 million cubic metres in 2006, sawn wood from 223,000 cubic metres in 2003 to 396,000 cubic metres in 2006, veneer from 62,000 cubic metres in 2003 to 189,000 cubic metres in 2006, and plywood from 5,000 cubic metres in 2003 to 24,000 cubic metres in 2006 (ITTO, 2004).

<sup>&</sup>lt;sup>1</sup> Presumably this is the Ministry that has now become the Ministry of Forest Economy and the Environment.

 $<sup>^{2}</sup>$  ATIBT (2004b) cites significantly lower export figures for 1997-2003, ranging from a low of 290,000 m in 1999 to a high of 860,000 m in 2003. These figures were provided ATIBT by Congo Timber. The team is unaware of where the discrepancy originates.

# Policy, legislative and institutional contexts

#### National forest policy.

Starting in 1990, Congo initiated development of its Tropical Forest Action Plan (TFAP). This plan took into account new economic and environmental data and the national desire to let private companies develop the forest sector. The plan, which was completed in 1997, included the following recommendations: to reformulate the Forestry Code in line with sustainable development; to conserve biological diversity; to integrate social and ecological data into management of the permanent and non-permanent forest estates; and to restructure the taxation system and the granting of Forest Management Units (FMUs) and other logging contracts.

The TFAP was superseded by a National Forest Action Plan, which was heavily informed by the TFAP. These sector-specific documents fit within two broader plans: Congo's Triennial Development Plan and the Integration Plan (*Plan de Convergence*) of COMIFAC (*la Commission des Ministres responsables des Forêts d'Afrique Central*), a forum through which the Ministers responsible for forest management in Central Africa co-ordinate planning and decisions related to forest management in the region. The Triennial Development Plan treats forest management as one sector among many others, while the latter integrates Congo's forests into a regional management context.

## Forest laws

A National Forestry Code was adopted under Law No 004/74 of January 1974 and partly amended by Law No 32/82 of July 1982. To promote sustainable forest resource management, they stipulated establishing Forest Management Units (*Unités Forestières d'Aménagement* or UFAs in French) and determining maximum Annual Allowable Cuts (AAC). It included the concepts of felling sequences, harvest rotations and allowing resource regeneration in order to avoid over-logging of high-value species. Finally, it encouraged local processing of timber.

The Tropical and National Forest Action Plans served as references for the Forest Code (Law No. 16/2000) of 2000 as well as the Decrees for its implementation. The 2000 Code and policies resulting from it (see MFEE, 2004a) go beyond promoting to requiring strict sustainability norms. The Code and is implementation decrees are in line with ITTO Objective 2000, which targets sustainable management of forests to sustain production of timber and non-timber forest products, and to permit the forest sector to contribute more to comprehensive socio-economic development. The law of 2000 describes the roles and duties of the government, communities and private concessionaires. It also restructures the Ministry in charge of its implementation, the Ministry of Forest Economy and the Environment (MFEE). An updated Wildlife and Protected Areas Law has been prepared and is before the National Assembly for consideration. Likewise a Land-use Law was drafted although the team did not investigate its status.

In addition to the new Forest Code and its implementation decrees, in 2004 MFEE was developing technical policies (*directives*), procedures, standards and related indicators for sustainable logging in Congo, and a model management plan for a FMU (see MFEE, 2004b). When ready, these are to be adopted formally as regulations.

Aiding the process of reform and assisting with the details of transforming sustainable forest management rhetoric into reality is the Congo's National Forest Working Group, composed of government and civil society groups like NGOs, researchers and academics, loggers, the media and pygmy representatives. Its objective is to bring together information required to develop the principles and criteria for indicators of sustainable forest management.

In summary, Congo's forest policy and legislation have undergone dramatic changes since 2000. Prior to that date, the principles of sustainable forest resource management were implicit, according to one informant, but not overtly embodied or systematically pursued. However with the adoption and implementation (still starting) of the Forest Code of 2000, of the decrees relating to its implementation as well as of all the regional and global agreements, conventions etc. to which Congo is party, Congo's forest sector has progressed from semi-truant status to being one of the leaders in Central Africa. See ITTO (2002) and Mbolo (2003) for more detailed discussions of the history and status of forest policy and legislation in the Congo.

## Institutional context

The institutional structure of the Ministry of Forest Economy and the Environment is key to understanding management the Congo's forest sector. The current structure of the Ministry, as explained to the team, is shown in Figure 1.



#### Figure 1. Organogram of the Ministry of Forest Economy and the Environment

The Minister is assisted by a Cabinet, to which report:

- the General Directorate for Forest Economy, which is composed of three directorates, responsible for the management of forests and forest resources, processing of forest products and conservation of wildlife and protected areas;
- the General Inspectorate for Forest Economy, composed of two inspectorates responsible for overseeing the activities of the General Directorate for Forest Economy;
- ten departmental directorates each with technical services and 'forest brigades' responsible for monitoring forest resource extraction (especially logs and wildlife), as well as forest, wildlife and protected area management. While in theory the departmental directorates report to the Cabinet, practically speaking they work closely with the General Directorate for Forest Economy;
- five directorates responsible for managing: (1) the Forest Fund into which the majority of forest fees, taxes and fines are paid, and which can accept domestic and international donations; (2) studies and planning processes; (3) international assistance programmes; (4) computer services; and (5) the Fund to Protect the Environment. Three semi-autonomous agencies which may draw a portion of their operating funds from the Forest Fund:
  - the National Reforestation Service;
  - the National Centre for Inventories and Management of Forest and Wildlife Resources, known by its French acronym CNIAF; and
  - the National Service for [Monitoring] Exported Forest Products, known in French as SNPFE.

At the time of the mission, several of these agencies had only recently been established, and not all were fully operational. Informants stressed that the reforms and restructuring are recent, and many of their expected impacts have yet to be felt. The National Service for Exported Forest Products is being set up by the Swiss-based Société Générale de Surveillance (SGS), working in collaboration with seconded MFEE staff, from March 2003 to August 2005. After the 2.5-year set-up period, management of the structure is to be taken over by MFEE so that the National Service for Exported Forest Products alone is responsible for overseeing forest product exports.

A hiring freeze on the Congolese civil service has been in place for several years, due to an IMF-sponsored structural adjustment programme. The result is that MFEE's workforce has dwindled by over half over the past decade to around 300 people. With most of these civil servants based in Brazzaville and Pointe Noire, the remainder must monitor, patrol, protect or otherwise manage the Congo's 20 million hectares of forest.

The recent reforms have begun making MFEE more efficient at carrying out duties such as monitoring UFAs and forest product exports, in spite of the lack of personnel. In particular the data management and computerised tracking systems being set up by CNIAF and SNPFE could prove to be highly effective and efficient tools, and could function with comparatively few staff relative to previous systems.

## Regulation

## FMUs and management plans

The forested areas of the Congo are generally divided into Forest Management Units, Protected Areas, and unclassified.

In the north of Congo, logging rights are granted either through a *Convention* d'Aménagement, a *Convention de Transformation Industrielle* or a *Convention d'Aménagement et de Transformation*.

Public calls for tender for FMUs are prepared within the Direction Générale de l'Economie Forestière, and include terms and conditions that the eventual winner must follow.

Successful companies are given a 2-3 year grace period to install their infrastructure, management centre and other important elements of an operational FMU, during which time they may extract limited quantities of timber in anticipation of a carefully determined Maximum Allowable Volume (MAV), permitted for every targeted species.

Following the grace period, they have another 3 years to conduct detailed inventories and prepare their management plans.

Logging operators should harvest only precisely defined sub-units within their FMU(s) according to an Annual Allowable Cut (AAC), derived from the MAV authorized by the Directorate for Forests. MAVs are determined from the detailed management inventories required for every FMU. Using simple statistical analyses based upon a 95% or more probability factor, a target sampling rate of at least 1.0-1.5% of a FMU is inventoried. The target maximum sampling error is 10-20%, although at times this can be higher.

No comprehensive management plan has yet been finished and followed in Congo. Although Congolais Industriel de Bois (CIB) will soon pilot the first management plan.

## Extraction and AACs

An AAC targets only those sub-units of a FMU whose harvestable trees have been fully enumerated. All companies granted rights to a FMU present to the Ministry each year a request for approval of their planned annual cut, along with the enumeration results on a map (scale 1/20,000) and a map or drawing (1/50,000) indicating existing and provisional stockyards, roads and skidding trails. Different Directorates of the MFEE are responsible for reviewing different aspects of the request. Together they verify the enumerations and ensure that the proposed AAC is consistent with the relevant MAVs before granting a logging permit.

The relevant Departmental Directorate delivers an AAC title to the company that has met the necessary requirements, and to all the relevant parts of the Ministry (General Inspectorate, General Directorate, National Directorates for Forests and for Wildlife & Protected Areas, the Forest Fund, CNIAF, SNPFE). The company cuts on this basis, under the supervision of the relevant Departmental Directorate. Felling must be carried out in a way that minimises damage to neighbouring trees. Trees broken during felling are considered 'abandoned' and the company is required to report on them. It must also report all trees of marketable species used for the construction of bridges and other civil engineering works.

# Regulation of the export of timber

When the company is ready to export, it requests a 'certificate of origin' from the General Directorate, who forwards the request to the Directorates for Forests and for Wildlife & Protected Areas to check the request's consistency with the MAV and national laws. If something is amiss, the certificate of origin is not granted. If all is in order, the Director General signs the certificate of origin and delivers it to the company and to other structures within the Ministry, like the Forest Fund, CNIAF and SGS/SNPFE. Each quarter, the logging company must submit to the Ministry a summary of its operations indicating the production per species (volume) and destination of the timber. The exact modalities of these procedures were not always related consistently to the team, perhaps because the system is being put in place and they are not yet fully determined.

After receiving a certificate of origin and CITES permit (if relevant), an exporter prepares a request to the SNPFE that includes a declaration of the species and volumes proposed for export (presumably the certificate of origin?) and the CITES permit.

At present, as the SNPFE is being established, these requests are presented to SGS who collaborates with the Ministry through the Monitoring Programme for Exported Forest Products (MPEFP). The MPEFP is setting up control points around the timber-producing parts of the country, to be staffed and run by SNPFE, to verify what is coming out of timber extraction sites and what is leaving the country via its roads, port (Pointe Noire) and presumably airports<sup>3</sup>.

These control points inspect what species and volumes are being transported by whom, and on a monthly basis report (in computerised format) to the MPEFP headquarters in Pointe Noire. Because the companies dealing in *Pericopsis elata* are in northern Congo, export requests are presented to SGS-MPEFP in Ouésso, the capital of the northern province of Sangha. These are forwarded to the MPEFP headquarters in Pointe Noire. The headquarters already has computerised records of each company's MAV and AAC, as well as their export declarations (certificates of origin?) and CITES permits if applicable, provided by the General Directorate. These data sets are then compared to verify if production volumes and species observed in the field match what is being declared and what has been allowed in a company's MAV/AAC. If no large or inexplicable discrepancies are found, SGS (SNPFE in future) issues an export verification declaration (in French *attestation de vérification à l'export* or AVE) to the exporter who presents this to customs. Customs then issues a D6B form specifying what the company owes in export taxes.

Without the AVE, the export process cannot go forward. Thus the MPEFP (in future SNPFE) can halt an export if it is not in line with the rules and limits, and it collects and cross-checks export data thoroughly. MPEFP/SNPFE are not responsible for overseeing the logging practices of companies in the field, or for setting MAVs or any other

<sup>&</sup>lt;sup>3</sup> Air transport is highly unlikely to be used for timber exports. However SGS-MPEFP-SCPFE are responsible for controlling exports of *all* forest products, including wildlife, plants and derivatives thereof. These are likely to leave the Congo principally by air, and thus airport controls are essential to their job.

technical regulation. They work with the General Directorate and the Departmental Directorates, including the *brigades forestières*, to verify and control the overall process. But its official role is limited to ensuring the consistency of exports with what has been declared and approved by the technical agencies of the Ministry, and ensuring that customs has accurate information for assessing taxes.

To complete the process, a company pays the specified taxes to DFF and to the National Treasury. DFF confirms receipt of payment to the General Directorate. If DFF does not receive payment within a specified time period, it may inform the General Directorate who can instruct the relevant Departmental Directorate to halt that company's further activities.

Beginning in January 2005, the MPEFP will roll out a bar-code based log tracking system whereby it issues a series of bar codes to a company based on the company's AAC. The company must purchase the bar codes. Failure to develop an AAC and purchase the bar codes should result in the company's exports being blocked. Bar codes are affixed by the company to its logs as they are cut. As the logs, or processed timber products, are transported from the field site to the point of export, they are recorded electronically by decentralised SGS-SNPFE staff, who transmit this information electronically to headquarters in Pointe Noire. Any timber without a bar code or with an inappropriate bar code is excluded from progressing further along the export chain. Falsified bar codes, too, can be quickly spotted. This system will allow vastly improved tracking of timber from the forest to the port, and should result in significant savings of labour.

# Taxation

In the case of *Pericopsis elata*, the taxes a FMU permit holder must pay consist of:

- a concession/FMU tax (an area-based annual tax paid regardless of trees felled),
- a stumpage fee calculated as a percent (3-10% variable) of the shipment's FOB value, which is set at a standard rate by regulation. *Pericopsis elata*'s current official FOB value is 192,780 FCFA per cubic metre (€293.89 per cubic metre) for grade A logs, the only grade cut and exported from northern Congo. Note that this is the third highest FOB value of any species harvested and exported from Congo, after Wengué and Longhi blanc. For comparison sapelli's FOB value is 131,015 FCFA (€199.73 per cubic metre), and Okoumé's is 110,160 FCFA (€167.94 per cubic metre), and
- an export tax of 0-10% of FOB value. This tax is levied so as to encourage incountry processing and value-addition and to discourage the export of logs.

# Distribution of Pericopsis elata

MFEE (2004c) estimated the distribution of *Pericopsis elata* at 4.4 million hectares, based on its presence in the FMUs of Sembé, Souanké, Tala-Tala, Ngombé and Kabo (2.67 million hectares) and in the two protected areas of Odzala and Nouabalé-Ndoki National Parks (1.74 million hectares). After review by the team, the FMU of Pokola was added to its known distribution, resulting in an estimated distribution of 4.89 million hectares based on purely on its presence/absence in pre-defined FMUs. This distribution is shown in Figure 2.

Figure 2 FMUs and protected areas of northern Congo highlighting the distribution of *Pericopsis elata* 



Because the figure of 4.89 million hectares is based upon FMU boundaries, it likely overestimates *Pericopsis elata*'s true distribution in Congo. Unpublished data from several planning or management inventories, as well as from observations and surveys in the two national parks, indicate that the species has an extremely limited distribution within many of these units. From these observations, summary comments of the abundance in the FMUs and their adjacent sites are given in Table 3 below.

<u>Table 3. FMU</u>	<u>s with</u>	<u>i known</u>	or	reported	<b>Pericopsis</b>	<u>s elata</u>	stands	
		-						

FMU name	Area (ha)	Manager/Company (Owner if known)	Comments on the abundance of <i>Pericopsis.</i> elata
Tala-Tala FMU	496,020	SOCALIB	Reportedly highest levels of any FMU, especially in the west. A planning inventory in 2001 in the east found 5.1 harvestable trees/100 hectares, and 11.4 stems >20 cm DBH per 100 hectares. (MFEE, 2004c)
Sembé FMU	221,567	SIAS (Hazim)	Moderate abundance. According to planning inventories in 2001, only 124,148 hectares are considered exploitable. The study covered 1,374 hectares (1.1% of the potential harvest area) and found at low to moderate abundance with a 200% error margin.

Souanké FMU	317,783	T.B.I.	Moderate abundance. MFEE (2004c) cites a planning inventory of 2001 that found 5.2 harvestable trees/100 hectares and 13.5 stems >20 cm DBH per 100 hectares. Much of this FMU is considered ecologically sensitive.
Odzala National Park	1,354,600	NDWPA / ECOFAC	Presence unconfirmed in records the team accessed but reported in the north of the Park, and possibly restricted to the border with FMUs Tala Tala and Sembé (the proposed Koudou buffer zone)
Ngombé FMU	1,350,289	I.F.O. (Danzer)	Small quantities along water courses at the border with FMU Pokola in the east. Possibly very small quantities elsewhere.
Kabo FMU	280,000	CIB (Feldmeyer)	Very low
Pokola FMU	480,000	CIB (Feldmeyer)	Small quantities along water courses at the border with FMU Ngombé in the centre SW
Nouabalé-Ndoki NP	386,592	NDWPA / WCS	Small quantities restricted in the south (S. Blake, pers. comm. October 2004)

## Occurrence in Protected Areas

*Pericopsis elata* occurs in Odzala National Park and Nouabalé-Ndoki National Park. These two protected areas cover 40% of the total distribution area of *Pericopsis elata* in northern Congo. Odzala National Park seems to be the most likely significant protected area for this species, with very small localised quantities present in Nouabalé-Ndoki National Park.

# Regulation, harvesting and exports of Pericopsis elata

## Regulation

The Minimum Exploitable Diameter (MED) for Pericopsis elata in Congo is set at 60 cm. The FMUs managed by CIB and IFO have completed their inventories, thus sound data will soon be available from them. The FMUs with reported highest abundance, and which have been the biggest producers of Pericopsis elata over the last 10 years, are still within their grace periods for setting themselves up. Specifically, TBI must begin preparing the management plan for FMU Souanké by signing a protocol with MFEE by January 2005 to initiate detailed inventory work, and the management plan must be fully prepared within 3 years (by January 2008) to respect the terms of the agreement between itself and MFEE. SIAS must sign its protocol with MFEE in late 2004 to initiate detailed work for the preparation of a management plan for FMU Sembé, which must be completed within 3 years of starting (approximately by end of 2007). SOCALIB signed a protocol with MFEE in December 2002 to have prepared its management plan within 3 years (December 2005). Due to financial difficulties, SOCALIB had to cease logging operations in mid-2003 and has not yet re-negotiated an agreement with MFEE. However, SOCALIB appeared close to restarting operations as of late 2004. It is in Congo's strong interest to ensure the timely execution of these plans in order to make an informed non-detriment finding for Pericopsis elata.

# Harvesting for exports

The team were not able to collect data on the harvests, showing actual harvests by FMU per year. However, SNPFE did provide the team with a summary of *Pericopsis elata* exports from February 2003 to May 2004. These figures break down the exports by exporter as well as by importing country. As is noted below, these data do not correlate very closely with the data that has been submitted by Congo in its CITES Annual Reports, and which appears on the CITES Trade Database. Nevertheless, if it is assumed that exporters are exporting only from their own concessions, these figures do give an indication of where *Pericopsis elata* is being harvested and in what volumes. This information is summarised in the table below.

UFA name	Area of UFA (ha)	Exports (m3) Feb03-May04
Ngombé	1,350,289	53
Souanké	317,783	1093
Sembé	221,567	882
Tala-Tala	496,020	1205
UFA unknown	???	7
TOTALS	2,385,659	3,241

These data show that more than 98% of the exported timber comes from three concessions, Souanké, Sembé and Tala-Tala. The owners of these three concessions have not yet developed management plans. In the case of Tala-Tala the concession holder apparently ceased activities after May 2003, and there were subsequently no exports from that UFA.

## Exports

In the case of *Pericopsis elata*, most exports currently take place via road through Cameroon and the port of Douala. There are three road crossings from northern Congo into southern Cameroon – at or near Souanké, Moloundou and Bomassa – plus two others along the northernmost border with the Central African Republic but these are north of *Pericopsis elata*'s distribution zone. Apart from these five crossings, logs from northern Congo can be floated down the river network to Brazzaville where they are transported by rail to Pointe Noire. While this used to be more widely used by companies in the north, and is approximately €20 per cubic metre cheaper than exporting via Cameroon<sup>4</sup>, due to persistent security and technical worries along the railway this option has not been used much. The road network from northern Congo to Pointe Noire is unusable for logging purposes. Congolese *Pericopsis elata* exports are therefore relatively straightforward to monitor at the three principal crossings.

<sup>&</sup>lt;sup>4</sup> The current cost of exporting round logs from northern Congo via Douala is approximately 70,000 FCFA/m<sup>3</sup> (~ $\in 107/m^3$ ), and a cubic meter of sawn timber costs approximately  $\leq 120/m^3$  to export via Douala. Given recent increases in forestry taxes, in response to pressures from the IMF to increase government revenues, a difference of  $\leq 20/m^3$  is highly significant when profit margins are already tight for northern Congolese companies. Thus in future, if national security and the railway improve, *P. elata* exports may shift towards Pointe Noire.

Table 5 shows the exports of *Pericopsis elata* from 1993 to 2003. It is based on information from the CITES Trade Database.

<b>Country of</b>	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
import	m <sup>3</sup>	m <sup>3</sup>	<b>m</b> <sup>3</sup>	m <sup>3</sup>	<b>m</b> <sup>3</sup>	<b>m</b> <sup>3</sup>	m <sup>3</sup>				
Belgium				105			549	570	333*	135	69
China							213	728			
Cyprus											13
Denmark	63		99	280				97			
France	181	139		777				390	669	121 + kg	
Germany							60	68+	228		
Ireland										316	174
Italy	1492	10965*	155	406*	451*		1362*	1912	1281*	508	28
Japan	131	83		146	1173*	39	204	2257	2350	2887	496
Malaysia				11							
Morocco			157								
Panama											110
Portugal			22							61	394
Singapore					11(re- export)						
Switzerland	454			318				107			
Taiwan			249	999			771		1794	1267	2659
Tunisia								64	217		
Turkey				159					11	133	105
UK									65	33	
US										44	25
British Virgin Islands											349
XX				212							87
TOTAL	2321	11187	682	3413	1635	39	3159	6193	6948	5505	4509
Notes: Sawn wood and timber are the 2 terms given – these are combined in the above figures. The quantities are based mainly on export figures, except where the tallied import figures are higher and indicated with an *											

 Table 5 CITES recorded trade in Pericopsis elata from Congo 1992-2003

In the period up to 1999, exports fluctuated considerably, although since 2000 they have been between 4,000 - 7,000 cubic metres per year. The last few years have also seen the growing importance of Japan and Taiwan as destination countries.

As indicated above, the project team also received data from SNPFE, on the exports from February 2003 to May 2004. These data show that exports in the period February – December 2003 totalled 3495 cubic metres, which is not inconsistent with total exports for 2003 being 4509 cubic metres. In other respects, particularly with regard to the destination countries, the data diverge more significantly. Since this data was provided on an informal basis, it may not be appropriate to attach too much significance to this. The data also indicated that Congo imported and then re-exported 841 cubic metres from DRC in 2003. Again this is not reflected in the CITES Trade Database.

## Conservation status and threats

There is currently no overall figure for the population or stock size of *Pericopsis elata* in Congo. The uncertainties surrounding *Pericopsis elata's* distribution even within the areas of its reported highest abundance render impossible definitive statements about its true abundance.

Stocks of *Pericopsis elata* are found only in Congo's northern forests where annual deforestation has historically been below the national average (0.06% to 0.2%), and agricultural and demographic pressures are not significant. Timber extraction in the northern forests where *Pericopsis elata* occurs is a relatively recent development in comparison to the south, and sources suggested logging rates were likely to be on the low side of the national values (c.0.1% of total area per annum).

Commercial logging currently represents the only potential threat to the species. Timber cutting for local and national consumption is insignificant or nil. Other species are favoured. Only in highly localised areas around the ten or so cities and larger towns of the north might *Pericopsis elata* be cut, although these agglomerations are not near the areas of reported highest abundance.

If indeed *Pericopsis elata*'s ecology favours water courses and seasonally waterlogged soils, sensitive areas in all the FMUs of its distribution zone could be rich in the species, although these areas will not be covered in forestry inventories because inventories target only harvestable areas.<sup>5</sup> *Pericopsis elata*'s possible preference for ecologically sensitive areas may provide an increased level of *de facto* protection to the species.

# The implementation of the CITES Appendix II listing for *Pericopsis elata*

## CITES Management and Scientific Authorities

The CITES Management Authority for Congo is the Direction Générale de l'Economie Forestière, with another agency (Direction de la Faune et des Aires Protégées) competent to issue permits for the export of live animals and flora products. The Scientific Authority consists of a committee of 10 institutions chaired by the Direction de la Faune et des Aires Protegèes. This information appears on the CITES website (updated in October 2004) and is consistent with information provided directly to the project team.

<sup>&</sup>lt;sup>5</sup> Swampy conditions increase extraction costs and are of less interest to timber companies. MFEE forbids logging in ecologically sensitive zones, too, where the damages do not warrant the benefit from logging.

# CITES export permits

The process for issuing CITES export permits for *Pericopsis elata* was described to the project team in the following terms.

- 1. Exporter submits a request to the Direction Générale de l'Economie Forestière (the CITES Management Authority)
- 2. Requests are passed to Direction de la Faune et des Aires Protégées (Chair of the CITES Scientific Authority) which makes a recommendation based on the MAV. If the amount proposed is within the MAV for that FMU, and there are no other concerns, it approves the export.
- 3. Direction Générale de l'Economie Forestière signs the CITES permit, and returns it to the exporter.
- 4. The certificate is added to the export documentation and presented to the Monitoring Programme for Exported Forest Products/Service Nationale de Produits Forestière Exporté (in Ouésso). At the border post the MPEFP/SNPFE check the timber to be exported before the AVE (export verification documentation) is issued and taxes determined and paid.

Congo does not have an export quota for Pericopsis elata.

# Adherence to the requirements of the Appendix II listing

As described above, the issuing of CITES export permits for *Pericopsis elata* requires the CITES Scientific Authority to determine that the proposed export is within the MAV for the FMU from which the timber originates. Given the way in which MAVs are set, this determination might reasonably be regarded as fulfilling the requirement that the export is not detrimental to the survival of the species. However, for FMUs where management plans are not in place, MAVs have not yet been set. Thus, potential exports cannot yet be measured against MAVs in those cases. Most exports of *Pericopsis elata* in recent years have originated in FMUs which are currently without management plans. Management plans for those FMUs are due to be developed in coming years.

It was also noted that the CITES Scientific Authority is chaired by an agency that is subordinate to the CITES Management Authority. Conceivably this could compromise the objectivity of the Scientific Authority. MFEE personnel recognised this issue, but stated that it had not proved to be a problem in relation to *Pericopsis elata*.

## The Significant Trade Review process

In February 2004 Congo submitted a document to the Fourteenth Meeting of the Plants Committee in Namibia (MEFE 2004). This document describes the range of measures and initiatives that Congo has or will be putting into place to promote the sustainable management of the timber industry. There is little information on measures that apply specifically to *Pericopsis elata*, or to the way in which CITES is implemented in Congo.

The recommendation agreed by the Plants Committee in February 2004 was that, within 12 months "The CITES Secretariat should work with the Scientific and Management Authorities to ensure that the procedures in place for the management and export of *Pericopsis elata* are in full compliance with Article IV".

Subsequent to the Plants Committee meeting in February 2004, Congo submitted a document (MEFE 2004b) to the European Union, in connection with the import suspension for *Pericopsis elata* imposed on Congo. This included inventory data on *Pericopsis elata*. It was also noted that the work on management inventories for Sembé and Sounanké UFAs was expected to be completed by the end of 2004. It recognised that the management inventory for Tala-Tala had been delayed.

There was also one 'Additional recommendation' that was aimed particularly at exporting states, as follows: "The exporting states should be encouraged to work together to share experiences in the implementation of Article IV, to exchange information on procedures in place and to take common steps to improve monitoring of trade in the species."

The Congolese authorities cooperated fully with the project team during its mission to Congo in October 2004. It is not known if any further actions have be undertaken to ensure the implementation of this recommendation.

# Conclusions

1. The timber industry is currently undergoing widespread reform in Congo. A strong emphasis is being brought to bear on developing best practice for sustainable harvesting and ensuring the mechanisms are in place to manage the sector.

2. The processes being set up by MPEFP are new and under development. They are not yet followed rigorously and their operational details are evolving rapidly. While these developments are potentially very positive, it remains to be seen how effectively they will be implemented.

3. The lack of personnel in MFEE remains a critical obstacle to implementing the reforms underway. Without adequate human resources MFEE is forced to depend upon the cooperation of forestry companies (and in some cases NGOs) to implement the new policies, laws and regulations.

4. There appears to be a wide disparity in how far along the reform process the different forestry companies are in the north of Congo. At the top end of the scale are companies like the Congolais Industriel de Bois (CIB) that is carrying out detailed inventories of its five FMUs (>1.4 million hectares), as well as working in partnership with WCS and the Direction Générale de l'Economie Forestière to conduct faunal, socio-economic and NTFP surveys of the same. At the other end of the scale, some companies have not yet taken the legally required steps of initiating development of a management plan, although they continue to harvest. More generally, companies do appear to differ in their level of commitment to supporting the Government of Congo to reform the forestry sector.

5. No company in the north was officially in breach of its contract at the time the team visited because the law allows a grace period of two to three years to develop a management plan. However, by logging actively without having undertaken basic inventory work or studies of what constitutes sustainable off-take levels in their FMUs, these companies may be operating in breach of the spirit of the Forest Code of 2000. The coming years will show the extent to which the MFEE enforces the code as these companies must prepare management plans or risk suspension.

6. Currently MPEFP does not have close working relations to CNIAF and their data are not shared.

7. *Pericopsis elata* is found in the north-west of Congo, in the FMUs of Sembé, Sounaké, Tala-Tala, Ngombé, Kabo and Pokola and in the protected areas of Odzala and Nouabalé-Ndoki. This implies a maximum distribution area of 4.89 million hectares. However, the actual distribution area may be substantially less than this.

8. There is no reliable estimate for the overall population or stock size in northern Congo. The chief threat to the conservation of the species comes from commercial logging for export. While plans are in place to significantly improve the management of the harvesting and export of the species, these plans have not been fully implemented in the concessions which are richest in *Pericopsis elata*.

9. Since 2000, exports of *Pericopsis elata* appear to have been between 4000 and 7000 cubic metres per year.

10. The issuing of CITES export permits for *Pericopsis elata* requires the CITES Scientific Authority to determine that the proposed export is within the MAV for the FMU from which the timber originates. Given the way in which MAVs are set, this determination might reasonably be regarded as fulfilling the requirement that the export is not detrimental to the survival of the species. However, for FMUs, where management plans are not in place, MAVs have not yet been set. Thus, potential exports cannot yet be measured against MAVs in those cases. Most exports of *Pericopsis elata* in recent years have originated in FMUs which are currently without management plans. Management plans for those FMUs are due to be developed in coming years.

11. It was also noted that the CITES Scientific Authority is chaired by an agency that is subordinate to the CITES Management Authority. Conceivably this could compromise the objectivity of the Scientific Authority.

12. Congo and the Significant Trade Review process.

Congo has provided information relevant to the Significant Trade Review to the European Union and to the project team. While it is not the case that the procedures are yet in place to ensure full compliance with Article IV, Congo is attempting to move in this direction.

## **Recommendations**

1. MFEE capacity, especially at the field level, to implement the strong policy framework laid out in the Forest Code of 2000 needs to be built.

2. Knowledge about *Pericopsis elata* (distribution, abundance and size class) in the northwestern FMUs of Souanké, Sembé, Tala-Tala and Invindo, and in the protected and unclassified forest areas of the north should be increased and/or updated.

3. The development and implementation management plans in the UFAs where *Pericopsis elata* is most abundant (Souanké, Sembé and Tala-Tala) should be completed as soon as practicable.

4. The relationship between the CITES Management Authority and the Scientific Authority should be clarified, in order to ensure that the latter is independent of the former.

5. It would be highly beneficial for MPEFP and CNIAF to coordinate their data collection, analysis and storage systems. This data can be combined to verify standing stocks, logging plans, timber transportation and consumption, timber exports and values/revenues.
# **Democratic Republic of the Congo**

#### The forestry sector in Democratic Republic of the Congo – background

The Democratic Republic of the Congo (DRC) has 128 million hectares of rainforest, covering 54% of the national territory, accounting for 47% of the tropical forest in Africa, and 6% of the remaining tropical forest in the world. The central block covers an area of 100 million hectares, of which 60% is potentially exploitable, capable of producing about 10 million cubic metres of wood per year. There are over 700 tree species in DRC of which about 30 are currently being exploited, including *Pericopsis elata* (MECNEF 2004a).

DRC is emerging from years of civil conflict. A peace agreement was signed in 2003 and the country is preparing for elections in mid-2005. The conflicts were hugely disruptive and the government institutions remain very weak and under-resourced. There was a very large impact on the forestry sector and large areas of forest were not under the control of the Kinshasa government during the conflict. As a consequence the export of timber from the north and east of the country through Kinshasa and Matadi was greatly reduced. During the conflict there were a number of reports of timber, including *Pericopsis elata* being exported through Uganda and Rwanda.

In 2002 a new Forest Code was passed (Journal Officiel de la République Démocratique du Congo, 2002) and according to the Ministere de l'Environnement, Conservation de la Nature, Eaux et Forêts (MECNEF) the country has now embarked on a profound reform of the forestry sector in order to promote the sustainable exploitation of forest resources.

The decree of implementation of the Forest Code is still awaited. Most observers take the view that MECNEF is severely understaffed and under-resourced and that it will have difficulty in implementing the new code. There is said to be a need for much better information flow between departments in the Ministry. There is also very little capacity to monitor timber production on the ground and so it has not been possible to check the information provided by logging companies. There are said to be problems of corruption within the Ministry, which some link to the low salaries paid to staff.

The development of a comprehensive management plan by concession is holders one of the main requirements of the new Forest Code. Industry representatives have expressed concerns about the way in which the new code emphasises customary rights and suggested that this could lead to very heavy burdens being placed on timber companies.

#### Institutional context

An organogram for MECNEF is shown in Figure 3. From the point of view of this study the most important departments are Direction de Gestion Forestière (DGF), Direction de Gestion Faunique et de Chasse (DRFC) which acts as the CITES Management Authority, Service Permanent d'Aménagement et d'Inventaires Forestiers (SPIAF) which is responsible for inventories within the Ministry, and Fond de Reconstitution du Capital Forestier (FRCF) which among other functions collates export data.

Another relevant governmental institution is the Office Congolais de Contrôle (OCC). The main responsibility of OCC is to check the quantity and quality of all exports from DRC.

# <u>Figure 3</u>: Organigramme du Ministère de l'Environnement, Conservation de la Nature, Eaux et Forêts, République Démocratique du Congo



#### Key to the diagram

- CATEB: Centre d'Adaptation des Techniques Energie-Bois
- DCF: Direction du Cadastre Forestier
- DDD: Direction de Développement Durable
- DEP: Direction des Etudes et de la Plannification DGF:
- DPRI: Direction de la Programmation et des Relations Internationales
- DRFC: Direction de Gestion Faunique et de Chasse
- FRCF: Fond de Reconstitution du Capital Forestier
- SNPB: Service National de Promotion du Bois
- SPIAF: Service Permanent d'Aménagement et d'Inventaires Forestiers

- CNIE: Centre National d'Information sur l'Environnement
- DCI: Direction de Contrôle et Inspection
- DEHPE: Direction des Etablissements Humains et Protection de l'Environnement
- DGF: Direction de Gestion Forestière
- DRE: Direction des Ressources en Eaux
- DSG: Direction des Services Généraux
- SNA: Service National d'Assainissement
- SNR: Service National de Reboisement
- SVVP: Service des Centures Vertes et Vallées Présidentielles

#### External support to the forestry sector

The United Nations Food and Agriculture Organisation (FAO) is supporting the development of the decree of implementation of the Forestry Code and the development of guidelines for producing forest management plans in production forests. The European Commission has commissioned reviews of the research needs within the forestry sector in DRC, which could lead to support being provided in the future.

#### Pericopsis elata

#### Distribution

According to MECNEF the distribution area of *Pericopsis elata* is of the order of 33,650,000 hectares, straddling the Congo River in Province de l'Equateur and Province Orientale (MECNEF 2004a). A map, produced by the ministry's inventory service, SPIAF, is included in Appendix I. Of the total distribution area, at least 24% (8,227,411hectares) has been inventoried (MECNEF 2004a). This inventory data dates from the period 1974-1991 and so it does not take account of the exploitation that has occurred subsequently. This later exploitation was probably concentrated in the period 1991-1997, before the civil conflict reduced the overall level of logging.

#### Occurrence in protected areas

The main protected areas where this species is found are:

- Yangambi Man and Biosphere Reserve in the Kisangani region which is under the control of the national UNESCO MAB programme rather than under the control of the Institut Congolais pour la Conservation de la Nature (ICCN) as it is the case for other protected areas;
- Rubitele Forest Reserve;
- Maïko National Park. This is sandwiched between the Province Orientale and the Kivu. No inventory has been done in this park, but it likely that *Pericopsis elata* occurs there.

#### Population and stock size

It is not easy to determine the overall population size of *Pericopsis elata*, particularly given its patchy distribution pattern. Nevertheless, using the inventory data supplied by MECNEF and reproduced in Appendix II, it is possible to arrive at an estimate of the total exploitable stock (MECNEF 2004a). This inventory data, covering 24% of the total distribution area, shows a stock within the inventoried area of over 11 million cubic metres at an average density of 1.35 cubic metres per hectare. In its estimate of the total stock size, MECNEF assumes that the density is rather higher, at 2 cubic metres per hectare. It is then assumed that, because some of the distribution area will consist of marshy or hilly, uneven ground, this stock density is found only on 50% of the total area. This gives a total stock size of 33,650,000 cubic metres. If the lower density of 1.35 cubic metres per hectare is used, one arrives at an estimated total exploitable stock of 22,713,750 cubic metres.

There are a number of possible sources of uncertainty in this figure for the exploitable stock. These may be summarised as:

- Uncertainty about the stock density shown by the inventory figures. The inventory figures are subject to a margin of error;
- Uncertainty about how representative the inventoried area is of the total distribution area with regard to stock density;
- Uncertainty about the size of total distribution area. The current estimate appears to be based on inventories covering only 24% of the projected total area;
- Amount of exploitation since the inventories were conducted. This is uncertain, particularly in regard to domestic consumption and illegal exploitation carried out during the civil conflict.

However, even taking full account of these sources of uncertainty, it does seem reasonable to assume, on the basis of the figures provided by MECNEF and taking account of what is known about exploitation since 1991 (see below), that the current exploitable stock is over 10 million cubic metres.

More detailed inventories are currently being carried out by logging companies in their concession areas. The project team were shown, in confidence, the results of some of these 100% inventories conducted in concessions around Kisangani. They showed an overall stock density of 2.31 cubic metres of *Pericopsis elata* per hectare. This figure does need to be treated with some caution. They included trees below the Minimum Exploitable Diameter of 80 cm; they covered a very limited area of about 16,000 hectares; there is no indication of how representative these areas are; and they were supplied in confidence and so are not open to public scrutiny. The most that can be said is that these inventory results appear to be consistent with the larger-scale, older, less detailed inventory data held by MECNEF.

#### Regulation, harvesting and exports

#### Domestic use

There are reports of domestic use of *Pericopsis elata* by local people for charcoal production and carpentry and of the medicinal use of the bark for treating cancer (Mianda-Bungi, cited in PC14 Doc.9.2.2 Annex 3, 2003). However there are no numerical estimates of how much is being consumed in this way. While one government official indicated that domestic use was insignificant, an external expert suggested that it could be of considerable significance.

#### Production for export

The exploitation of *Pericopsis elata* for export is generally thought to be much greater than for domestic consumption. The Minimum Exploitable Diameter is set at 80cm by MECNEF. Extraction is said to take place in the following territories:

Province de l'Equateur: *Territoires de: Bumba, Djolu, Bolomba, Bongandanga, Lingende, Lisala, Basankusu, Bomongo, Kungu, Libenge.* 

Province Orientale: *Territoires de: Ubundu, Yauma, Banalia, Bafwasende, Basoko, Aketi, Isangi, Wanie-Rukula.* (MECNEF 2004b)

The logging companies are obliged to collect information on their production and to submit it to MECNEF. However, the Direction de la Gestion Forestière, within the Ministry, indicated that they do not always do so and that, in any case DGF does not have the capacity to check the veracity of the information provided. The project team did not see any figures for the production of *Pericopsis elata*. Some companies state that there are still following the 'Guide de l'exploitant forestier' of 1986 as a guide to good forest practice.

All *Pericopsis elata* that is legally exported is transported down the Congo River to Kinshasa, and then by rail to the sea port of Matadi. In 2003 the figures from the Office Congolais de Contrôle indicate that around 26% of *Pericopsis elata* exports were in the form of parquet flooring, which is not covered by the CITES Appendix II listing. The processing of timber prior to export is being encouraged by the government of DRC and the timber companies of Comité Professionel Bois de la Fédération des Entreprises du Congo (FECBOIS) also saw the transformation of timber at the logging sites as in their interests since it reduced transportation costs considerably. They nevertheless noted that the large-scale drying of wood is likely to be a problem because of the low supply of electricity.

Figures for the export of *Pericopsis elata* are more readily available than those for production. Table 6 shows exports from DRC. It is based on the information that is held in the CITES Trade Database.

Country of import	1993 m <sup>3</sup>	1994 m <sup>3</sup>	1995 m <sup>3</sup>	1996 m <sup>3</sup>	1997 m <sup>3</sup>	1998 m <sup>3</sup>	1999 m <sup>3</sup>	2000 m <sup>3</sup>	2001 m <sup>3</sup>	2002 m <sup>3</sup>	2003 m <sup>3</sup>
Congo				2,499	1,033						
Finland				17							
France		157	262	472	726	37	140		83		93
Germany			251	116	74						450
Hong Kong				97							
Indonesia				109							
Ireland	887										
Italy	9,580	8,533	20,647	10,907	14,291	8,393	3,636				2,920
Japan	1952	500		200	336						106
Lebanon						10					
Morocco					50						
Netherlands			33	222		58					
Portugal			240	13	125	3 veneer	1302				77
Singapore			61	1,014							
South Africa	131	18		47							
Spain				235	252						
Sweden											
Switzerland	97	146		138		97					
Taiwan			936	1,733	2,090	767					613
Tunisia				99							
Turkey											303
Turks & Caicos Is						299					
UK			76	121							
US					20						
Total	17,733	11,853	25,099	22,033	20,231	11,597	5,321	0	83	0	4,808

Quantities based mainly on export figures, except where the tallied import figures are higher and indicated with an \*

The information in the CITES Trade Database indicates that exports were above 10,000 cubic metres per year between 1993 and 1998 and they subsequently declined sharply, with virtually no exports between 2000 and 2002. Exports began to pick up again in 2003, when they reached nearly 5,000 cubic metres. There are reports that exports in 2004 showed another significant increase, with around 14,000 cubic metres being exported by one company to Belgium and France. This figure has not yet been confirmed.

The period of the decline in exports coincides with the years of civil conflict in DRC. At that time, much of the distribution area of *Pericopsis elata* was in rebel-controlled areas and there were virtually no logs being shipped downriver to Kinshasa at that time. The first shipment after the peace agreement, left Kisangani in April 2003.

There are reports that during the civil war high-value timber was exported to Uganda by air from Kisangani. *Pericopsis elata* has been named as one of the species that was so exported. Not surprisingly, the volume of *Pericopsis* that was exported in this way is unknown, but given the manner of transport it seems unlikely that it was very high.

The figures that appear in the CITES Trade Database are based on data supplied by DRC, although they are corrected upwards if the data supplied by importing countries indicates higher volumes. Nevertheless, the data can be wrong or misleading for a number of reasons, and it is useful to compare them with the figures provided directly by agencies in DRC. A comparison is shown in Table 7.

	CITES Trade	Direction de la	Fonds de	Office Congolais
	Database	Gestion	<b>Reconstitution du</b>	de Contrôle
		Forestière	<b>Capital Forestier</b>	( <b>OCC</b> )
		(DGF)	(FRCF)	
	Cubic metres	Cubic metres	Cubic metres	Tonnes
1993	17,733			
1994	11,853	9,250		
1995	25,099	16,933		
1996	22,033	17,916		
1997	20,231	10,849		
1998	11,597	11,869		
1999	5,321	165		
2000	0	657	654	22
2001	83	153	153	115
2002	0	196	197	167
2003	4,808	4,252	4,290	4,421

Table 7 Exports from DRC: A comparison of different sources

One can see from this table that the DGF figures are lower than the CITES Trade Database figures for the period from 1994 to 1999 (in some cases very significantly lower). However for the period from 2000 onwards they are close to the CITES figures. The figures from the FRCF are close to those of the DGF. The figures from the OCC are difficult to compare in that they are given in tonnes rather than cubic metres. FECBOIS informed us that *Pericopsis elata* logs weigh about 1.15 tonnes per cubic metre. It is not known whether the same is true of sawn timber. A further complication in interpreting

these figures is that parquet flooring and other worked products made from *Pericopsis elata* are exempt from the Appendix II listing and so exports of these products should not be included in the CITES Trade Database figures, although one would expect them to be included in the figures from the other sources. As was noted above, the OCC figures for exports indicated that around 26% of *Pericopsis elata* exports in 2003 took the form of parquet flooring. Putting these not inconsiderable qualifications to one side, the above table does not indicate any radical discrepancies in the figures for exports in recent years.

#### Conservation status and threats

The two main threats to the conservation status of *Pericopsis elata* in DRC appear to be domestic use and production for export. As has been noted there are no data for domestic use and there are varying opinions on its significance. The production for export probably represents a bigger potential threat. However, if the inventory data cited earlier is even approximately accurate then the current exploitable stock is probably above 10 million cubic metres. In these circumstances, even if production for export was to rise to preconflict levels of over 20,000 cubic metres per year, then this would not represent a threat to the conservation status of the species.

Both government officials and industry representatives in DRC were unanimous in holding that *Pericopsis elata* is not seriously threatened and is not likely to become so. Two general reasons, in addition the existence of large stocks, were given for this. First, there is the remoteness of the distribution area. Much *Pericopsis elata* occurs more than 2000 km away from the main exit port of Matadi. The road network is poor and all *Pericopsis* has to come down the Congo River to Kinshasa and then by rail to Matadi. The transportation costs are therefore high and provide a disincentive to exploitation. Second, the route that *Pericopsis elata* has to follow makes the monitoring and control of exports relatively easy.

#### The implementation of the CITES Appendix II listing for Pericopsis elata

CITES Parties are obliged to nominate both a Management Authority and a Scientific Authority. In the case of DRC these authorities appear on the CITES website as follows:

Management Authority Direction des Ressources Fauniques et Chasse Ministère de l'Environnement, Conservation de la Nature, Eaux et Forêts.

Scientific Authorities Fauna Institut Congolais pour la Conservation de la Nature

*Flora* Institut des Jardins Zoologiques et Botaniques du Congo

*Other* Département de Biologie et Environnement Université de Kinshasa The Direction des Ressources Fauniques et Chasse (DRFC), which is the designated Management Authority, is responsible for issuing CITES export permits and it has actively engaged with the Significant Trade Review process. It has also stated that it works closely with the Scientific Authority. However, the project team did encounter a lack of clarity regarding the Scientific Authority and its role. DRFC indicated that the Scientific Authority, including for *Pericopsis elata* was, the Institut Congolais pour la Conservation de la Nature (ICCN). However, the CITES website indicates that ICCN only deals with Fauna. The Institut des Jardins Zoologiques et Botaniques du Congo (IJZBC) maintained that it was the Scientific Authority with the ICCN, but held that its own responsibilities covered both fauna and flora. Despite this, the IJZBC staff that the project team met showed little awareness of how CITES functions or the significance of an Appendix II listing. DRFC has stated that there is a quota of 50,000 cubic metres of exports for year for *Pericopsis elata* and several agencies showed awareness of this quota. However, the project team was not able to determine how this quota had been set.

#### CITES quota and export permits

As has just been seen, according to DRFC, the Scientific Authority has determined an annual quota of 50,000 cubic metres for *Pericopsis elata*. DRFC is therefore prepared to issue export permits up to this level. This quota of 50,000 cubic metres was registered on the CITES website list of export quotas for 2000 and again in 2003 and 2004. The five steps in the permitting process were then described to the project team in the following terms.

- 1. Application from the logging company to export *Pericopsis elata* arrives at DRFC.
- 2. The details of the application are studied in consultation with the Direction de Gestion Forestière (DGF)
- 3. DGF contact the SPIAF which organises a field trip.
- 4. If everything is in order the company pays the fee of US\$115 per permit
- 5. CITES export permit is issued.

The Management Authority acknowledged, however, that step 3 is typically not followed. Taking this into account, this picture of what is involved in obtaining a CITES permit was consistent with that provided by a timber company. FECBOIS stated that fulfilling the CITES export requirements are not particularly onerous. The export permits are checked at the point of export, although the project team were not able to determine exactly who has responsibility for this.

In a letter to the CITES Secretariat (MECNEF 2004b) DRFC noted that in 2001, as reported to the Secretariat at the time, measures were taken to eliminate the abuse of permits issued by the Management Authority. This measures mean that an the original of the CITES export permit is only handed over to the exporter when the Management Authority has received a photocopy of the import permit. In addition, on 19<sup>th</sup> August 2002 a *Protocole d'Accord* was signed between the L'Office des Douanes et Accises (OFIDA), l'Office Congolais de Controle (OCC) and Organ de Gestion CITES. The purpose of this agreement was to fight against the illegal trade in CITES species. However, the project team were informed by the OCC that this protocol has not, in fact, become operative.

Although, as has been noted, there is some lack of clarity about who has determined the annual quota of 50,000 cubic metres, DRCF has offered a justification of this quota. It has suggested that the potential production for each year is 652,831 cubic metres. In the light of this an annual quota of 50,000 cubic metres is said not to present any danger to the conservation of the species. While it is not clear how the figure for the potential production has been arrived at, the estimates for the total stock that were discussed earlier do suggest that an annual quota of 50,000 cubic metres, even if it was met in full, would not threaten the species.

#### Adherence to the requirements of an Appendix II listing

As has been noted, there is a lack of clarity concerning the identity and role of the CITES Scientific Authority in DRC, including its role in the permitting process. While an export quota has been set for *Pericopsis elata* it is not known what role the Scientific Authority played in setting this quota. Nevertheless, it could be argued that the quota of 50,000 cubic metres does, in the light of the apparently substantial stocks of the species in DRC, ensure that exports will not be detrimental to the survival of the species.

Some of these weaknesses have been acknowledged by DRFC and in this context it should be noted that DRC hosted a CITES Training Workshop in Kinshasa (15-18 November 2004). This workshop was organised by TRAFFIC Europe and included participation from the CITES Secretariat. The DRC participants included representatives from DRFC, ICCN, IJZBC, and OCC.

#### Attitudes to the listing of Pericopsis elata on Appendix II

Both government officials and industry representatives have expressed considerable scepticism and incredulity about the listing of *Pericopsis elata* on Appendix II. The Director of the Minister's Cabinet expressed concerns about the listing decision and queried the motives of the Parties. The Management Authority expressed 'deep astonishment' at the listing and the FRCF stated that the decision was not based on reliable field data. FECBOIS said that the inclusion on Appendix II caused astonishment in the timber industry.

#### The Significant Trade Review process

DRC has participated in the Significant Trade Review process. It attended the Fourteenth Meeting of the Plants Committee and submitted a document to the meeting (PC 14, Inf 18) as well as participating in the Working Group on Significant Trade. In response to the recommendations, DRC has submitted two letters to the CITES Secretariat, dated 28th June 2004 and 22nd January 2005 (MECNEF 2004b and MECNEF 2005).

The recommendations that were agreed at the Fourteenth Meeting of the Plants Committee meeting were as follows:

"The CITES Secretariat should work with the Scientific and Management Authorities to ensure that the procedures in place for the management and export of *Pericopsis elata*, remains relatively abundant within the country and are in full compliance with Article IV.

In all of the above cases the information could include information on:

- The national forest estate;
- Protected areas;
- Concession policies;
- Species inventories;
- Quotas;
- Current areas of harvesting;
- Information regarding minimum felling diameters; and
- Compliance and enforcement measures.

In this regard, the relevance of this information to the implementation of Article IV to *Pericopsis elata* is particularly important."

Combining the information submitted to CITES and the information supplied directly to this project, DRC has provided information on all these issues with the partial exception of 'current areas of harvesting'. However, as has been suggested, it is still not the case that DRC can be said to be in 'full compliance' with the requirements of Appendix II listing.

There was one 'Additional recommendation' that was aimed particularly at all exporting states, as follows:

"The exporting states should be encouraged to work together to share experiences in the implementation of Article IV, to exchange information on procedures in place and to take common steps to improve monitoring of trade in the species."

The project team does not have evidence that DRC has acted on this recommendation.

#### **Conclusions**

1. The Ministere de l'Environnement, Conservation de La Nature, Eaux et Forets (MECNEF) of DRC have stated that the distribution area of *Pericopsis elata* in DRC is of the order of 33,650,000 hectares.

2. MECNEF have provided inventory data covering 24% of the distribution area. These data indicate that the exploitable stock within the inventoried area is over 11 million cubic metres. If it assumed that only half of the total distribution area contains exploitable stock, and that the stock density is the same as in the inventoried area, this suggests a total exploitable stock of over 20 million cubic metres.

3. The inventory data on which the above estimates are based are old, dating from the period 1974-91. The data do not take account of subsequent exploitation and are themselves subject to a margin of error.

4. In the period 1993-1998, the exports of *Pericopsis elata* reached a peak of 25,000 cubic metres per year. Official exports then declined drastically during the period of civil conflict and have only begun to increase again in 2003, when exports were just under 5,000 cubic metres per year.

5. Domestic consumption is unknown, although DRC officials indicate it is not high.

6. Bearing in mind the weaknesses of the data, it nevertheless appears to be the case that current levels of exports are sustainable, even up to the quota of 50,000 cubic metres per year.

7. DRC introduced a new Forestry Code in 2002. This has not yet been fully implemented.

8. MECNEF, like other government agencies in DRC, suffers from institutional weakness, partly as a result of the years of civil conflict.

9. This general institutional weakness affects the implementation of CITES. DRC has nominated a Management Authority and two Scientific Authorities (for fauna and flora respectively). While the Management Authority is responsible for issuing CITES permits it is not clear what role the Scientific Authority plays in implementation of CITES.

10. An overall export quota for *Pericopsis elata* has been set at 50,000 cubic metres per year. This figure is considerably higher than the exports in 2003 (the most recent year for which figures are available), but is probably justified in the light of the estimates of total exploitable stock.

11. DRC has participated in the Significant Trade Review process. DRC attended the Fourteenth Meeting of the Plants Committee, submitting a document to the meeting (PC 14, Inf 18), and participating in the Working Group on Significant Trade. In response to the recommendations, DRC has submitted two letters to the CITES Secretariat, dated 28th June 2004 and22nd January 2005.

12. In the recommendations agreed at the CITES Plants Committee, DRC was requested to provide information on:

- The national forest estate;
- Protected areas;
- Concession policies;
- Species inventories;
- Quotas;
- Current areas of harvesting;
- Information regarding minimum felling diameters; and
- Compliance and enforcement measures.

Combining the information submitted to CITES and the information supplied directly to this project, DRC has provided information on all these issues with the partial exception of 'current areas of harvesting'.

13. The project team does not have evidence that DRC has acted on the second of the 'Additional Recommendations'. This stated 'The exporting states should be encouraged to work together to share experiences in the implementation of Article IV, to exchange information on procedures in place and to take common steps to improve monitoring of trade in the species.'

14. Partly as a result of the collaboration with this project, it is clear that the implementation of the CITES Appendix II provisions is not being followed in full and could be improved. This needs to be seen in the general context of DRC's institutional weakness. In the light of the apparently very large stocks of *Pericopsis elata*, it appears that the weaknesses in CITES implementation are not currently having a detrimental effect on the conservation of the species.

#### **Recommendations**

1. DRC's attempts to reform its forestry sector and to strengthen relevant government institutions need to be continued and increased. External support is needed for this.

2. There is a need to proceed with the implementation of the Forestry Code of 2002.

3. There is a need to ensure that logging in UFAs takes place in accordance with agreed management plans.

4. Inventory data on *Pericopsis elata* – and other species – needs to be updated.

5. There is a need to improve the implementation of the CITES Appendix II listing for *Pericopsis elata*. Given DRC's willingness to collaborate with the Significant Trade Review process, together with the large stocks of *Pericopsis elata* within DRC, CITES and European Union bodies should support DRC in improving its CITES implementation.

6. Closer collaboration between government agencies and the timber companies to ensure the implementation of sustainable forest management and conformity with the provisions of CITES is to be encouraged.

## **Implementation by importing states in the European Union**

One of the aims of this study was to review the importing procedures and reporting for the trade in *Pericopsis elata* by EU member states. CITES is implemented in the European Union through Council Regulation 338/97 and Commission Regulation 1808/2001 and, as noted in the Introduction, these regulations do go somewhat further than CITES in what they require of Member States. A questionnaire was sent to the CITES Management Authorities of all 25 Member States. Ten replies were received, from Cyprus, France, Germany, Greece, Hungary, Ireland, Italy Latvia, Poland and the United Kingdom.

Member States were asked about the import and export of *Pericopsis elata* to and from their country. A summary of the responses is included in Table 8 below. The table indicates which countries are New Member States. The four New Member States only acceded to the European Union in 2004 and were not required to implement the EU Wildlife Trade Regulations before that, although any Party to CITES is required to keep records of and report on imports of Appendix II species. It can also be noted that Ireland only recently became a Party to CITES and the convention came into force in Ireland on 8<sup>th</sup> April 2002.

State	New Member State?	Questionnaire response on imports and exports	Information in CITES Trade Database		
Cyprus	Yes	No record of imports of this species	Imports of between 20 and 50 cubic metres in 2001, 2002 and 2003.		
France	No	Detailed figures provided on imports and exports for 2000 – 2003.	Figures correlate with figures provided by France		
Germany	No	Detailed figures provided on imports and exports for 2000 – 2003.	Imports are recorded at somewhat higher levels		
Greece	No	No imports or exports for 2000-2003	One import of 60 cubic metres recorded 2003.		
Hungary	Yes	No application to import or export 2000-2003	No imports recorded		
Ireland	No	No import or export permits for 2000-2003	Imports of 316 cubic metres in 2002 and of 174 cubic metres in 2003		
Italy	No	Detailed figures provided on imports and exports for 2000 – 2003.	Imports are recorded at somewhat higher levels.		
Latvia	Yes	No trade in the species 2000-2003	No imports recorded		
Poland	Yes	Issued no import or export permits for 2000-2003	No imports recorded		
United Kingdom	No	Detailed figures provided on imports permits issued for 2000 and 2001. But no actual imports.	Imports recorded for 2000, 2001 and 2003. The amounts are the same order of magnitude as the import permit amounts.		

#### Table 8 Responses to EU Member State questionnaire

The information provided in response to the questionnaire is compared to the information in the CITES Trade Database. A discrepancy between the two can arise in a number of different ways, and it should not be assumed that it demonstrates that the questionnaire response was inaccurate. As an extreme example of this, in the case of Italy the CITES Trade Database appeared to show an import of over 22,000 cubic metres of sawn wood in 2003 from Cameroon. But when this figure was queried by the project team and error was discovered and the figure was revised downwards to nearer 3,000 cubic metres. The revised figure was much closer the figure provided by Italy in response to the questionnaire. Having said all that, the discrepancies in the case of Cyprus and Ireland may suggest that there is case for these two countries to ensure that their reporting mechanisms are sound.

Countries were also asked about the implementation of the Wildlife Trade Regulations, including whether they had encountered any problem, and about the import suspensions implemented for Cameroon and Congo. France, Germany, Italy and the United Kingdom offered substantive comments on these issues. Italy reported some problems in communicating with the Management Authority of Cameroon regarding the validity of permits. With regard to the import suspensions, all four countries said that they had observed the suspensions, with Italy noting that it had allowed one import from Cameroon and one from Congo during the suspension, in accordance with the derogation allowed by Article 24 par 2-3 of Commission Regulation 1808/2001. This allows imports to take place if the permit application was submitted prior to the establishment of the restriction. France indicated that the fact that import suspensions come into force immediately, without a period of transition does cause a problem with implementation.

#### Conclusions

The project did not assess whether the implementation of the Wildlife Trade Regulations are making a positive contribution to ensuring that the trade in *Pericopsis elata* is sustainable. The focus of our investigation was simply on the whether the regulations are being implemented as intended. The project received responses to its questionnaire from 40% of EU Member States. No major discrepancies were discovered between the figures provides by the respondents and the information available from other sources, although in a number of cases there were some differences between the figures supplied on imports and exports, and the information that appears in the CITES Trade Database. Countries did not report any major problems with the implementation of the EU Wildlife Trade Regulations, although the fact that import suspensions are supposed to be implemented immediately was said to be a problem by one country. While recognising the limited nature of the investigation carried out by the project, it does appear that the EU Wildlife Trade Regulations are, in the main, being implemented as intended for *Pericopsis elata*.

## **Conclusions and recommendations**

#### **Cameroon conclusions**

1. The main distribution area for *Pericopsis elata* in Cameroon is said to cover 4,071,857 hectares in the south-east of the country in the river basins of the Dja, Boumba, Ngoko and Sangha rivers.

2. Of this main distribution area, 42% is covered by UFAs which are subject to managed exploitation, 15% is subject to multiple use, and 43% is subject to complete protection in which no exploitation takes place.

3. Inventory data indicate that in an area covering most of UFAs in which exploitation can take place, the density of *Pericopsis elata* is about 0.52 stems (above 20 cm in diameter) per hectare, giving a total population in that area of 829,000 stems. The date of these inventory data are not known, but more accurate and up-to-date information is becoming available to the Ministry as concession holders carry out inventories in their UFAs.

4. The Minimum Exploitable Diameter (MED) for *Pericopsis elata* in Cameroon is 100 cm. It appears from MINEF documents that within a 30-year period concession holders will only be allowed to harvest trees that are equal to or above the MED at the start of the 30-year period. If this is indeed the case and this requirement is adhered to, it would ensure that the harvesting of *Pericopsis elata* is sustainable.

5. The CITES Trade Database indicates that for the 7-year period, 1993-1999, the exports from Cameroon averaged just over 21,000 cubic metres. Over the subsequent 4 years (2000-2003), the average was just below 7,000 cubic metres. This marks a significant reduction. It is not clear whether it is linked to the ban on log exports, which came into force in 1999.

6. In the light of the data available to the project, and if the proposed management measures described above are adhered to, it would appear that there is not a significant threat to the population of *Pericopsis elata* in Cameroon.

7. MINEF expressed some dissatisfaction to the project team regarding the regular requests for further information about the trade in *Pericopsis elata* which originate from CITES and the European Union. MINEF did not supply the project team with much additional information, beyond what is contained in documents sent to the Secretariat (MINEF 2004b & 2004c)

8. MINEF holds that the requirements of an Appendix II listed are adhered to. The project team were not able determine the detailed process for the granting of CITES export permits.

9. There are some uncertainties regarding the identity of the CITES Scientific Authority in Cameroon and the role that it plays in advising on export permits for *Pericopsis elata*.

10. If the management measures for the harvesting of *Pericopsis elata* outlined in MINEF documents are adhered to then the Cameroonian authorities will have good grounds for

determining that the exports deriving from that harvest will not be detrimental to the survival of the species.

11. The main recommendation issuing from the Significant Trade Review (as formulated at the Fourteenth Meeting of the Plants Committee) required Cameroon to provide confirmation to the Secretariat on three issues:

- That existing policies in place provide an adequate scientific basis for the formulation of non-detriment findings for *Pericopsis elata;*
- The procedures for issuing export permits on the basis of the non-detriment finding;
- The monitoring of the volume of exports in accordance with the requirements of Article IV.

With regard to the first issue, it can be argued that the policies outlined in MINEF documents do provide an adequate basis for non-detriment findings. With regard to the second issue, the project has not acquired detailed information about the issuing of export permits (although this information may have been provided to the Secretariat). With regard to the third issue, Cameroon is monitoring exports of *Pericopsis elata*. The project team was not able to determine how accurate the Cameroon records are, but there was no specific reason to think that they are substantially inaccurate.

#### **Cameroon recommendations**

1. There is a need for Cameroon to clarify the identity of the CITES Scientific Authority and its role in the issuing of CITES export permits.

2. There is a need for Cameroon to ensure that management plans are put in place and adhered to in all the UFAs in which *Pericopsis elata* is currently being harvested.

3. Cameroon should clarify the specific management measures proposed in MINEF (2004b) and ensure that they are adhered to.

4. If Cameroon was to make available information derived from the more recent inventory data it is acquiring from concession holders and data on the harvesting of *Pericopsis elata* they might be in a stronger position to demonstrate the sustainability of current harvesting.

#### Congo conclusions

1. The timber industry is currently undergoing widespread reform in Congo. A strong emphasis is being brought to bear on developing best practice for sustainable harvesting and ensuring the mechanisms are in place to manage the sector.

2. The processes being set up by MPEFP are new and under development. They are not yet followed rigorously and their operational details are evolving rapidly. While these developments are potentially very positive, it remains to be seen how effectively they will be implemented.

3. The lack of personnel in MFEE remains a critical obstacle to implementing the reforms underway. Without adequate human resources MFEE is forced to depend upon the co-

operation of forestry companies (and in some cases NGOs) to implement the new policies, laws and regulations.

4. There appears to be a wide disparity in how far along the reform process the different forestry companies are in the north of Congo. At the top end of the scale are companies like the Congolais Industriel de Bois (CIB) that is carrying out detailed inventories of its five FMUs (>1.4 million hectares), as well as working in partnership with WCS and the Direction Générale de l'Economie Forestière to conduct faunal, socio-economic and NTFP surveys of the same. At the other end of the scale, some companies have not yet taken the legally required steps of initiating development of a management plan, although they continue to harvest. More generally, companies do appear to differ in their level of commitment to supporting the Government of Congo to reform the forestry sector.

5. No company in the north was officially in breach of its contract at the time the team visited because the law allows a grace period of two to three years to develop a management plan. However, by logging actively without having undertaken basic inventory work or studies of what constitutes sustainable off-take levels in their FMUs, these companies may be operating in breach of the spirit of the Forest Code of 2000. The coming years will show the extent to which the MFEE enforces the code as these companies must prepare management plans or risk suspension.

6. Currently MPEFP does not have close working relations to CNIAF and their data are not shared.

7. *Pericopsis elata* is found in the north-west of Congo, in the FMUs of Sembé, Sounaké, Tala-Tala, Ngombé, Kabo and Pokola and in the protected areas of Odzala and Nouabalé-Ndoki. This implies a maximum distribution area of 4.89 million hectares. However, the actual distribution area may be substantially less than this.

8. There is no reliable estimate for the overall population or stock size in northern Congo. The chief threat to the conservation of the species comes from commercial logging for export. While plans are in place to significantly improve the management of the harvesting and export of the species, these plans have not been fully implemented in the concessions which are richest in *Pericopsis elata*.

9. Since 2000, exports of *Pericopsis elata* appear to have been between 4000 and 7000 cubic metres per year.

10. The issuing of CITES export permits for *Pericopsis elata* requires the CITES Scientific Authority to determine that the proposed export is within the MAV for the FMU from which the timber originates. Given the way in which MAVs are set, this determination might reasonably be regarded as fulfilling the requirement that the export is not detrimental to the survival of the species. However, for FMUs, where management plans are not in place, MAVs have not yet been set. Thus, potential exports cannot yet be measured against MAVs in those cases. Most exports of *Pericopsis elata* in recent years have originated in FMUs which are currently without management plans. Management plans for those FMUs are due to be developed in coming years.

11. It was also noted that the CITES Scientific Authority is chaired by an agency that is subordinate to the CITES Management Authority. Conceivably this could compromise the objectivity of the Scientific Authority.

12. Congo and the Significant Trade Review process.

Congo has provided information relevant to the Significant Trade Review to the European Union and to the project team. While it is not the case that the procedures are yet in place to ensure full compliance with Article IV, Congo is attempting to move in this direction.

#### Congo recommendations

1. MFEE capacity, especially at the field level, to implement the strong policy framework laid out in the Forest Code of 2000 needs to be built.

2. Knowledge about *Pericopsis elata* (distribution, abundance and size class) in the northwestern FMUs of Souanké, Sembé, Tala-Tala and Invindo, and in the protected and unclassified forest areas of the north should be increased and/or updated.

3. The development and implementation management plans in the UFAs where *Pericopsis elata* is most abundant (Souanké, Sembé and Tala-Tala) should be completed as soon as practicable.

4. The relationship between the CITES Management Authority and the Scientific Authority should be clarified, in order to ensure that the latter is independent of the former.

5. It would be highly beneficial for MPEFP and CNIAF to coordinate their data collection, analysis and storage systems. This data can be combined to verify standing stocks, logging plans, timber transportation and consumption, timber exports and values/revenues.

#### DRC conclusions

1. The Ministere de l'Environnement, Conservation de La Nature, Eaux et Forets (MECNEF) of DRC have stated that the distribution area of *Pericopsis elata* in DRC is of the order of 33,650,000 hectares.

2. MECNEF have provided inventory data covering 24% of the distribution area. These data indicate that the exploitable stock within the inventoried area is over 11 million cubic metres. If it assumed that only half of the total distribution area contains exploitable stock, and that the stock density is the same as in the inventoried area, this suggests a total exploitable stock of over 20 million cubic metres.

3. The inventory data on which the above estimates are based are old, dating from the period 1974-91. The data do not take account of subsequent exploitation and are themselves subject to a margin of error.

4. In the period 1993-1998, the exports of *Pericopsis elata* reached a peak of 25,000 cubic metres per year. Official exports then declined drastically during the period of civil

conflict and have only begun to increase again in 2003, when exports were just under 5,000 cubic metres per year.

5. Domestic consumption is unknown, although DRC officials indicate it is not high.

6. Bearing in mind the weaknesses of the data, it nevertheless appears to be the case that current levels of exports are sustainable, even up to the quota of 50,000 cubic metres per year.

7. DRC introduced a new Forestry Code in 2002. This has not yet been fully implemented.

8. MECNEF, like other government agencies in DRC, suffers from institutional weakness, partly as a result of the years of civil conflict.

9. This general institutional weakness affects the implementation of CITES. DRC has nominated a Management Authority and two Scientific Authorities (for fauna and flora respectively). While the Management Authority is responsible for issuing CITES permits it is not clear what role the Scientific Authority plays in implementation of CITES.

10. An overall export quota for *Pericopsis elata* has been set at 50,000 cubic metres per year. This figure is considerably higher than the exports in 2003 (the most recent year for which figures are available), but is probably justified in the light of the estimates of total exploitable stock.

11. DRC has participated in the Significant Trade Review process. DRC attended the Fourteenth Meeting of the Plants Committee, submitting a document to the meeting (PC 14, Inf 18), and participating in the Working Group on Significant Trade. In response to the recommendations, DRC has submitted two letters to the CITES Secretariat, dated 28th June 2004 and22nd January 2005.

12. In the recommendations agreed at the CITES Plants Committee, DRC was requested to provide information on:

- The national forest estate;
- Protected areas;
- Concession policies;
- Species inventories;
- Quotas;
- Current areas of harvesting;
- Information regarding minimum felling diameters; and
- Compliance and enforcement measures.

Combining the information submitted to CITES and the information supplied directly to this project, DRC has provided information on all these issues with the partial exception of 'current areas of harvesting'.

13. The project team does not have evidence that DRC has acted on the second of the 'Additional Recommendations'. This stated 'The exporting states should be encouraged to work together to share experiences in the implementation of Article IV, to exchange

information on procedures in place and to take common steps to improve monitoring of trade in the species.'

14. Partly as a result of the collaboration with this project, it is clear that the implementation of the CITES Appendix II provisions is not being followed in full and could be improved. This needs to be seen in the general context of DRC's institutional weakness. In the light of the apparently very large stocks of *Pericopsis elata*, it appears that the weaknesses in CITES implementation are not currently having a detrimental effect on the conservation of the species.

#### DRC recommendations

1. DRC's attempts to reform its forestry sector and to strengthen relevant government institutions need to be continued and increased. External support is needed for this.

2. There is a need to proceed with the implementation of the Forestry Code of 2002.

3. There is a need to ensure that logging in UFAs takes place in accordance with agreed management plans.

4. Inventory data on *Pericopsis elata* – and other species – needs to be updated.

5. There is a need to improve the implementation of the CITES Appendix II listing for *Pericopsis elata*. Given DRC's willingness to collaborate with the Significant Trade Review process, together with the large stocks of *Pericopsis elata* within DRC, CITES and European Union bodies should support DRC in improving its CITES implementation.

6. Closer collaboration between government agencies and the timber companies to ensure the implementation of sustainable forest management and conformity with the provisions of CITES is to be encouraged.

#### General conclusions

1. All three range states have some reservations, of a stronger or weaker kind, about the appropriateness of a CITES Appendix II listing for *Pericopsis elata* and about whether the original listing decision was based on good data.

2. All three range states are in the process of developing or implementing improved regulatory systems for the management of forest concessions and the trade in timber. Where these systems can be successfully implemented, they would appear to offer a good basis for ensuring the sustainability of the timber trade. Although, in all three countries, these systems have not been developed primarily to implement CITES requirements they could be used to do so.

3. The regulatory systems in the three range states are at different stages of development, and face different obstacles. But in all cases there is a problem of the institutional weakness – broadly understood – of the state bodies responsible for these regulatory systems. Thus, where there are weaknesses in the implementation of the system of

control of the trade in *Pericopsis elata*, this is often a symptom of a much broader problem.

4. A common problem among the range states is that the CITES system of institutionally and functionally independent Management and Scientific Authorities does not appear to be working successfully for *Pericopsis elata*.

5. The private sector can play an important role in sustainable forest management in the three countries and some companies appear to support the requirements set out in government policies.

#### General recommendations

1. Wherever possible, range states should be closely involved in CITES listing decisions and subsequent policy development, particularly of economically significant species. Where appropriate, support should be made available for countries to fully engage with CITES processes.

2. Where countries do have regulatory systems for the trade in commercially important timber species (or are developing such systems), CITES bodies should work with Parties to ensure synergies between those systems and the requirements of CITES. Where timber species are listed on CITES, the existing regulatory system should be used as the basis for ensuring CITES requirements – including the requirement for independent Management and Scientific Authorities - are met in an efficient and cost-effective way.

3. Where countries are reforming their regulatory system for the trade in timber species, CITES bodies should ensure, wherever possible, that their recommendations to Parties in relation to CITES-listed species contribute to the broader reform process.

4. Encouraging trade forums within the range states to participate in CITES processes both nationally and internationally would be beneficial.

5. There is a case for an investigation of the relationship between the requirements of CITES Appendix II listings and management of the harvesting and export of commercial timber species. The phenomenon observed here, of regulatory systems in place (albeit with differing degrees of implementation) but an imperfect match with the type of regulation required by CITES, may well be a common one, deserving more systematic investigation. For example, considerable work has been undertaken on the implementation of CITES for *Swietenia macrophylla*, with experience that may be relevant to other timber species.

6. The development of a manual on implementation of CITES provisions for timber species should be considered.

7. European and other external support for good governance within the forest sector (for example through the AFLEGT process) should, where possible, be harmonised with the implementation of CITES.

## **Bibliography**

Alder, D.(1989) Natural forest increment, growth and yield. In: Wong, J.L.G. (ed.) *Forest Inventory Project, Seminar Proceedings*, 29-30 March 1989, Accra. Overseas Development Administration, UK and Ghana Forestry Department.

Ampofo, S.T. (date??) The problem of natural regeneration of *Pericopsis elata* (Harms) van Meeuwen in Africa. *Ghana Journal of Agricultural Sciences* 5(3):241-245

Anon. (1979) *Tropical legumes: Resources for the future*. Washington, DC: National Academy of Sciences.

ATIBT (2004a). The ATIBT plays a major role in the overturning of the European Union negative opinion on the importation of Afrormosia in provenance from the Republic of Congo. *La Lettre de l'ATIBT* (ATIBT Newsletter), summer 2004, no. 20, pp.9.

ATIBT (2004b). Logs and sawnwood export figures in 2003 for the Republic of Congo. *La Lettre de l'ATIBT* (ATIBT Newsletter), summer 2004, no. 20, pp.33.

ATIBT (2002). Technical report on Pericopsis elata. Unpublished document.

Auzel, P., Feteke, F., Fomete, T. Nguiffo, A. and Djeukam, R. (2001) *Impact de l'exploitation forestière sur las fiscalité, sur le amenagément et sur le développement local*. Forests Monitor, IUCN, DFID.

CEFDHAC (1999) Bases pour la mise en coherence des politiques et lois forestieres des pays d'Afrique Centrale. IUCN

CIFOR (2004). Workshop to Develop a Regional Applied Research Program in the Congo Basin [ITTC Decision 10(XXXII)] – Main Report. Prepared for the ITTO (Japan) by the Centre for International Forestry Research, Jakarta, Indonesia.

COMIFAC (2003?). Plan de Convergence pour la conservation et la gestion durable des forêts tropicales d'Afrique centrale. Plan d'action prioritaire pour la République du Congo.

Dunn, R.M and Otu, D.O. (1994) Reconnaissance inventory of high forest and swamp forest areas in Cross River State, Nigeria.

European Commission (2004) Short Summary of Conclusions of the 29<sup>th</sup> Meeting of the Scientific Review Group on Trade in Wild Fauna and Flora, 29<sup>th</sup> April 2004.

European Commission (2003) Short Summary of Conclusions of the 25<sup>th</sup> Meeting of the Scientific Review Group on Trade in Wild Fauna and Flora, 30<sup>th</sup> Janaury 2003

FAO Forestry Department (1986) *Databook on endangered tree and shrub species and their provenances*. Rome: FAO. 524pp.

Forests Monitor (2001) Sold down the river. The need to control transnational forestry corporations: a European case study. Forests Monitor Ltd, Cambridge, UK.

Forni, E. (1997) *Types de fôrets dans l'est du Cameroun et étude de la structure diametrique de quelques essences*. Memoir for the Diploma in Agronomic Science and Biology. Faculte Universitaire des Sciences Agronomiques de Gembloux.

Gabu Community Yala L.G.A (2002) *Community Forest Management Plan for Gabu*. Facilitated by CRSCFP/FC-CFSU

Global Witness (2002) Forest law enforcement in Cameroon. First summary report of the Independent Observer May – November 2001.

Hawthorne, W.D. 1995. *Ecological profiles of Ghanaian forest trees*. Oxford Forestry Institute. 345pp.

Howland, P. (1979) *Pericopsis elata* (Afrormosia). Commonwealth Forestry Institute Occasional Papers 9, Oxford.

IMF (2004). *Republic of Congo: Selected Issues and Statistical Appendix*. IMF Country Report no. 04/231, Washington DC.

ITTO (2004). Annual Review and Assessment of the World Timber Situation 2003. ITTO, Japan.

ITTO (2002b) Annual Review and Assessment of the World Timber Situation 2001. ITTO.

ITTO (2002a) Mission in support of the Government of the Congo for the realization of ITTO Objective 2000 and Sustainable Forest Management – Report of the Diagnostic Mission to the Congo 12-26 October 2001. ITTC (XXXII)/8 26 March 2002.

Journal Officiel de la République Démocratique du Congo (2002) *Code Forestier Loi* 011/2002 due 29 août 2002.

Keay, R.W.J., Onochie and Stanfield (1964) Nigerian Trees Volume 2

Maisels, F. (1996). *Synthesis of information concerning the Park National d'Odzala, Congo*. Project ECOFAC-COMPOSANTE

Mbolo, M. (2003). Développement des critères et indicateurs nationaux et locaux pour l'aménagement durable des forêts du Congo à base des critères de l'OIBT. Rapport technique final de l'avant-projet OIBT PPD24/01(F) [ITTO Final Technical Report for pre-project PPD24/01]. Brazzaville, Congo.

MECNEF (2005) Letter to CITES Secretary General, 22 January 2005.

MECNEF (2004a) Etat des lieux du potential en *Pericopsis elata* (Afrormosia) on République Démocratique du Congo.

MECNEF (2004b) Letter to CITES Secretary General, 28<sup>th</sup> June 2004.

MFEE (2004a). Le Code Forestier [of 2000]. Editions Hémar, Brazzaville. 142 pp.

MFEE (2004b). Report from the 'Atelier d'adoption du canevas de rédaction des plans d'aménagement et des directives d'aménagement des concessionaires forestières en République du Congo.' Workshop held at the Hôtel Méridien, Brazzaville, 28-30 January 2004.

MFEE (2004c). Note technique sir Pericopsis elata (Assamela) en République du Congo en réponse à l'article 4(2)(a) de régulation UE 338/97. Brazzaville, Congo.

MFEE (2003). Arrêté no. 1585 du 5 mai 2003 fixant les valeurs FOB pour le calcul de la taxe d'abbatage et de la taxe à l'exportation des bois. Brazzaville, Congo.

MINEF (2004a) Letter to CITES Secretary General, 22<sup>nd</sup> April 2004

MINEF (2004b) Rapport Technique sur Pericopsis Elata (Assamela/Afromosia), November 2004.

MINEF (2004c) Letter to CITES Secretary General 6<sup>th</sup> December 2004.

Ministry of Environment and Forestry (MINEF) (2002) *Note technique sur* Pericopsis elata (*Assamela/Afrormosia*). Cameroon

Nguiffo, S. (2003) Law, Transparency, Responsibility and Rights of Citizens in Cameroonian Forests. In *Forest Management Transparency, Governance and the Law*, edited by CED Cameroun, Rainforest Foundation UK & Forests Monitor UK.

Ola-Adams, B. (1977) Conservation of the genetic resources of indigenous forest trees in Nigeria: Possibilities and limitations. *Forest Genetic Resources Information* 7:1-9

Sayer, J.A., Harcourt, C.S. and Collins, N.M. (1992) *The Conservation Atlas of Tropical Forests. Africa.* IUCN

Sébastien, L.K. and Kiyulu N'Yanga-Nzo, J. (2001) Integration of biodiversity into the forestry sector in the Democratic Republic of Congo (DRC). Congo Case Study. Paper prepared for an international workshop on *Integration of Biodiversity in National Forestry Planning Programme* held in CIFOR HQ, Bogor, Indonesia, 13-16 August 2001.

SGS Trade Assurance Services (2002) Forest law assessment in selected African countries. Final Draft. World Bank/WWF Alliance.

Swaine and Whitmore (1988) On the definition of ecological species groups in tropical rain forests. *Vegetatio* 75: 81-86

Swaine, M.D., Agyeman, V.K., Kyereh, B., Orgle, T.K., Thompson, J. and Veenendaal, E.M. (1997) *Ecology of forest trees in Ghana*. ODA Forestry Series 7

WCMC (1998) Contribution to an evaluation of tree species using the new CITES Listing Criteria prepared by the UNEP World Conservation Monitoring Centre (UNEP-WCMC) on behalf of the CITES Management Authority of the Netherlands

# Appendix 1

# The distribution area of *Pericopsis elata* in Democratic Republic of Congo

.

