

Commodity-Chain Analysis for the Capture and trade in the African grey parrots
(*Psittacus erithacus erithacus*) in Cameroon.

Prepared for Policy and Distributional Equity in Natural Resource Commodity Markets:
Commodity Chain Analysis as a Policy Tool Project

By

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Under the Supervision

of

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World Resources Institute

April, 2006

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Abstract

This paper makes a commodity-chain analysis on the capture and trade of the African grey parrot (*Psittacus erithacus*) from Lobeke National Park area in the East Province of Cameroon. The African grey parrot has been noted as one of man's friendliest pets with popularity attributed to its intelligence, cognitive, communicative and extraordinary mimetic abilities. Worldwide, the African Grey Parrot is the third most commonly traded wild bird species. Being a CITES' Appendix II species, Cameroon's export quota of 12000 African grey parrots is worth some US\$ 12 million in European markets. The Lobeke National Park area supplies 80% of the birds with seven stakeholders involved in the commodity-chain. These stakeholders earn differential amounts with total annual gross revenue. The trappers, government and licensees get just 0.1-0.18%, 1.6% and 0.6-0.8% respectively of what the importers get. These statistics are indicative that very small proportion of the money generated through the African grey parrot commodity chain stays in the source country. This has major policy implications to strengthen the sector in terms of distributional equity and sustainable resource use.

Acronyms and Abbreviations

CBD-----Convention on Biological Diversity
CIFOR----Centre for International Forestry Research
CIG-----Common Initiative Group
CITES----Convention on International Trade in Endangered Species of wild Fauna & Flora
DFAP-----Department of Wildlife and Protected Areas in MINEF
DRC-----Democratic Republic of Congo
EU-----European Union
FAO-----Food and Agricultural Organization of the United Nations
FCFA-----Franc de la Confederation Française Africaine
FMI-----Forest Management Institutions
FUG-----Forest User Groups
GDP-----Gross Domestic Product
GoC-----Government of cameroon
LNP-----Lobeke National Park
NWFP----Non-wood forest products
MEA-----Multilateral Environmental Agreement
MINEF----Ministry of Environment and Forestry
SFM-----Sustainable Forest Management
UK-----United Kingdom
USA-----United States of America
US\$-----United States of America Dollar
WPT-----World Parrot Trust
WWF-----World Wide Fund for Nature

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1.0. Introduction

The World Resources Institute (WRI) commissioned this paper to the Center for International Forestry Research (CIFOR) as part of its research program that evaluates the distributional equity effects of natural resource policies within the context of broader economic governance reforms – decentralization and development. The research program uses Commodity-Chain Analysis to measure and explain the effects of forestry and other policies on the distribution of benefits in a sample of natural resource markets, one of which is the capture and trade of the African grey parrot (*Psittacus erithacus erithacus*) from Lobeke National Park area in the East Province of Cameroon. Commodity chain analysis is considered as a Policy Tool for policy and distributional equity in natural resource commodity markets (Ribot, 2005). It involves the analysis of markets shares and profit margins along the path of traded forest products and a policy analysis that evaluates how policies shape market distributional outcomes. Moreover, market access and its relation to policy in terms of entry and exit barriers and exclusionary or predatory behavior are examined with respect to benefits from commodities under study.

Giving this program its due importance, the overall objective is to produce recommendations for the improvement of distributional equity in relation to benefit flows from commercially exploited natural resources. This would fit in terms of increased benefit retention and poverty reduction from forest wealth through the proper linkage of forest policy, equity and rural poverty reduction. In this light, commodity-chain analysis was used to measure and explain the current distribution of benefits from the capture and trade of the African Grey parrots in the East Province of Cameroon. This was aimed at getting a clear understanding on how income along the African grey parrot trade-chain is distributed among local, national and international stakeholders and also to examine factors (law, technology, capital, markets, labor, knowledge, authority, identities, politics, and social relations - Ribot and Peluso, 2003) that contribute to such outcomes. It is believed that with the proper understanding of these roles, recommendations for African grey parrot trade policy improvement can be designed to favour equity and rural poverty alleviation. Therefore, a key research question to be answered in this paper is: how do policies on the capture and trade of African grey parrots from the Lobeke forest region enable or disable stakeholders from benefiting equitably?

The main reasons for selecting the Parrot trade chain as a case study from Cameroon was associated with the fact that the African Grey parrot is the most highly commercialized bird in Cameroon with fairly well documented regulation, production and trade. With respect to its status, the African Gray parrot is not an endangered species, but it is being threatened by habitat destruction and poorly controlled capturing. Another problem is illegal parrot trade and the disparity between revenues that accrue at the national and international markets. These issues have socio-economic implications at the local and national levels with respect to resource depletion to meet basic financial obligations. Moreover, the existing levels of national and international interventions in the form of export and import bans, boycotts, campaigns and regulations do not seem to ensure the sustainable trade on wild African grey parrots. One reason suggests that there has been no effective mechanism put in place to ensure equitable trade due to the lack of adequate

information to clearly show the possibility of equitable benefit flows to stakeholders along the commodity chain. The analysis made in this paper tries to fulfill this information gap, which is considered crucial for the formulation of sound policy statements on the influence that the trade in the species can impact on conservation, national incomes and poverty alleviation among local stakeholders.

2.0. Methodology

In addition to desk-reviews and email correspondences, a site (850 Km from Yaounde), where the African Grey parrots are exploited was visited over a period of 12 days for personal observations, the conduct of interviews and for the collection of both grey and published literature. The aim of this exercise was to update and/or complement available literature. A number of informal meetings were held with stakeholders and more than 9 resource persons were interviewed (Appendix I). These included local trappers as well as experts working on forest conservation and management issues in the region. Local trappers were interviewed on trends, costs and impact of recent conservation policies on their revenues from the activity compared to 5-10 years ago. Another three (3) days field visit was made to Douala (300 km from Yaounde) to interview the licensees/exporters on the annual cost incurred in their business, especially with respect to keeping captured birds in the quarantine before exports. With regards to the analytical study (commodity chain analysis), access to benefits along African grey parrot trade-chain was examined in relation to policy-supported factors that regulate entry and distributional equity in the sector. In this light, a detailed economic ethnography of the African grey parrot trade was developed. This involved

- measuring the distribution of profits through an analysis of margins and market shares;
- at each point of income concentration, identifying and explaining the mechanisms that stakeholders use to gain and maintain their benefit;
- characterizing the roles of environmental policies and other social and political-economic factors in shaping distributional outcomes; and
- Recommending reforms and measures to redress policy-generated inequities (Ribot, 2005, Ribot and Peluso 2003).

This paper considers the average US\$ exchange rate against the local currency, the Franc CFA to be 1US\$=500 FCFA, 1£=1000 FCFA. This is due to fluctuations in the value of US\$ over the past five years.

3.0. Description of case (brief of case and market)

The African grey parrot has been noted as one of man's friendliest pets with popularity attributed to its intelligence, cognitive, communicative and extraordinary mimetic abilities (May, 1996). In captivity, grey parrots are playful and inquisitive if given lots of attention and exercise. They are strong fliers for short distances but lack the endurance for longer flights. They eat fruits, berries, nuts and seeds and test food with their tongue, discarding anything not to their taste (Colombos Zoo and Aquarium, 1997-2005). Worldwide, the African Grey Parrot is the third most commonly traded wild bird species and is the most common parrot in Africa (May, 1996). Its ecological distribution ranges

from the tropical African forest of Guinea Bissau in the west to the Kakamega Forest of Kenya in the East. The African Grey belongs to the Genus ‘Psittacus’. In this Genus there is only one species, *erithacus*, and two subspecies, plus a questionable third. The first is the “Congo” Grey, *Psittacus erithacus erithacus*; the second is Timneh Grey, *Psittacus erithacus timneh*; and the third is believed by many aviculturists to be a variation of *Psittacus erithacus erithacus*, instead of separate subspecies, is called *Psittacus erithacus princeps*, which originates in equatorial Africa (Wright, 1996). The Timneh grey comes from Western Africa: Sierra Leone, Guinea, Liberia and Ivory Coast. When people refer to Ghana, Togo, Cameroon, Congo, Gabon and Angola Greys, they are referring to the region or country of origin. These names are ‘street names’ or simply variations of the same subspecies based on the areas in which they live (Pattison, nd). The Congo African grey parrot (*Psittacus erithacus erithacus*) has a black beak and bright red tail (Figure 1&3). The Timneh African grey (*Psittacus erithacus timneh*) is a darker grey, with brownish-to-maroon colored tail and horn-colored upper beak (Figure 2).



Photo: R. Low
Figure 1: African grey



Photo: Ngenyi.
Figure 2: Timneh grey



Figure 3: African grey in ‘a quarantine⁴’ in Yokadouma Photo: Tieguhong J.C.

⁴ A place where captured birds are kept for a certain period (preferably 40 days) to acclimatize before they are sold.

In Cameroon, the African grey parrots are common in the Lobeke National Park (LNP) and its environs (Low, 2002, Ngenyi, 2002, Tieguhong and Ndoye, 2004). The Lobeke National Park (LNP) covers an area of 2,125 Km² and is situated in the Boumba and Ngoko Division, Southeast Cameroon. One of the fundamental reasons for the immediate designation of Lobeke as a protected area (PA) is the broad range of activities that threaten to subvert the integrity of the forest irrevocably. The main threats to the forest and African grey parrots therein include:

- Destruction of nesting sites as a result of selective felling of the larger trees.
- Corruption and illegality in the pet trade
- Weak legislation and poor enforcement of laws where they do exist
- Increasing commercial timber exploitation and agricultural encroachment
- Unmanaged parrot trapping and unsustainable subsistence hunting
- Insecurity and weaker legislation in neighbouring countries (Tieguhong and Ndoye, 2004).

LNP is a dense semi-deciduous forest, characterized by a patchwork of high forest, secondary forest and low-lying swamp interwoven with a mosaic of maranthaceae forest, mono-dominant stands and forest clearings (Low, 2002; Ngenyi, 2002). The vegetation was fully described by Gartlan (1989), although summarized as being swamp /transitional-closed forest, part of the evergreen Cameroon-Congolese forest types. Whilst much of the habitat is natural, logging over the past 30 years has contributed to the opening of the canopy in several areas of the forest. This patchwork of the forest types promotes a high diversity and an abundance of mammals in the region. The large marshy forest clearings that characterized Lobeke forest eco-system are locally known as "bais". They are characterized by saline soils and/or riparian vegetation associated with marsh or dry grassland habitat, notably the Cyperaceae. Owing to their rich saline soils, the bais attract a lot of forest fauna including the African grey parrots (Figure 4).



Photo: Tieguhong J.C.

Figure 4: Trapping operation in a bais at Mbengou forest north of Lobeke

A great number of African grey parrots and green pigeons frequent the baobabs for food, especially in the mornings during which parrot trappers make their catch (Ngenyi, 2002). Generally, many animal species internationally recognized as endangered still thrive in the Lobeke forest and its environs, although they are increasingly threatened by unsustainable exploitation. More than 283 bird species are found in Lobeke forest including the widely commercialized species African grey parrots that are highly sought after in Europe, North America and many other countries as pets (Anon, 2001). Lobeke and its environs is said to be the highest parrot-trapping zone in Cameroon with 80% of parrots from Cameroon caught there (Low, 2002; Ngenyi (2002). The other 20% are trapped from other tropical rainforest ecosystems such as those found in the Korup National Park and Lomie regions (Tieguhong and Ndoye, 2004).

The African grey parrot is the most hunted bird in Cameroon (Tamungang, 1997). Cameroon accounted for 50% of the total specimens exported from all countries in 1995 and is still one of the highest exporters of African Grey Parrots today (Ngenyi, 2002). Prior to 1993, when restrictions on export quotas were decided by CITES at 12000 birds (CITES, 2001), a yearly average of 14000 parrots were exported from Cameroon (Ngenyi, 2002; Low, 2002). One African grey parrot is bought for 5000-9000 FCFA (US\$ 10-18) from trappers by middlemen/detenteurs and is ultimately sold in Europe by importers for over 500000 (US\$1000) (Tieguhong and Ndoye, 2004). Official figures do not account for parrots that are smuggled across borders into neighbouring countries, those that are consumed and those that die in the process of trapping, transportation and domestication (Tamungang, 1997).

4.0. History of African grey parrot trade

Parrots have been held in high regard since 1504 when the first live parrot was imported into the UK, although the Romans kept them as pets long before this (Scott, und). As early as 1865, exotic birds were traded in large numbers in the United States (Traffic international, 1992). Europe was the largest annual supplier of thousand of birds, though most of these birds were brought from Africa, Asia and South America. Since then, people have continued to use wild caught birds in captive environments as a source of meat, feathers, companionship and beauty; an age-old practice known particularly with the early Romans, Egyptians, Greeks and many others. Today, the pastime of keeping wild caught birds in captivity for pleasure varies from one culture to another. However, this practice is common throughout much of the world and it has given rise to international trade in wild caught birds, amounting to five millions birds in captive environments each year (Ratty41, nd). Million of birds are wrenched from their natural habitats to make quick money. The birds are then fed through a chain of middlemen and international dealers to meet the insatiable demands of private collectors in Saudi Arabia; Pet shops in Germany, Japan and the USA; zoos and circuses in Eastern Europe and folk healers in Asia (Traffic International, 1992).

Psittacines (Order Psittaciformes, which consists of parrots) form the largest group of birds in international trade. A net CITES report on trade in Psittacines for the years 1982-1988 ranged from a low number of 476917 birds per year to a high number of 624198,

averaging 539701 birds per year (Broad, 2001). Africa is a major source of wild caught parrots in international trade. Popular African parrots in the trade include the African grey parrot (*Psittacus erithacus*), lovebirds (*Agapornis sp*) and members of the genus *Poicephalus* (e.g. Senegal parrot *P. senegalus*). CITES data shows that between 1981-1989, about 440000 African grey parrots were traded internationally. From 1993 to 2002, 47 countries declared having exported the African grey parrots amounting to some 360000 individuals with annual exports ranging from 32209 parrots in 1994 to 42087 parrots in 2001 (TRAFFIC-Europe, 2004). Cameroon and the Democratic Republic of Congo (DRC) remained the highest exporters with 46% and 31% of all exports respectively. The Republic of Congo, Gabon and Ivory Coast followed with 6%, 4% and 4% respectively. The remaining 42 countries furnished 9% of African Grey parrots into the international market. The import market was more diverse as 100 countries declared having imported some African grey parrots between 1993 and 2002. Main importers included the Netherlands (21%), Belgium (16%) and South Africa (13%). Other European Union countries also imported reasonable proportions of African grey parrots between 1993 and 2002: France (9%), Spain (8 %), United Kingdom and Germany (7 % each) and Portugal (6%). Over 90 countries imported the remaining 13 % (TRAFFIC-Europe, 2004). The European Union countries were observed to absorb over 79% of all exports from Africa. This is explained by the fact that out of top ten importers the first eight were European Union member countries followed by South Africa in the 9th position and the United States of America (USA) in the 10th position (TRAFFIC, 2004). From the above statistics it becomes clear that the European Union member countries drive the international trade in wild caught African grey parrots.

5.0. The African grey parrot trade in Cameroon

The African grey parrot is the most hunted bird in Cameroon (Tamungang, 1997). Thousands of grey parrots are captured each year for local consumption and exports. Cameroon accounted for 50% of the total specimens exported from all countries in 1995 and is still one of the highest exporters of African Grey Parrots today (Ngenyi, 2002). Prior to 1993, when restrictions on export quotas were decided by CITES at 12000 birds, a yearly average of 14000 parrots were exported from Cameroon. Official figures do not account for parrots that are smuggled across borders into neighbouring countries, those that are consumed and those that die in the process of trapping, transportation and domestication (Tamungang, 1997).

Cameroon started to export African grey parrots to South Africa in 1993 with 2095 birds reported (Mulliken, 1995). Most of the African grey parrots from Cameroon are exported to the USA and the EU countries with France as transit point (Tamungang, 1997).

With the above-mentioned high export figures for Cameroon, four questions come to mind: Is the current rate of exploitation of African grey parrots from Cameroon sustainable? Apart for trapping and selling the African grey parrots for pets, can these birds in Cameroon be used to meet other economic gains on a more sustainable basis? Can the trade chain be shortened to ensure more financial gains at the local level? What policy changes are needed to ensure equity or fair trade in the trade of African grey

parrots? Answers to these questions might shed light on how to improve the trade chain of African grey parrots.

5.1. Stakeholders in the African grey parrot Business in Cameroon

There are about seven groups of stakeholders in the African grey parrots trade chain including the government, the licensees, the middlemen, the trappers, the local aids, the importers and the final pet keepers.

5.1.1. The Government

The Government of Cameroon is the primary agent of the African Grey parrot trade because it issues licenses to individuals to capture and export parrots at a minimum price of 8000 FCFA (US\$ 16) per bird (Tieguhong and Ndoye, 2004).

5.1.2. The Licensees or permit holders

The licensees form the second group of stakeholders and every year they may number up to 20. These licensees generally do not have much field experience of birds to capture and are usually resident in the cities of Yaounde and Douala. Therefore, they enter into contract with a number of middlemen (known in the field as Detenteurs) to go down to the field and arrange for the capture of parrots. The licensees may sell to importers at an average price of 60000 FCFA (US\$ 120) on the low side or 80000 FCFA (US\$ 160) on the high side. This seemingly high price is due to the high cost of treating birds in the quarantine (which can take up to 1,000 parrots) in Yaounde or Douala. In the quarantine, the birds are fed, dewormed with expensive drugs and subjected to cold climate (Tieguhong and Ndoye, 2004). This treatment is aimed at producing high quality birds and to enable them acclimatize to the European climate while in Cameroon before they are exported. Trade in African grey parrots is a high-risk business because as many as 50% of birds may die in the 'quarantine' before the date for exports. However, treatment reduces the death toll and well-treated birds (high quality birds) attract higher prices from importers.

5.1.3. The middlemen

The third group of stakeholders is the middleman (Detenteur), who gets direct contact with trappers. The people that are seen buying parrots in the field from trappers are not the licensed holders; they are merely middlemen between the two groups. There are about 70 middlemen dealing with parrots in Cameroon. They get an average price of 20000 FCFA (US\$ 40) per bird bought from them by the licensees in Douala and Yaounde. The Grey Parrots are put into small cages and transported to Douala and Yaounde (distance of about 850 km).

5.1.4. Trappers

The trappers form the fourth group of stakeholders. This group of people is fully engaged in trapping the parrots in the field. In the east province of Cameroon alone, there are believed to be between 30-40 parrot trappers, working with 3-4 local aids and having an average household size of seven persons. The trappers sell their birds at prices ranging from 5000-9000 FCFA (US\$ 10-18) depending on demand, giving an average price of 7000 FCFA (US\$ 14). Over 99% of the trappers are from the Centre and Littoral provinces of the country. During the high capture season (January-April), trappers return to the bush twice a month. This is driven by demand. On lucky days, the number of birds captured is higher. On good days, up to 60 birds may be captured. On bad days 20 birds may be captured. During the months of August, September and October, there is no capture of parrots because the rains are high and the 'bias' are flooded (Tieguhong and Ndoye, 2004).

The birds are captured using the net method, which does not discriminate the type captured in terms of age or sex. Therefore, all birds that fly are captured. After they are caught, the birds are transferred into small wooden boxes in which the trapper will take them home. They can spend days or even weeks in these containers being passed between dealers. Between capture and export, it's estimated that there is a 50% mortality rate (Low, 2002). The best feed for the parrots is grand nut and sugar cane, with maize, the rate of parrot death is generally on the increase. The capture of grey parrots is strenuous as it involves 22-30 km trekking with load of parrots and risks associated with elephants, snakes, detached branches and falling trees.

5.1.5. Local Aids

The fifth group of stakeholders is constituted by local aids. These are generally local people that assist the trappers in the trapping operation, caring for the birds in the 'quarantine' and transporting the birds out of the forest to the nearest road for vehicular transportation. These people are generally paid 20000 FCFA (US\$ 20) per trip that may last 10-14 days in the bush. In all there are 90-120 local people assisting in the trapping of African grey parrots in the east province of Cameroon. They have an average household size of seven. Apart from their labour and time, the local aids incur no costs.

5.1.6. Importers

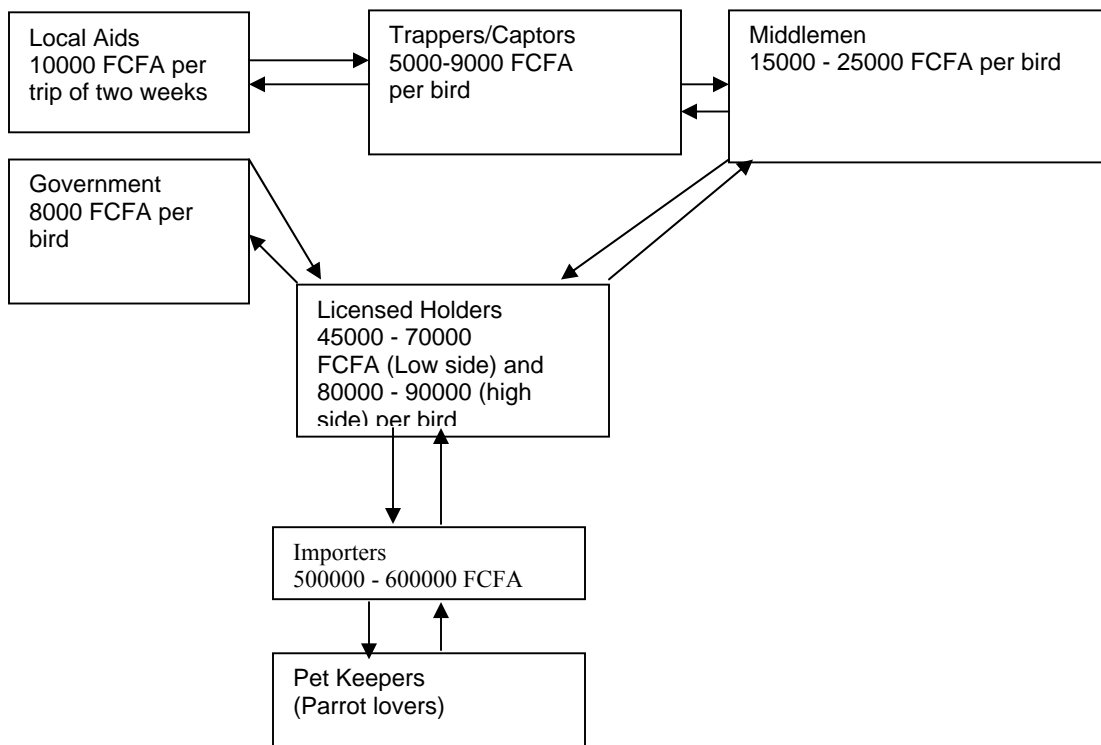
The sixth group of stakeholders is the importers of the parrots who do the big time business in Europe, South Africa or America. In the United Kingdom African greys may be sold for £500 or £600 British pounds per bird in pet shops depending on season (Pattison, ud). On average, importers in Europe sell each bird to the pet keepers in Europe at 500000 FCFA (US\$ 1000). In South Africa Mulliken (1995) reported a price range of US\$ 300 in July 1992 to US\$ 1167 for a pair in December 1993. The biggest cry with importers is that they are known to transport the birds in very inhumane conditions. The

Environmental Investigation Agency estimates that for every wild caught bird that reaches a pet shop, three others have died during capture, confinement, and transportation. It has been reported that birds have spent up to eight months at the holding premises of exporters before transport by air to their final destination (Ratty41, ud).

5.1.7. Pet keepers

The last and seemly one of the most important groups of stakeholders is the pet keepers' (final consumers). These are the people that drive the demand for the African grey parrots. They offer handsome prices for each parrot imported. The cost of delivery of grey parrots to UK customers is about £50 (US\$ 100) (Millennium Parrots, nd). Another cost incurred by the pet keepers is the cost of purchasing cages, which may go up to US\$ 200 in pet shops, depending on the dimensions, designs and styles available. Other costs include daily feeding and medicines. Purchase and exports are subject to CITES regulations. In the UK, all captive birds on the CITES List have to be identifiable and have to have the correct paperwork issued by DETR (Department of the Environment, International Trade in Endangered Species Branch). If when buying a bird on the CITES List, the owner does not have the correct documents then it is an offence to offer the bird for sale, it is also an equal offence to purchase the bird. Summarized below is the schematic representation of the trade in African grey parrots in Cameroon (Figure 5).

Figure 4. Trade Structure of African grey parrot in Cameroon



5.2. Economic benefits of the African Grey parrot trade to stakeholders.

This section looks at distributional equity in relation to benefit flows to different stakeholders along the African grey parrot commodity-chain.

5.2.1. Cameroon Government

Assuming available estimates of 80% (Ngenyi, 2002) of African grey parrots caught from Cameroon come from this region and taking into consideration the annual quota of 12000 (Dandjouma, 2002), 9600 parrots are caught each year from the East Province of Cameroon. In financial terms, the Cameroon government gets, at least, 8000 FCFA from each parrot sold, meaning that in total the government gets an average revenue of 76.8 million FCFA (US\$ 153600) from the African grey parrot trade each year.

5.2.2. Licensees

The licensees make an average amount of 60000 FCFA (US\$ 120) on the low side and 80000 FCFA (US\$ 160) on the high side per parrot bought and sold. This implies that the gross annual revenue of all licensees that buy the 9600 African grey parrots from East Cameroon may be estimated at between 576 million FCFA (US\$ 1152000) and 768 million FCFA (1536000). If these amounts are divided among the (20) average number of licensees per year, then, each licensee should have annual gross revenue of between 28.8 million FCFA (US\$ 57600) and 38.4 million FCFA (US\$76800).

(Cost incurred by licensees yet to be assessed as they are proving difficult to give information considering the halt in export activities)

5.2.3. Middlemen

The trade in African grey parrots at local level is organised by middlemen known as "Detenteurs", who possess certified copies of official permits issued for the trade. There are about 70 middlemen dealing with parrots in Cameroon and in the East province, but in Lobeke region there are about nine that make regular visits. All the middlemen are non-indigenes and they build social relations and trust with licensees as well as with trappers. The licensees give the middlemen financial capital and certified copies of their license to go down to the field and do the purchase. Middlemen get an average price of 20000 FCFA (US\$ 40) per bird sold to the licensees in Douala and Yaounde. Assuming they buy and sell 9600 parrots from the Lobeke region, this gives them a gross annual income of 192 million FCFA (US\$ 384000). Detenteurs live mostly in Yokadouma, Kika and Moloundou where there is relatively good access to public transport to easily evacuate the birds mostly done in the night to avoid heat from sunlight and many checks by wildlife law enforcement officers and policemen on the road. The major problem with officers on the road is that they delay the vehicles and generally ask for tips/bribes even when they have legal papers. *(Cost yet to be been fully assessed)*

5.2.4. Trappers

There are between 30-40 trappers in the East province of Cameroon, each working with 3-4 aids, who are local people. The average household size for trappers and local aids is seven, meaning that between 630 and 1120 people benefit in one way or the other from the trade of African Grey parrots in the East Province of Cameroon. Each African grey fetches between 5000-9000 FCFA for the trapper. This implies that if 9600 African greys are caught and sold by the trappers in the East province of Cameroon, they would make gross revenue of between 48 million FCFA (US\$ 96000) and 86.4 million FCFA (US\$ 172800), with each trapper possibly making gross annual revenue of between 1.2 million FCFA (US\$ 2400) and 2.16 million FCFA (US\$ 4320).

The trapper incurs a lot of in cost in terms of capital items bought and used per year, items bought and used per trip to the bush and costs for caring for captive birds in town before selling to middlemen (Table 1).

Table 1: Costs incurred by a trapper over two weeks trip.

S/N	Category of Items and specifications	Unit cost	Total cost
1	Capital items for one year		
	Two cutlasses	2500	5000
	One file	1000	1000
	2 pots	3500	7000
	2 pieces of plastics for tent	10000	20000
	One net for trapping	19000	19000
	30 m rope	100	3000
	bundle of thread	1500	1500
	2 mosquito net	5000	10000
	5 plates	2000	1000
	5 spoons	150	750
	One packet of nails for cage	5000	5000
	Wood for cage	10000	10000
	Hammer	2000	2000
	Small saw for cutting the wood	2000	2000
	Sub-total 1		87250
2	Items consumed per two-weeks trip*		
	2 basins of Fofou	3500	7000
	Ground nuts for parrots	10000	10000
	2 litres of oil	1000	2000
	20 tins of tomatoes	100	2000
	Packet of maggi	900	900
	Onions	1000	1000
	Salt	1000	1000
	Groundnut paste	3000	3000
	Smoked fish	3000	3000
	One packet of match	200	200

	4 soap	300	1200
	Packet of batteries for touch light	3500	3500
	First aid box for workers	5000	5000
	Capsules for parrots (Amoxycillin, tetracycline)	2000	2000
	Transport to the forest for 5 persons	5000	25000
	Transport back including carrying parrots (car hire)	100000	100000
	Rubber sticker	200	200
	Compensation to four assistants	20000	80000
	Average bribery on the road per trip	0-50000	25000
	Sub-total 2		222000
3	Cost at the quarantine when at Yokadouma		
	Daily feeding (palm nuts, ground nuts, sugar cane, maize**) of birds *14 days	2500	35000
	Drugs per two weeks	2500	2500
	Sub-total 3		37500
	Total cost for 2 weeks		346750

*Materials bought are for one season but the feeding of birds is a daily issue.

As seen in Table 1, capital items may go up to 87250 FCFA (US\$ 175), the per-trip cost of consumable items may go up to 222000 (US\$ 444) and the caring for captive birds before selling 37500 FCFA (US\$ 75). Assuming 18 trips are made per year, the total annual costs incurred by trappers is given by:

$$TCT = CCI + CCIP * 18 + CFQ * 18$$

Where

TCT = Total cost for trappers

CCI = Cost of capital items

*CCIP = Cost of consumable items per trip * 18*

*CCQ = Costs of caring for birds in quarantine before selling * 18*

Applying this formula, the total costs for trappers per year in capturing 9600 African grey parrots in the East province of Cameroon was estimated at US\$ 9517, approximately US\$1 per parrot caught and sold. This cost represents 5.5% to 10% of the gross revenue to trappers depending on whether they sell each bird at 9000 FCFA (US\$18) or 5000 FCAF (US\$10) respectively. Taking the above costs into consideration, the net benefit to all trappers in the East province of Cameroon is estimated at 43241500 FCFA (US\$ 86483) and 81641500 million FCFA (US\$ 163283), with each trapper possibly making net annual revenue of between 1.08 million FCFA (US\$ 2162) and 2.04 million FCFA (US\$ 4082).

5.2.5. Local Aids

With regards to the local aids, assuming there are nine active months during which parrots are captured in the field and two trips made per month, a total 18 trips are made in a year with each local aid paid 20000 FCFA per trip. This implies each local aid gets an

annual income of 360000 FCFA (US\$ 720), which is a little above the GNI per capita for Cameroon. This represents 17% of what the trappers can make or 0.93% of what licensees can make. The major difference here is that the licensee and the trappers incur some costs but the local aids incur no costs out of their own labour. All local aids are the indigenes of the parrot-trapping zone and have a good knowledge where the parrots are found. On the other hand, all the trappers come from far off places in the country such as Yaounde and the West Province. They have access to the license holders and go into contracts with them. The trappers are resident in towns nearer the trapping zone and they are those who build social ties with the local aids that understand their forest environment better.

5.2.6. Importers

Assuming the importers import and sell all the 9600 parrots at the cited average price of 500000 FCFA, then they can make gross revenue of up to 4.8 billion FCFA (US\$ 9.6 million) from the Africa grey parrots from the East Province of Cameroon. The trappers, government and licensees get just 0.1-0.18%, 1.6% and 0.6-0.8% respectively of what the importers get.

(Costs incurred by importers is proving difficult to assess because contacts with them is handicapped by the fact the trade is complete suspended).

General appraisal of the economics to be added.

6.0. Vulnerability of trade in African Grey Parrots

Both national and international actions and controls exist and regulate the access to equitable benefits from the trade in African grey parrots. The major predicament lies with inefficiencies in the process of implementing the rules and regulations, be they national or international. Indirectly, a natural phenomenon such as the recently lethal H5N1 strain of bird flu has put a major halt to the trade on African grey parrots resulting in the suspension of all exports. This has major consequences on stakeholders fully engaged in the activity. The lethal H5N1 strain of bird flu was detected in the Northern Provinces of Cameroon in March 2006, making it the sixth African country to be hit by the virus. The following sections examine the how policies boycotts and campaigns might impact on African grey parrot trade.

6.1. National Regulations on the capture and trade of African Grey Parrots

In conformity with the provisions of Decree No. 94/01 of January 20 1994 on forestry, fauna and fishery, the exploitation of fauna or protected zones is subject to the presentation of a hunting permit, a capture permit with a scientific purpose. Wild animals and birds are classified into categories of totally protected animals, whose

hunting/capture is prohibited and partially protected animals, whose hunting/capture has certain restrictions. The capture and trade in the African grey parrots fall under the latter category and is regulated according to Decree No. 0456/A/MINEF/DFAP/SDF of July 1998. Permit holders are legally authorized to capture parrots in any part on the national territory except for within protected areas. Exportation of hunting trophies or live caught birds is possible only after obtaining an export permit from the administration in charge of forests and wildlife.

In Cameroon, there is a procedure for the attribution of quotas for the trapping of the African Grey parrot under the auspices of the Ministry of Forestry and Wildlife (MINFOF). The season of capturing parrots in Cameroon is not very precise but the validity of permits to capture ranges from the first of January to the 31st of December of each year (Dandjouma, 2002). An advertisement is usually made by MINFOF stipulating the requirements for bidders to apply for the 30 lots of 400 parrots or 60 lots of 200 parrots opened for capture in a given season. Bidders send in their applications and winners of lots are selected by merit based on amount of money offered per lot and technical competence. The lots are then attributed to the selected persons by a ministerial decree, with the advice of a technical consultative commission on the quotas of parrots to be captured by each winner of a bid (Tieguhong and Ndoye, 2004). The names of the tenders alongside their quotas for the year are made public on the national press. For example, following the work of the Technical consultative commission for quota attribution on August 10th 2001; in conformity with the provisions of Decree No. 1995/466/PM and Decision No. 0456 and taking into consideration both technical and financial capacities of applicants the following tenders were approved for the following quotas of African grey parrots in 2001 (Table 2).

Table 2: Tenders and quota of grey parrots attributed 2001.

Name of Applicant	Score on 100 (%)	Rank	No. of lots attributed	Quota (number of birds)
Obele Assako	95.8	1	6	1200
Tchebayou Celin	86.27	2	5	1000
Tandjong Tita	85.41	3	5	1000
Souaibou Garga	83.27	4	5	1000
Sama Jonathan	82.94	5	5	1000
Nsso'o Mve	82.14	6	4	800
Nyem II	80.19	7	4	800
Tchinda Ngou	79.93	8	4	800
Mamadou Bappa Yaya	79.79	9	4	800
Anim Jeannette	75.84	10	4	800
Elou'ou Mvondo Melanie	73.3	11	2	400
Bongogne Jean-Marie	73.2	12	2	400
Domche Joseph	72.39	13	2	400
Keutcha Roger	70.60	14	2	400
Ombougno Julien	68.4	15	2	400
Eroko Marthe	68.00	16	1+3/4	350
Effa Benoit	66.14	17	1	200

Eroko Roger	63.99	18	1	200
Towa Madeleine	Disqualified because of bad state of quarantine		0	0
Ndzana Celestin	Disqualified for failure to pay caution fee		0	0
Total				11950

Source: MINEF, 2001.

Administrative procedures require tenders to have legal authorization documents, taxation certificate and a bank statement worth a million francs CFAF. The package relating to the technical file requires a list of permanent personnel, a plan on the hiring of the company, equipment that will be used, 10 copies of license and a sworn statement. The winners of tenders are given a maximum of 45 days to settle their financial obligations for their quotas, which include the tax per parrot captured and the special fee for the Wildlife protection fund lodged in the Department of Wildlife and Protected Areas (DFAP) in MINFOF. Tenders obtain a receipt after submitting 10 certified true copies (made up of nine copies and 1 original) of a technical and administrative offer before the expiry of the deadline, and also a financial offer. The stamped and sealed envelope of the financial offer contains indications of the additional amount the tender proposes to pay in relation to the minimum hunting/trapping tax, which is 8.000 FCFA per bird. The said envelope is submitted separately from the technical and administrative files.

The monitoring of the exploitation of these birds is carried out in the field by officials of the external services of the MINFOF through the evaluation of the amount often collected by authorized or non-authorized trappers from authorized or non-authorized trapping areas. These birds are not always packaged with care; hence there are many cases of deaths that can be noticed in the collection areas, up to the pre-exportation phase. A deductible quota form jointly signed by DFAP and the MINFOF officer nearest the trapping site, specifies the quantity collected in relation to the fixed quota, and also indicates the remainder. It should be noted that government law enforcement officers accept only the original version of this document.

Considering the forgoing, legal access to the capture of parrots is impossible for local stakeholders due to the exorbitant cost of obtaining a capture permit. Those who get the permits have the financial capital and are based in urban centers but do not have a sound knowledge of the field where the parrots are captured. The monitoring of the exploitation of these birds is carried out in the field by officials of the external services of the Ministry of Forestry and Wildlife (MINFOF) through the evaluation of the amount often collected by authorized or non-authorized trappers from authorized or non-authorized trapping areas. The monitoring of the *exportation quota* of animals under the CITES quota exportation system is performed at the central level (DFAP) by the Chief of service in charge of preparing exploitation licenses. This wildlife exploitation license can be extended over a maximum period of three months. It is granted upon the presentation of a certificate of non-use signed by the MINFOF officer of the corresponding exit station.

The chief of service who draws up exportation licenses has a list for the monitoring of quotas for each species under an exportation quota. A deductible quota form is attached to each exportation license, prepared for signing by the Cameroon CITES Management Committee; who could be the same Chief of service, indicating the total number of species already exported (including that of the current license and the remaining quota of this species for Cameroon).

Any request for an exportation license sent to the Management Committee must specify the airport or the port through which the specimens will be dispatched. This exit station is mentioned on the corresponding exportation license; the exporter is not allowed to change the exit station after the signing of the license. Copies of the corresponding deductible quota form is always attached to the signed exportation license, which is immediately faxed or sent to the CITES secretariat and the MINFOF officer in charge of the corresponding exit station. MINFOF provincial delegates in charge of auditing exportation licenses obliterate CITES stamps by using perforators, and must send a monthly report to DFAP on the situation of exports and the apprehension of any case of fraud noticed on CITES exportation licenses (Tieguhong and Ndoye, 2004).

6.1.2. Exportation of African grey parrots.

The monitoring of the export quota of animals under the CITES quota exportation system is performed at the central level (DFAP) by the Chief of service in charge of preparing exploitation licenses. This wildlife exploitation license can be extended over a maximum period of three months. It is granted upon the presentation of a certificate of non-use signed by the MINEF officer of the corresponding exit station.

The chief of service who draws up exportation licenses has a list for the monitoring of quotas for each species under an exportation quota. A deductible quota form is attached to each exportation license, prepared for signing by the Cameroon CITES Management Committee; who could be the same Chief of service, indicating the total number of species already exported (including that of the current license and the remaining quota of this species for Cameroon).

Any request for an exportation license sent to the Management Committee must specify the airport or the port through which the specimens will be dispatched. This exit station is mentioned on the corresponding exportation license; the exporter is not allowed to change the exit station after the signing of the license. Copies of the corresponding deductible quota form is always attached to the signed exportation license, which is immediately faxed or sent to the CITES secretariat and the MINEF officer in charge of the corresponding exit station.

MINEF provincial delegates in charge of auditing exportation licenses obliterate CITES stamps by using perforators, and must send a monthly report to DFAP on the situation of exports and the apprehension of any case of fraud noticed on CITES exportation licenses.

6.1.3. Difficulties encountered in monitoring of activities in areas of capture

- Trapping zones are not always well defined;
- Monitoring of quotas allotted to tenders is not always effective;
- Surveillance personnel are insufficient;
- The trapping period is not always known in advance, as in professional sport hunting.
- Corruption and increasing crime waves such as smuggling and theft, lay the ground for exceeding export quotas. This renders the species increasingly threatened (Earth Crash, nd; Pattison, nd).

6.2. Impact of CITES on African grey parrot trade in Cameroon.

Cameroon is a signatory to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), also known as the Washington Convention. The main aim of the convention is to protect species likely to face extinction following uncontrolled exploitation to meet the demands of international trade. According to the degree of threat to which trade in wild-caught birds would impose on a species, it is listed under three Appendices. On Appendix I are the species threatened with extinction on which international trade would have a catastrophic effect. On Appendix II are species that could be threatened if export was not regulated effectively. Trade in these species is permitted if it is sustainable and the specimens were obtained legally (Low, 2002). The treaty was signed in March 1973. On June 6 1981 nearly all members of the parrot family, excluding those listed in Appendix I, were placed on Appendix II (Low, 2002). A control system such as annual quota is put on imports and exports of listed species.

With regards to the African grey parrot, which is an Appendix II species, Cameroon was forced to set a quota for the trade in these birds in April 1994. CITES Animal committee asked Cameroon of her quota recommendation on trade in African grey parrots in November, 1993 but Cameroon did not respond. The standing Committee then called on all parties to suspend imports of the species from the country (CITES Notification No. 775, 23 November, 1993). The ban was lifted five months later when Cameroon announced an export quota of 12000 African Grey parrots for 1994 (of which 5500 were stocks held within Cameroon) and agreed to adhere to specific quota recommendations made by CITES Animal Committee (CITES Notification No. 800, 21, April 1994). An export quota of 12000 birds was established for 1995 (CITES, 2001). CITES quota of African grey parrots attributed to countries in the Congo Basin in 2005 were Cameroon (12000 wild birds), Congo Republic (8000 wild birds), DRC (10000 wild birds) and Gabon (250 wild birds) (TRAFFIC-Europe, 2004).

Cameroon CITES management organ divides the annual quota of 12000 birds into 30 lots of 400 parrots or 60 lots of 200 parrots. These lots are numbered 1 to 30 or 1 to 60 as the case may be. These lots are annually auctioned by the CITES management organ of the (MINFOF) in Cameroon. The professional school on wildlife based in Garoua represents the scientific organ of CITES in Cameroon (Dandjouma, 2002).

6.2.1. Appraisal of the Effectiveness of CITES

In Cameroon, CITES has some impacts but not enough to control exports. This is the only global treaty or multilateral environmental agreement (MEA) that regulates the international trade in wild plants and animals and aims to protect species whose conservation status is threatened by such trade. According to Low (2002) it is unfortunate that some countries that trade in enormous numbers of wild-caught parrots are not signatories and parrots on Appendix II continue to be trapped and exported without research data to indicate whether trade is sustainable. Annual quotas, such as those established by the governments of Cameroon are not based on research and might have been, or still are, in excess of sustainable trade levels (Low, 2002).

Imports were suspended in November 1993 as a result of a lack of response to request for information on the scientific basis of Cameroon's export quota (CITES Notification No. 775). In November 1996, the CITES Secretariat recommended that the Parties reject permits from Cameroon as its 1996 quota was exceeded, later found to be by 11,000 birds (CITES Notification No. 945). In October 1997, the CITES Standing Committee recommended Parties not to accept any imports of the species from Cameroon until 31 December 1997, stating that the 23,000 birds exported in 1996 covers the quota of 12,000 specimens for both 1996 and 1997 (CITES Notification No. 993). Prohibition was revoked in March 1998 (CITES Notification No. 1998/05) but export quota exceeded again in 1998 and 1999 by a total of 3,765 specimens (CITES, 2001). This situation does not seem to be not unique to Cameroon in the Central African region as the Democratic Republic of Congo (DRC) exceeded its annual quota of 10000 birds by 7480 in 1999 (CITES, 2001). According to Ngenyi (2002) the trade in African Grey Parrots has been for the past years a lucrative business in Cameroon with almost every sector trying to get its own share of the cake. Although this trade was prohibited in Cameroon in 1997, trappers nevertheless continued to trap. Since then, the situation has not changed in Cameroon. She remarks that the annual quota for Cameroon is 12,000 Grey Parrots, but each year more than 15,000 are exported meaning CITES suspension decisions may not form the sole tool to control the trade in this valuable species. In addition, what may be more relevant is to re-examine the national legislation to control and regulate this trade. This will lead to a sustainable management of this very important bird species and a limitation of parrot laundering through other countries.

6.3. Role of importing governments on bird trade

In 1990, the CITES Animals Committee formed a Working Group on Bird Trade to examine the international trade in wild caught birds more closely. The trade has been placed on agendas of national governments in major consumer markets in the USA and Europe. In the USA, The Cooperative Working Group on Bird Trade, composed of representatives from conservation, animal welfare, avicultural and pet industry organizations, developed a series of recommendations to address problems associated with the trade. The Wild Bird Conservation Act became law in 1993 in the USA (Low, 2002). The Wild Bird Conservation Act requires a moratorium in one year on most of the

half million annual wild-caught bird imports to the USA. Therefore, the Law prohibits the importation of all wild-caught parrots except in certain rare circumstances.

In Europe, the European Parliament has adopted a resolution calling for a ban on European Union (EU) imports of wild caught birds for the pet trade in response to a campaign launched by the animal and bird protection organizations. This ban is however, not yet passed into Law in Europe and elsewhere like in the USA (Low, 2002), although highly recommended by conservationists. Traffic International (1992) noted that the international bird trade would remain the subject of debate for some time so come, regardless of the forum for discussion. Toufexis (1983) reiterated that implementing the CITES treaty remains a huge problem as does enforcing the tough laws against smuggling that exist in many nations. The laws are adequate but the enforcement is weak.

For example, the analyses of legal trade in wildlife and shows that Britain plays a big role in Europe's annual consumption of more than 20 million live plants and animals. A remarkable 96% of these are taken from the wild. In the UK, 88% of parrot imports were wild-caught, dispelling the myth that most birds on sale in the UK are captive-bred (Earth Crash, ud). Therefore, the UK's situation is indicative of double standards. In most circumstances trapping of native birds is illegal, as is taking their eggs or even disturbing them at their nest, and can result in a prison sentence in the UK. Yet they legally import thousands of wild-caught birds from other countries (Low, 2002). On this note, Low (2002) recommends that Europe should follow the example set by the USA. This would lead to guaranteeing better protection for wild birds in the current review of European Union wildlife laws.

6.4. Impact of campaigns and boycotts on the trade in African Greys

An example of such a campaigner is the World Parrot Trust (WPT) that is campaigning to stop importation of wild caught birds into the European Union (WPT, ud). The objective of the Trust is to promote the survival of all parrot species and the welfare of individual birds everywhere. The WPT pursues these objectives by funding field conservation work, research projects and educational programmes. Although not globally threatened by IUCN criteria, the Trust believes the ruthless trapping and exporting of African grey parrots from West Africa will lead to the extirpation of this species throughout much of its range in the near future. Enforcing existing protected areas and eliminating unsustainable trade in this species are both desperately needed.

The Royal Society for the Prevention of Cruelty to Animals (RSPCA) in support of the UK government called for the European Commission to immediately ban the importation of wild bird. This followed the confirmation that a parrot from South America, in UK quarantine was tested positive for the H5 strain of avian influenza (bird flu). Press releases by the RSPCA and the WPT called for the Prohibition of capture, import and export of live wild birds arguing that with widespread and direct contact with the public, the live wild bird trade facilitates the rapid spread of avian-borne disease to trappers, keepers, consumers, airports and customs personnel. Furthermore, mixing of wild birds and captive-bred or domestic birds in the same holding facilities has the potential to

spread disease (RSPCA, 2005; WPT, 2005). However, the EU being the largest importer of wild-caught birds in the world and responsible for more than 90% of imports of grey parrots imply that a total ban of imports into the EU would impact negatively on the stakeholders benefiting from its trade.

7.0. Conclusion and Recommendations

Poverty, rights and inequity are fundamental challenges facing the natural resource sector, which the conservation community has been trying to address over the past two decades. The major thrust is to arrive at effective entry points that can simultaneously address poverty, equity and rights in conservation. This might require new knowledge systems or better analysis of existing knowledge to meet the policy needs of our contemporary natural resource world. This paper on African grey Parrot commodity chain analysis has thrown light on some discrepancies in benefit flows to stakeholders, as well as explained the roles of policy and other factors in influencing such outcomes. Many efforts by individuals, governments, conservation and animal welfare organizations have been put in place to curb or bring sanity in the international trade of wild-caught birds including the African grey parrots. However, a key problem has been the lack of appropriate legislation and the lack of enforcement of such legislation where it exists (Tieguhong and Ndoye, 2004). The generic recommendation is that policies have to be reviewed at the international level as well as the national level to address the issues of distributional inequity and access that have been clearly demonstrated by this study. Other recommendations as earlier suggested by Tieguhong and Ndoye (2004) include:

- Review of the contents of permits allocated to Licensees: There is need to indicate the names of assistants authorized to carry out activities in the field on the back of each license. The trappers are those who go to the forest to trap the parrots not the licensees, which means that each licensee should name the trappers with whom he is going to work and their names and national identification card numbers reflected in each license. This would exclude illegal trappers who may not understand the applicable laws and policies.
- Enforcement of national laws and regulations. National laws and regulations governing the trade in African grey parrots in Cameroon exist and need to be enforced. More stringent penalties need to be put on government officials found to be conniving with illegal trappers and smugglers. Proscribe the installation of any bird quarantines near a national park or an area under protection against this activity;
- Reexamining the potentials for eco-tourism instead of trapping for the pet trade especially inside the park. The forest clearings in Lobeke National Park and its environs seem to have the potential for eco-tourism development considering the massive flocks of parrots and other animal species present. This potential has not been assessed in economic terms. There is need to do so in order to estimate how much revenue can accrue from ecotourism compared to the present illegal trade in parrots. It seems a booming local eco-tourism industry involving the local communities would guarantee long-term support of these communities to conservation initiatives than the present pet trade that currently benefits only

about 90-120 local people. General community benefits are lacking and the trade is disorganized and clandestine in nature.

- Long-term monitoring programme: Development of a long-term programme for monitoring of African grey parrot populations to assess the extent to which trapping may be impacting on wild populations. There will also be the need to specify and determine hunting/trapping seasons and locate and delimit the trapping areas to be allotted to each authorized trapper through a call to tender.
- Education campaigns to educate and inform parrot trappers and local communities adjoining the LNP on the present and potential value of the African grey parrots. Local participation in a collaborative approach in protection of birds and possibilities in development and management of a benefit-sharing scheme.
- Increase and improve cooperation amongst enforcement agencies. Establish joint patrol agreements amongst countries that are sharing borders to fight illegal trade and smuggling of products from one country to another.
- The role of importing governments remains pivotal in controlling the exploitation and trade on both the African grey parrots. For example, over 80% of all grey parrots exported from the Democratic Republic of Congo between 1995 and 2003 were destined for the EU (TRAFFIC, 2005). However, at the 31st meeting of EU scientific Review Group on 13 December 2004, the EU decision-making process regarding the implementation of CITES article IV (relating to “non-detriment findings”) raised concerns on the suspension of the imports of Grey parrots, which was later adopted as an action plan at CoP13 (TRAFFIC, 2005).

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Appendix 1: Persons interviewed

Mr Atangana Roger – Trapper

Mr Onana Ignace – Trapper

Mr Ngah Onana Lazaar – Trapper

Detenteur (Moise 9330911) – Middleman

Lemotio Jean – Chief of Section Forest, Divisional Delegation of MINFOF, Yokadouma.

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