

**Monte Alen-Monts de Cristal Landscape
Means of Verification Number 7
WCS Activity Report
For Annual Report 2007**

*A Consortium
To Improve Natural Resource Governance and Management
In the Monte Alen -Monts de Cristal CBFP Landscape (1)*



UNIVERSIDAD NACIONAL DE GUINEA ECUATORIAL

**Submitted 1 December, 2007
by Wildlife Conservation Society
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RAPPORT D'ACTIVITES AUX MONTS DE CRISTAL

DECEMBRE 2006-JUILLET 2007

Les activités aux Monts de Cristal durant cette période étaient principalement focalisées sur le développement des stratégies de gestion durable des ressources naturelles avec les différentes parties prenantes. Afin de réaliser cette gestion participative du Parc National des Monts de Cristal, plusieurs actions ont dû être menées sur le terrain.

A) Renforcement des capacités

Train WCS-employee Hega in United Kingdom to be outreach and environmental education coordinator for Kougouleu-Medouneu-Mbe CBNRM macro-zone.)

A1. Formation de Monsieur HEGA Martin

Monsieur HEGA Martin a suivi une formation en éducation à la conservation à l'Université de KENT (UK). Cette formation entre dans le cadre du programme RARE, développé dans plusieurs pays du monde. Le but de la formation est de donner aux différents étudiants des outils méthodologiques pour réussir une campagne de sensibilisation avec suivi-évaluation. À ce titre plusieurs modules ont été dispensés, notamment des rudiments sur la BIODIVERSITÉ, ÉCOLOGIE, SCIENCES SOCIALES, LEGISLATION INTERNATIONALES, MARKETING SOCIAL etc.. La phase théorique qui a duré 3 mois devait être suivie d'une phase pratique sur le terrain pour la mise en place de la campagne RARE Pride proprement dite.



Puppet making at KENT University



Biodiversity Course at KENT University

A2. Formation des enseignants du primaire.

Nous avons organisé une session de formation des enseignants du primaire dans la ville de MEDOUNEU. Cette formation visait l'amélioration des connaissances et des compétences des enseignants du primaire dans le développement et la réalisation d'un curriculum en Education Environnementale, notamment dans les classes de 4ème et 5ème année. Nous avons eu l'assistance de la base pédagogique du Haut Como. Ce séminaire de formation a vu la participation de près de 25 enseignants venus des 11 écoles primaires. Les principaux modules concernaient :

- IMPORTANCE DU PARC NATIONAL
- ECOLOGIE et ANIMATION EN EE (guide pédagogique PACHAMAMA du PNUE)
- JARDINS SCOLAIRES.



Enseignants en séance de formation

A3. Associations villageoises

Reinforce organizational capacities of communities by helping local NGO to raise funds for at least one community project.

Nous avons soutenu l'ONG O.I.P.D.E.F dans sa recherche de financements après la subvention de CARPE obtenue l'année dernière. Cette année l'OIPDEF a pu obtenir un financement de l'AMBASSADE DU CANADA pour continuer le projet JARDINS SCOLAIRES. Le projet s'est donc étendu à 4 autres établissements primaires dans la région. Certaines écoles récoltent des produits maraichers et arrivent à les vendre en ville, cet argent aide à la réparation des tables, bancs cassés et des tableaux.



Sarclage dans une école primaire



Sillons et ensemencement du jardin scolaire

Nous avons aussi aidé les villageois à constituer d'autres associations villageoises. Ainsi, nous les avons aidés à organiser les assemblées générales de 3 nouvelles associations villageoises. Il s'agit de :

- AYEBE Environnement dont la presidente reside au village AKOGA avec 34 membres
- FIMA Forest dont le president reside au quartier EFOULANE avec 30 membres
- OKWON Nature dont le preside reside au village EDOUM avec 25 membres

Les membres du bureau sont actuellement en phase de legalisation de leur association au ministere de l'interieur.



Recolte de choux et de laitues



Recolte de folon et d'oseille

B) Reunions des parties prenantes

Hold participatory planning meetings in communities near PNMC to inform and involve local stakeholders in developing a PNMC management plan.

Hold participatory planning meetings to inform and involve commercial businesses operating PNMC buffer zone (wood, gravel, electricity, minerals) in developing a PNMC management plan.)

B1. Reunion generale

Nous avons tenu notre premiere reunion generale le 9 mars 2007 a MEDOUNEU. La reunion concernait tous les acteurs impliques dans des activites autour de Parc National et dans toute la region. Nous avons enregistre 40 participants dont 30 representants d'institution et organisations. Tous les participants appartenaient a des secteurs d'activites divers :

- Administration (Forets, mines, interieur, recherche scientifique, agriculture)
- Operateurs economiques (miniers, forestiers, SEEG)
- Education nationale (enseignants, conseillers pedagogiques, club NATURE)
- Conseil departemental et mairie
- Populations locales (chefs de canton, chefs de regroupements, associations)
- Forces de l'ordre (police, gendarmerie)



Representants des differentes institutions et partenaires



Groupes de travail thematique

Cette reunion vait pour objectifs :

- Aider les différents acteurs à mieux se connaître et créer des synergies
- Reconnaître les activités des uns et des autres pour permettre une communication efficace
- Élaborer un **MODELE CONCEPTUEL** qui sera la base de notre plan de travail
- Identifier les menaces qui pesent sur les Monts de Cristal

Nous avons note des echanges tres riches te diversifies qui ont permis de mieux comprendre les activites des uns et des autres et d'apprécier le travail en partenariat pour la sauvegarde des ressources naturelles de la region.

Au terme de cette reunion nous avons elabore le modele conceptuel ci-dessous :



Participation active des acteurs



Implication et engagement des representants

B2. Reunion des groupes cibles

Le model conceptuel a permis d'identifier plusieurs groupes cibles avec qui nous avons tenu des reunions. Nous avons donc pu organiser 8 reunions avec 8 groupes d'acteurs en fonction de leurs activites. Nous avons regroupe :

- les orpailleurs
- les pecheurs
- les agriculteurs
- les chasseurs
- les scieurs de long
- les miniers
- les forestiers
- les cultivatrices (femmes)

Les principaux objectifs de ces reunions etaient de :

- *Decrire leur activite (Duree, periode, moyens, methodes, resultats)
- * Donner les raisons pourlesquelles ils ont choisi cette activite
- * Recenser les difficultes rencontrees
- * Suggester quelques solutions classiques et aux normes environnementales
- * Donner les difficultees a appliquer ces solutions



Agriculteurs



Orpailleurs

Les participants aux differentes reunions etaient motives a expliquer leurs activites en esperant un certain soutien.En moyenne nous enregistrons 12 a 20 participants a chaque periode,souvent meme des personnes qui n'avaient pas ete invitees.Au total nous avons discute avec pres de 160 personnes directement.En resume nous pouvons dire que les participants sont disposes a collaborer pour une meilleure gestion des ressources naturelles dans la region.



Pêcheurs



Chasseurs

Les membres des différents groupes ont pris des engagements forts sur lesquels ils souhaitent notre soutien. On peut noter :

- Orpailleurs : Desir de se faire enregistrer au Ministère des mines et de subir des contrôles ou abandon de l'activité si des alternatives existent.
- Pêcheurs : Volonté de continuer la pêche artisanale avec un soutien des autorités et refus d'utilisation des produits chimiques malgré la demande croissante.
- Agriculteurs : Volonté d'abandon de l'usage des engrais chimiques, notamment pour le piment et disposer à être encadré sur les cultures sur brûlis.
- Chasseurs : Desir de soutenir la lutte antitraffage contre les commerçants et d'améliorer leurs connaissances sur la législation ainsi que de la professionnalisation de la chasse dans la région
- Scieurs de long : Souhaitent la réglementation de cette activité et prêt à l'abandonner si des alternatives existent.
- Miniers : Volonté de réaliser d'étude d'impact et de signer des protocoles de partenariat avec les autorités et les organismes de conservation (exemple : WWF-BORDAMUR)
- Forestiers : Volonté de réaliser d'étude d'impact et de signer des protocoles de partenariat avec les autorités et les organismes de conservation (exemple : WWF-BORDAMUR)
- Cultivatrices : Disposées à se consacrer à certaines cultures comme le manioc si la production est rentable et si une aide en matière de commercialisation des bâtons de manioc est garantie.



Scieurs de long



Miniers



Femmes cultivatrices

C) Enquetes sur les connaissances, attitudes et pratiques

Design and undertake questionnaire survey in focal communities to assess attitudes to park

C1. Population cible

Nous avosn realise une enquete sur les connaissances, les attitudes et les pratiques des populations vivant dans la region. Nous avons elabore un questionnaire de pres de 60 questions avec des questions precises.Nous avons pu interroger pres de 1000 personnes et nous avons obtenu des resultats assez eloquents.Vous trouverz ci-dessous les principaux points saillants.



Enqueteurs sur le terrain



Supervision du questionnaire

C2. Population controle

Nous n'avons pas encore realise cette enquete et nous comptons le faire des la fin du mois de JUILLET 2007.

D) Strategies pour un programme d'EE

Hold planning meetings with stakeholder communities to develop environmental education strategy

Implement environmental education strategy as designed through a participatory process.

D1. Avec les communautes

Nous avons decide avec les chefs de village et certains notables dans les villages d'organiser des seances de sensibilisation de proximite.II s'agit d'une strategie qui vise a visiter un foyer different a chaque passage afin de discuter autour d'un repas d'un certain nombre de problemes et de preoccupation.

Nous avons constaté que les personnes sont plus ouvertes au dialogue et posent plus de questions pertinentes et directes qu'elles ne l'auraient faites en séances publiques. Les sujets développés sont très divers mais toujours orientés dans le sens de la conservation des forêts des Monts de Cristal. Les séances de sensibilisation ont lieu dans les domiciles des différents habitants de préférence le soir lorsqu'ils sont rentrés des plantations. Nous réalisons en moyenne 12 à 16 séances par mois. Les séances prennent à peu près 1 heure à 2 heures de temps au maximum.



Sensibilisation de proximité dans les foyers



Sensibilisation publique dans une école



Sensibilisation des notables du village

D2. Dans les ecoles primaires

Nous avons mis en place un programme d'EE dans les ecoles avec le concours des conseiller pedagogiques. Pendant ,pres de 2 ans nous avons nous meme organise des animations et des seances d'apprentissage dans les salles de classe et dans la nature, mais des cette annnee nous avons decide de laisser les enseignants le faire.Cependant, nous assurons toujours la supervision avec des evaluations trimestrielles en fonction de l'evolution du programme.



Cours theoriques



Cours interactifs

Le programme couvre essentiellement des eleves des classes de 4eme et 5eme annee,meme s'il est vrai que certains enseignants des niveaux inferieurs prennent souvent des initiatives pour dispenser certains enseignements. Au total, le programme couvre pres de 900 eleves. Nous pouvons noter que nous organisons a chauqe fin d'annee une remise de prix aux meilleurs eleves en EE. Un concours departemenmtal qui regroupe les 12 ecoles est organisees en partenariat avec LE MINISTERE DE L'EDUCATION NATIONALE



Animation dans la nature



Remise de parchemins aux meilleurs eleves

D3. Dans les établissements secondaires

Au niveau du CES OBAME NDONG de MEDOUNEU, le seul collège du département, nous avons mis en place un club NATURE de près de 35 membres actifs. Ce club est coordonné par le surveillant général de l'établissement. Pour ce qui est des activités du club, nous noterons essentiellement la réalisation d'une fosse à ordures, la mise en place de poubelles dans le collège, l'organisation de conférences débat et l'organisation de la journée mondiale de l'environnement lorsque cela est possible.



Bureau de Club Nature et les encadreurs



Inauguration de la fosse à ordures

D4. Aupres des opérateurs économiques

Design and initiate an environmental education program for logging habitations
Design and initiate an environmental education program for logging habitations

Nous avons organisé des séances de sensibilisation auprès des sociétés telles que :

- SOCO BTP(Gravier)
- SEEG(Electricite)
- DRAGAGES Gabon(Gravier)
- SEEF(Forestier)
- SGG(Forestier)



Sensibilisation des employes de SGG et DRAGAGES







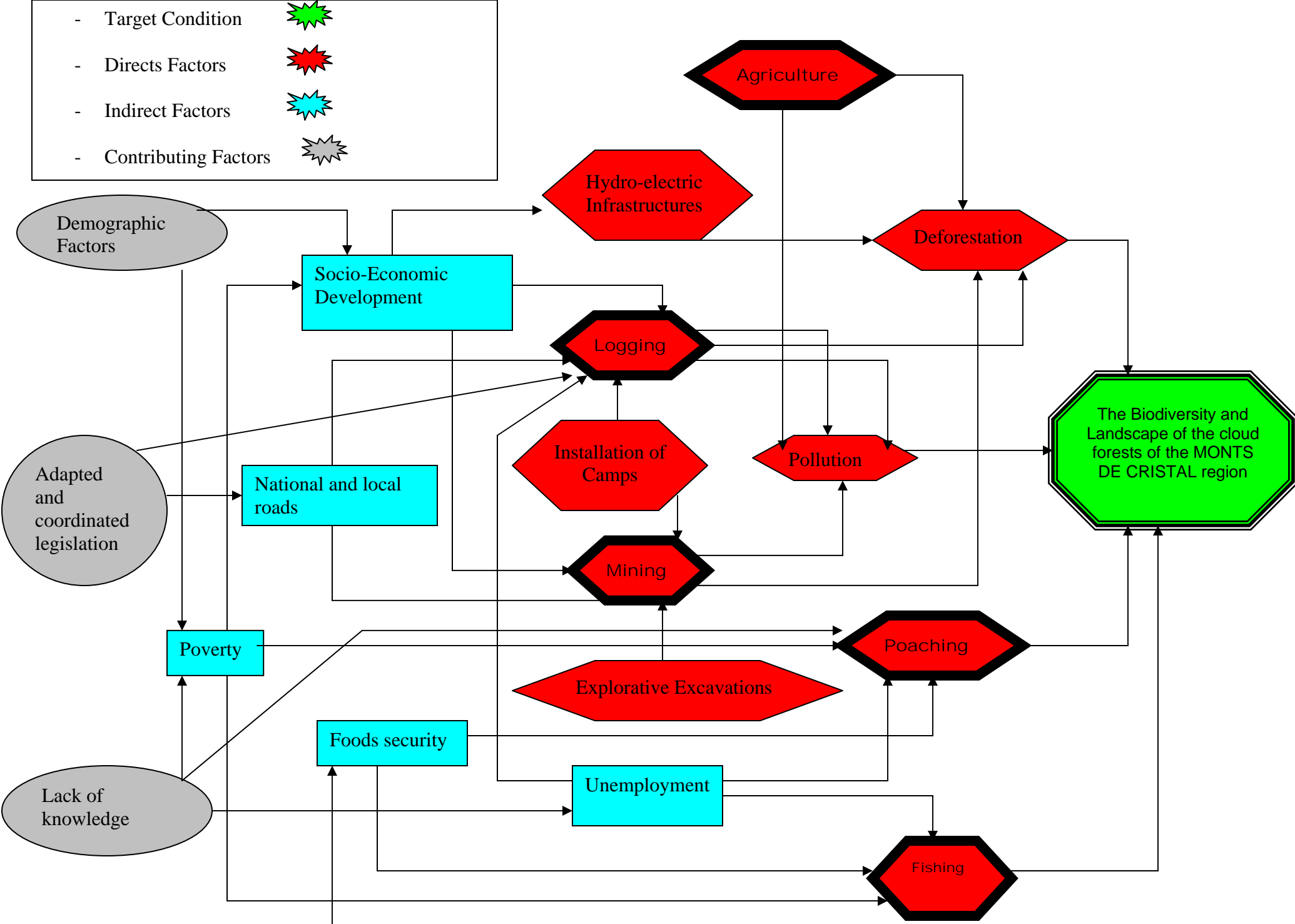
Sensibilisation des employes de la SEEF

Ces seances de sensibilisation consistaient principalement a des projections de film suivi d'une partie questions-reponses. Il s'agit essentiellement d'attirer l'attention sur la creation des parcs nationaux et la legis ;lation en matiere de chasse sans oublier leur engagement a soutenir le programme.

Nous sommes actuelement entrain de planifier un programme d'EE avec la societe SOGADEMINE(LOMIN LTD).

General analysis to develop campaign program and initiate a conservation awareness and motivation to care for natural resources by at least 27,000 people in and close around the WCS LS segment, extending into WWF and CI segments of LS.

- Target Condition 
- Directs Factors 
- Indirect Factors 
- Contributing Factors 



Initial Conceptual Model at MEDOUNEU
By HEGA Martin Fridolin on March, 9th 2007

The Biodiversity and Landscape of the 'cloud' forest of MONTS DE CRISTAL – Concept Model Narrative

Introduction

The cloud forests of the Monts de Cristal region (the target condition) are composed of a very rich biodiversity in terms of plants and animals and are considered as the richest of Gabon's forests. The beauty and impressive landscape is known for the inselbergs (rocky outcrops) and the many rivers in the area. There is a strong dynamic between the land and the living things that we find there.

Direct Factors

Unfortunately, this ecosystem is being affected by direct factors such as poaching, agriculture and fishing. These in turn can cause problems with deforestation and pollution.

Pollution

During agricultural practices it has been known that some farmers use chemical fertilisers, pesticides and herbicides. Within logging concessions the heavy machinery produces a great deal of air pollution and also by-products such as oil and petrol. These often contaminate the soil and water systems. Mining practices, such as gravel production, produce a great deal of dust and noise pollution.

Deforestation

Many direct factors cause deforestation. However, this can occur on many different scales. Many of the local communities practice traditional slash and burn activities in a sustainable way. The larger activities, such as mining and logging, have a huge impact on the target condition.

Logging

The presence of logging concessions around the area is also a real threat to the survival of some endemic species of plants e.g. the begonias and orchids. This is because when one tree is felled and extracted from the forest many of the surrounding plant life is destroyed. The logging can also occur on a smaller scale by local woodsmen. They cut trees into planks and then sell them at the roadside to people who sell them on in Libreville.

Mining

There is industrial level mining occurring with two major international gravel companies, COLAS and SOCO BTP. Other companies, such as SOGADEMINE, have begun explorative excavations for future projects. Although these are smaller in scale they still impact the target condition due to access roads and use of heavy machinery. With a high level of unemployment (mainly for young people) many turn to local gold mining activities at the source of rivers and this can lead to soil pollution.

Many big international mining, HEP and logging companies build small villages for the local employees. These can be very comprehensive, sometimes including schools and shops. These industries bring socio-economic development to the local communities including employment opportunities, skilled labour, utilities e.g. electricity and money.

Poaching

Many animal inventories of the area reveal that the region can be a key sanctuary for apes and others mammals. The problem is that the proximity of the region to the four main urban towns, Libreville, Ntoun, Kango and Coco Beach, makes poaching easy in terms of demand and transportation. Poaching is a key threat for animal diversity in the region often because people do not have enough money to buy food and so they utilise the animals that are found in their surrounding environment, for eating and also selling locally at the roadside or in town markets. However. Even though the density of the human population in the region is low, we find many immigrants from Equatorial Guinea and also from West African countries who are active in commercial hunting. There is an open and closed season for legal hunting but this is often disregarded.

Agriculture

Local people and others from West African countries plant hot chilli peppers, aubergines and tomatoes and use pesticides to aid growth. These pesticides are not good for the ecosystem. There is also subsistence agriculture in many villages where they use bush fire techniques that really degrades the forest.

HEP Dams

The Monts de Cristal area has the most rainfall in the country of Gabon and so we find many rivers, both big and small. This has lead to the construction of two hydroelectric power (HEP) dams which provide electricity for Libreville. The construction of these infrastructures has really disturbed the landscape of the area and contributed to deforestation and loss of animal habitats.

Fishing

The presence of rivers also encourages fishing which is often carried out in excess. People are found to fish because they do not have enough money to buy food and so they utilise the fish that comes from their surrounding environment. This fish is eaten but sometimes also sold so that people can earn some money. However, because the region has a very rugged terrain it helps to limit the over fishing.

Indirect Factors

All of these threats are affected by and often caused by *poverty*. This has occurred because of the CFA Franc devaluation and structural policy adjustment from the World Bank.

The high level of *unemployment* leads young people to work in logging concessions and mining exploration instead of conservation, because many new logging companies are coming to the region. These companies are exploiting the forest without a sustainable management plan mainly because of weak laws and policies.

The goal of the government to modernise the country has led to the building of *national and local roads* and other infrastructures. Unfortunately, these infrastructures do not benefit the local community. For example, the local community do not have any electricity.

The local community members complain that they have traditional culture of knowledge of hunting and forest management. However, with the demographic pressure, *lack of knowledge, food security needs* (including bush meat and fish) and modernism, those values are not respected.

Contributing Factors

Lack of Knowledge

Many local communities have low levels of education due to the lack of schools in the past and the need to work for a living. This can also have an affect on employment opportunities where a certain level of knowledge is required, which in turn will affect poverty levels in the area. Additionally, there has been very little previous conservation campaigning in this region. WCS Gabon have been carrying out environmental education work for 3 years previous to this Rare Pride Campaign.

Adapted and Coordinated Legislation

Local communities are very disheartened by the lack of consideration of their needs when legislation is passed by government. Also the legislation has not been adapted to consider past traditional harvesting techniques. Coordination between the Ministry of Forestry, Law Enforcement Department and the Justice Department is often poor. This means that problems are difficult to resolve. For example, logging concessions have been known to construct their own roads without permission for local government.

Demographic Factors

Immigration into the area by people from Equatorial Guinea and West African countries occurs because of the trans-border nature of the National Park and the lack of law enforcement power.

Emigration of the younger generations to the bigger towns and cities for work means that the villages are left with an aging population that are finding it increasingly difficult to earn a livelihood. Also there is a lack of development in the villages. For example, fewer schools are being built and some have been closed as the younger generations leave the villages.

Cultural Traditions

It has been noted that the local communities have a traditional preference for bush meat. Alternatives, such as chicken and beef, have been said to have a completely different taste, although these are now being farmed more often.

Conclusion

The local community really needs to be empowered to claim their rights on the forest products and the benefits of their land. The community members are all ready to help to protect the forest they treasure. They just need alternatives to all those factors that are degrading the target condition. The community members say that they just want to live like the others by eating good foods, having good education and good health.



Summary of Survey Results

TARGET GROUP

A) Respondent's Sex, Age, Occupation, Education profile


Our target population surveyed presents more respondents male(64,6%). The respondents mainly lives in urban area Medouneu(56,8%) instead of rural area(43,2%). This situation can be explained by the fact they are looking for jobs opportunity in the town and generally is's the man who goes to look for work.

Q7: Gender (Mark one, without asking)

Gender (Mark one, without asking)			
	Counts	Percents	Percents
			0 100
Male	596	64.6%	
Female	326	35.4%	
Totals	922	100.0%	
Mean	--		



It why mostly respondents are in the productiv group between 35-44 years old(25,4%). The group between 15-24 years old (20,8%) are secondary schools students which is one of the high population of the region because many of them coming all around the villlages:it's the only high school in the region.

Q8: How old were you at your last birthday? (years) (Mark one,only)








(1) How old were you at your last birthday? (years) (Mark one,only)			
	Counts	Percents	Percents
			0 100
35-44	234	25.4%	
15-24	192	20.8%	
45-54	171	18.6%	
25-34	154	16.7%	
55-64	100	10.9%	
65-74	55	6.0%	
75-and above	15	1.6%	
Totals	921	100.0%	
Mean	--		

In the region we face a huge problem of unemployed persons (75,5%). This situation can explain the fact that many of them are their own employers(47,4%) working in the agriculture sector(48,8%) and (21,5%) going to school or staying at home.

Q13: Are you currently employed?







(6) Are you currently employed?				
	Counts	Percents	0	100
No	695	75.5%		
Yes	226	24.5%		
Totals	921	100.0%		
Mean	--			

Q15: What is your main occupation?

(8) What is your main occupation?				
	Counts	Percents	0	100
Farmer	449	48.7%		
Student	121	13.1%		
Housewife	56	6.1%		
No one	46	5.0%		
Teacher	35	3.8%		
Trader	35	3.8%		
Fischerman	29	3.1%		

About (45,8%) of the respondents have been in highschool, (20,5%) have been in primary school and only (10,3%) have never been in school. The respondents are mostly religious mainly in the catholic church (73,8%). This figure demonstrate that the respondents have a good level of instruction and are christians, this can help us in how or what we can use for the campaign.

Q11: How much formal school have you completed?(Mark one,only)

(4) How much formal school have you completed?(Mark one,only)				
	Counts	Percents	0	100
Some secondary school	422	45.8%		
Some primary school	189	20.5%		
Primary school completed	156	16.9%		
No formal school	94	10.2%		
Secondary school completed	34	3.7%		
Some university school	23	2.5%		
No answer	3	0.3%		
Coranic school	1	0.1%		
Other	0	0.0%		
Totals	922	100.0%		
Mean	--			

B) Respondent's attitude related to media and public administration

Among the 925 respondents mostly have heard about ENVIRONMENT or NATIONAL PARK by the radio(51,2%), environmental education officer (34,8%). This is may be the results of he fact that they are trustworthy in the media mainly in radio (88,3%), television(81,5%) and newspaper or magazines(78,4%).

Q16: From whom do you regularly hear about the ENVIRONMENT? (Can mark more than one)

(9) From whom do you regularly hear about the ENVIRONMENT? (Can mark more than one)				
	Counts	Percents	Percents	
			0	100
radio	472	51.2%		
environmental education officer	321	34.8%		
television	299	32.4%		
government environmental officials	210	22.8%		
teachers	180	17.4%		
news paper or magazines	146	15.8%		
From nobody	114	12.4%		
local government officials	46	5.0%		
local community leaders	45	4.9%		
religious leaders	40	4.3%		
friends or family members	29	3.1%		
law enforcement officers	13	1.4%		
No answer	11	1.2%		
From hunters	1	0.1%		
Loggers	1	0.1%		
Other	1	0.1%		
Totals	922	n/a		
Mean	--			

Q17: The radio

(10) The radio				
	Counts	Percents	Percents	
			0	100
trustworthy	484	52.7%		
Very trustworthy	327	35.6%		
Not trustworthy	90	9.8%		
Very untrustworthy	18	2.0%		
Totals	919	100.0%		
Mean	--			

Q19: News paper and Magazines

(12) News paper and Magazines				
	Counts	Percents	Percents	
			0	100
trustworthy	544	59.0%		
Very trustworthy	179	19.4%		
Not trustworthy	170	18.4%		
Very untrustworthy	29	3.1%		
Totals	922	100.0%		
Mean	--			

Q18: The television

(11) The television				
	Counts	Percents	Percents	
			0	100
trustworthy	540	58.6%		
Very trustworthy	211	22.9%		
Not trustworthy	144	15.6%		
Very untrustworthy	27	2.9%		
Totals	922	100.0%		
Mean	--			





In the other side, we can notice that they are untruthworthy in public administration mainly with the law enforcement(43,8%), chiefs of villages(43%), civil servants of the forest administration(27%), religious leaders(36,6%) and local administration(33,2%).

In the public administration group they still trustworthy in the teachers(85,4%) and the environmental education officers(86,6%).

Q27: Environmental Education Officers

Q26: Local Government Officials












(19) Local Government Officials				
	Counts	Percents	0	Percents 100
trustworthy	496	53.9%		
Not trustworthy	263	28.6%		
Very trustworthy	120	13.0%		
Very untrustworthy	42	4.6%		
Totals	921	100.0%		
Mean	--			

(20) Environmental Education Officers				
	Counts	Percents	0	Percents 100
trustworthy	589	63.9%		
Very trustworthy	209	22.7%		
Not trustworthy	105	11.4%		
Very untrustworthy	19	2.1%		
Totals	922	100.0%		
Mean	--			















C) Respondent's media preferences

About 46,9% of the respondents listening to the radio everyday in the week(7/7 days). Among the 925 respondents we can find 50,4% who likes watching TV+ channel and RTG1 channel(22,3%) otherwise the mostly listened radio station is MED FM(41,3%),which the local radio that can be used for the campaign.

Q28: How many days per week are in contact with your main source of informations? (See question 9)

(21) How many days per week are in contact with your main source of informations? (See question 9)				
	Counts	Percents	0	Percents 100
Seven	432	46.9%		
Two	95	10.3%		
Three	94	10.2%		
Don't know	65	7.0%		
Four	59	6.4%		
Six	58	6.3%		
One	54	5.9%		
Five	41	4.4%		
No answer	12	1.3%		
No radio	8	0.9%		
Two times a month	4	0.4%		
Other	0	0.0%		
Totals	922	100.0%		
Mean	--			

Q30: Which radio station do you listen to the most? (Mark one,only)

(23) Which radio station do you listen to the most? (Mark one,only)				
	Counts	Percents	0	Percents 100
MED FM	381	41.3%		
AFRICA 1	207	22.5%		
RTG 1	170	18.4%		
RFI	73	7.9%		
No one	34	3.7%		
RTG 2	18	2.0%		
No choice	11	1.2%		
RADIO BATA	10	1.1%		
Foreign TV	5	0.5%		
TOP FM	5	0.5%		
No radio	4	0.4%		
RTN	2	0.2%		
BBC	1	0.1%		
Black FM	1	0.1%		
Other	0	0.0%		
Totals	922	100.0%		

Q29: Which television channel do you watch the most?(Mark one,only)

(22) Which television channel do you watch the most?(Mark one,only)				
	Counts	Percents	0	Percents 100
TV +	465	50.4%		
RTG 1	206	22.3%		

The respondents appreciate listening to the radio in the evening surely after work between 18:00 to 22:00(31,6%) and early in the morning before 6:00(23,8%). Those periods are the main time for them to stay at home instead of being in the bush. Their favorite program are news(69,5%), sport(25,7%), music(22,8%). For sport for example we know that it's mainly foot-ball. The main newspaper read by the respondents is UNION PLUS(71,5%).

Q32: When you look at television or listen to the radio, which are your favorite programs? (Can m...

Q33: What is your favorite period in the day to listen to radio?

(26) What is your favorite period in the day to listen to radio?				
	Counts	Percents	0	Percents
				100
18:00 to 22:00	291	31.6%		
Before 6:00	219	23.8%		
6:00 to 10:00	187	20.3%		
12:00 to 18:00	136	14.8%		
10:00 to 12:00	46	5.0%		
22:00 to 6:00	43	4.7%		
Totals	922	100.0%		
Mean	--			

(25) When you look at television or listen to the radio, which are your favorite programs? (Can mark more than one)				
	Counts	Percents	0	Percents
				100
News	641	69.5%		
Sport	237	25.7%		
Music	210	22.8%		

D) Respondent's knowledge on the Giant pangolin

Among the 925 respondents surveyed, 78,9% clearly identify the Giant pangolin on the picture and the most popular name of it is FIMA (54,3%) which is the local language name of the flagship specie and also TATOU(29,4%). The Giant pangolin has no special meaning for them (58,2%) except the fact that they know that he lives in the forest(74,8%).

Q34: What is the name of this animal?(Show picture of Giant Pangolin)

(27) What is the name of this animal?(Show picture of Giant Pangolin)				
	Counts	Percents	0	Percents
				100
Correct	727	78.9%		
Incorrect	121	13.1%		
No answer	50	5.4%		
Not sure	24	2.6%		
Totals	922	100.0%		
Mean	--			

Q37: Where do you find the GIANT PANGOLIN?

(30) Where do you find the GIANT PANGOLIN?				
	Counts	Percents	0	Percents
				100
Forest	688	74.8%		
Mountains	96	10.4%		
Rivers	56	6.1%		
Around rocks	29	3.2%		
Savana	15	1.6%		
Don't know	10	1.1%		
Caves	9	1.0%		
No answer	7	0.8%		
Terrestrial hole	4	0.4%		
Toxic shaft	4	0.4%		
Everywhere	2	0.2%		
Other	0	0.0%		
Totals	920	100.0%		
Mean	--			

Q35: Do you know another name for it? (Can give more than one answer)

(28) Do you know another name for it? (Can give more than one answer)				
	Counts	Percents	0	Percents
				100
FIMA	502	54.4%		
TATOU	271	29.4%		
No	122	13.2%		
No idea	55	6.0%		
KA	35	3.8%		
No answer	33	3.6%		
CATERPILLAR	23	2.5%		
ELEGANT	6	0.7%		
PICH	3	0.3%		
ADOUE	2	0.2%		
OKOUKOURE	2	0.2%		
OUKOUKOU	2	0.2%		
PISSI	2	0.2%		
DECAG	1	0.1%		
LEKARA	1	0.1%		
Other	4	0.4%		
Totals	922	n/a		
Mean	--			

About 51,8% have seen the Giant pangolin dead so that 52,1% think that the main threat of this animal is overhunting, but we still find about 26,7% of the respondents who think that there is no threat on the Giant pangolin. On the same idea 35,7% of respondents do not think that the Giant pangolin is in way of dying. Many respondents surely believe that because this animal is difficult to see it's normal for them that even if they don't see it that is normal, but many villagers confirm that before today they were more Giant pangolin.

Q40: Do you think that the GIANT PANGOLIN is in danger of dying out?

(33) Do you think that the GIANT PANGOLIN is in danger of dying out?				
	Counts	Percents	0	Percents
				100
Yes	382	41.5%		
No	328	35.7%		
Not sure	164	17.8%		
No answer	46	5.0%		
Totals	920	100.0%		
Mean	--			

Q39: What do you think is the main threat of the PANGOLIN GEANT?

(32) What do you think is the main threat of the PANGOLIN GEANT?				
	Counts	Percents	0	Percents
				100
Over hunting	479	52.1%		
There is no threat	244	26.6%		
Cutting down the forest	94	10.2%		
Don't know	39	4.2%		
Diseases	38	4.1%		
No answer	21	2.3%		
Rare species	3	0.3%		
No repression	1	0.1%		
Other	0	0.0%		
Totals	919	100.0%		
Mean	--			

E) Respondent's knowledge on hunting laws

The respondent's answers on hunting laws are good because many of them think that it's illegal to hunt wild animal in the national park(86,4%), legal to hunt wild animal outside the national park(65,4%) and they also think that if someone is caught hunting in the national park the sanction is only a warning(41,1%), between 10 to 100 pounds (27,6%), prison(20%) and don't know(14,7%).

Q42: What is the penalty for someone who is caught hunting inside the park? (Can mark more than ...

(35) What is the penalty for someone who is caught hunting inside the park? (Can mark more than one)				
	Counts	Percents	0	Percents
				100
Warning only	378	41.1%		
10 000 frs cfa to 100 000 frs cfa	254	27.6%		
Prison	184	20.0%		
Don't know	135	14.7%		
100 000 frs cfa to 10 000 000 frs cfa	38	4.1%		
No penalty	27	2.9%		
Government decision	6	0.7%		
25 000 to 50 000 frs cfa	3	0.3%		
No answer	3	0.3%		
See laws	2	0.2%		
5 000 frs cfa	1	0.1%		
Death	1	0.1%		
Other	0	0.0%		
Totals	920	n/a		
Mean	--			

Q41: Do you think that it's legal or illegal for people to hunt wild animals in the park?

(34) Do you think that it's legal or illegal for people to hunt wild animals in the park?				
	Counts	Percents	0	Percents
				100
Illegal	795	86.4%		
Legal	77	8.4%		
Don't know	42	4.6%		
No answer	6	0.7%		
Other	0	0.0%		
Totals	920	100.0%		
Mean	--			

It's surprising to see that mostly respondents don't know the close period of hunting(72,5%) and 26,6% don't know that they are protected animal outside the national park and 54,1% don't succeed to name five protected animals.

Q46: What is the closed period for hunting wild animals outside the park?

(38) What is the closed period for hunting wild animals outside the park?				
	Counts	Percents	0	Percents
				100
Don't know	667	72.5%		
15 March to 15 September	125	13.6%		
15 September to 15 March	119	12.9%		
No answer	4	0.4%		
12 march to 6 may	1	0.1%		
17 september to 17 march	1	0.1%		
Government decision	1	0.1%		
No closed period	1	0.1%		
Rainfall season	1	0.1%		
Other	0	0.0%		
Totals	920	100.0%		
Mean	--			

Q47: Can you name 5 protected animals found in the area? (Write named animals in the order)

(40) Can you name 5 protected animals found in the area? (Write named animals in the order)				
	Counts	Percents	0	Percents
				100
Incorrect	498	54.1%		
Correct	268	29.1%		
No answer	132	14.3%		
Don't know	22	2.4%		
Other	0	0.0%		
Totals	920	100.0%		
Mean	--			

F) Respondent's attitude on bushmeat

The best alternative for hunting for the 925 respondents surveyed is agriculture(56,5%),fishing(19,7%) and farming(11,6%).They agree that all people hunting in the national park must be punished(77,3%).

Q48: Which of the following could be the most successful alternative to hunting as a livelihood(M...

(41) Which of the following could be the most successful alternative to hunting as a livelihood(Mark only one)				
	Counts	Percents	0	Percents 100
Agriculture	520	56.5%		
Fishing	181	19.7%		
Farming	107	11.6%		
Working in companies	37	4.0%		
Tourism	18	2.0%		
Apiculture	17	1.8%		
Local wine production	12	1.3%		
Business	8	0.9%		
No answer	8	0.9%		
Don't know	7	0.8%		
No alternative	5	0.5%		
Other	0	0.0%		
Totals	920	100.0%		
Mean	--			

Q49: People who hunt wild animals in the park should be fined.

(42) People who hunt wild animals in the park should be fined.				
	Counts	Percents	0	Percents 100
Agree	547	59.5%		
Strongly agree	164	17.8%		
Disagree	128	13.9%		
No opinion	47	5.1%		
Strongly disagree	34	3.7%		
Totals	920	100.0%		
Mean	--			

The respondents are really in confidence with the fact that park managers want to protect subsistence hunting by stopping commercial hunting(79,5%) ,but they disagree that buying bushmeat in the market is a bad thing(40,8%) and also strongly against laws supporting that hunting wild animal is illegal(40,8%).

Respondents still think that we will always find foods in forest even if pepole continue hunting at the same rate(rhythm)(44,4%).

Q51: Park officers are trying to protect traditional hunting customs by arresting commercial hunters

(44) Park officers are trying to protect traditional hunting customs by arresting commercial hunters				
	Counts	Percents	0	Percents 100
Agree	535	58.2%		
Strongly agree	196	21.3%		
Disagree	116	12.6%		
No opinion	41	4.5%		
Strongly disagree	32	3.5%		
Totals	920	100.0%		
Mean	--			

Q50: Buying wild bush meat in the market is wrong

(43) Buying wild bush meat in the market is wrong				
	Counts	Percents	0	Percents 100
Disagree	375	40.8%		

Q52: You strongly oppose the laws that make it illegal to hunt wild animals in the protected area

(45) You strongly oppose the laws that make it illegal to hunt wild animals in the protected area				
	Counts	Percents	0	Percents 100
Agree	375	40.8%		
Disagree	265	28.8%		
Strongly disagree	139	15.1%		
No opinion	88	9.6%		
Strongly agree	53	5.8%		
Totals	920	100.0%		
Mean	--			

Q54: There will always be a food supply in the forest, if hunting continues at the same rate.

(47) There will always be a food supply in the forest, if hunting continues at the same rate.				
	Counts	Percents	0	Percents 100
Agree	408	44.4%		
Disagree	325	35.4%		
Strongly disagree	81	8.8%		
Strongly agree	60	6.5%		
No opinion	45	4.9%		
Totals	919	100.0%		
Mean	--			

G) Respondent's behaviour on bushmeat

Among the 925 respondent, mostly respondents find that helping Giant pangolin not dying out is important(87,7%),also that it's important to help local people to continue subsistence hunting(85,6%) and of course eating bushmeat is important(87,6%).

Q56: Making sure local people can continue traditions of hunting.

(49) Making sure local people can continue traditions of hunting.				
	Counts	Percents	Percents	
			0	100
Important	491	53.4%		
Very important	295	32.1%		
Not important	83	9.0%		
Don't know	51	5.5%		
Totals	920	100.0%		
Mean	--			

Q57: Eating wild bush meat.

(50) Eating wild bush meat.				
	Counts	Percents	Percents	
			0	100
Important	545	59.2%		
Very important	261	28.4%		
Not important	91	9.9%		
Don't know	23	2.5%		
Totals	920	100.0%		
Mean	--			

Many respondents find difficult to stop buying bushmeat in the market for their family(43,6%) or to inform law enforcement that someone from the village has hunted in the national park(74,3%).

Q59: Stop buying bush meat in the local market for your family.

(52) Stop buying bush meat in the local market for your family.				
	Counts	Percents	Percents	
			0	100
Difficult	401	43.6%		
Easy	252	27.4%		
Very difficult	233	25.3%		
No answer	17	1.8%		
Don't know	16	1.7%		
No matter	1	0.1%		
Other	0	0.0%		
Totals	920	100.0%		
Mean	--			

Q58: Report a person from your village that you know has illegally hunted in the protected area t...

(51) Report a person from your village that you know has illegally hunted in the protected area to law enforcement authorities.				
	Counts	Percents	Percents	
			0	100
Difficult	417	45.3%		
Very difficult	267	29.0%		
Easy	195	21.2%		
Don't know	19	2.1%		
No answer	17	1.8%		
Very bad to do	4	0.4%		
If money	1	0.1%		
Other	0	0.0%		
Totals	920	100.0%		
Mean	--			

During the last 3 months many respondents have seen bushmeat to sell on the road(37,7%),with a hunter(28,9%) and in an house(17,0%),but mostly respondents have never heard about someone who has hunted in the national park(85,8%) or a protected animal(74,4%) and many of them haven't talked about bushmeat with their family(47,9%), their friends or neighbors(50,5%), local authority(70,5%).

Q63: In the past 3 months, have you seen bush meat for sale?(Can mark more than one)

(56) In the past 3 months, have you seen bush meat for sale?(Can mark more than one)				
	Counts	Percents	0	Percents 100
On the road	347	37.7%		
Carried by a hunter	266	28.9%		
In a personal house	157	17.0%		
No	130	14.1%		
No answer	127	13.8%		
In a local market	119	12.9%		
Blind person	1	0.1%		
Boyer	1	0.1%		
Restaurant	1	0.1%		
Other	0	0.0%		
Totals	921	n/a		
Mean	--			

Q61: In the past 3 month, have you heard about anyone hunting bush meat in the National Park?

(54) In the past 3 month, have you heard about anyone hunting bush meat in the National Park?				
	Counts	Percents	0	Percents 100
No	790	85.8%		
Yes	72	7.8%		
Don't know	45	4.9%		

Q62: In the past 3 months, have you heard about anyone hunting a protected animal?

(55) In the past 3 months, have you heard about anyone hunting a protected animal?				
	Counts	Percents	0	Percents 100
No	685	74.4%		
Yes	182	19.8%		
Don't know	42	4.6%		
No answer	12	1.3%		
Other	0	0.0%		
Totals	921	100.0%		
Mean	--			

Q68: A community leader, such as a politician, village chief, or religious leader.

(61) A community leader, such as a politician, village chief, or religious leader.				
	Counts	Percents	0	Percents 100
No	649	70.5%		
Yes	237	25.7%		
No answer	21	2.3%		
Don't know	14	1.5%		
Totals	921	100.0%		
Mean	--			

During the last 6 months, nobody has been arrested for hunting in the national park(91,4%) or hunting a protected animal(90,0%) and many of them have not seen bushmeat on a poster(58,2%), billboard(76,0%) or heard about it on a radio program.

Q65: In the past 6 months, has anyone in your village been arrested for hunting a protected animal?

(58) In the past 6 months, has anyone in your village been arrested for hunting a protected animal?				
	Counts	Percents	0	Percents 100
No	829	90.0%		
Yes	39	4.2%		
Don't know	37	4.0%		
No answer	16	1.7%		
Other	0	0.0%		
Totals	921	100.0%		
Mean	--			

Q64: In the past 6 months, has anyone in your village been arrested for hunting bush meat in the ...

(57) In the past 6 months, has anyone in your village been arrested for hunting bush meat in the park?				
	Counts	Percents	0	Percents 100
No	839	91.4%		
Don't know	32	3.5%		
No answer	24	2.6%		
Yes	23	2.5%		
Other	0	0.0%		
Totals	918	100.0%		
Mean	--			

Q70: Seen a billboard about bush meat.

(63) Seen a billboard about bush meat.				
	Counts	Percents	Percents	
			0	100
No	699	76.0%		
Yes	189	20.5%		
Don't know	19	2.1%		
No answer	13	1.4%		
Other	0	0.0%		
Totals	920	100.0%		
Mean	--			

Q71: Seen poster about bush meat

(64) Seen poster about bush meat				
	Counts	Percents	Percents	
			0	100
No	535	58.2%		
Yes	350	38.0%		
Don't know	23	2.5%		
No answer	12	1.3%		
Other	0	0.0%		
Totals	920	100.0%		
Mean	--			