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REPORT

FLORA SURVEY

IN THE

MUNDEMBA, TOKO AND NGUTI

SGSOC PROJECT AREA

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1. INTRODUCTION

SGSOC Ltd is establishing an oil palm (*Elaeis guinensis*) plantation in the Southwest Region the project areas in the Ndian (38 000 ha) and Kupe-Manengouba (42, 000 ha) Divisions respectively. As part of the ongoing EIA study, a vegetation assessment was carried out in the Mundemba and Nguti project areas with the following terms of reference:

- Describe the present status of plants species through desktop review and fieldwork (those listed by the International Union for Conservation of Nature (IUCN Red Data species 2010), as critically endangered, endangered, vulnerable, and lower risk, and species listed on appendix II International Trade in Endangered Species (CITES) list inside the project's zone and protected areas within the sphere of influence .Compare the list of species recorded with the list of protected species under the Cameroon wildlife law (Article 2 of the Order of 14 August 1998).
- Take photographs and GPS coordinates points for protected species seen in the SGSO C Concession Area.
- Identify and describe any forest reserves, council and Community Forests occurring inside the SGSO C Concession Area.
- Identify potential impacts, environmental management measures, and mitigation measures if necessary.

2. VEGETATION ASSESSMENT

Both qualitative and quantitative methods were used to assess the floral composition of project area. In addition to the extensive review of botanical data of the area, species enumeration was carried out at 21 randomly selected focal points at roadsides, along trails and transects within the two blocks of the SGSO C Concession area. At each point, the majority of the species encountered within the nearest 10 m were identified and recorded in the field. Voucher specimens were also collected for proper identification at the Limbe Botanic Garden Herbarium. Table 1 below presents the GPS coordinates and elevation and species richness for each point.

Table 1: GPS coordinate Altitude and number of species recorded at selected focal points in the three blocks of the project area.

BLOCK	LOCATION	COORDINATES	ALTITUDE (m)	No. species	
NDIAN	BEBOKA JUNCTION	32 N 0508258 UTM 0559031	646.8	20	
	LIPENJA A	32 N 0511911 UTM 0559032	788.7	10	
	LIPENJA B	32 N 0512219 UTM 0561076	718.2	09	
	LIPENJA C	32 N 0511030 UTM 0563074	653.1	15	
	MOKANGO-BIMA	32 N 0509730 UTM 0567435	580	12	
	MASAKA-BIMA	32 N 0509596 UTM 0567700	579	12	
	LIPENJA D	32 N 0510474 UTM 0564334	645.6	16	
	NDIBA	32 N 0504426 UTM 0559661	651.3	05	
	MEANGWE II	32 N 0499761 UTM 0560402	490.5	05	
	META JUNCTION	32 N 0502315 UTM 0559518	588	29	
	META VILLAGE	32 N 0502443 UTM 0557816	520	08	
	NGUTI	BADOUN A	32 N 0548981 UTM 0564375	492	04
		BADOUN B	32 N 0549890 UTM 0567193	520	35
NEW KONYE		32 N 0551128 UTM 0569253	521	08	
KOKOBOMA		32 N 0544434 UTM 0561663	423.3		

	EKITA VILLAGE	32 N 0542977 UTM 0567844	415	08
	TALANGAYE VILLAGE	32 N 0542123 UTM 0569081	396	09
	AYONG A	32 N 0538592 UTM 0574943	312	24
	AYONG VILLAGE	32 N 0535185 UTM 0574862	261.5	05
	AYONG JUNCTION	32 N 0542306 UTM 0574695	344	

The vegetation of the project area is moist evergreen to moist semi-deciduous forests which has been extensively logged over the years. The vertical profile includes trees of 10 to 20 ft entangled by woody lianas and other climbers. The woody under storey is fairly dense particularly in areas of evidence of logging. Forest fragmentation is high as most of the settlements are far apart.

The project areas have road traces used by hunters and timber companies. Records indicate that these concessions have been repeatedly logged over the years by the following companies:

1. BEBUN Company, a local company based in Nguti;
2. MUKETE Company, a local company based in Kumba;
3. SHIMER International Company, company from Malaysia;
4. TRC Company, local Cameroon Company;
5. CASECO Company, local Cameroon Company

118 species belonging to 45 families were recorded during the survey in and around the project areas (see Table 1 and appendix 1). The checklist of plant species in the project area based on the APG III system of classification (APG 2009) is presented in appendix 2. Eight of these species were on the IUCN red list with 06 being classified as vulnerable [VU], 01 endangered [EN] and 01 as near threatened [NT] (see appendix 2). These species are all found in abundant in the lowland rain forest region of Cameroon; hence the impact will be minor. None was also listed on either appendix II of the International Trade in Endangered Species (CITES) list or the list of protected species under the Cameroon wildlife law (Article 2 of the Order of 14 August 1998).

PROTECTED AREAS AROUND THE PROJECT AREA

Within the vicinity of the SGSO Concession area are the following associated protected areas; Korup National Park KNP (Ndian Division), Banyang-Mbo Wildlife Sanctuary (Kupe-Manengouba Division), Nta Ali FR and Ejagham FR (Manyu Division) and Rumpi Hills FR (Ndian and Kupe-Manengouba Divisions).. Of all of these protected areas listed, only KNP and Banyang-Mbo WS have approved management plans with some conservation and enforcement activities. Two forest concessions are currently being exploited within the region with a sawmill located at Nguti.

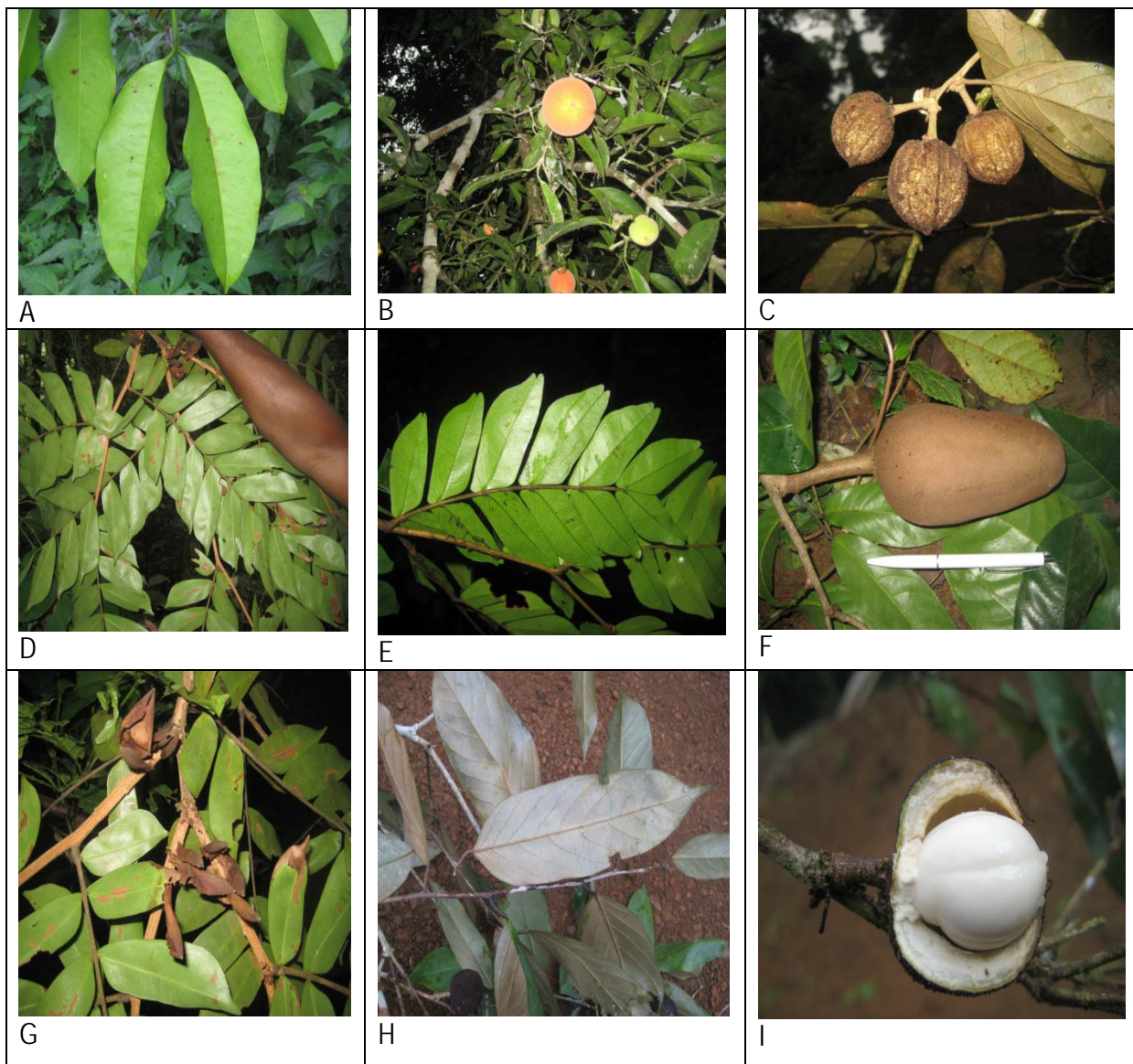


Plate 1: Pictures of leaves and fruits of some important species within the project area.

A – Leaves of *Garcinia kola*,

- B – Fruits of *Garcinia kola*,
- C – Twig of *Afrostryrax lepidobotrys* with fruits,
- D – Leaves of *Hymenostegia bakeriana*,
- E – Leaves of *Plagiosiphon multijugas*,
- F – Fruits of *Monodora myristica*,
- G – Leaves of *Hymenostegia bakeriana* showing leathery stipules,
- H – Leaves of *Afrostryrax lepidobotrys*,
- I – Open fruit of *Afrostryrax lepidobotry*.

3. POTENTIAL IMPACTS, ENVIRONMENTAL MANAGEMENT MEASURES AND MITIGATIONS

The majority of the villages around the SGSO C Concession area are completely enclaved with little access roads, no electricity or pipe-borne water and health care facilities. The villagers are solely dependent on chop farms and the gathering of Non-Timber Forest Products (NTFPs) as the main livelihood. They also depend on phytomedicine for health care. Setting up new camps will entail an influx of migrant population which will exert more pressure on the existing limited natural resources.

Emphasis should therefore be geared towards establishing a balance between welfare improvement and forest conservation. The possible option will be to maintain most of the NTFP species in the concession areas in the biodiversity vegetation plot. The common NTFP species include: Country onion, Bush pepper, bush mango, bitter kola, red Cola, monkey cola, Njabe, and other spice species (see plate 1).

4. SELECTED REFERENCES

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Appendix 1: Enumeration data for the selected focal points within three blocks in the project area.

Sites				
1	Site: Beboka Junction			
	32 N 0508258			
	UTM 0559031			
	Elev.: 646.8 m			
	Family	Genus	Species	
	Apocynaceae	<i>Funtumia</i>	<i>elastica</i>	
	Apocynaceae	<i>Rauvolfia</i>	<i>macrophylla</i>	
	Asteraceae	<i>Vernonia</i>	<i>conferta</i>	
	Bignoniaceae	<i>Spathodea</i>	<i>campanulata</i>	
	Burseraceae	<i>Canarium</i>	<i>schweinfurthii</i>	
	Cecropiaceae	<i>Musanga</i>	<i>cecropioides</i>	
	Clusiaceae	<i>Vismia</i>	<i>guineensis</i>	
	Combretaceae	<i>Terminalia</i>	<i>superba</i>	
	Euphorbiaceae	<i>Margaritaria</i>	<i>discoidea</i>	
	Euphorbiaceae	<i>Discoglyprena</i>	<i>caloneura</i>	
	Euphorbiaceae	<i>Antidesma</i>	<i>vogelianum</i>	
	Fabaceae	<i>Piptadeniastrum</i>	<i>africanum</i>	
	Fabaceae	<i>Berlinia</i>	<i>bracteosa</i>	
	Huaceae	<i>Afrostryax</i>	<i>lepidophyllus</i>	
	Irvingiaceae	<i>Irvingia</i>	<i>gabonensis</i>	
	Malvaceae	<i>Sterculia</i>	<i>tragacantha</i>	
	Meliaceae	<i>Turraeanthus</i>	<i>africanus</i>	
	Meliaceae	<i>Trichilia</i>	<i>rubescens</i>	
	Rubiaceae	<i>Morinda</i>	<i>lucida</i>	
	Rubiaceae	<i>Mitragyna</i>	<i>stipulosa</i>	
2	Site: Lipenja A			
	32 N 0511911			
	UTM 0559032			
	Elev.: 788.7 m			
	Family	Genus	Species	
	Apocynaceae	<i>Tabernaemontana</i>	<i>brachyantha</i>	
	Cecropiaceae	<i>Musanga</i>	<i>cecropioides</i>	
	Cecropiaceae	<i>Myrianthus</i>	<i>arboreus</i>	
	Euphorbiaceae	<i>Ricinodendron</i>	<i>heudelotii</i>	
	Fabaceae	<i>Piptadeniastrum</i>	<i>africanum</i>	
	Huaceae	<i>Afrothyax</i>	<i>lepidophyllus</i>	
	Irvingiaceae	<i>Irvingia</i>	<i>gabunensis</i>	
	Malvaceae	<i>Sterculia</i>	<i>tragacantha</i>	
	Meliaceae	<i>Turreanthus</i>	<i>africanus</i>	

	Verbenaceae	<i>Vitex</i>	<i>grandifolia</i>	
3	Site: Lipenja B			
	32 N 0512219			
	UTM 0561076			
	Elev.: 718.2 m			
	Family	Genus	Species	
	Ancistrocladaceae	<i>Ancistrocladus</i>	<i>korupensis</i>	
	Apocynaceae	<i>Voacanga</i>	<i>africana</i>	
	Asteraceae	<i>Vernonia</i>	<i>conferta</i>	
	Clusiaceae	<i>Harungana</i>	<i>madagascariensis</i>	
	Combretaceae	<i>Terminilia</i>	<i>superba</i>	
	Euphorbiaceae	<i>Ricinodendron</i>	<i>heudelotii</i>	
	Fabaceae	<i>Piptadeniastrum</i>	<i>africanum</i>	
	Huaceae	<i>Afrothyra</i>	<i>lepidobotrys</i>	
	Ochnaceae	<i>Lophira</i>	<i>alata</i>	
4	Site: Lipenja C			
	32 N 0511030			
	UTM 0563074			
	Elev.: 653.1 m			
	Family	Genus	Species	
	Apocynaceae	<i>Voacanga</i>	<i>africana</i>	
	Asteraceae	<i>Vernonia</i>	<i>conferta</i>	
	Burseraceae	<i>Dacryodes</i>	<i>edulis</i>	
	Clusiaceae	<i>Harungana</i>	<i>madagascariensis</i>	
	Combretaceae	<i>Terminilia</i>	<i>superba</i>	
	Combretaceae	<i>Terminilia</i>	<i>superba</i>	
	Costaceae	<i>Costus</i>	<i>afer</i>	
	Euphorbiaceae	<i>Ricinodendron</i>	<i>heudelotii</i>	
	Euphorbiaceae	<i>Discoglyprena</i>	<i>caloneura</i>	
	Fabaceae	<i>Piptadeniastrum</i>	<i>africanum</i>	
	Pandaceae	<i>Microdesmis</i>	<i>puberula</i>	
	Phyllanthaceae	<i>Bridelia</i>	<i>micrantha</i>	
	Rubiaceae	<i>Morinda</i>	<i>lucida</i>	
	Rubiaceae	<i>Tricalysia</i>	<i>sp.</i>	
	Zingiberaceae	<i>Aframomum</i>	<i>sp.</i>	
5	Mokango-Bima			
	32 N 0509730			
	UTM 0567435			
	Elev.: 580 m			
	Family	Genus	Species	
	Annonaceae	<i>Cleistophylus</i>	<i>staudtii</i>	

	Combretaceae	<i>Terminilia</i>	<i>superba</i>	
	Combretaceae	<i>Terminilia</i>	<i>ivorensis</i>	
	Euphorbiaceae	<i>Ricinodendron</i>	<i>heudelotii</i>	
	Fabaceae	<i>Amphimas</i>	<i>amphilioides</i>	
	Fabaceae	<i>Anthonotha</i>	<i>lamprophylla</i>	
	Irvingiaceae	<i>Desbodesia</i>		
	Loganiaceae	<i>Anthocleista</i>	<i>vogelii</i>	
	Malvaceae	<i>Cola</i>	<i>lepidotha</i>	
	Ochnaceae	<i>Lophira</i>	<i>alata</i>	
	Phyllanthaceae	<i>Bridellia</i>	<i>sp.</i>	
	Rubiaceae	<i>Schumaniophytum</i>	<i>magniphycum</i>	
	Sapotaceae			
6	Masaka-Bima			
	32 N 0509596			
	UTM 0567700			
	Elev.: 579 m			
	Family	Genus	Species	
	Arecaceae	<i>Raphia</i>	<i>hookeri</i>	
	Bignoniaceae	<i>Spathodea</i>	<i>campanulatha</i>	
	Boraginaceae	<i>Cordia</i>	<i>africana</i>	
	Combretaceae	<i>Petersianthus</i>	<i>macrocarpa</i>	
	Combretaceae	<i>Terminilia</i>	<i>superba</i>	
	Costaceae	<i>Costus</i>	<i>afer</i>	
	Euphorbiaceae	<i>Maraya</i>	<i>micrantha</i>	
	Fabaceae	<i>Leptoderris</i>	<i>leddermannii</i>	
	Ocktonemataceae	<i>Okoubaka</i>	<i>aubrivillia</i>	
	Rubiaceae	<i>Craterispermum</i>	<i>aristatum</i>	
	Sapotaceae	<i>Baillonella</i>	<i>toxosperma</i>	
	Violaceae	<i>Rinorea</i>	<i>oblongifolia</i>	
7	Site: Lipenja D			
	32 N 0510474			
	UTM 0564334			
	Elev.: 645.6 m			
	Family	Genus	Species	
	Apocynaceae	<i>Tabernaemontana</i>	<i>brachyantha</i>	
	Apocynaceae	<i>Voacanga</i>	<i>africana</i>	
	Apocynaceae	<i>Funtumia</i>	<i>elastica</i>	
	Combretaceae	<i>Terminilia</i>	<i>superba</i>	
	Fabaceae	<i>Piptadeniastrum</i>	<i>africanum</i>	
	Fabaceae	<i>Anthonotha</i>	<i>lamprophylla</i>	
	Malvaceae	<i>Cola</i>	<i>sp.</i>	
	Malvaceae	<i>Cola</i>	<i>pachiacarpa</i>	

	Malvaceae	<i>Cola</i>	<i>megalophylla</i>	
	Meliaceae	<i>Carapa</i>	<i>dinklagei</i>	
	Meliaceae	<i>Turreanthus</i>	<i>africanus</i>	
	Meliaceae	<i>Trichillia</i>	<i>rubescens</i>	
	Myristicaceae	<i>Pycnanthus</i>	<i>angolensis</i>	
	Passifloraceae	<i>Barteria</i>	<i>fistulosa</i>	
	Rubiaceae	<i>Oxyanthus</i>	<i>sp</i>	
	Rubiaceae	<i>Schumaniophytum</i>	<i>magniphyicum</i>	
8	Site: Ndiba			
	32 N 0504426			
	UTM 0559661			
	Elev.: 651.3 m			
	Family	Genus	Species	
	Apocynaceae	<i>Alstonia</i>	<i>boonei</i>	
	Combretaceae	<i>Terminilia</i>	<i>superba</i>	
	Euphorbiaceae	<i>Ricinodendron</i>	<i>heudelotii</i>	
	Fabaceae	<i>Piptadeniastrum</i>	<i>africanum</i>	
	Loganiaceae	<i>Anthocleista</i>	<i>vogelii</i>	
9	Site: Meangwe II			
	32 N 0499761			
	UTM 0560402			
	Elev.: 490.5			
	Family	Genus	Species	
	Apocynaceae	<i>Funtumia</i>	<i>elastica</i>	
	Asteraceae	<i>Vernonia</i>	<i>frondosa</i>	
	Combretaceae	<i>Terminilia</i>	<i>superba</i>	
	Combretaceae	<i>Terminilia</i>	<i>ivorensis</i>	
	Fabaceae	<i>Amphimas</i>	<i>amphilioides</i>	
10	Meta Junction			
	32 N 0502315			
	UTM 0559518			
	Elev.: 588 m			
	Family	Genus	Species	
	Anisophyllaceae	<i>Anisophyllia</i>	<i>polyantha</i>	
	Annonaceae	<i>Anonadium</i>	<i>mannii</i>	
	Apocynaceae	<i>Funtumia</i>	<i>elastica</i>	
	Apocynaceae	<i>Alstonia</i>	<i>boonei</i>	
	Arecaceae	<i>Laccosperma</i>	<i>robustum</i>	
	Clusiaceae	<i>Garcinia</i>	<i>mannii</i>	
	Clusiaceae	<i>Garcinia</i>	<i>smeathmannii</i>	
	Clusiaceae	<i>Mammea</i>	<i>africana</i>	

	Clusiaceae	<i>Pentadesma</i>	<i>grandifolia</i>	Baker f.
	Combretaceae	<i>Terminilia</i>	<i>superba</i>	
	Combretaceae	<i>Terminilia</i>	<i>superba</i>	
	Euphorbiaceae	<i>Mareyopsis</i>	<i>longifolia</i>	(Pax.) Pax & K. Hoffm.
	Fabaceae	<i>Baphia</i>	<i>laurifolia</i>	
	Fabaceae	<i>Plagiosiphon</i>	<i>multijugas</i>	
	Lecythidaceae	<i>Oubanguia</i>	<i>alata</i>	Baker f.
	Malvaceae	<i>Cola</i>	<i>lepidotha</i>	
	Medusandraceae	<i>Soyauxia</i>	<i>gabonensis</i>	Oliv.
	Meliaceae	<i>Carapa</i>	<i>parviflora</i>	
	Moraceae	<i>Milicia</i>	<i>excelsa</i>	
	Ochnaceae	<i>Rhabdophyllum</i>	<i>sp</i>	
	Olacaceae	<i>Stromboscia</i>	<i>grandifolia</i>	
	Pandaceae	<i>Panda</i>	<i>oleosa</i>	
	Phyllanthaceae	<i>protomegabaria</i>	<i>stapfiana</i>	(Beille) Hutch.
	Putrangivaceae	<i>Drypetes</i>	<i>sp.</i>	
	Pyllanthaceae	<i>Uapaca</i>	<i>sp.</i>	
	Rhamnaceae	<i>Masiopsis</i>	<i>eminii</i>	
	Rubiaceae	<i>Aidia</i>	<i>genipiflora</i>	(DC). Dandy
	Rubiaceae	<i>Schumaniophytum</i>	<i>magniphycom</i>	
	Sapindaceae	<i>Eriocoelum</i>	<i>sp.</i>	
11	Site: Meta village			
	32 N 0502443			
	UTM 0557816			
	Elev.: 520 m			
	Family	Genus	Species	
	Anonaceae	<i>Monodora</i>	<i>myristica</i>	
	Apocynaceae	<i>Funtumia</i>	<i>elastica</i>	
	Apocynaceae	<i>Rauvolfia</i>	<i>macrophylla</i>	
	Bombacaceae	<i>Ceiba</i>	<i>pentandra</i>	
	Boraginaceae	<i>Cordia</i>	<i>africana</i>	
	Combretaceae	<i>Terminilia</i>	<i>superba</i>	
	Fabaceae	<i>Albizia</i>	<i>adiantifolia</i>	
	Family	Genus	Species	
	Malvaceae	<i>Cola</i>	<i>lepidotha</i>	
	Nguti Block			
12	Badoun A			
	32 N 0548981			
	UTM 0564375			
	Elev.: 492 m			
	Family	Genus	Species	
	Fabaceae	<i>Piptadeniastrum</i>	<i>africanum</i>	

	Meliaceae	<i>Turraeanthus</i>	<i>africanus</i>	
	Phyllanthaceae	<i>Bridelia</i>	<i>micrantha</i>	
13	Badoun B			
	32 N 0549890			
	UTM 0567193			
	Elev.: 520 m			
	Family	Genus	Species	
	Anacardiaceae	<i>Trichoscypha</i>	<i>acuminata</i>	
	Anonaceae	<i>Xylopia</i>	<i>acutiflora</i>	
	Anonaceae	<i>Anonadium</i>	<i>mannii</i>	
	Arecaceae	<i>Laccosperma</i>	<i>opacum</i>	
	Asteraceae	<i>Vernonia</i>	<i>frondosa</i>	
	Bombacaceae	<i>Ceiba</i>	<i>pentandra</i>	
	Cecropiaceae	<i>Musanga</i>	<i>cecropioides</i>	
	Clusiaceae	<i>Harungana</i>	<i>madagascariensis</i>	
	Combretaceae	<i>Petersianthus</i>	<i>macrocarpa</i>	
	Costaceae	<i>Costus</i>	<i>afer</i>	
	Euphorbiaceae	<i>Macaranga</i>	<i>monandra</i>	
	Fabaceae	<i>Piptadeniastrum</i>	<i>africanum</i>	
	Fabaceae	<i>Albizia</i>	<i>adiantifolia</i>	
	Fabaceae	<i>Hylodendron</i>	<i>gabonensis</i>	
	Fabaceae	<i>Anthonotha</i>	<i>lamprophylla</i>	
	Fabaceae	<i>Amphimas</i>	<i>ferugenia</i>	
	Fabaceae	<i>Angylocalyx</i>	<i>oligophyllus</i>	
	Fabaceae	<i>Anthonotha</i>	<i>macrocarpa</i>	
	Huaceae	<i>Afrostyrax</i>	<i>lepidobotrys</i>	
	Malvaceae	<i>Sterculia</i>	<i>tragacantha</i>	
	Meliaceae	<i>Lovoa</i>	<i>trichilioides</i>	
	Meliaceae	<i>Carapa</i>	<i>sp.</i>	
	Meliaceae	<i>Guarea</i>	<i>glomerulata</i>	Harms
	Memecylaceae	<i>Memecylon</i>	<i>zenkeri</i>	Gilg.
	Monimiaceae	<i>Glosocalyx</i>	<i>brevipes</i>	
	Moraceae	<i>Treculia</i>	<i>obovoidea</i>	
	Myristicaceae	<i>Pycnanthus</i>	<i>angolensis</i>	
	Pandaceae	<i>Microdesmis</i>	<i>puberula</i>	
	Phyllanthaceae	<i>Uapaca</i>	<i>staudtii</i>	
	Phyllanthaceae	<i>Uapaca</i>	<i>sp.</i>	
	Rubiaceae	<i>Craterispermum</i>	<i>aristatum</i>	
	Rubiaceae	<i>Pauridiantha</i>	<i>floribunda</i>	
	Sapindaceae	<i>Eriocoelum</i>	<i>sp.</i>	
	Verbenaceae	<i>Vitex</i>	<i>grandifolia</i>	
	Zingiberaceae	<i>Aframomum</i>	<i>sp.</i>	

14	New Konye			
	32 N 0551128			
	UTM 0569253			
	Elev.: 521 m			
	Family	Genus	Species	
	Asteraceae	<i>Vernonia</i>	<i>frondosa</i>	
	Bignoniaceae	<i>Spathodea</i>	<i>campanulatha</i>	
	Combretaceae	<i>Terminilia</i>	<i>superba</i>	
	Fabaceae	<i>Piptadeniastrum</i>	<i>africanum</i>	
	Loganiaceae	<i>Anthocleista</i>	<i>vogelii</i>	
	Meliaceae	<i>Lovoa</i>	<i>trichilioides</i>	
	Meliaceae	<i>Carapa</i>	<i>parviflora</i>	
	Phyllanthaceae	<i>Bridelia</i>	<i>micrantha</i>	
15	KoKoboma village			
	32 N 0544434			
	UTM 0561663			
	Elev.: 423.3 m			
	Family	Genus	Species	
16	Ekita village			
	32 N 0542977			
	UTM 0567844			
	Elev.: 415 m			
	Family	Genus	Species	
	Apocynaceae	<i>Voacanga</i>	<i>africana</i>	
	Apocynaceae	<i>Rauvolfia</i>	<i>macrophylla</i>	
	Bombacaceae	<i>Ceiba</i>	<i>pentandra</i>	
	Cecropiaceae	<i>Musanga</i>	<i>cecropioides</i>	
	Euphorbiaceae	<i>Ricinodendron</i>	<i>heudelotii</i>	
	Fabaceae	<i>Albizia</i>	<i>ferugenia</i>	
	Loganiaceae	<i>Anthocleista</i>	<i>vogelii</i>	
	Phyllanthaceae	<i>Bridelia</i>	<i>micrantha</i>	
17	Talangaye village			
	32 N 0542123			
	UTM 0569081			
	Elev.: 396 m			
	Family	Genus	Species	
	Apocynaceae	<i>Funtumia</i>	<i>elastica</i>	
	Bombacaceae	<i>Ceiba</i>	<i>pentandra</i>	
	Cecropiaceae	<i>Musanga</i>	<i>cecropioides</i>	
	Euphorbiaceae	<i>Ricinodendron</i>	<i>heudelotii</i>	
	Fabaceae	<i>Albizia</i>	<i>zygia</i>	

	Loganiaceae	<i>Anthocleista</i>	<i>vogelii</i>	
	Ochnaceae	<i>Lophira</i>	<i>alata</i>	
	Pyllanthaceae	<i>Bridelia</i>	<i>micrantha</i>	
	Rubiaceae	<i>Cuviera</i>	<i>sp.</i>	
18	Ayong A			
	32 N 0538592			
	UTM 0574943			
	Elev.: 312 m			
	Family	Genus	Species	
	Apocynaceae	<i>Funtumia</i>	<i>elastica</i>	
	Bignoniaceae	<i>Spathodea</i>	<i>campanulatha</i>	
	Bombacaceae	<i>Ceiba</i>	<i>pentandra</i>	
	Burseraceae	<i>Canarium</i>	<i>schweinfurthii</i>	
	Cecropiaceae	<i>Myrianthus</i>	<i>arboreus</i>	
	Cecropiaceae	<i>Musanga</i>	<i>cecropioides</i>	
	Combretaceae	<i>Terminilia</i>	<i>superba</i>	
	Ebenaceae	<i>Diospyros</i>	<i>suavelens</i>	
	Euphorbiaceae	<i>Ricinodendron</i>	<i>heudelotii</i>	
	Fabaceae	<i>Piptadeniastrum</i>	<i>africanum</i>	
	Fabaceae	<i>Baikea</i>	<i>insignis</i>	
	Fabaceae	<i>Berlinia</i>	<i>hollandii</i>	
	Irvingiaceae	<i>Desbordesia</i>	<i>glaucescens</i>	(Engl.) Tiegh.
	Loganiaceae	<i>Anthocleista</i>	<i>vogelii</i>	
	Meliaceae	<i>Trichilia</i>	<i>sp.</i>	
	Meliaceae	<i>Carapa</i>	<i>parviflora</i>	
	Myristicaceae	<i>Pycnanthus</i>	<i>angolensis</i>	
	Ochnaceae	<i>Lophira</i>	<i>alata</i>	
	Passifloraceae	<i>Barteria</i>	<i>fistulosa</i>	
	Rubiaceae	<i>Aoranche</i>	<i>cladantha</i>	
	Rutaceae	<i>Zanthoxylon</i>	<i>macrocarpa</i>	
	Sapotaceae	<i>Baillonella</i>	<i>toxosperma</i>	
	Sapotaceae	<i>Pouteria</i>	<i>sp</i>	
	Simaroubaceae	<i>Pierrodendron</i>	<i>africana</i>	
19	Ayong Village			
	32 N 0535185			
	UTM 0574862			
	Elev.: 261.5 m			
	Family	Genus	Species	
	Bombacaceae	<i>Ceiba</i>	<i>pentandra</i>	
	Cecropiaceae	<i>Musanga</i>	<i>cecropioides</i>	
	Euphorbiaceae	<i>Ricinodendron</i>	<i>heudelotii</i>	
	Irvingiaceae	<i>Irvingia</i>	<i>gabonensis</i>	

	Myristicaceae	<i>Pycnanthus</i>	<i>angolensis</i>	
20	Ayong Junction			
	32 N 0542306			
	UTM 0574695			
	Elev.: 344 m			
	Family	<i>Genus</i>	<i>Species</i>	

Appendix 2: Checklist of plant species within the project area.

Family	Genus	Species	Author	Conservation status
Anacardiaceae	<i>Trichoscypha</i>	<i>acuminata</i>		
Ancistrocladaceae	<i>Ancistrocladus</i>	<i>korupensis</i>		Endemic SE Nigeria; SW Cameroon
Anisophyllaceae	<i>Anisophyllia</i>	<i>polyantha</i>		
Annonaceae	<i>Anonadium</i>	<i>mannii</i>	Engl. & Diels	
Annonaceae	<i>Cleistopholis</i>	<i>staudtii</i>		
Anonaceae	<i>Monodora</i>	<i>myristica</i>		
Anonaceae	<i>Xylopia</i>	<i>acutiflora</i>	(Dunal) A. Rich	
Apocynaceae	<i>Alstonia</i>	<i>boonei</i>	De Wild	
Apocynaceae	<i>Funtumia</i>	<i>elastica</i>	(Pruess) Stapf	
Apocynaceae	<i>Rauvolfia</i>	<i>macrophylla</i>		
Apocynaceae	<i>Tabernaemontana</i>	<i>brachyantha</i>		
Apocynaceae	<i>Voacanga</i>	<i>africana</i>	Stapf	
Arecaceae	<i>Laccosperma</i>	<i>robustrum</i>		
Arecaceae	<i>Laccosperma</i>	<i>opacum</i>		
Arecaceae	<i>Raphia</i>	<i>hookeri</i>		
Asteraceae	<i>Vernonia</i>	<i>conferta</i>		
Asteraceae	<i>Vernonia</i>	<i>frondosa</i>		
Bignoniaceae	<i>Spathodea</i>	<i>campanulatha</i>		
Bombacaceae	<i>Ceiba</i>	<i>pentandra</i>		
Boraginaceae	<i>Cordia</i>	<i>africana</i>		
Burseraceae	<i>Canarium</i>	<i>schweinfurthii</i>		
Burseraceae	<i>Dacryodes</i>	<i>edulis</i>		
Cecropiaceae	<i>Musanga</i>	<i>cecropioides</i>		
Cecropiaceae	<i>Myrianthus</i>	<i>arboreus</i>		
Clusiaceae	<i>Garcinia</i>	<i>mannii</i>		
Clusiaceae	<i>Garcinia</i>	<i>kola</i>		VU A2cd
Clusiaceae	<i>Garcinia</i>	<i>smeathmannii</i>		
Clusiaceae	<i>Harungana</i>	<i>madagascariensis</i>		
Clusiaceae	<i>Mammea</i>	<i>africana</i>		
Clusiaceae	<i>Pentadesma</i>	<i>grandifolia</i>	Baker f.	
Clusiaceae	<i>Vismia</i>	<i>guineensis</i>		
Combretaceae	<i>Petersianthus</i>	<i>macrocarpa</i>		
Combretaceae	<i>Terminilia</i>	<i>superba</i>		
Combretaceae	<i>Terminilia</i>	<i>ivorensis</i>		
Costaceae	<i>Costus</i>	<i>Afer</i>		
Ebenaceae	<i>Diospyros</i>	<i>Suaveolens</i>		
Euphorbiaceae	<i>Antidesma</i>	<i>Vogelianum</i>		
Euphorbiaceae	<i>Discoglyprena</i>	<i>Caloneura</i>		
Euphorbiaceae	<i>Macaranga</i>	<i>Spinosa</i>		
Euphorbiaceae	<i>Macaranga</i>	<i>Monandra</i>		

Euphorbiaceae	<i>Mareya</i>	<i>Micrantha</i>		
Euphorbiaceae	<i>Mareyopsis</i>	<i>Longifolia</i>	(Pax.) Pax & K. Hoffm.	
Euphorbiaceae	<i>Margaritaria</i>	<i>Discoidea</i>		
Euphorbiaceae	<i>Ricinodendron</i>	<i>Heudelotii</i>		
Fabaceae	<i>Albizia</i>	<i>Adiantifolia</i>		
Fabaceae	<i>Albizia</i>	<i>Zygia</i>		
Fabaceae	<i>Amphimas</i>	<i>Amphilioides</i>		
Fabaceae	<i>Amphimas</i>	<i>Ferugenia</i>		
Fabaceae	<i>Angylocalyx</i>	<i>Oligophyllus</i>		VU A3c; B2ab
Fabaceae	<i>Anthonotha</i>	<i>Lamprophylla</i>		
Fabaceae	<i>Anthonotha</i>	<i>Macrocarpa</i>	P. Beauv.	
Fabaceae	<i>Baikea</i>	<i>Insignis</i>		
Fabaceae	<i>Baphia</i>	<i>Laurifolia</i>		
Fabaceae	<i>Berlinia</i>	<i>Bracteosa</i>		
Fabaceae	<i>Berlinia</i>	<i>Hollandii</i>		Endemic Cameroon EN B1+2C
Fabaceae	<i>Hylo dendron</i>	<i>Gabonensis</i>	Taub.	
Fabaceae	<i>Leptoderris</i>	<i>Leddermannii</i>		Endemic Cameroon
Fabaceae	<i>Piptadeniastrum</i>	<i>Africanum</i>	(Hook.f.) Brenan	
Fabaceae	<i>Plagiosiphon</i>	<i>Multijugas</i>	(Harms)J. Leonard	
Huaceae	<i>Afrostryax</i>	<i>Lepidobotrys</i>		
Irvingiaceae	<i>Desbordesia</i>	<i>Glaucescens</i>	(Engl.) Tiegh.	
Irvingiaceae	<i>Irvingia</i>	<i>Gabunensis</i>		
Lecythidaceae	<i>Oubanguia</i>	<i>Alata</i>	Baker f.	
Loganiaceae	<i>Anthocleista</i>	<i>Vogelii</i>	Planch.	
Malvaceae	<i>Cola</i>	<i>Lepidotha</i>	K. Schum	
Malvaceae	<i>Cola</i>	<i>sp.</i>		
Malvaceae	<i>Cola</i>	<i>pachiacarpa</i>		
Malvaceae	<i>Cola</i>	<i>megalophylla</i>		Endemic Cameroon.
Malvaceae	<i>Sterculia</i>	<i>tragacantha</i>	Lindl	
Medusandraceae	<i>Soyauxia</i>	<i>gabonensis</i>	Oliv.	
Meliaceae	<i>Carapa</i>	<i>dinklagei</i>		
Meliaceae	<i>Carapa</i>	<i>parviflora</i>		
Meliaceae	<i>Carapa</i>	<i>sp.</i>		
Meliaceae	<i>Guarea</i>	<i>glomerulata</i>	Harms	
Meliaceae	<i>Lovoa</i>	<i>trichilioides</i>	Harms	VU A1cd
Meliaceae	<i>Trichilia</i>	<i>rubescens</i>	Oliv	
Meliaceae	<i>Trichilia</i>	<i>sp.</i>		
Meliaceae	<i>Turreaanthus</i>	<i>africanus</i>		VUA1cd
Memecylaceae	<i>Memecylon</i>	<i>zenkeri</i>	Gilg.	
Monimiaceae	<i>Glosocalyx</i>	<i>brevipes</i>		
Moraceae	<i>Milicia</i>	<i>excelsa</i>		NT
Moraceae	<i>Treculia</i>	<i>obovoidea</i>	Deane	
Myristicaceae	<i>Pycnanthus</i>	<i>angolensis</i>	(Welw) Warb	

Ochnaceae	<i>Lophira</i>	<i>alata</i>	Banks	VU A1c
Ochnaceae	<i>Rhabdophyllum</i>	<i>sp</i>		
Ocktonemataceae	<i>Okoubaka</i>	<i>aubrivillia</i>		
Olacaceae	<i>Stromboscia</i>	<i>grandifolia</i>	Hook.f.	
Pandaceae	<i>Microdesmis</i>	<i>puberula</i>	Hook.f.	
Pandaceae	<i>Panda</i>	<i>oleosa</i>	Pierre	
Passifloraceae	<i>Barteria</i>	<i>fistulosa</i>	Mast.	
Phyllanthaceae	<i>Bridelia</i>	<i>micrantha</i>		
Phyllanthaceae	<i>Bridellia</i>	<i>sp.</i>		
Phyllanthaceae	<i>Protomegabaria</i>	<i>stapfiana</i>	(Beille) Hutch.	
Phyllanthaceae	<i>Uapaca</i>	<i>staudtii</i>		
Phyllanthaceae	<i>Uapaca</i>	<i>sp.</i>		
Putrangivaceae	<i>Drypetes</i>	<i>sp.</i>		
Rhamnaceae	<i>Masiopsis</i>	<i>emini</i>		
Rhizophoraceae	<i>Avicenia</i>	<i>sp.</i>		
Rhizophoraceae	<i>Rhizophora</i>	<i>racemosa</i>		
Rubiaceae	<i>Aidia</i>	<i>genipiflora</i>	(DC). Dandy	
Rubiaceae	<i>Aoranthe</i>	<i>cladantha</i>		
Rubiaceae	<i>Craterispermum</i>	<i>aristatum</i>		
Rubiaceae	<i>Cuviera</i>	<i>sp.</i>		
Rubiaceae	<i>Hallea</i>	<i>stipulosa</i>		
Rubiaceae	<i>Morinda</i>	<i>lucida</i>		
Rubiaceae	<i>Oxyanthus</i>	<i>sp</i>		
Rubiaceae	<i>Pauridiantha</i>	<i>floribunda</i>		
Rubiaceae	<i>Schumaniophytum</i>	<i>magniphycum</i>		
Rubiaceae	<i>Tricalysia</i>	<i>sp.</i>		
Rutaceae	<i>Zanthoxylum</i>	<i>macrocarpa</i>		
Sapindaceae	<i>Eriocoelum</i>	<i>sp.</i>		
Sapindaceae	<i>Eriocoelum</i>	<i>sp.</i>		
Sapotaceae	<i>Baillonella</i>	<i>toxosperma</i>		VUA1cd
Sapotaceae	<i>Pouteria</i>	<i>sp</i>		
Sapotaceae				
Simaroubaceae	<i>Pierrodendron</i>	<i>africana</i>		
Verbenaceae	<i>Vitex</i>	<i>grandifolia</i>		
Violaceae	<i>Rinorea</i>	<i>oblongifolia</i>		
Zingiberaceae	<i>Aframomum</i>	<i>sp.</i>		