

*Full Length Research Paper*

# Ethnobotanical uses of medicinal plants of two ethnoecological regions of Cameroon

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This paper documents the herbal drugs that are used in two ethnoecological regions of Cameroon, namely littoral and South-west and Sudano-sahelian regions. The data on popular medicinal plants used to cure several diseases were collected through direct interviews with herbalists, traditional healers and customers between 2006 and 2007. An inventory of 289 plants species belonging to 89 families was prepared along with their local and botanical names. The present study also details the herbal cures for different disorders, based on the information obtained from local herbalists or traditional healers. Sixty eight percent of the documented plants are used in the two regions to treat more than twenty important diseases.

**Keys words:** Herbal drugs, medicinal plants, ethnoecological zone, Cameroon.

## INTRODUCTION

In recent years, the use of plants in traditional medicine has increased the interest in ethno-botanical studies throughout the world. In fact, World Health Organization (WHO) estimates that 70% of populations from many countries are using traditional or folk medicine to cure various ailments. In Cameroon, the traditional medicine is still unorganized making its integration in the health system ineffective (Nkongmeneck et al., 2007). The conceptual strategy of health envisage the organization of folk medicine for which, a strategic plan has been worked out in Cameroon to provide the main trends for the development and its integration (Anonymous, 2006).

The interest in herbal medicine in Cameroon has progressed similarly to the increased interest in other developed countries. Recently, various studies (Ekole, 1994; Dikanda, 2000; Yomi, 2001; Jiofack, et al. 2007; Nkongmeneck, 2007; Thornell and Sandberg, 2007) have been conducted to prevent the folk medicine from disappearing.

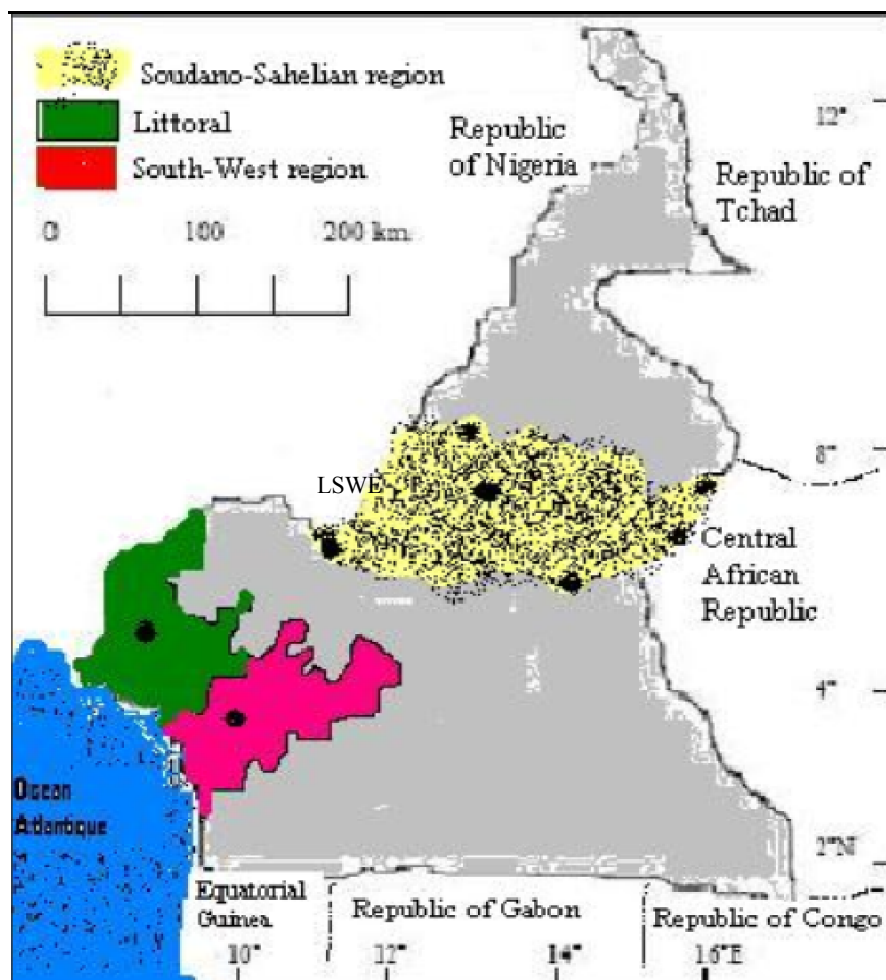
For centuries, people have been using herbal medicine

for the treatment of some common ailments. The Sudano-sahelian and South-west regions are two of the centres of ethnoecological region with rich plant diversity in Cameroon (Nkuinkeu, 1998; Mapongmetsem, 2007). In these areas folk remedies for contagious diseases, cardiovascular disorders and cancer were investigated (Nkuinkeu et al., 2007). The aim of this research is to document the ethnobotanical knowledge found in the two herbal regions, to calculate the frequency of plant usage, and thus, to show the different treatment types that are practised in each region. This study though is not first of its kind on herbal drugs in Cameroon, but focuses on the two plant diversity rich zones, characterized by a several conspicuous diseases, such as malaria, male and female sexual disorders, sexual transmitted diseases (STD), typhoid, anaemia and dysentery which are the most important causes of mortality in these regions of Cameroon.

## MATERIALS AND METHODS

The present study was carried out in two ethno-ecological regions of Cameroon, namely the littoral and South -west region and the

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**Figure 1.** The research areas.

sudano-sahelian ethnoecological region (Figure 1). The littoral region is characterized by cool climate with temperature ranging between 12 and 28°C, while the sudano-sahelian region is a savannah region, characterized by hot climate with temperature varying between 25 and 38°C. Seventy five traditional healers were interviewed in the two regions. The plants listed in the appendix were collected from 10 villages and 4 herbal markets in these two regions. In the littoral region, dominant herbs sold in the markets were: *Azadirachta indica*, *Baillonella toxisperma*, *Dosternia mannii*, *Enantia chlorantha*, *Garcinia cola*, *Garcinia lucida*, *Newbouldia laevis*, *Pausinystalia johimbe* and *Prunus africana*. (Nkuinkeu et al., 2007); while in the sudano sahelian region, common herbs sold included *Azalia africana*, *Carissa edulis*, *Chrysanthellum americanum*, *Crinum* sp., *Vernonia guineense*, *Nauclea vanderghuchtii* and *Nauclea latifolia* (Mapongmetsem, 2007). The medicinal plants are harvested from places such as open areas, gallery forest, savannah bush, mangroves, farmlands and roadsides. The plant materials are sold as dried bunches in open or pre- packed mixtures or as fresh preparations. Consumers generally boil these plant materials to prepare ointments or mix them with other plants depending on their intended use. The information about herbal medicine is available from at least two sources. The first source is the old traditional medicine or *oral folklore* that is passed on from one generation to the next orally and the second source is scientific literature or herbals.

During the period of survey, herbalists, traditional healers, village elders and consumers in the study area were interviewed. The fresh and dried plant samples collected from various localities were authenticated using floras (Letouzey, 1983, 1986; Adjanohoun et al., 1996; Wilks and Issembé, 2000). Voucher specimens, in duplicates were deposited in the Ecologic Museum of Cameroon and the Botany and Ecology laboratory of University of Yaoundé I. During the survey marketed herbal plants were also surveyed. The popular medicinal herbs used for treating various ailments are denoted by asterisks according to their usage: low (\*), moderate (\*\*) and high (\*\*\*) . All the plants inventoried are listed in Table 1 by their vernacular and botanical names, family, ailments for which it is used, plant parts used, mode of preparation and the therapeutic indication according to WHO (Anonymous, 2006).

## RESULTS AND DISCUSSION

The present study we documented 289 plants species belonging to 89 families commonly used for treating 220 pathologies or therapeutics indications (Table 1). Among these 34 plant species are sold by herbalists or recommended by main traditional healers to cure 54 local ailments (Table 2). The other 20 and recurrent diseases

**Table 1.** Check-list of medicinal plants inventoried in the Sudano-sahelian and South-west ethnoecological regions of Cameroon. (SW = South-west and Littoral; SS = Sudano-sahelian region)

Scientific names of plants	Families	Vernacular names	Diseases	Parts used	Mode of preparation	Useful frequency	Region
<i>Abrus precatorius</i>	Fabaceae (Papilionaceae)	Disola wombe (Douala)	Cough, catarrh	Fruit, Leaves	Decoction, Infusion	*	SW
<i>Acacia nilotica</i>	Mimosaceae	Gabde(fd)	Gonococci	Roots bark	Decoction	***	SS
<i>Acacia polyacantha</i>	Mimosaceae		Fibroids, gonococci	Stem bark	Maceration	**	SS
<i>Acalypha</i> sp.	Euphorbiaceae		toothache, fever, dermatitis	Leaves	Decoction	**	SW
<i>Acanthus montanus</i>	Acanthaceae	Pears testle: Mecholechine ( Bakossi)	Abdominal pains, boils, abscess	Leaves	Decoction	***	SW
<i>Acmella caulirhiza</i>	Asteraceae	Medmekube (Bakossi)	Typhoid, boils, toothache	Fruits	Maceration	**	SW
<i>Adansonia digitata</i>	Bombacaceae	Bolo (fd)	Filariasis	Exocarp	Powder	***	SS
<i>Aframomum flavum</i>	Zingiberaceae		Wounds	Fruit	Powder, Plasters	**	SW
<i>Aframomum limbatum</i>	Zingiberaceae	Litondo-tondo (Bakweri)	Wounds	Fruit, Leaves	Plasters	**	SW
<i>Aframomum melegueta</i>	Zingiberaceae	Alligator pepper; Ketchou (Bangante) Ndôn (Bassa) Ndondo'a mounda (Douala)	Magnifies the uses of other medicines, typhoid, infected wound, stimulant, amoebiasis	Seeds, Leaves, Rhizome, Fruits, Roots	Decoction, Powder	***	SW
<i>Azelia africana</i>	Caesalpiniaceae	Pectohi (fd)	Pharyngitis	Seeds	Calcinations and squeeze in water	**	SS
<i>Azelia bipindensis</i>	Caesalpiniaceae	boking (Douala); Noempa (Bassa)	Ear ache	Bark	Decoction	***	SW
<i>Agelanthus djurensis</i>	Loranthaceae	African mistle toe	Menopause, cancer, fibroids	Leaves	Decoction	**	SW
<i>Ageratum conyzoides</i>	Asteraceae	King grass, libolikane (Mbo), Ewuda nyo na nyo	Headache, Poison, quick delivery, gastritis	Leaves	Decoction	***	SW
<i>Albizia adianthifolia</i>	Caesalpiniaceae	Barzain (boum)	sterility in women	Leaves, Bark and roots	Decoction	***	SS
<i>Albizia zygia</i>	Caesalpiniaceae	Esaka (Bakweri)	Boils, diarrhoea, fracture	Stem, leaves	Decoction	**	SW
<i>Alchornea cordifolia</i>	Euphorbiaceae	Dibobonji (Douala), Mokumbukumbu (Oroko)	Toothache, ear ache, excess amniotic fluid	Stem, Bark	Decoction	**	SW
<i>Alchornea floribunda</i>	Euphorbiaceae	Jondi-nga (Bakweri)	Anaemia, lumbago, arthritis, hernia, oedema	Stem, Leaves	Maceration	**	SW
<i>Allium cepa</i>	Liliaceae	Onion	Sexual weakness, rheumatism	Rhizome	Decoction	***	SW
<i>Allium sativum</i>	Liliaceae	Garlic	Hypertension	Rhizome	Decoction	***	SW

Table 1. Cont'd.

<i>Allophyllus africanus</i>	Sapindaceae		Sores	Leaves	Powder	*	SS
<i>Aloe Vera</i>	Liliaceae	Aloe; Achang de-chiog (Bakossi)	Malaria, wounds, dermatitis, poisoning	Leaves	Decoction	***	SW
<i>Aloe sp.</i>	Liliaceae		ovarian cyst	Leaves	Maceration, Infusion	**	SS
<i>Alsodeiopsis weissenborniana</i>	Icacinaceae	Isangi (Bakweri)	STDs, headache, fever	Leaves	Infusion	***	SW
<i>Alstonia boonei</i>	Apocynaceae	Wokuka (Bakweri)	Malaria, fracture, worms, lactation failure, chest pains, diarrhoea	Bark, Latex, Leaves	Decoction	***	SW
<i>Ambligonocarpus andongensis</i>	Mimosaceae	Kassi (Mboum), Yake (Fd)	Hypertension	Seeds	Boiling	*	SS
<i>Amorphophallus sp.</i>	Araceae	Si'i (dii)	Impotence	Whole plant	Cooking with young cock	**	SS
<i>Ampelocissus africana</i>	Vitaceae		dysmenorrhoea	Roots	Decoction	**	SS
<i>Annona senegalensis</i>	Annonaceae	Doukouhi (fd)	gastritis, snake bite, Impotence	Roots	Decoction	***	SS
<i>Anogeissus leiocarpus</i>	Combretaceae	Cojoli (fd)	Amoebiasis	Stem bark	Powder	*	SS
<i>Anthocleista vogelii</i>	Loganiaceae	Ekoka ngowa (Bakweri)	Diabetes, wounds, inflammations, STDs	Stem bark, leaves	Decoction	**	SW
<i>Arachis hypogea</i>	Fabaceae	Birigi(fd)	cyst	Seeds	Cooking	***	SS
<i>Artemisia annua</i>	Asteraceae	Mugwort	Malaria, fatigue	Leaves, Stem	Infusion	*	SW
<i>Artocarpus altitis</i>	Moraceae	Bale (Bakweri)	Malaria, typhoid, haemorrhoids	Fruits	Decoction	**	SW
<i>Asparagus africana</i>	Liliaceae		Oedema	Leaves	Decoction	*	SS
<i>Aspilia africana</i>	Asteraceae	Bwassa (Bakweri)	Fever, worms, backage	Leaves, Stem	Decoction	***	SW
<i>Asystasia gangetica</i>	Acanthaceae	Esume choug (Bakossi)	Vomiting	Whole plant	Decoction	***	SW
<i>Azadirachta indica</i>	Meliaceae	Dogoyaro ; Neem	Malaria, mosquito repellent, typhoid, intestinal worms, diabetes	Seeds, Leaves, Bark	Decoction	***	SW
<i>Baillonella toxisperma</i>	Sapotaceae	Njabe (Oroko)	Related to child birth, rheumatism	Fruit, Bark	Decoction	***	SW
<i>Balanites aegyptiaca</i>	Balanitaceae	Tanni (fd)	Goitre	Rips fruits	Decoction	**	SS
<i>Bersama abyssinica</i>	Meliantaceae		STD	Leaves, Roots	Decoction	**	SW

**Table 1.** Cont'd.

<i>Begonia</i> sp	Begoniaceae	Njabe (Oroko)	Night poison	Fruit, Bark	Decoction	*	SW
<i>Bidens</i> sp	Asteraceae	Black jack; Kodekode (Bakossi)	Periodic fever, malaria	Leaves, branches	Decoction	***	SW
<i>Biophytum</i> sp	Oxallidaceae	Life plant Chual (Bakossi)	Cough	Fruit , Leaves , Bark	Decoction	**	SW
<i>Bosweillia dalzielii</i>	Burseraceae		Syphilis	Roots bark	Decoction	*	SS
<i>Bridelia ferruginea</i>	Euphorbiaceae	Bouroubouhi (fd)	arthritis, snake bite, lumbago	Roots	Decoction	**	SS
<i>Bridelia micrantha</i>	Euphorbiaceae	Bwango (Bakweri)	dermatitis, conjunctivitis, rheumatism	Whole plant	Powder	**	SW
<i>Bryophyllum pinnatum</i>	Crassulaceae	Yoka (Oroko), Elua- lua (Bakweri)	Antiseptics, ear and eye infections, boils, abscess, headache, cough	Leaves, Roots	Maceration	**	SW
<i>Burkea africana</i>	Caesalpiniaceae	Hyim (dii)	Impotence, gonococci	Roots	Chew directly	*	SS
<i>Caladium bicolor</i>	Araceae	Dinde la bedimo (Douala)	Vaginal inflammation	Leaves, Tuber	Decoction	*	SW
<i>Calotropis procera</i>	Asclepiadaceae		Scabies	Roots bark	Powder mixed with oil	*	SS
<i>Canarium schweinfurthii</i>	Burseraceae	Bush plum; Libel (Bakoko); Wotwa (Bakweri); Héhé (Bassa); Sao eyidi (Douala)	Gastritis, asthma, dermatitis	Leaves, Bark, Rhizome	Decoction	***	SW
<i>Capsicum frutescens</i>	Solanaceae	African bird pepper	Purgative, enhancer of other herbs, blood circulation,	Fruits	Decoction	**	SW
<i>Carapa procera</i>	Meliaceae	Hom (Bassa)	Rheumatism	Fruits	Decoction	**	SW
<i>Carica papaya</i>	Caricaceae	Pawpaw; Pawpe (Bakossi)	Hypertension, malaria, worm expeller	Whole plant	Decoction	***	SW
<i>Carissa edulis</i>	Apocynaceae		Malaria, Typhoid	Leaves, Fruits	Decoction	**	SS
<i>Cassia occidentalis</i>	Caesalpiniaceae	Wonda bedimo (Douala)	Fever, typhoid, laxative, malaria	Seeds, Leafy stem	Decoction	**	SW
<i>Cassia alata</i>	Caesalpiniaceae	Ringworm bush Tasba (fd)	Expels worms, eyes worm diseases, fever, fast delivery, yellow fever, haemorrhoids	Leaves, Roots	Decoction	***	SW
<i>Ceiba pentandra</i>	Bombacaceae	Boma stick, Nbeum(Mbo); Njobwele(Bakossi); Djôm (Bassa) Bouma, Boumba (Douala)	AIDS, chest pains, purgative, heart palpitations, diabetes, gastritis	Bark, Leaves, Roots	Decoction	***	SW
<i>Centella asiatica</i>	Apiaceae	Ehiog (Bakossi)	Vomiting, appendicitis	Whole plant	Decoction	**	SW

Table 1. Cont'd.

<i>Cerathoca sesamoïdes</i>	Cerathaceae	Gouboudou (fd)	Cysts	Whole plant	Cooking	*	SS
<i>Chlerodendrum scandens</i>	Verbenaceae	Musono mundene (Douala)	Convulsion	Leafy stem	Decoction	*	SW
<i>Chromolaena odorata</i>	Asteraceae	Acha-casarra	Fresh wounds	Leaves, Sap	Plasters	**	SW
<i>Chrysanthellum americanum</i>	Asteraceae		Hepatitis, renal lithiasis	Aerial parts	Infusion	**	SS
<i>Cinnamomum verum</i>	Lauraceae	cinnamon	Cough	Bark	Decoction	*	SW
<i>Cissus</i> spp.	Vitaceae	Gadal (fd)	Menstrual disorders	Roots	Decoction	**	SS
<i>Citrus medica</i>	Rutaceae	lime, lamassi (Bangangte)	Filariasis, kidney inflammation, rheumatism	Fruits	Decoction	***	SW
<i>Clausena anisata</i>	Rutaceae	Jumba (Bakweri)	Gastroenteritis	Leaves stem	Decoction	**	SW
<i>Cleome ciliata</i>	Capparaceae	mbango (Douala)	Irregular menstrual cycle, breast infections, heart ache	Leafy stem	Decoction	***	SW
<i>Coffea robusta</i>	Rubiaceae	coffee	Modification of child birth sex	Flower	Decoction	**	SW
<i>Cola nitida</i>	Sterculiaceae	Bush cola; Bobe (Bafaw); Ebeu (Bakossi); Mbanga (Bakweri) Garo (Bassa)	Stimulant, worm expeller, gastritis, rheumatism, chest pains	Seed, Leaves, Bark, Roots	Eating	***	SW
<i>Combretum</i> sp.	Combretaceae		Impotence	Roots bark	Powder	*	SS
<i>Commelina benghalensis</i>	Commelinaceae	Keyoum (Bikom); Nkoleke (Bakossi)	Ease child birth, ring worms, typhoid, blood clotting, headache	Whole plant	Decoction	**	SW
<i>Corchorus olitorius</i>	Tiliaceae	Hausa kene-kene	Childbirth	Leaves	Infusion	**	SW
<i>Cordia</i> sp.	Boraginaceae	Kolkolahi (fd)	Gonococci, ovarian cyst	Roots bark	Decoction	*	SS
<i>Costus afer</i>	Zingiberaceae	Mwandando (Douala)	Conjunctivitis, cough	Leafy stem	Decoction	***	SW
<i>Coula edulis</i>	Olacaceae	Kombea (Bakweri); Omôl (Bassa); Voula (Douala); Bokoumia (Bakundu) Koumoum (Bakoko)	Rheumatism, dermatitis	Fruits	Eating	**	SW
<i>Crinum purpurascens</i>	Amaryllidaceae	Linde-la-nganga (Bakweri)	Wounds, dysentery, piles	Tuber	Powder	*	SW
<i>Crinum</i> sp.	Amaryllidaceae		Impotence	Whole plant	Cooking with sheep meat	*	SS
<i>Crossopteryx febrifuga</i>	Rubiaceae	Golombi (fd)	Sterility in women, ovarian cyst, threatened abortion, sterility in women, syphilis	Fruits, Bark	Powder, maceration	***	SS

Table 1. Cont'd.

<i>Crotalaria</i> sp.	Fabaceae		Gastritis	Roots	Powder	*	SS
<i>Croton longiracemosus</i>	Euphorbiaceae	Bwasaso	Measles, gastritis, dermatitis	Seed and leaves	Decoction	**	SW
<i>Crudia senegalis</i>	Caesalpiniaceae	Enunmba Njou (Douala)	Ear ache, antiseptics	Leaves	Decoction	**	SW
<i>Cucurbita maxima</i>	Cucurbitaceae	melon, monga (Banen)	Aphrodisiac, sexual stimulant	Leaves	Decoction	*	SW
<i>Curcumis</i> sp.	Cucurbitaceae		Cysts	Seeds	Cooking	*	SS
<i>Cussonia barteri</i>	Araliaceae		Gonococci	Roots bark	Decoction	**	SS
<i>Cymbopogon citratus</i>	Poaceae	Fever grass; Mehang metea (Bakossi)	Malaria, typhoid, cough, fever	Leaves	Decoction	***	SW
<i>Cynodon dactylon</i>	Poaceae	Bahama grass; Semesm (Bakossi), Nzezong (Bakossi)	Dizziness, hypertension, rib pains	Leaves, Bark, Roots	Decoction	**	SW
<i>Cyperus</i> sp1.	Cyperaceae		Ovarian cyst, sterility in women	Whole plant	Decoction	*	SS
<i>Cyperus</i> sp2.	Cyperaceae		Sterility in women	Roots	Cooking with groundnut paste	*	SS
<i>Dacryodes edulis</i>	Burseraceae	African plum; Sao (Bakweri) Sas (Bakoko) Sah (Bassa)	Snake bite	Leaves	Plasters	**	SW
<i>Daniellia oliveri</i>	Caesalpiniaceae	Karlahi(fd)	Wounds, generalised pains	Stem bark	Powder	**	SS
<i>Desmodium</i> sp	Fabaceae	Clover; Pee-mbodeh (Bakossi)	Dysentery, piles	Stem, Leaves	Decoction	*	SW
<i>Detarium microcarpum</i>	Caesalpiniaceae	Konkehi (fd)	Scabies	Roots bark	Powder	*	SS
<i>Dichrocephala integrifolia</i>	Asteraceae	Esysio-mboug (Bakossi)	Eyes worm diseases, conjunctivitis	Stem, Leaves	Decoction	**	SW
<i>Dichrostachys glomerata</i>	Mimosaceae		Cysts	Seeds	Cooking	*	SS
<i>Dioscorea bulbifera</i>	Dioscoreaceae	Haap (dii)	Insect bite, poisoning	Roots, Bulbs	Decoction, powder	*	SS
<i>Diospyros</i> sp	Ebenaceae	Ebony, lamedjem (Mbo)	Deafness	Roots	Decoction	***	SW
<i>Dissotis rotundiflora</i>	Melastomataceae	Ewuda wanga (Douala)	Cough, dysentery, conjunctivitis, enteritis, catarrh	Leafy stem	Decoction	***	SW
<i>Dorstenia mannii</i>	Moraceae	Manpower (Bakossi)	Sexual stimulant	Root	Decoction, eating	**	SW
<i>Dorstenia</i> sp	Moraceae	Manpower; Eseh-emuseh (Bakossi)	Aphrodisiac, sexual stimulant	Root	Eating	**	SW
<i>Drynaria cordata</i>	Polypodiaceae	Chick weed; Echimedede (Bakossi)	Malaria, diabetes	Leaves, Root	Decoction	***	SW

Table 1. Cont'd.

<i>Ekebergia senegalensis</i>	Meliaceae	Yongodack (dii)	ovarian cyst	Bark	Maceration	*	SS
<i>Elaeis guineensis</i>	Arecaceae	Oil palm	Syphilis, gonorrhoea	Young palm leaves	Decoction	**	SW
<i>Eleusine indica</i>	Poaceae	sinsin (Douala)	Wound dressing, cough, fatigue	Whole plant	Decoction	*	SW
<i>Elytraria marginata</i>	Acanthaceae	Mondo ma ngule (Douala)	Wounds	Leaves	Powder	*	SW
<i>Emilia coccinea</i>	Asteraceae	Emilia	Gastritis, ear ache, convulsion	Leaves	Decoction	***	SW
<i>Enantia chlorantha</i>	Annonaceae	Yellow kanda	Malaria	Bark	Decoction	***	SW
<i>Entada africana</i>	Mimosaceae	Faddewadou(fd)	Dysentery, Impotence	Bark	Sitzbath, decoction	**	SS
<i>Entandophragma angolense</i>	Meliaceae	Mahogany (boa)	Diarrhoea, bellyache	Bark	Decoction	**	SW
<i>Eremomastax speciosa</i>	Acanthaceae	Dibokuboku di mole (Douala)	generalised pains, dermatitis	Leaves	Decoction	***	SW
<i>Eryngium foetidum</i>	Apiaceae	Camwood	Abscess, boils	Leaves	Plasters	*	SW
<i>Erythrina excelsa</i>	Fabaceae	Esukusuku (Bakweri)	Catarrh, arthritis	Stem, Leaves	Decoction	**	SW
<i>Erythrina sygmoidea</i>	Fabaceae		Diarrhoea, Impotence	Bark	Sitzbath, decoction	**	SS
<i>Erythrococca africana</i>	Euphorbiaceae	Kinde (Bakweri)	Gastritis, dysentery	Roots, Leaves seeds	Decoction	**	SW
<i>Eucalyptus Camaldulensis</i>	Myrtaceae	Eucalyptus	Cough, catarrh	Leaves	Decoction	*	SW
<i>Eulophia horsfalli</i>	Orchidaceae	Akwo Ikwog (Bakossi)	Bleeding piles	Stem bark	Decoction	*	SW
<i>Euphorbia hirta</i>	Euphorbiaceae	Ewuda manyongo (Douala)	Diarrhoea, gastritis, diabetes, dysentery Rheumatism, amoebiasis	Whole plant	Decoction	***	SW
<i>Fadogia cienkowski</i>	Rubiaceae		Impotence	Stem bark	Powder	*	SS
<i>Fagara xanthoxyloides</i>	Rutaceae	Poussolock (fd)	Ulcers	Roots bark	Powder mixed with karity butter	**	SS
<i>Ficus exasperata</i>	Moraceae	Joloso (Douala)	Ear ache, poisoning	Leaves	Decoction	***	SW
<i>Ficus platyphylla</i>	Moraceae	Tchekehi (fd)	Dysmenorrhoea	Stem bark	Decoction	*	SS
<i>Gambeya africana (Chrysopyllum delevoyi)</i>	Sapotaceae	Yellow leaf, nzoueh nfu (Bamileke)	Malaria, constipation, typhoid	Fruit	Infusion	**	SW
<i>Garcinia kola</i>	Clusiaceae	Bitter cola; Wè (Bassa); Ebongagnagne (Douala); Nya, ejane (Ejagham)	Cough, gastritis, sleeping sickness, stimulant, gastroenteritis, speed lactation	Bark, Seeds, Roots	Decoction	***	SW



Table 1. Cont'd.

<i>Garcinia lucida</i>	Clusiaceae	Lanō (Bassa)	Indigestion, flatulence, stimulant, diarrhoea, gastritis, gastralgia	Bark, Seeds, Leaves	Decoction	***	SW
<i>Garcinia mannii</i>	Clusiaceae	Chewing stick	Gastralgia, malaria, laxation, joint pains, cracks in foot	Fruit, Leaves, Bark, Roots, Latex	Decoction	**	SW
<i>Gardenia aqualla</i>	Rubiaceae	Baou (toupouri)	Impotence	Roots bark	Powder	*	SS
<i>Gardenia imperialis</i>	Rubiaceae	Timbaa (dii)	Gonococci, male sexual impotence	Roots bark	Decoction	**	SS
<i>Gardenia triangacantha</i>	Rubiaceae	Bao(toupouri)	Lumbago, cough	Roots	Powder	**	SS
<i>Gnetum africanum</i>	Gnetaceae	Eru	Widlow, ease child birth	Leaves	Decoction	**	SW
<i>Gnidia kraussiana</i>	Thymeaceae		STDs	Roots	Powder	**	SS
<i>Gossypium arboreum</i>	Malvaceae	Cotton leaf	Typhoid	Leaves	Decoction	*	SW
<i>Guibourtia tessmannii</i>	Caesalpinaceae	King stick	Cancer	Bark	Decoction	***	SW
<i>Guiera senegalensis</i>	Compbretaceae		Hypertension	Roots bark	Powder	*	SS
<i>Harungana madagascariensis</i>	Hypericaceae	Wotolongo (Bakweri), Bourgal (fd) Tolongo (Douala)	Haemorrhoids, colds, dysmenorrhoea, gonococci, typhoid poisoning, diarrhoea	Bark leaves	Decoction	***	SW, SS
<i>Helianthus annuus</i>	Asteraceae	Sun flower	Piles	Leaves, Flowers	Decoction	*	SW
<i>Hibiscus rosa-sinensis</i>	Malvaceae	Hibiscus	Diarrhoea, dysentery	Leaves	Decoction	*	SW
<i>Hibiscus sabdariffa</i>	Malvaceae	Foléré (fd)	Amoebiasis, anaemia, sexual transmitted diseases	Fruits petals	Decoction and mixture	**	SS
<i>Hibiscus surattensis</i>	Malvaceae	Eyema njo (Bakweri)	Palpitation, gastralgia	Leaves, Flower	Decoction	**	SW
<i>Hymenocardia acida</i>	Euphorbiaceae	Nde nde (gbaya) Samatahi (fd), Nde nde(gbaya)	Threatened abortion, typhoid, fibroids, male sexual impotence	Wood leaves	Coal Decoction	***	SS, SW
<i>Hyphaene thebaica</i>	Arecaceae	Goriba(fd)	Hypertension	Fruits	Eating	*	SS
<i>Impatiens sp</i>	Basalminaceae	Morumerume(Oroko)	Infertility, dysmenorrhoea	Stem, Leaves	Decoction	**	SW
<i>Imperata cylindrica</i>	Poaceae	To'o(dii)	gonorrhoea	Roots	Decoction	**	SS
<i>Impomoea sp.</i>	Convolvulaceae	Sope-ahente (Bakossi)	Colds	Leaves	Powder	*	SW

**Table 1.** Cont'd.

<i>Isoberlinia docka</i>	Caesalpiniaceae		Food intoxication	Bark	Decoction	*	SS
<i>Jateorhiza macrantha</i>	Menispermaceae	Limoni (Bakweri)	Dysmenorrhoea	Stem	Decoction	*	SW
<i>Jatropha curcas</i>	Euphorbiaceae	Big nut	rheumatism, dermatitis, wounds, syphilis	Stem, Sap	Maceration	***	SW
<i>Kalanchoe crenata</i>	Crassulaceae	Edibe dibe (Douala)	Ear ache, Pneumonia, nose bleeding	Leaves	Juice Infusion	**	SS, SW
<i>Khaya senegalensis</i>	Meliaceae	Dalehi (fd)	Rheumatism, arthritis, elephantiasis	Seeds	Oil extract	**	SS
<i>Kigelia africana</i>	Bignoniaceae	Motimbilimbi (Bakweri)	Waist pain, breast infection	Fruit	Decoction	***	SW
<i>Laccosperma opacum</i>	Arecaceae	Likokoko (Bakweri)	Rheumatism, cough, fracture	Vines	Decoction	*	SW
<i>Lactuca taraxisifolia</i>	Asteraceae		Ovarian cyst	Whole plant	Decoction	*	SS
<i>Lannea microcarpa</i>	Anacardiaceae		Elephantiasis	Stem bark	Powder mixed with khaya oil	*	SS
<i>Lantana camara</i>	Verbenaceae	Mbonja satan (Douala)	Ear ache, filariasis	Leafy stem	Decoction	**	SW
<i>Laportea aestuans</i>	Urticaceae	Tatue (Bakweri)	Anaemia, low calcium, fibroids, dermatitis	Leaves, Stem, Roots	Decoction	**	SW
<i>Laportea ovalifolia</i>	Urticaceae	Tolobanji (Douala)	Poisoning, fontanel, flatulence, tongue pains	Leafy stem	Decoction	**	SW
<i>Leea guineensis</i>	Leeaceae	Lingala (Bakweri)	Abdominal pains, malaria	Leaves, Stem, Seeds, Flower	Decoction	**	SW
<i>Leonotis</i> spp	Lamiaceae	Modewart	Dysentery, filariasis, fever	Leaves	Decoction	*	SW
<i>Lepidium meyenii</i>	Brassicaceae	yarro	Rheumatism	Leaves	Maceration	**	SW
<i>Leptadenia hastata</i>	Asclepiadaceae		STDs, dermatitis, diabetes	Roots	Decoction	*	SS
<i>Leucaena leucocephala</i>	Caesalpiniaceae	Esum-achad (Bakossi)	Ease conception	Leaves, Fruits	Decoction	*	SW
<i>Lippia multiflora</i>	Verbenaceae	Ebanda jeka (Douala)	Fever, typhoid	Leaves	Decoction	**	SW
<i>Lippia rugosa</i>	Verbenaceae	Gossohi(fd)	Rheumatism, typhoid	Leaves	Decoction	*	SS
<i>Lophira alata</i>	Ochnaceae	Ironwood; mbongossi (Douala) Hos (Bassa); Boko (Balung, Bakundu); Djomgi (Bakweri)	Stops vaginal discharge	Bark	Decoction	**	SW
<i>Lophira lanceolata</i>	Ochnaceae	Kofia (Gbaya)	Diarrhoea, ovarian cyst	Bark	Decoction	*	SS
<i>Macaranga occidentalis</i>	Euphorbiaceae	Ewowo (Bakweri)	Stomach wash for pregnant women	Stem, Leaves	Decoction	***	SW

Table 1. Cont'd.

<i>Mangifera indica</i>	Anacardiaceae	Mangoro (Douala) Mangro (fd)	Rheumatism Typhoid	Bark	Decoction	***	SW, SS
<i>Markhamia lutea</i>	Bignoniaceae	Igwe (Boyo)	Syphilis	Leaves	Decoction	**	SW
<i>Maytenus senegalensis</i>	Celastraceae		Oedema	Roots	Powder	*	SS
<i>Melanthera scandens</i>	Asteraceae	Wakasa wakasa (Douala)	Gastralgia, appendicitis	Leafy stem	Decoction	**	SW
<i>Mentha piperita</i>	Lamiaceae	Mint	Carminative (stomach upset)	Leaves	Decoction	*	SW
<i>Microglossa sp</i>	Asteraceae	Ekeble (Bakossi)	Enema for babies, gastralgia	Leaves	Decoction	*	SW
<i>Milicia excelsa</i>	Moraceae	Iroko	Generalised pains, typhoid, malaria	Bark	Decoction	***	SW
<i>Mimosa ruidica</i>	Mimosaceae	Muko iyo musadi (Douala)	Dermatitis, sexual weakness	Leafy stem	Decoction	**	SW
<i>Momordica balsamina</i>	Cucurbitaceae	Ndombondany (Bakweri)	Chest pains, side pain, rashes	Leaves	Decoction	**	SW
<i>Morinda lucida</i>	Rubiaceae	Ewoka (Bakweri)	Stomach wounds	Stem, Bark, Leaves, Root	Decoction	**	SW
<i>Mormodica charantia</i>	Cucurbitaceae	Nyangala nindene (Douala)	Calms contraction pains at child birth	Fruit, Stem, Leaves	Decoction	**	SW
<i>Mormodica foetida</i>	Cucurbitaceae	Ndume (Bakossi)	Threatened abortion, gastralgia	Leaves	Decoction	*	SW
<i>Mucuna stans</i>	Fabaceae		Ovarian cyst	Roots	Decoction	*	SS
<i>Musa paradisiaca</i>	Musaceae	Banana	vomiting, gastritis	Leaves	Decoction	**	SW
<i>Musanga cecropiodes</i>	Cecropiaceae	Lisengi (Bakweri)	Generalised pains, cough	Stem	Decoction	**	SW
<i>Nauclea latifolia</i>	Rubiaceae		Digestion	Fruits	Eating	*	SS
<i>Nauclea vanderghouchtii</i>	Rubiaceae		Dermatitis, wounds	Leaves, Bark	Decoction, Plasters	**	SS
<i>Neoboutonia manii</i>	Euphorbiaceae	Ebwebwe (Bakweri)	Wounds, gastritis	Bark, Leaves	Decoction	*	SW
<i>Newbouldia laevis</i>	Bignoniaceae		Ear ache, cough	Bark, Leaves	Decoction	**	SW
<i>Nephrolepis biserrata</i>	Davaliaceae	Senja mengu (Douala)	Lower abdominal pains	Fronde	Decoction	*	SW
<i>Nephthytis sp.</i>	Araceae		Cyst	Tubers	Maceration	*	SS
<i>Nicotiana tabacum</i>	Solanaceae	tobacco, ndabah (Bamileke)	Headache, dermatitis, stimulant	Leaves	Plasters	***	SW
<i>Ochna afzeli</i>	Ochnaceae		Wounds	Roots	Decoction	*	SS
<i>Ocimum basilicum</i>	Lamiaceae	cotimagin	Delayed menstruation, indigestion, mosquito bites	Leaves, Flowers	Decoction	**	SW

Table 1. Cont'd.

<i>Ocimum gratissimum</i>	Lamiaceae	Masepu	Gastritis, fever, frontal headache, constipation, conjunctivitis	Leaves, Stem, Flowers	Decoction	**	SW
<i>Olax</i> sp.	Olacaceae		Ovarian cyst	Whole plant	Decoction	*	SS
<i>Origanum marjorana</i>	Lamiaceae	Majolene	Stress, colds	Leaves	Fumigation	*	SW
<i>Pachypodanthium staudtii</i>	Annonaceae		Digestion, Aphrodisiac	Root, Fruit	Eating, Decoction	*	SW
<i>Palisota hirsuta</i>	Commelinaceae	Liembemba (Bakweri)	Conjunctivitis, gastralgia, boils	Stem	Decoction	**	SW
<i>Panax</i> sp.	Panaceae	Ginseng	Epilepsy, irregular menstrual cycle	Roots	Maceration	***	SW
<i>Parkia biglobosa</i>	Mimosaceae	Nounouhi (fd)	Ascariasis, syphilis	Leaves	Decoction	**	SS
<i>Paullinia pinnata</i>	Sapindaceae		Rheumatism	Leaves	Decoction	***	SS
<i>Pausinystalia johimbe</i>	Rubiaceae	Yohimbe	Constipation, stimulant, sexual weakness	Bark	Maceration	***	SW
<i>Pennisetum purpureum</i>	Poaceae	elephant grass, likoko (Bakweri), sison (Baba 1)	Epilepsy	Leaves, Stem	Maceration	*	SW
<i>Pennisetum</i> sp.	Poaceae	To'o (gbaya)	Syphilis	Rhizomes	Maceration	*	SS
<i>Pentaclethra macrophylla</i>	Mimosaceae		Cardio-vascular disease, gonorrhoea	Fruit	Maceration	**	SW
<i>Persea americana</i>	Lauraceae	Avocado (pear)	antihelmintic	Bark, Leaves	Maceration	***	SW
<i>Phyllanthus muellerianus</i>	Euphorbiaceae	Tidui (gbaya)	Rheumatism, gonococci	Leaves	Decoction	**	SS
<i>Piliostigma thonningii</i>	Caesalpiniaceae	Barkehi (fd)	male sexual impotence, sterility in women, malaria	Stem bark	Powder	**	SS
<i>Piper guineensis</i>	Piperaceae	Bush pepper; Ndong (Bakossi); Idoko (Bakweri); Lobo (Douala); Lobé (Malimba)	Cough, stimulant, enema	Whole plant	Maceration	***	SW
<i>Piper umbellatum</i>	Piperaceae	Ekongo (Oroko), Dibakuboku la wonja (Douala)	Change of sex at child birth, piles, breast infection, calm birth pains	Flower, Leaves	Decoction	***	SW
<i>Plectranthus decurrens</i>	Lamiaceae	Etangloh (Bakossi)	Enema for pregnant women, ease delivery	Whole plant	Decoction	**	SW
<i>Plectranthus glandulosus</i>	Lamiaceae	Esosa-maija (Bakweri)	dermatitis, venereal diseases, bellyache	Leaves, Sap	Plasters	**	SW
<i>Portulaca oleracea</i>	Portulacaceae	Nyukutu nyukutu	Frontal headache, poisoning	Leafy stem	Decoction	*	SW

Table 1. Cont'd.

<i>Protea eliotii</i>	Proteaceae	Levrehi (fd)	carious teeth, haemorrhoids, sores, eyes worm diseases	Bark	Decoction in mouth bath, fumigation	**	SS
<i>Prunus africana</i>	Rosaceae	Pygeum	Malaria, gastralgia, chest pains, heart burn, madness	Bark	Decoction	***	SW
<i>Pseudarthria kotschyi</i>	Fabaceae		scabies, sexual transmitted diseases	Roots bark	Powder	*	SS
<i>Psidium guajava</i>	Myrtaceae	Guava tree	Wounds, diarrhoea Typhoid	Leaves	Plasters decoction	***	SW, SS
<i>Pseudospondia microcarpa</i>	Anacardiaceae		STD, infectious diseases	Leaves, Fruits	Decoction	**	SW
<i>Psorospermum febrifugum</i>	Hypericaceae	Saiwaki (fd)	Syphilis	Roots bark	Decoction	*	SS
<i>Pterocarpus erinaceus</i>	Fabaceae		Amoebiasis	Stem bark	Decoction	**	SS
<i>Pterocarpus</i> sp1.	Fabaceae		ovarian cyst	Roots	Maceration	*	SS
<i>Pycnanthus angolense</i>	Myristicaceae	Esamba (Bakweri)	Fever, toothache	Stem, Bark, Leaves	Decoction	**	SW
<i>Pycnostachys pallisfusca</i>	Lamiaceae		Syphilis	Roots bark	Decoction	*	SS
<i>Rauvolfia vomitoria</i>	Apocynaceae	Abude or nhimpaah (Bakossi)	Typhoid, antihelmintic, heart ache	Leaves	Decoction	***	SW
<i>Rauvolfia macrophylla</i>	Apocynaceae	Kanja (Bakweri)	heart ache, infectious diseases	Bark, Roots	Decoction	**	SW
<i>Ricinus communis</i>	Euphorbiaceae	Lingatuma – Bakweri (castor)	Sterility in women	Leaves, Stem, Roots, Fruits	Decoction	**	SW
<i>Rinorea dentata</i>	Violaceae	Lindu (Bakweri)	Headache, diarrhoea	Fruits, Stem	Decoction	*	SW
<i>Sclerocarya birrea</i>	Anacardiaceae	Edi (fd)	Dermatitis, diabetes	Leaves	Decoction	*	SS
<i>Scoparia dulcis</i>	Scrophulariaceae	Jomboia (Bakweri)	Sores, stroke, measles, sexual weakness	Leaves, Branchlets	Maceration	**	SW
<i>Securidaca longepedunculata</i>	Polygalaceae	Alahi (fd)	Rheumatism, bronchitis, snake bite, gonococci, ovarian cyst	Leaves, Roots	Decoction	***	SS
<i>Selaginella myosurus</i>	Selaginellaceae	Tunda (Douala)	headache	Whole plant	Maceration	*	SW
<i>Selaginella vogelii</i>	Selaginellaceae	Abude (Bakossi)	Kidney problems	Whole plant	Maceration	*	SW
<i>Senna occidentale</i>	Caesalpiniaceae	Tasba(fd)	Abscess	Leaves	Plasters	**	SS
<i>Senna sangueana</i>	Caesalpiniaceae		fibroids, threatened abortion	Stem bark	Maceration	*	SS
<i>Setaria megaphylla</i>	Poaceae	Lingongi (Bakweri)	Wounds, eczema	Leaves	Powder	*	SW

Table 1. Cont'd.

<i>Sida javanensis</i>	Malvaceae	soffo	Ease delivery, liver disorders, boils	Fruit, Leaves	Decoction	*	SW
<i>Sida rhombifolia</i>	Malvaceae	Douza (dii)	leucorrhoea	Whole plant	Decoction	*	SS
<i>Solanecio biafrae</i>	Solanaceae	Kalavanje (Bakweri)	Rheumatism, cough	Leaves	Decoction	**	SW
<i>Solanum gilo</i>	Solanaceae	Nginge nisadi (Douala)	migraine	Whole plant	Decoction	**	SW
<i>Solanum incanum</i>	Solanaceae	Tangalanga (Douala)	poisoning, heart ache, lower abdominal pains	Leaves	Decoction	**	SW
<i>Solanum macrocarpon</i>	Solanaceae	Anchiye	diarrhoea, fever	Leaves	Decoction	*	SW
<i>Solanum melongena</i>	Solanaceae	Garden eggs	Waist pain	Fruits, Leaves	Decoction	*	SW
<i>Solenostemon monostachyus</i>	Lamiaceae	Dimayn (Douala)	Ease child birth, frontal headache	Leafy stem	Decoction	**	SW
<i>Sorghum bicolor</i>	Poaceae		cyst	Whole plant	Powder	*	SS
<i>Spathodea campanulata</i>	Bignoniaceae	Echib (Bakossi)	Crooked eye problem	Leaves	Decoction	**	SW
<i>Spilanthes filicaulis</i>	Asteraceae	Eye for fowl	Poisoning, eczema, cancer	Whole plant	Decoction	***	SW
<i>Stanfieldiella imperforata</i>	Commelinaceae	Esa koka (Bakweri)	Wound dressing, antihelminthic, headache	Leaves	Powder	**	SW
<i>Starchytarpheta angustifolia</i>	Verbenaceae	Blue verbena	Laxative, fever, cough, toothache	Leaves	Decoction	*	SW
<i>Sterospermum kuntianum</i>	Bignoniaceae	Golombi (fd)	male sexual impotence, gonococci	Roots bark	Powder	*	SS
<i>Strychnos spinosa</i>	Loganiaceae	Moratouta (fd)	male sexual impotence	Bark	Powder	**	SS
<i>Syzygium guineense</i> var. <i>macrocarpum</i>	Myrtaceae	Assora (fd), Kelu (gbaya)	male sexual impotence	Roots bark	Powder	*	SS
<i>Tamarindus indica</i>	Caesalpiniaceae	Djabbe (fd)	sterility in women, dysmenorrhoea, amoebiasis	Leaves, Fruits	Powder	***	SS
<i>Tapinanthus bangwensis</i> sur <i>Boswellia dalzielli</i>	Loranthaceae	Yotéré	snake bite	Leaves and stem	Powder mixed with oil	**	SS
<i>Tapinanthus bangwensis</i> sur <i>Gardenia</i> sp.	Loranthaceae	Yotéré (fd)/	snake bite	Leaves and stem	Powder mixed with oil	**	SS
<i>Tapinanthus bangwensis</i> sur <i>Tamarindus indica</i>	Loranthaceae	Yotere (fd) /Djabbe	sexual transmitted diseases	Leaves and stem	Powder from 3 plants mixed	***	SS
<i>Tapinanthus globiferus</i>	Loranthaceae	Lisua-la-kote (Bakweri)	Convulsion, diabetes, arthritis, antidote	Leaves, Flower	Decoction	***	SW

**Table 1.** Cont'd.

<i>Tapinanthus</i> sp1./sur <i>Isoberlinia</i> <i>docka</i>	Loranthaceae		sterility in women	Whole plant	Maceration	*	SS
<i>Tapinanthus</i> sp2./sur <i>Piliostigma</i> <i>thonningii</i>	Loranthaceae	Yotere/barkehi (fd)	cyst	Whole plant	Powder	*	SS
<i>Tapinanthus</i> sp3.	Loranthaceae	Yotere	cyst	Seeds	Cooking	*	SS
<i>Tapinanthus</i> sp4./sur <i>Crossopteryx</i> <i>febrifuga</i>	Loranthaceae	Yotere (fd)/Rhimajoga (fd)	threatened abortion	Whole plant	Make nodes with <i>sida</i> <i>acuata</i>	*	SS
<i>Taraxacum</i> <i>officinale</i>	Asteraceae	Dandelion	Liver disorders, kidney problems, spleen problems, diuretic	Whole plant	Decoction	***	SW
<i>Telfairia</i> <i>occidentalis</i>	Cucurbitaceae	Okongobong	Typhoid, dermatitis	Leaves	Decoction	*	SW
<i>Tephrosia</i> sp.	Fabaceae		menstrual disorders	Bark	Maceration	*	SS
<i>Terminalia</i> <i>avicennioides</i>	Combretaceae	Gbakoa (gbaya), Koulahi (fd)	sexually transmitted diseases	Roots bark	Powder from 3 plants mixed	*	SS
<i>Terminalia</i> <i>glaucescens</i>	Combretaceae	Koulahi (fd)	haemorrhoids, diarrhoea	Leaves, Bark	Sitzbath, decoction	**	SS
<i>Tetrapleura</i> <i>tetraptera</i>	Mimosaceae	Esekeseke (Bakweri)	stimulates lactation, convulsion, gastralgia	Fruit, Stem	Decoction	***	SW
<i>Thaumatococcus</i> <i>daniellii</i>	Marantaceae	Eteve (Bakweri)	Liver disorders, laxative	Leaves, Fruits	Decoction	*	SW
<i>Tragia volubilis</i>	Euphorbiaceae	Itambi (Bakweri)	Urethritis, abortion enema, infertility, generalised pains, antimicrobial diseases	Stem, Leaves	Decoction	***	SW
<i>Treculia africana</i>	Moraceae	Bwembi (Bakweri); Bofem ( Bafaw); Ofino, mfin (Ejagham)	dermatitis	Leaves, Bark	Powder	*	SW
<i>Trichilia emetica</i>	Meliaceae		Amoebiasis, sexual transmitted diseases	Roots bark	Decoction and mixture	**	SS
<i>Trichilia rubescens</i>	Meliaceae	Eveve (Bakweri)	Antiparasitic diseases, fever, gonorrhoea, enema, antiseptics	Bark, Stem	Decoction	***	SW
<i>Triumfetta</i> <i>tomentosa</i>	Tiliaceae	Evangua (Bakweri)	stomach wash after childbirth	Leaves	Decoction	*	SW

Table 1. Cont'd.

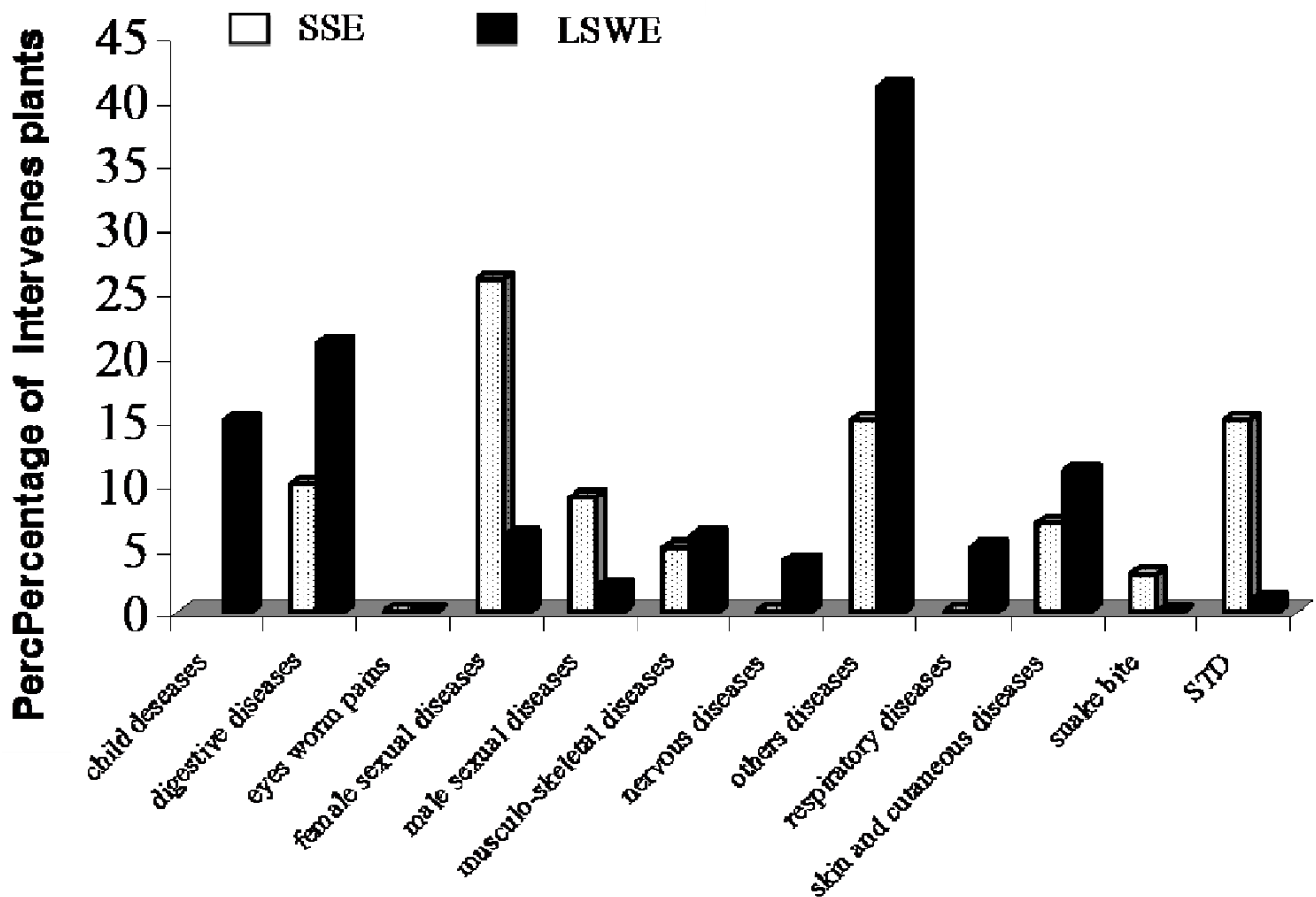
<i>Uapaca</i> sp	Euphorbiaceae	Jososo (Bakweri)	Wounds, diarrhoea	Leaves, Stem	Powder	*	SW
<i>Urena lobata</i>	Malvaceae		wounds	Leaves	Powder	*	SS
<i>Uvariadendron connivens</i>	Annonaceae	Ekenju (Bakweri)	dermatitis, liver disorders	Fruits, Seeds	Decoction	*	SW
<i>Valeriana officinalis</i>	Valerianaceae	Valerian	Nervous disorders, epilepsy, hysteria	Leaves	Decoction	**	SW
<i>Vernonia amygdalina</i>	Asteraceae	Bitter leaf	piles, poor digestion, poisoning, diabetes	Leaves	Decoction	***	SW
<i>Vernonia guineense</i>	Asreraceae	Ginsen	Antiparasitic diseases, Malaria, STD	Roots	Decoction, Powder	***	SW
<i>Vernonia</i> sp.	Asteraceae		ovarian cyst	Roots	Infusion	*	SS
<i>Vernonia stellullifera</i>	Asteraceae	Efanja (Bakweri)	stops miscarriage, dysentery, tetams	Whole plant	Decoction	**	SW
<i>Vigna unguiculata</i>	Fabaceae		cyst	Seeds	Cooking	*	SS
<i>Vitellaria paradoxa</i>	Sapotaceae	Karehi (fd)	worms, ulcers, diarrhoea	Bark	Decoction	**	SS
<i>Voacanga africana</i>	Apocynaceae	Voacanga	Treats madness, gonorrhoea	Leaves, Seeds	Decoction	***	SW
<i>Voanzou subterana</i>	Fabaceae		threatened abortion	Whole plant	Make nodes with <i>sida acuata</i>	*	SS
<i>Waltheria americana</i>	Sterculiaceae	Kapapi (fd)	wounds, gonococci	Roots	Decoction of powder	*	SS
<i>Ximenia americana</i>	Olacaceae	Mii(gbaya)	Dysentery, fibroids, sleep diseases	Roots	Infusion	***	SS
<i>Zea mays</i>	Poaceae	Maize	Worm expeller, bladder problems	Seed, Silk	Decoction	**	SW
<i>Zingiber officinale</i>	Zingiberaceae	Ginger	rheumatism	Roots	Decoction	***	SW
<i>Ziziphus mucronata</i>	Rhamnaceae	Djaabe (fd)	Bilharziosis	Roots bark	Decoction	*	SS

or disorders treated include typhoid, male sexual disorders, malaria, gonococci, gastritis, rheumatism, gastralgia, fever, dysentery, diarrhoea, dermatitis, boils, cough, wounds, syphilis, cysts, sterility in women, sexual transmitted diseases, ovarian cysts and amoebiasis (Table 3). Two hundred and five plants are used to cure these twenty diseases or disorders mentioned above. Thus 106 (62%) and 99 (68%) in this précised case were investigated respectively in the sudano-sahelian and Littoral and South-West ethnoecological zones. In all, 68% of the plants inventoried are use in these two regions to treat more than twenty important diseases. Approximately 22 and 12 traditional healers, 45 and 28

elders and peasants, 12 and 7 traders were interviewed respectively in the south west and sudano- sahelian regions. A comparison of results is based on 12 therapeutic indications and distribution pattern are presented in Table 4 and Figure 2. The final recommendation suggested by traditional healers is the use of 2 - 3 months long phytotherapy with *Aloe vera*, *Lippia multiflora*, *Ocimum basilicum* and *Prunus africana* to clean up primarily the body and prevent the collapse of immune system while administering subsequent medical therapy.

Seven to thirty three plant species recorded in the present study were also documented by several other





## Pathologies

Figure 2. Distribution patterns of plants number and pathologies according to the ethnoecological region.

researchers in different countries (Thornell and Sandberg, 2007). In addition, about 30 plants in the list appear in the synopsis WHO monographs on medicinal plants of Cameroon (Nkongmeneck et al., unpublished). According to the documented results from the sudano-sahelian region, 92 plant species are used to treat single pathology, while 24 intervenes are used in the treatment of two pathologies. Plants used in the treatment of three ailments are *Bridelia ferruginea* to treat arthritis, snake bite and lumbago; *Gardenia triangacantha* for lumbago, rate and cough; *Hibiscus sabdarifa* for amoebiasis, STD and anaemia; *Khaya senegalensis* for rheumatism, arthritis and elephantiasis; *Pilliosigma thonningii* for male sexual impotence, sterility in women and malaria; *Tamarindus indica* for sterility in women, dysmenorrhoea and amoebiasis; *Vitellaria paradoxa* for worms, ulcers and diarrhoea and *Ximenia americana* for dysentery, fibroids and sleep disorders. Three of the plants are used in the treatment of four pathologies,

especially *Protea eliotii*, used to treat carious teeth, haemorrhoids, sores and eyes worm diseases, *Hymenocardia acida* for threatened abortion, typhoid, fibroids and male impotence, and *Crossopterix febrifuga* for sterility in women, syphilis, ovarian cyst and threatened abortion. *Securidaca longepedunculata* is used to treat five pathologies (rheumatism, bronchitis, snake bite, gonococci, ovarian cyst) and is also widely used in this part of the country because of their several usefulness. Therefore, 43 plant species are used individually in medicine preparations, 60 others are used to treat two or three ailments. Apart from these, sixteen plant species are used in the treatment of four pathologies. They are *Aframomum melegueta*, *Ageratum conizoides*, *Aloe vera*, *Anthocleista vogelii*, *Azadirachta indica*, *Cassia occidentalis*, *Laportea aestuans*, *Laportea ovalifolia*, *Piper umbelatum*, *Starchytapheta angustifolia*, *Tapinanthus globiferus*, *Taraxacum officinale*, *Uvariadendron connivens* and *Vernonia amygdalina*.

**Table 2.** Plants sold in herbal markets according to the ethnoecological region.

Plants	Sudano-Sahelian region	Littoral and South-west region	Total
<i>Aframomum flavum</i>	-	1	1
<i>Aframomum melegueta</i>	-	4	4
<i>Afzelia africana</i>	1	-	1
<i>Ageratum conyzoides</i>	-	4	4
<i>Alchornea cordifolia</i>	2	-	2
<i>Aloe vera</i>	-	4	4
<i>Azadirachta indica</i>	-	4	4
<i>Baillonella toxisperma</i>	-	2	2
<i>Bersama abyssinica</i>	-	1	1
<i>Carica papaya</i>	-	3	3
<i>Carissa edulis</i>	1	-	1
<i>Cassia alata</i>	-	5	5
<i>Centella asiatica</i>	2	-	2
<i>Chrysanthellum americanum</i>	3	-	3
<i>Crinum sp.</i>	2	-	2
<i>Dosternia mannii</i>	-	2	2
<i>Enantia chorantha</i>	-	1	1
<i>Eremomastax speciosa</i>	-	2	2
<i>Garcinia kola</i>	-	6	6
<i>Garcinia lucida</i>	-	6	6
<i>Lippia multiflora</i>	-	2	2
<i>Nauclea latifolia</i>	2	-	2
<i>Nauclea vanderougouhtii</i>	1	-	1
<i>Newbouldia laevis</i>	-	1	1
<i>Ocimum basilicum</i>	-	3	3
<i>Pachypodanthium staudtii</i>	-	1	1
<i>Panax sp</i>	-	2	2
<i>Pausinystalia johimbe</i>	-	3	3
<i>Prunus africana</i>	-	5	5
<i>Pseudospondia microcarp</i>	-	1	1
<i>Pycnanthus angolense</i>	-	2	2
<i>Solanum melongena</i>	-	1	1
<i>Vernonia amygdalina</i>	-	4	4
<i>Vernonia guineense</i>	1	-	1
<b>Total</b>	15	70	85

Further, in this region 5 plant species are used to treat six pathologies, such as *Alstonia boonei* which is used to treat malaria, worms, fracture, lactation failure, chest pains and diarrhoea; *Bryophyllum pinnatum* for antiseptics, eye and ear infections, boils, abscess, headache and cough; *Ceiba pentandra* used to treat AIDS, chest pains, purgative, heart palpitations, diabetes and gastritis; *Garcinia kola* and *Garcinia lucida* used to treat respectively cough, gastritis, stimulation, gastroenteritis, speed lactation, sleeping sickness and indigestion, flatulence, stimulation, diarrhoea, gastritis and gastralgia. Concerning these five last plants, they are widely used in this part of the region, and a part of the *Bryophyllum pinnatum* which is ruderal, the four others are forest plants and their barks are extremely exploited

and sold in and out the country, except *Garcinia kola* whose fruits are used in medicine because of their high flavonoids rate contents, as well as the plant bark's. These results were also reported by many researchers (Mapongmetsem, 2007; Nkuinkeu et al., 2007; Cox, 1991 and Tongo and Ekwalla, 2003).

From our taxa list exotic species (*Alium cepa*, *Azadirachta indica*, *Bryophyllum pinnatum*, *Caladium bicolor*, *Capsicum frutescens*, *Chromolaena odorata*, *Carica papaya*, *Cassia occidentalis*, *Cassia alata*, *Cymbopogon cytratus*, *Lantana camara*, *Mangifera indica*, *Ocimum gratissimum*, *Ricinus communis*, *Zingiber officinale*, *Acacia nilotica*, *Arachis hypogea*, *Hibiscus sabdariffa*, *Psidium guajava*, *Cinnamomum verum* *Taraxacum officinale*, *Solanum melongena*, *Panax sp*,

**Table 3.** Ethnobotanical uses focusing in the treatment of major diseases in the survey areas.

Diseases	SS E	(%)	LSW E	(%)	Number of plants used	(%)
Amoebiasis	8	5	-	-	8	5
Boils	-	-	7	2	7	2
Cough	1	1	9	2	10	3
Cyst	9	5	-	-	9	5
Dermatitis	-	-	15	4	15	4
Diarrhoea	4	2	9	2	13	2
Dysentery	2	1	5	1	7	1
Fever	-	-	8	2	8	2
Gastralgia	-	-	9	2	9	2
Gastritis	2	1	12	3	14	1
Gonococci	11	6	-	-	11	6
Malaria	1	1	6	1	7	1
Male sexual disorder	15	9	11	2	15	3
Ovarian cyst	12	7	-	-	12	7
Rheumatism	6	3	7	2	13	3
Sesual Transmittable Diseases	7	4	-	-	7	4
Sterility in women	8	5	-	-	8	5
Syphilis	7	4	-	-	7	4
Thyphoid	8	5	9	2	17	5
Wounds	5	3	3	1	8	3

SSE = Sudano-sahelian ethnoecological region; LSWE = Littoral and South-west ethnoecological region.

**Table 4.** Comparison of the two ethnoecological regions of Cameroon.

Therapeutic indications	SSE (%)	LSWE (%)	Total
Child diseases	-	15 (3)	15
Dermatitis	12 (7)	47 (11)	59
Digestive diseases	35 (10)	91 (21)	126
Eyes worm pains	-	2 (-)	2
Female sexual dysfunctions	46 (26)	29 (6)	75
Male sexual dysfunctions	15 (9)	11 (2)	26
Musculo-skeletal diseases	8 (5)	26 (6)	34
Nervous diseases	-	20 (4)	20
Respiratory diseases	-	24 (5)	24
Snake bite	6 (3)	1 (-)	7
STD	26 (15)	6 (1)	32
Others diseases	26 (15)	178 (41)	204

SSE = Sudano-sahelian ethnoecological region; LSWE = Littoral and South-west ethnoecological region.

*Origanum marjorana*, *Mentha piperita*, *Valeriana officinalis*, *Corchorius olitorius*) represents around 5 - 10% of the total inventories. These include forest species (21%), sahelian and savannah species (8.42%), some widespread, widely cultivated plants (60%) and several species like *Ageratum conyzoides* and *Commelina benghalensis* which are unknown in origin (Letouzey, 1986).

As different herbs can be administered to cure the same disease and various herbs share a common name;

to reach to the exact and right herb type, and to prevent any misunderstanding or misuse of the herbal plants, herbalists and medicinal healers need to know the botanical names and ask by these names during purchase.

It's clear that the diversity of climate and environmental conditions (especially in the Sudano-sahelian region) can change the biological properties of some plants, as well as the ecosystem or ecology of the plant, that is why a plant such as *Aframomum melongueta* used in the South-

west to magnify the use of other medicines, to treat typhoid and infected wounds, is used in the sudano-sahelian region to treat amoebiasis. The same remark is making with *Azadirachta indica*, while using in the south-west to treat typhoid, intestinal worm and child birth, the leaves intervenes in the sahelian region to treat diabetes. Another change of properties can be found with *Euphorbia hirta*, *Harungana madagascariensis*, *Jatropha curcas*, *Kalanchoe crenata* and *Psidium guajava*.

Table 3 shows clearly that in these two regions, the plants were used mainly for pathologies of the digestive, respiratory, male and female sexual dysfunction, nervous, musculo-skeletal, skin system disorders, child diseases, eyes and ear pains, snake bite and sexual transmitted diseases which are followed by the others.

## Conclusion

In conclusion, the comparison of the treatments between these regions, indicate a decreased incidence of gastralgia, fever, boils and cough in the Sudano-sahelian region and increased incidence of the male sexual disorders, gonococci, STD's, ovarian cyst, amoebiasis, rheumatism and typhoid . Contrary to the south-west region, there is an increased incidence of skin problems (dermatitis), cough and malaria that are related to a humid climate and other different environmental conditions due to the proximity of the forest, which can improve the development of pathogens.

The percentage of male sexual disorders, gonococci, sexual transmitted diseases and sterility in women of the northern part of the country implies that the increase in incidence of these ailments may also be related to the population with low literacy rate, tradition practices, poverty and social reasons.

The problem of digestive diseases are also recurrent in the two regions, the higher number of plants (126) used to treat this pathology can be related to people migration from the less developed cities and to the poor hygienic conditions of the surroundings. The WHO report indicates that this problem appears in less developed countries of the world.

Following the listed results, we came up with the fact that the causes of mortality were mostly malaria and AIDS, and that there is a low ratio of cancer, hypertension and diabetes which are in the list of clinical world diseases. This fact led us think that the herbal/cheap cures for these numbered diseases might have been deliberately exchanged with the chemical/expensive ones, or just carelessly overlooked.

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