*Afr. J. Traditional*,
**Complementary and Alternative Medicines**
www.africanethnomedicines.net

***Research Paper***

**ISSN 0189-6016©2009**

# ETHNOBOTANICAL STUDY OF MEDICINAL PLANTS USED BY SABAOTS OF MT. ELGON KENYA.

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## Abstract

Though the majority of people in Kenya and at Kopsiro Division in particular, rely on ethnomedicinal plant species to manage human ailments, the indigenous knowledge largely remains undocumented. Therefore, an ethnobotanical study was conducted on medicinal plant species used to manage human ailments at Kopsiro Division Mt. Elgon District Kenya. The objectives were to identify and document plants traditionally used for medicinal therapy by the Sabaots, to find out the method used for preparing and administering the drugs and to find out the conservation practices for the medicinal plants. Observations and semi-structured interviews were used to gather ethnobotanical data. 107 plants belonging to 56 families were identified and reported to be of medicinal value to the locals. Roots (47.3%) were the most frequently used parts of the plant followed by the bark (23.35%) then leaves (22.75%). The whole plant (1.8%), seed (1.2%), fruit (1.2%), sap (1.2%), flower (0.6%) and wood (0.6%) are least used in that order. The study revealed other hitherto undocumented medicinal plant species that may be new records for treating various ailments. Traditional medicine in Kopsiro division offers cheap, accessible and convenient remedy that suits the traditional lifestyle of the local community in comparison to the conventional medicine. Most medicinal plant species reported in this study were found to be under threat and this calls for urgent conservation measures so as to maximize the sustainable use of these vital resources in the study area**.**

**Key words:** Ethnobotany, ethnomedicine, indigenous knowledge, medicinal plant, traditional medicine, Sabaots

## Introduction

Traditional herbal remedies provide health services even in highly industrialized setups because they are important pillars of culture and human socialization (Owuor et al., 2005). In many cases, plants used as herbal remedies are not only important as drugs but also as food supplements with vitamins and minerals (Duke, 1992). Kokwaro (1983) noted that traditional medicine men and women have continued to occupy an important position in our societies. From a social dimension, they are used as a tool to determine the efficacy of indigenous medicine. This is reflected in the fact that the community refers patients with particular ailments to specific practitioners (Kaendi, 1997).

The change in lifestyles has had a negative impact on maintaining traditional knowledge on herbal remedies, hence there is a danger of this knowledge being lost. There is a rapid loss of traditional herbalists and a decline in authentic knowledge in traditional treatment, as a result of death of many aged healers (Cox and Balick, 1994). Overgrazing and over exploitation of plant resources have already led to a decline of the plant material available (Bussman et al., 2006).

With the advent of “modern medicine” and disinterest which many people from the third world countries show towards herbal remedies, there is danger that the knowledge of traditional healers will be lost forever if action is not taken to document the particular prescriptions involved. In view of the rapid loss of natural habitats, traditional

community life, cultural diversity and knowledge of medicinal plants, documentation of African traditional plants is an urgent matter (Wyk et al., 2002).

Attempts were recently made to address this knowledge gap for instance: Jeruto et al. (2008) documents medicinal plants used by the Nandi of Kenya, Owuor and Kisangau (2006) made a comparison of plants used in snake bite treatments by two culturally distinct groups (Luo and Kamba), the ethnobotanical data suggests that plant species used by the two ethnic groups are similar though independently derived. Owuor et al. (2005) identified and documented 24 plant species used by traditional practitioners among the Luo for treatment of snakebites. However, practitioners seem not open and readily willing to disclose plants consistently used in snakebite treatment. This observation requires further documentation comparison of ethno-botanical results (Owuor and Kisangau 2006).

Mt. Elgon forest is in danger of being completely destroyed yet has many plant species of economic value such as Elgon teak (Ochuoga, 2002). The Mt. Elgon Integrated Conservation and Development Initiative (MICDI) estimated that the local communities have illegally excised over 5000 hectares of Chepyuk forest; over 2000 hectares of Kitale forest and hundreds of acres of kaboywo forest had been cleared and converted to cultivation of maize and wheat (Ochuoga, 2002).

The plant biodiversity is likely to be eroded hence an urgent need to document medicinal information of the plants in this area. The study therefore aimed at documenting medicinal plants used by the Sabaot community living in Kopsiro division of Mt. Elgon district. The area is faced with poor health services and the community has alternative services offered by herbal plant materials. This paper outlines some of the medicinal plants used by the Sabaot community in Mt. Elgon district, Kenya. Conservation measures for the forest are suggested

## Materials and Methods

### Study area

The study was carried out in Kopsiro division of Mt. Elgon district which is one of the six districts in Western Province, Kenya. The district borders Uganda to the north and west, Transnzoia district to the east, and Bungoma district to the south (Anonymous, 1997-2002). The district occupies 936.75 km² with Mount Elgon forest occupying 645.05 Km². It is divided into four divisions that is: Kapsokwony, Kaptama, Kopsiro and Cheptais. Kopsiro division occupies 248.78km² of which 160.95km² is forested area (Anonymous, 1997-2002). Each division has four locations that are further subdivided into six sub-locations. The altitude of the district lies between 1800 meters above sea level in the south to about 4310 meters to the north (Anonymous, 1997-2002). The main land formation is the Mount Elgon, which slopes gently though some areas around the southern part of the district and central parts rise abruptly in an undulating characteristic to form cliffs rising up to 70 meters. The area is dissected by deep river gorges with frequent waterfalls (Anonymous, 1997-2002). Rainfall is bimodal with long rains appearing in March to June while the short rains in September to November (Anonymous, 1997-2002). However there is no clear distinction between the two rainy seasons. Rainfall received is moderate and ranges between 1400 mm to over 1800 mm per annum and is fairly distributed in the district.

The climate is favourable for a wide range of agricultural and livestock production activities which account for about 90% of the economic activities (Anonymous, 1997-2002). The mountain has a rich natural forest endowed with valuable timber trees such as Elgon Teak, Cedar, and Elgon Olives. Edible vegetables, fibres, fruits and traditional medicinal plants are found (Anonymous, 1997-2002).

### Data collection

Ethno medicinal data was collected between August 2005 and December 2006 through field surveys in the four locations of Kopsiro division. Purposive sampling was used in the field survey where elders were used to identify medicinal plant practitioners (prior informed consent was obtained). Emphasis was on both men and women (Davis and Wagner, 2003). Seventy eight practitioners (40 men and 38 women) aged 30 years and above were systematically sampled from each of the four locations and interviewed in their homes by the use of a questionnaire. The respondents provided plant names, parts used, mode of preparation and administration, and the diseases treated. Authenticity was achieved when at least three independent respondents provided corroborative information. Four market vendors of herbs at the local Kapkateny market were interviewed to corroborate information on the plants, the information was considered valid when the three agreed (Johns et al., 1990). The clinical officer at Kopsiro Health Center provided information on the diseases and conditions that are prevalent in the community. One hundred and seven herbarium specimens were prepared and identified at the University of Nairobi and at the National Museums of Kenya Herbaria. The specimens were treated by mercuric chloride and stored as voucher specimens for

future reference at the University Botanic Garden Maseno University Herbarium. The nomenclature of all plants follows: for herbs (Agnew and Agnew, 1994), for trees shrubs and lianas (Beentje, 1994). Photographs of the plants *in-situ* were also taken.

**Data analysis**

Both descriptive and inferential statistics by using general linear model was used to determine the level of threat to medicinal plants, informant data and factor of informants' consensus (Fic) values obtained from the questionnaires were used (Heinrich et al., 1998). ICF values will be low (near 0) if plants are chosen randomly, or if informants do not exchange information about their use. Values will be high (near 1) if there is a well-defined selection criterion in the community and /or if information is exchanged between informants.

## Results

107 medicinal plant species distributed in 102 genera and 56 botanical families were identified and reported to be of medicinal value. The family reported with the highest number of medicinal plant species was Fabaceae (9 species, 8.41%). This was followed by Euphorbiaceae (8 species, 7.48%). Then was followed by Asteraceae (7 species, 6.54%) and Solanaceae (4 species, 3.73%). 9 families had each 3 species (2.8%), another 9 had each 2 species (1.87%) while 34 families had a single species represented (0.93%) (Table. 1). Roots (47.3%) were the most frequently used parts of the plant followed by the bark (23.35%) then leaves (22.75%). The whole plant (1.8%), seed (1.2%), fruit (1.2%), sap (1.2%), flower (0.6%) and wood (0.6%) are least used in that order (table 1).

Majority of the reported species were wild (85.98 %) whereas some (11.21%) were both wild and cultivated, and the rest (2.8%) were reported as cultivated. Of the reported species (39.25%) were trees followed by shrubs (35.54%) and then herbs (29.9%) (Table 1).

## Discussions and conclusions

The medicinal use of plants leaves and roots in the management and treatment of diseases has been an age long practice (Sofowara, 1982). Plant derived medicines are widely used because they are relatively safer than the synthetic alternatives, they are easily available and cheaper (Iwu et al., 1999).

Plants in the study area were mainly collected in the morning because in most cases the plants were obtained from far distances, secondly early in the morning snakes could not be encountered due to low temperatures and thirdly they only worked when they were collected in the morning (Okello, 2007). Patients were only referred to hospitals incases where a midwife detected that the head of the child was bigger than the birth canal. Conventional medicine is not used in conjunction with the herbal remedies since they are incompatible (Okello, 2007). However the scientific principle behind this should be investigated.

Roots were the mostly used plant part since these normally have a high partitioning for the photosynthates or exudates (Balick and Cox, 1996) which act as toxins for protection against devourers and most of these are of medicinal value to the human body. This is also the reason for using the bark. The use of roots is dangerous to the existence of individual plants as compared to the leaves or branches (Poffenberger et al., 1992). The utilization of the roots calls for conservation measures on the medicinal plants since the use of roots do not allow for sustainable utilization as the plants in question are depleted by continual use.

Plant remedies were prepared mostly as infusions or decoctions. Infusions were prepared on delicate parts of the plants, that is, leaves, flowers and stem buds. The advantage with this method is that many active principles are extracted with almost no alteration of their chemical structure thus preserving almost all their properties (George and Pamplona, 2000). Decoctions on the other hand were used to prepare herbal teas from the hard parts of the plants (root, rhizome, seeds and stem barks). It was observed that some plants were prepared using more than one method and in some cases more than one plant part was used (Table 1).

Prescriptions of remedies were distinctive to all the practitioners interviewed. Non-the-less, as noted in a similar line of study by Omino and Kokwaro (1993) as well as Kisangau (1999), inconsistency of dosage of medicaments was a marked feature. But generally, ½ or 1 glass full of the prepared drug was taken 2-3 times a day depending on the nature of complication of the ailment and efficacy of the drug.

**Table 1:** Medicinal plants used by Sabaots in Kopsiro division of Mt. Elgon district.

| FAMILY | Local name & voucher number | Plant species | Medicinal use | Habit | Part used | Method |
|---|---|---|---|---|---|---|
| Agavaceae | Makonket (OS 69/05) | *Agave sisalana* Perrine ex Engelm | Burns | Shrub | Leaves | Roasting |
| Amaranthaceae | Kipsirim (OS 73/05) | *Achyranthes aspera* L | Urinary tract | Herb | Whole | Boiling |
| Amaranthaceae | Kimnagejir (OS 41/05) | *Cyanthula uncinulata (Schrad.) Hams* | 'kasogutiet' | Herb | Roots | Chewing |
| Acanthaceae | Tegeldet (OS 42/05) | *Acanthus eminens* C.B.CIarke | Spleen, liver, alimentary canal | Shrub | Roots, leaves | Boiling, Roasting |
| Acanthaceae | Tegeltaptum (OS 53/05) | *Acanthus pubescens* Engl. Turrill | Mental disturbance | Shrub | Roots | Chewing |
| Acanthaceae | Chebundamu (OS 57/05) | *Thunbergia alata* Sims | Boils | Herb | Leaves | Pounding |
| Aloeaceae | Rodipchepkukwa (OS 101/05) | *Aloe elgonica* Bullock | Malaria, ulcers, urinary tract | Herb | Roots leaves | Boiling Pounding |
| Anacardiaceae | Siruetapsoi (OS 72/05) | *Rhus natalensis* Bernh. ex Krauss | Delivery, toothbrush, concoctions. | Tree | Roots | Boiling |
| Apiaceae | Mobchabelyo (OS 51/05) | *Steganotaenia araliacea* Hochst | Skin, partial blindness | Tree | Bark, leaves | Grinding, Roasting, Soaking. |
| Apiaceae | Mitiviazi (OS 67/05) | *Heteromorpha trifoliata* Eckl. & Zeyh. | Ulcers | Tree | Root | Boiling |
| Apiaceae | Korkopsarmoi (OS 78/05) | *Agrocharis incognita* (C.Norman) V.H.Heywood & Jury | Pneumonia. | Herb | Roots | Boiling |
| Apocynaceae | Legetetwet (OS 63/05) | *Carissa edulis* Vahl | Measles, Urinary tract, STI's | Shrub | Roots | Boiling |
| Araliaceae | Kwelet (OS 13/05) | *Schefflera volkensii* (Engl) Hams | Whooping cough, swollen bodies. | Tree | Sap | - |
| Aspiadiaceae | Kuptoret (OS 61/05) | *Pteridium aquilinium* L. | Stomach, worms. | Herb | Whole | Pounding, Boiling, chewing. |
| Asteraceae | Sisimwet (OS 15/05) | *Artemisia afra* Jacq | Malaria | Shrub | Leaves | Boiling |
| Asteraceae | Tabongwe't (OS 44/06) | *Vernonia auriculifera* Hiern | Labor, afterbirth, malaria, pain in male private parts | Shrub | Bark, root. | Boiling |
| Asteraceae | Kiben (OS 17/05) | *Acmella calirhiza* Del | Toothache, afterbirth. | Herb | Whole | Chewing |
| Asteraceae | Saruryandet (OS 18/05) | *Conyza bonariensis* (L.) Cronq | Headache | Herb | Root | Pounding |
| Asteraceae | Ngwekwe (OS 107/05) | *Tagetes minuta* L | Colds | Herb | Leaves | Chewing |
| Asteraceae | Sobitiet (OS 20/05) | *Solanecio mannii* (Hook.f.) C. Jeffrey | 'Alumgule' (Heartburn). | Tree/shrub | Leaves | Burning |
| Asteraceae | Metitapsorin (OS 65/05) | *Echinops angustilobus* S.Moore | STI's | Herb | Root | Boiling |
| Basellaceae | Nderemet (OS 22/05) | *Basella alba* L. | Breathing difficulty | Herb | Leaves | Pounding |

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| Balsaminaceae | Chemakalbayi (OS 23/05) | *Impatiens tinctoria* A.Rich | Fertility | Herb | Roots | Boiling |
| Bignoniaceae | Sinendet (OS 89/05) | *Markhamia lutea* (Benth) Schumm | Cataract | Tree | Leaves | Chewing |
| Bignoniaceae | Rotiandet (OS 25/05) | *Spathodea companulata* P. Beauv. | Chest, backache, *sirunda* STI's | Tree | Bark | Boiling |
| Bignoniaceae | Kapteritet (OS 35/05) | *Stereospermum kunthianum* Cham. | Ingredient of a concoction | Tree | Roots Leaves bark | Boiling |
| Boraginaceae | Mugengeret (OS 55/05) | *Cordia africana* Lam | Cover broken limb | Tree | Bark | - |
| Capparaceae | Sakiandet (OS 28/05) | *Cleome gynandra* (L.) Briq. | After birth | Herb | Root | Chewing |
| Capparaceae | Chepkatait (OS 59/05) | *Maytenus heterophylla* (Eckl. & Zeyh.) N. Robson | Breathing, chest, malaria, STI | Shrub | Roots | Boling |
| Canellaceae | Sakwondet (OS 30/05) | *Warbugia ugandensis* Sprague | Chest, pneumonia Headache | Tree | Bark | Grinding |
| Celastraceae | Chemgangoi (OS 103/05) | *Catha edulis* (Vahl) Endl. | Skin, TB. | Shrub | Bark Roots | Boiling |
| Crassulaceae | Kuserwen (OS 32/05) | *Kalanchoe mitejea* Leblanc & Hamet | Poultice | Herb | Leaves | Poultice |
| Cucurbitaceae | Laikaandet (OS 94/05) | *Momodica foetida* Schumach | Malaria | Herb | Roots | Roasting Boiling |
| Cucurbitaceae | Msebebit (OS 34/05) | *Cucurbita pepo* L. | Afterbirth, worms. | Herb | Roots Seeds | Chewing |
| Cuppressaceae | Keterwet (OS 26/05) | *Juniperus procera* Endl | Wound, breathing difficulty. | Tree | Root Berries | Pounding Chewing |
| Ebenaceae | Cheptuyet (OS 99/05) | *Diospyros abyssinica* (Hiern) F.White subsp. *abyssinica* | Laxative, malaria, Ringworms, skin rashes, internal injuries. | Tree | Bark | Boiling |
| Ebenaceae | Shendut (OS 37/05) | *Euclea divinorum* Hiern | Snakebite | Tree | Leaves | Soaking Pounding |
| Euphorbiaceae | _____ (OS 84/05) | *Jatropha velutina* Pax & K.Hoffm. | Wounds | Shrub | Leaves | Pounding |
| Euphorbiaceae | Lambachwet (OS 84/05) | *Bridelia micrantha* (Horchst.) Baill. | Skin | Tree | Bark | Boiling Soaking |
| Euphorbiaceae | Tabaswet (OS 40/05) | *Croton macrostachyus* Del. | Ringworms, dysmenorrhea, diarrhea, fever in cows | Tree | Sap Leaves Bark | Pounding Boiling |
| Euphorbiaceae | Manuet (OS 3/05) | *Ricinus communis* L | Laxative | Shrub | Roots | Boiling |
| Euphorbiaceae | Kureshiet (OS 4/05) | *Euphorbia candelabrum* Kotschy | STI's | Tree | Roots | Boiling |
| Euphorbiaceae | Sinendet (OS 43/05) | *Periploca linearifolia* Dill. & A. Rich | STI's, intermittent headache, initiation | Herb | Roots Leaves | Boiling |
| Euphorbiaceae | Chepkioson (OS 16/05) | *Clutia robusta* Pax | Digestion | Shrub | Roots | Boiling |
| Euphorbiaceae | Cheblelechandet (OS 45/05) | *Acalypha stuhlmannii* Pax | Skin. | Herb | Leaves | Chewing |

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| Flacourticaceae | Chabayuet (OS 46/05) | *Casaeria buttiscombei* R.E. Fries | Stomachache | Tree | Bark | Chewing Boiling |
| Flacourticaceae | Kipkerelong (OS 87/05) | *Trimeria grandifolia (*Horchst.) Warb | Heart burns | Shrub | Leaves | Roasting |
| Flacourticaceae | Tungururwet (OS 48/05) | *Flacourtia indica* (Burm.f.) Merr. | Dysmenorrhea, STI 's | Shrub | Bark Roots | Boiling |
| Fabaceae | Senetwet (OS 80/05) | *Senna didymobotrya* (Fresen) Irwin & Barneby | Malaria, skin, fever, typhoid, STI's | Shrub | Roots Leaves Bark | Boiling |
| Fabaceae | Msiembut (OS 50/05) | *Entada abyssinica* A.Rich | Diarrhea | Tree | Bark | Boiling |
| Fabaceae | Chebutiandet (OS 9/05) | *Piliostigma thonningii* (Schumach) Milne-Redh | Asthma, TB | Tree | Leaves | Roasting |
| Fabaceae | Chebugaa (OS 52/05) | *Dolichos compressus* Wilczec | Fertility | Herb | Roots | Boiling |
| Fabaceae | Kisisitiet (OS 5/05) | *Indigofera arrecta* A.Rich | Malaria, abortion, pain in urination | Herb | Roots | Chewing, boiling. |
| Fabaceae | Kimesayet (OS 54/05) | *Mucuna gigantea* (Willd) D.C | Coughs | Herb | Leaves | Burning |
| Fabaceae | Kaimetiet (OS 27/05) | *Acacia lahai* Benth | Skin eruptions | Tree | Bark | Boiling |
| Fabaceae | Kakorwet (OS 56/05) | *Erythrina abyssinica* DC. | Mouth, laxative, internal injuries. | Tree | Bark Roots | Grinding Boiling |
| Fabaceae | Ketitaparamte (OS 6/05) | *Aeschynomene abyssinica* (A.Rich) Vatke | 'Kasogutiet' / heart burn | Shrub | Bark | Chewing |
| Hypocreaceae | Cheptegandet (OS 58/05) | *Engleromyces goetzi* P. Hiern | Purgative | Fungus | Whole | Boiling |
| Lamiaceae | Anguriet (OS 29/05) | *Plectranthus comosus* Sims | Stomach upsets, swollen legs | Herb | Leaves | Pounding, |
| Lamiaceae | Ketitabroronik (OS 60/05) | *Leucas grandis* Vatke | Wound | Herb | Whole | Burning |
| Lamiaceae | Moetiet (OS 14/05) | *Leucas calostachys* Oliv | Colds, headache | Herb | Leaves | Pounding |
| Liliaceae | Kapchaut (OS 62/05) | *Asparagus racemosus* Willd | Labour, scrotum, kidney | Shrub | Roots | Boiling Roasting |
| Loranthaceae | Mondoiwet (OS 12/05) | *Phragmanthera usuiensis* (Oliv) M.Gilbert | Paralysis, stroke, gout, stomache cancer. | Shrub | Bark | Pounding Boiling |
| Loganiaceae | Chorwet (OS 64/05) | *Buddleia polystachya* Fres | Fertility | Shrub/tree | Roots | Boiling |
| Malvaceae | Kupchuwet (OS 21/05) | *Sida cuneifolia* Roxb | Sore throat | Herb | Roots | Chewing |
| Malvaceae | Mtishiet (OS 66/05) | *Urena lobata* L. | Afterbirth, easen delivery | Shrub | Roots | Boiling Chewing |
| Meliaceae | Mwarubaine (OS 10/05) | *Melia azedarach* L. | Concoctions (any disease) | Tree | Roots Bark Leaves | Boiling |
| Meliaceae | Kibumetet (OS 68/05) | *Ekerbegia capensis* Sparrm | Backache, chest, diarrhea (cow) | Tree | Bark | Pounding Boiling |
| Melianthaceae | Kipsigriet (OS 1/05) | *Bersama abyssinica* Fressen | Stomachache, pneumonia, TB, malaria | Tree | Leaves Seeds | Chewing Boiling |
| Menispermaceae | Tingwet | *Cissampelos* | Hypertension | Herb | Root | Boiling |

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| | (OS 70/05) | *mucronata* A. Rich | Abortifacient | | | |
| Mimosaceae | Seyet (OS 71/05) | *Albizia grandibracteata* Taub | Headache, stomachache | Tree | Roots | Boiling |
| Mimosaceae | Seswet (OS 8/05) | *Albizia glaberrima* (Schum. & Thonn.) Benth. | Headache, stomachache | Tree | Leaves | Pounding Soaking Boiling |
| Moraceae | Mogoiwet (OS 2/05) | *Ficus sur* Forssk | Diarrhea, vomiting | Tree | Bark | Pounding Boiling |
| Musaceae | Sasurwet (OS 74/05) | *Ensete ventricasum* (Welw.) Cheesman | Rheumatism | Herb | Stem | Roasting Grinding |
| Myricaceae | Sagatetit (OS 75/05) | *Myrica salicifolia* A.Rich | Urinary tract | Shrub | Roots | Boiling |
| Myrtaceae | Lamaywet (OS 97/05) | *Syzigium cordatum* Krauss | Diarrhea | Tree | Root Bark | Boiling |
| Myrsinaceae | Sitotwet (OS 77/05) | *Rapanea melanophloeos* (L.) Mez | Stomachache | Tree | Bark | Boiling |
| Myrsinaceae | Kabortit (OS 11/05) | *Maesa lanceolata* Forssk | Heartburn | Shrub | Leaves | Burning |
| Oleaceae | Pekeriondet (OS 79/05) | *Olea capensis* L. | Cough, TB, difficulty in breathing, malaria. | Tree | Bark | Boiling Soaking |
| Oleaceae | Korshiondet (OS 49/05) | *Olea europea* L. ssp *africana* (Mill) | Stomach rumbles | Tree | Roots | Boiling |
| Oleaceae | Kisagamng'ok (OS 92/05) | *Jasminum floribunda* R.Br. | Laxative, stomachache, malaria. | Herb | Roots | Soaking Boiling |
| Olinaceae | Kaptolongit (OS 82/05) | *Olinia rochetiana* Juss | Chest, TB, Pneumonia | Tree | Root Bark Leaves | Chewing Boling |
| Phytolacaceae | Kupsogotit (OS 83/05) | *Phytolacca dodecandra* L. Hiern | Fracture, anti-venom | Shrub | Leaves Fruit | Burning Chewing |
| Pittosporaceae | Chemroriandet (OS 39/05) | *Pittosporum vividiflorum* Sims ssp *vividiflorum* | Urinary tract | Tree | Roots | Boiling |
| Podocarpaceae | Kipsabitet (OS 85/05) | *Podocarpus latifolius* (Thunb) R.Br. ex Mirb | Cleanse womb, afterbirth | Tree | Roots | Boiling |
| Rhamnaceae | Matabiet (OS 86/05) | *Ziziphus abyssinica* Hochst ex A. Rich | Burns. | Shrub | Bark | Pounding |
| Rosaceae | Arumotit (OS 47/05) | *Prunus africana* (Hook.f) Kalkm | Urinary tract | Tree | Bark Root | Boiling |
| Rosaceae | Tagamamwet (OS 88/05) | *Rubus keniensis* L. | STI, afterbirth | Shrub | Root | Boiling |
| Rutaceae | Kwiriondet (OS 24/05) | *Teclea nobilis* Del. | Stomachache, labour. | Shrub | Roots | Boiling |
| Rutaceae | Simborichet (OS 105/05) | *Toddalia asiatica* (L.) Lam. | Stomachache, cough, TB, urinary tract. | Shrub | Roots | Boiling Soaking |
| Rutaceae | Chesamishiet (OS 91/05) | *Clausina anisata* (Willd) Benth | Stroke, malaria,'Portabarak' | Shrub | Roots Leaves | Boiling |
| Rubiaceae | Kipsong'ortot (OS 91/05) | *Rubia cordifolia* L. | Cough, whooping cough. | Herb | Leaves | Burning |

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| Rubiaceae | Kipseret (OS 93/05) | *Rentas longiflora* Oliv | Laxative, skin, malaria | Herb | Roots Leaves | Laxative Skin |
| Rubiaceae | Taburwet (OS 33/05) | *Vangueria apiculata* K.Schum | Part of concoctions. | Shrub | Roots Leaves | Boiling |
| Sapindaceae | Bionwet (OS 106/05) | *Allophyllus abyssinicus* (Horchst) Radik. | Headache, heartache, backache. | Tree | Wood | - |
| Sapotaceae | Lulyondet (OS 96/05) | *Aningeria adolfi-friediricii* (Engl.) Rob & Gilb | Backache | Tree | Roots Bark | Boiling |
| Solanaceae | Labotwet (OS 76/05) | *Solanum incanum* L. | Sharp abdominal pains, toothache, ear, ring worms. | Shrub | Root Fruit | Chewing |
| Solanaceae | Sigowet (OS 98/05) | *Solanum micranthum* Schltdl | STI's, backache, stomachache, snake-cat-or dog bite, wart, vitality. | Shrub | Root Fruit | Boiling Burning |
| Solanaceae | Tomotiet (OS 36/05) | *Nicotiana tabacum* L. | Persistent wound | Herb | Root | Boiling |
| Solanaceae | Ketipkiruk (OS 100/05) | *Withania somnifera* (L.) Dund | Urinary tract, rectum, STI, diarrhoea, toothache. | Shrub | Root | Boiling Soaking Pounding |
| Sterculiaceae | Porowetapko (OS 7/05) | *Dombeya torrida* (J.F.Gmel) Bamps | STI's, sustain pregnancy. | Shrub | Roots | Boiling |
| Tiliaceae | Moabarwa (OS 102/05) | *Grewia trichocarpa* (Horchst) | Skin, malaria. | Shrub | Root | Boiling |
| Ulmaceae | Chebiliondet (OS 31/05) | *Chaetacme aristata* Planch | Malaria, 'sirunda'. | Shrub | Root | Boiling |
| Urticaceae | Ilaila (OS 104/05) | *Urtica dioica* L. | Boils, worms. | Herb | Leaves Roots | Boiling |
| Verbanaceae | Bulgenwet (OS 90/05) | *Vitex doniana* Sweet | Diarrhea, vomiting. | Tree | Bark | Boiling |
| Verbanaceae | Mtoniet (OS 95/05) | *Clerodendrum myricoides* (Horchst) Vatke | All diseases | Shrub | Roots Bark | Boiling |
| Verbanaceae | Pakapmasewe (OS 19/05) | *Lantana trifolia* L. | Coughs. | Shrub | Leaves | Burning |

The use of *Agave sisalana* and pound leaves/bark of *Ziziphus abyssinica* to treat burns is due to the ability of the plant to accelerate skin regeneration in the burnt area (Okello, 2007). Poultices on the other hand are used to ease nerve and muscle pains, sprains or fractured bones. The use of *H. trifoliata* in treating ulcers concurs with the findings of Osim et al., (1999) who found out that *H. trifoliata* accelerates the healing of acetic acid induced peptic ulcer in rats. This may validate the use of this plant in the treatment of peptic ulcers in human.

Several sesquiterpene lactones, including some with a peroxide substructure have been isolated from the aerial parts of *A. afra* (Jakupovic et al., 1988). These may well be responsible for the antimalarial effect of this species, even though no parasitological evaluation is available. Also, other non-volatile compounds (triterpenes, Silbernagel et al., 1990) and the essential oil (Moody et al., 1994) of this species have been studied.

Investigations on the plant parts used and the mode of preparation and administration indicated that irrespective of the plant part(s) or combinations used, water was the main medium for all the medicinal preparations. In addition to pure herbal preparations, in some cases the drug was administered along with milk, honey, strong tea, oil from sheep and beer. These supplement ingredients may be used to enhance the effect of the herbal preparations or are simply used to make the preparations palatable. However, the exact role of these materials in curing the diseases is not clearly known, as a systematic investigation on the characterization of the active ingredients has not been done. The current study has revealed four medicinal plant species whose medicinal use is undocumented and may be new records for treating various ailments. These are: *Dolichos compressus* Wilczec, *Agrocharis incognita* (Norman) Heyw and Jury, *Engleromyces goetzi* P.Henn and *Echinops Angustilobolus* S. Moore.

Medicinal plants used in local health traditions are gradually becoming extinct due to over utilization, population explosion and for other anthropogenic reasons. In order to reverse this trend, domestication of wild medicinal plants is of utmost importance. This would augment the income of rural people and in turn help in the conservation of species. In the study area most of the plants used were trees yet only three of the practitioners interviewed practice *ex-situ* conservation of the medicinal plants in their homes. The rest said there was no need as God provided the plants and at no time can they be completely depleted in the forest. It is, therefore, important that organizations in this division concerned with conservation of plants co-work with them, and provide extension services pertaining to propagation and sustainable harvesting of medicinal plants.

It was evident from the interviews conducted that knowledge of medicinal plants used by the people of Kopsiro division seems to be well known to the culture and tradition of the Sabaots. With the changes in lifestyle and increasing population, it is feared that ethnobotanical knowledge might get considerably limited or disappear in the foreseeable future. This is more evident since this knowledge is still mostly taught orally without written records. An illustrated identification guide for Sabaot plant use, best produced in Sabaot or Swahili is long overdue.

The global demand for herbal medicine is growing (Omino and Kokwaro, 1993; Muregi et al., 2003), while plant species in traditional medicines continue to be reliable sources for discovery of useful compounds screening plants growing under various environmental conditions could provide another source for compounds with antimicrobial activities (Njoroge and Newton 1994; Muregi et al 2003). Since the efficacy of these medicinal plants has not been tested, pharmaceutical companies in Kenya are encouraged to explore this area (Kopsiro) for this is a region with plants having the potential to generate novel metabolites.

This study has revealed that medicinal plants still play a vital role in the provision of primary healthcare for the people in this division. The government of Kenya should work out ways of integrating this to the hospitals and provide the necessary infrastructure in this region for proper practicing of Sabaot medicine. This may contribute to the local economic development.

## Acknowledgements

We are grateful to Biota-E01 for financial support from BMB+F and Maseno University. The Sabaots are appreciated for sharing their knowledge on medicinal plants with us.

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