



Sample Project in Kenya

As part of our work, we seek to promote, and help obtain funding for, ecological restoration projects which are proposed around the world. The following project, for an Arboretum and Indigenous Highland Forest in Kenya, provides a good initial example of this.

Proposal for an Arboretum and Indigenous Highland Forest in Kenya

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Introduction

The highlands to the north of Nairobi (Limuru Division, Kiambu District) were extensively de-forested starting as early as 1890. By 1918, tea was introduced as a cash crop and more native forests were cleared for both agriculture and exotic plantations (black wattle and eucalyptus) for tanning, fuel-wood for steam engines, and for tea-drying.

Following expansion of the areas under tea, it is estimated that 99.5-99.9 percent of the native forest has been destroyed in the Division.

The only evidence remaining of the former forests are remnant specimens of muna trees (*Aningeria adolfi-friederichii*) which rise on buttress-roots 50 metres above the Limuru Tea Company's tea plantations.



The Brackenhurst site, near Nairobi, Kenya. The site was formerly covered in native forest, but currently consists of open pasture land and sterile non-native plantations of eucalyptus, such as this

With the destruction of the forests came the gradual disappearance of the large game species

(buffalo, elephant, rhino, hippopotamus, leopard) which were once common in the area.

Geographical and administrative setting

Brackenhurst Baptist International Centre (BBIC) is under the aegis of the Southern Baptist Convention of the USA and is a residential convention centre and language school located near Tigoni, 4 km south of Limuru town. The BBIC land covers nearly 150 acres (60 ha.) of both flat and hilly farmland at an altitude of about 2000-2300 m, 30 km. north-north-west of Nairobi. The farm is in process of being subdivided and 50 acres will be allocated to the Kenyan Baptist Theological College (KBTC). The available land will consist of approximately 97 acres, but it is hoped that KBTC will allow their land to be managed as one unit for the purposes of re-afforestation.

Current Land Use

Current land use is divided between residential and gardens (about 25 acres), agriculture (both crops and livestock on about 60 acres of paddocks) and planted exotic forests (approx. 62 acres, mainly *Eucalyptus sp.* and *Acacia mearnsii* - Australian Black wattle).

Annual rainfall is bi-seasonal (Mar-April and late Oct-Dec) averaging 1,200-1,250 mm. The farm lies on the 1,200 mm isohyet on the rainfall maps in the Land Management Handbook of Kenya. The normal range is between 900 and 1,500 mm, and exceptionally 1,800 mm as during El Nino rains of 1998 when 900 mm fell in one month. The year 2000 received below average rainfall of about 650 mm.

Soils are described as phaeozems in the classification system used by the Kenya Soil Survey. They are stoneless, well-drained, very deep, dark reddish brown loams, containing friable, slightly smeary clay. A humic topsoil is found where forest still stands but this is readily oxidised under pasture and cultivation. The soils are generally of high potential but on degraded hillsides where much of the topsoil has gone, potential is considerably lower especially where degraded basalts are close to the surface. The main limitations to agricultural production are seasonal shortages of soil moisture (December - early March, and September - mid-October), and low insolation and low temperatures in July and August. Moderate to strong directional winds from the north-east increase evapo-transpiration; these are a constraint to plant growth on the hill crests on the north part of the farm.

Future Land Use

A change in land use is foreseen over the coming years with most of the non-residential land transformed from exotic plantations to indigenous African highland forest, which will be used for recreational, educational, scientific and biodiversity purposes.

The overall purpose of much of the land at Brackenhurst will be to provide areas for recreation, aesthetic enjoyment and environmental education. In view of the widespread loss of natural forest habitat in the Limuru highlands in the 20th Century, emphasis on this aspect of land use will become highly valued and of great interest both aesthetically and

scientifically. The forested areas will comprise between 50 and 100 acres (20-40 ha.), once land use is changed from agriculture to recreational.

The forest area is currently divided between a mature cypress stand and open woodland dominated by mixed-age eucalyptus. There has been some very limited enrichment with young indigenous trees (*Vangueria*, *Prunus*, *Albizia*, *Ficus*, *Syzygium* etc.). Within the residential areas are a few fine trees including indigenous species (e.g. *Ficus* sp., *Prunus africana*, *Polyscias kikuyuensis* etc.).

BBIC has generously made this land available for the project. This is their contribution to the environmental work. In addition, they have made a contribution to the labour costs. However, as a religious organisation with limited funds, they are unable to finance the whole operation and external financing is essential to allow the project to come to fruition.

Justification

In view of the major and worsening threat to native forests within Kenya, the arboretum would be a collection of specimen trees from all over highland Kenya. As well as having aesthetic and educational value, the arboretum would be of interest to scientists both as a gene bank and as a collection of rare species or specimens with different provenances. The Nairobi Arboretum has specimens of 134 Kenyan species. We have already collected 168 species and the ultimate count is expected to be 300-400 species.

In the introduction to *Kenya Trees, Shrubs and Lianas* (H. Beentje, 1994), the author states that the knowledge of trees and shrubs in Kenya is not complete and that recent investigations in the coastal forests (the best-investigated in the country) have resulted in many new records. He goes on to say that "Nothing, (as yet) is known about pollination of trees and shrubs; very little is known about their reactions to changes in local climate, about their growth in initial stages, about optimal growing conditions, about the age trees can reach - the list is long".

Furthermore, the present author (M. Nicholson) would add that almost nothing is known about the means of propagation of the majority of species that have been collected to date, or the light conditions needed for growth during the seedling stages, or indeed about plant succession and dynamics in a young native forest. Most of the remaining indigenous forests in Kenya are being rapidly destroyed. Sometimes they are preserved (partially) intact, but seldom, if ever, have they been re-planted. For example, many of the forest giants may only develop buttress roots when they spend their early years reaching for the light in an existing canopy. Their form and habit may be entirely different when there is no competition from pre-existing forest.

The purpose of the planned indigenous forest will be to re-create the pre-settler environment when indigenous forest was associated with high biodiversity.

It will take approximately 5-10 years to establish a young forest and there are several examples in Limuru of small patches (usually less than 1 acre) of indigenous forest that have been planted over the last 30 years. An attempt will be made to re-create the species mix in the few indigenous forests still found in the Limuru area.

Environmental education

For environmental education purposes, trees and other indigenous plants will be labelled in the arboretum. The coordinator will prepare leaflets giving a short description of the trees and plants and their uses, and information on birds, animals and butterflies likely to be observed. These will be made available to walkers.

Once the trails are established, nature walks will be started and guides trained by the consultant. These guided walks will introduce visitors and schoolchildren to the concepts of biodiversity (botany, zoology/ornithology and entomology), indigenous forests, environmental protection, land use, etc.

A quarterly Newsletter will be produced detailing progress made on environmental and nature activities at BBIC.

Commercial possibilities, ethno-botany and traditional medicine

The bark of one of the dominant trees of the area, *Prunus africana* (Kik. Mweri) is harvested throughout the wetter areas of Africa and exported to the French firm Prosynthese to manufacture Tadenan tablets, which contain a powerful compound for prostatitis. As the trees are normally felled and the bark stripped, the process is unsustainable. Strip barking will allow the trees to heal and may allow the process to be sustainable. The dried bark is worth US \$2 per kg.

The possibility remains for the experimental harvesting of young trees at Brackenhurst in conjunction with ICRAF. The three factors of interest that need more research are:

- * The efficacy and quality of the active compound found in the local cultivar of *Prunus*
- * The yield of active compound in relation to the age of tree
- * The ability to heal and re-synthesise the material in scar tissue.

There is always a danger that the pharmacological companies are able to synthesise the compounds in vitro but the compound is a complex one and may be difficult to synthesise.

Other species may be of interest (particularly *Warburgia ugandensis* and *Zanthoxylum gilletti* in view of their traditional use as 'cure-alls').

Several groups in Kenya are interested in traditional medicines and the plants that provide them. Since highland indigenous forest is so rare in the Limuru highlands, BBIC would like to collaborate with institutes working in this field of research so that species of interest can be cultivated in the newly created forests. The coordinator will contact the University of Nairobi (Dr. Okoeh) for further information on creating linkages.

Work Plan

Clearance of exotic plantations

The aim is to re-create a dense indigenous forest primarily on former exotic tree plantations. Large eucalyptus trees will gradually be felled, young exotics cut down (regrowth of wattle and eucalyptus is vigorous) and indigenous trees will be planted. Exotic plantations comprise Eucalyptus stands of various ages, a mature stand of cypress (*Cupressus lusitanica*), and extensive wattle forest. The few existing wildings of indigenous species such as *Casaeria battiscombei* will be protected. The eucalyptus and wattle is so thick that indigenous species will not prosper until the former are felled, owing to the competition for light and water. Clear felling would be undesirable owing to the likely loss of bird species.

Since Nov 2000, 3 acres of cypress and pine, and 7 acres of Eucalyptus and wattle have been felled. The area will be planted in the form of an arboretum i.e. a collection of East African trees. This will be the first block of 10 acres to be planted as per the following schedule:



Project originator Mark Nicholson on site. This young native tree seedling has been planted next to a non-native eucalypt, which it will replace as part of the native forest restoration project at Brackenhurst.

Indigenous forest planting (2001-2005)

Year	2001	2002	2003	2004	2005	Total 2001-2005
Area (acres)	10	10	10	10	10	50

A small area of wetland exists downstream of a dam, which is likely to form an important biodiversity area, especially for birds, and may be enriched with papyrus and bulrush. Platforms constructed out of the steep hillside would make the wetlands more interesting and visible.

Tree nursery

A tree nursery was established in November 2000. Currently, we have 4,500 seedlings bagged from over 170 species (see [Appendix](#)).

Only a dozen of these species are available commercially in private roadside or Forest Dept. tree nurseries owing to the ease of collecting and germinating seed. The rest of the species have been collected from all over Kenya in the altitude range of 1,800-3,500 metres as seed (where available), wildings, softwood, hardwood or leaf material.

The tree nursery will be under the supervision of the coordinator who will employ his own tree nursery foreman who will be responsible for records and reporting. A monthly inventory will be kept on species sown, bagged seedlings, deaths, sales and plantings. The target will be to replant 50 acres of indigenous forest over a five-year period (2001-2005) at a rate of about 4,000 trees per year.



The native tree nursery at the Brackenhurst site. Mark Nicholson and one of his workers with some of the 4,500 seedlings growing from over 170 native tree species, which will be planted out in 2001.

The tree nursery will be a focus for environmental training and educational. The coordinator will make visits to other highland areas of Kenya (Kakamega, Kitale, Elgon, Cherangani, Kabarnet, Taita, Loita Hills) to collect material from rare species or those not endemic to the Limuru Highlands. Propagative material includes seeds, cuttings, wildings and seedlings raised in other tree nurseries.

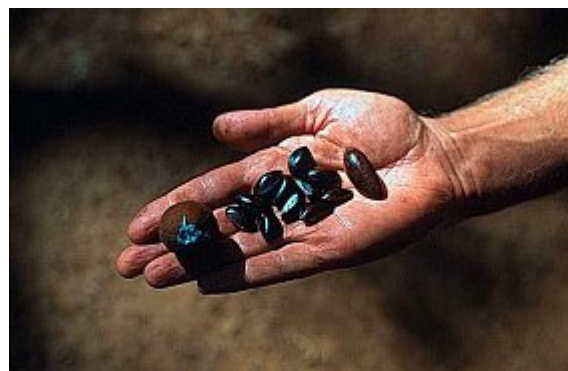
Surplus seedlings will be for sale to local farmers and organisations in order to promote indigenous tree planting.

Propagative material

Seeds are an uncertain item to procure as KEFRI no longer deals in indigenous tree seeds and some are very difficult to find. Most will have to be obtained by self-collection.

Where available, seeds will be collected on-farm and in surrounding areas. This is easy for certain species like Dombeya, Croton, Neoboutonia & Aningeria.

Some species are easy to



Seeds of the future forest to be restored to the site. The large seed is of muna (*Aningeria adolfi-friederichii*), and the smaller seeds are of milkwood (*Chrysophyllum gorungosanum*), collected from a nearby native forest remnant.

propagate from cuttings (e.g. *Ficus sp.*). Other cuttings necessitate the use of a poly-propagator, which has been constructed to ICRAF specifications.

This small piece of equipment is a sealed plastic unit in which humidity is kept high to promote striking of cuttings in species that are difficult to propagate by any other means.

Some seedlings will be purchased. The advantage of this method are that many seedlings will be over a year old and ready for planting and this will speed up forest establishment. Their purchase will also encourage jua kali (local small-scale enterprise) industry. The coordinator will visit tree nurseries and will purchases trees as and when he finds suitable and healthy material.

Wildings are self-sown young trees that are dug up and put into plastic bags until they are old enough for planting out. Wildings are plentiful for *Prunus*, *Macaranga*, *Neoboutonia* and *Crotons*.

Budget

The following budget excludes daily labour and the costs of felling, both of which will be met by BBIC.

Budget for tree nursery, arboretum and forest replanting (all costs in US \$)					
Item	2001	2002	2003	2004	2005
Tree nursery equipment	2,500	2,000	1,500	1,000	1,000
Planting equipment	500	500	500	500	500
Tree collection tours (fuel & accommodation)	2000	1000	0	0	0
Coordination	18,000	20,000	20,000	15,000	10,000
Training	500	500	500	500	500
Totals	23,500	24,000	22,500	17,000	12,000

Total budget for 5 years is US \$ 99,000. For current year (2001), funds have been obtained for coordinator for Jan-March.

Tree nursery equipment includes:

Shade netting, timber for boxes and stands, polythene bags, labels, tools, watering cans, sand, gravel, rooting powder, organic pesticides, hoses and sprinklers. 5,000 trees will be in the nursery at any one time; surpluses to be sold.

Planting equipment: Wheelbarrows, tools, fertiliser, stakes.

Tree collection tours includes:

Visits to forests countrywide. Includes fuel, use of car for max. 2,000 km per year @ US \$ 0.3/km, 12 nights out per year at max. US \$ 80 per night.

Coordination:

Coordination put at 100 days in year one, falling to 50 days by year 5 @ US \$ 200/day. Current coordinator is a biologist (Ph.D. from Cambridge University, England) with 20 years experience with indigenous forestry in East Africa.

A forestry team has been set up for the purposes of tree nursery operation, clearing and planting.

Forest trails and retreats

A network of nature and walking/jogging trails will be created both in the forest and in the more open parkland. At least 3 miles (5 km) of trails will be prepared initially and marked out by the coordinator in 2001. He will produce a sketch map for the centre's visitors during 2001. On the more open areas, the trails will be wide enough to allow a tractor and trailer to enter. Trails and the main road in the open will be lined with a variety of indigenous flowers and shrubs selected for colour and attractiveness to sunbirds and butterflies. The selection will include predominantly:

Acanthus eminens

A. pubescens

Aloe sp.

A. volkensii

Caesalpinia sp.

Cassia didymobotrya

Clerodendrum myricoides

Crotalaria sp.

Kniphofia thomsonii

Leonotis mollissima

Lobelia gibberoa

Lupinus princei

Plectranthus barbatus

Ruttya fruticosa

Salvia sp. (possibly non-indigenous but naturalised)

Tithonia diversifolia

Collaborating institutions

The re-creation of a small area of highland indigenous forest so close to Nairobi will generate scientific interest from ecologists, botanists and those working in the field of biodiversity. [Trees for Life](#) (U.K.), The International Butterfly Centre in Karen, The Aberdare Conservation Action Group (ACAG), and the Kenya Forest Working Group (KFWG) have all shown an interest in the proposal. The coordinator will network with these and other institutions to create awareness in what will be of national ecological and scientific interest.

Conclusion

The land at BBIC has the potential of becoming a centre where 'recreation' can be closely and interestingly linked to the 're-creation' of the original environment, namely indigenous highland forest. In a world where forests are becoming rapidly destroyed, the reestablishment of forest will engender national and international interest, both from the scientific and the conservation communities. While the goal is realistic, its achievement will take time and commitment. However, the investment in time and resources will be worthwhile.

[Appendix with list of tree species being propagated for this project](#) [See another Sample Project](#)

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Please also visit our [Caledonian Forest restoration](#) web site

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Website maintained by [Peter Riding](#)

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APPENDIX

INDIGENOUS TREES FOR HIGHLAND ARBORETUM (BRACKENHURST)

No.	Species name	Vernacular name	Family	Special use or feature
1	<i>Acacia abyssinica</i>	mugaa; mugunga	Mimosaceae	Flat-topped highland umbrella acacia
2	<i>A. gerrardii</i>	kithii, muthii (ki-kamba)	Mimosaceae	
3	<i>A. polyacantha</i>	Claw acacia	Mimosaceae	
	<i>A. xanthophloea</i>	Fever Thorn	Mimosaceae	yellow bark
4	<i>Acokanthera oppositifolia</i>	mururu	Apocynaceae	Poison Arrow Tree
5	<i>A. schimperi</i>	murichu	Apocynaceae	Poison Arrow Tree
6	<i>Albizia gummifera</i>	mukurue	Mimosaceae	
7	<i>A. grandibracteata</i>	kumusubiu (ki-luhya)	Mimosaceae	
8	<i>Allophylus rubifolius</i>		Sapindaceae	
9	<i>Aningeria adolfi-friedericii</i>	muna	Sapotaceae	Look for buttress roots on forest remnants
10	<i>Aningeria altissima</i>	mukangu (ki-luhya)	Sapotaceae	Kakamega tree to 50m
11	<i>Anthocleista grandiflora</i>	Cabbage tree; mutunguru	Loganiaceae	
12	<i>Antiaris toxicaria</i>	mulundu (ki-luhya)	Moraceae	Found in Kakamega forest
13	<i>Apodytes didymiata</i>	Pear wood; muganyoni	Icacinaceae	Wood was used for wagon wheels
14	<i>Bequaertiodendron oblanceolatum</i>	musamia (ki-luhya)	Sapotaceae	Kakamega tree with edible fruit
15	<i>Bersama abyssinica</i>	muthandi; murumia-andu	Meliantaceae	
16	<i>Blighia unijugata</i>	muikoni	Sapindaceae	Tree to 30m
17	<i>Brachylaena huillensis</i>	muhugu	Compositae	Silver Oak
18	<i>Bridelia micrantha</i>	mukoigo	Euphorbiaceae	
19	<i>Buddleia polystachya</i>	muthimbari, muchorowe	Loganiaceae	Also 'ruti'; flower reddish-orange
20	<i>Calpurnea aurea</i>	mucingiri, mwethia	Papilionaceae	East African Laburnum
21	<i>Calodendrum capense</i>	murarachi, muroroa	Rutaceae	Cape Chestnut; bright pink flowers
22	<i>Canthium lactescens</i>		Rubiaceae	Found on dry, rocky sites
23	<i>Casaeria battiscombei</i>	muirongi	Flacourtiaceae	Common large tree in area
24	<i>Cassipourea gummiflua</i>	mukunguru	Rhizophoraceae	

25	<i>C. malosana</i>	muthaithi	Rhizophoraceae	Note stiff leaf
26	<i>Catha edulis</i>	mailungi; muirungi	Celastraceae	Miraa; khat
27	<i>Celtis africana</i>	murundu	Ulmaceae	Much favoured by Colobus monkeys
28	<i>Celtis gomphophylla</i>	musaa	Ulmaceae	Kakamega Stinkwood
29	<i>Chionanthus battiscombei</i>	musharage	Oleaceae	
30	<i>Chrysophyllum albidum</i>	mululu	Sapotaceae	Kakamega tree to 40m with edible fruit
31	<i>Chrysophyllum gorungosanum</i>	muthenia; mwagao	Sapotaceae	Tree to 40 m; similar to muna
32	<i>Clausena anisata</i>	muthathi	Rutaceae	
33	<i>Clerodendrum myricoides</i>	munjuga-iria; Butterfly wood	Verbenaceae	
34	<i>Clerodendrum johnstonii</i>	muringo	Verbenaceae	Common liana/ shrub to 20m
35	<i>Coffea eugenioides</i>	mukondwe	Rubiaceae	Nandi' coffee
36	<i>Cordia africana</i>	muringa	Boraginaceae	Large white flowers
37	<i>Craibia brownii</i>	mukubu	Rubiaceae	V. slow-growing to 12 m
38	<i>Croton macrostachyus</i>	mutundu	Euphorbiaceae	Heart-shaped leaves
39	<i>C. megalocarpus</i>	mukinduri	Euphorbiaceae	Very common; can be used as a hedge
40	<i>C. sylvaticus</i>	mutundu	Euphorbiaceae	Pubescent (finely hairy) leaves
41	<i>Cussonia holstii</i>	morogorogo; muroha	Araliaceae	Corky bark
42	<i>C. spicata</i>	mwenyiere	Araliaceae	Edible roots
43	<i>Cyathea humilis</i>		Cyatheaceae	Tree fern to 2 m
44	<i>C. manniana</i>	rusirusiru	Cyatheaceae	Very tall tree fern (10m)
45	<i>Dasylepis integra</i>	mugungu (ki-taita)	Flacourtiaceae	
46	<i>Deinbollia kilimandscharica</i>	muchanga-mukio	Sapindaceae	Understorey tree
47	<i>Diospyros abyssinica</i>	muiruthi	Ebenaceae	Ebony family
48	<i>Dombeya burgessiae</i>	mukeu	Sterculiaceae	6 m; pale pink or white flower
49	<i>D. rotundifolia</i>	mutoo	Sterculiaceae	4 m; snowy white flower tinged with pink
50	<i>D. torrida</i>	mukeu	Sterculiaceae	15 m; pale pink flower with red centre
51	<i>Dovyalis abyssinica</i>		Flacourtiaceae	
52	<i>Dracaena afromontana</i>	muthari	Liliaceae	Sisal-like monocotyledon
53	<i>D. ellenbeckiana</i>		Liliaceae	
54	<i>D. fragrans</i>		Liliaceae	
55	<i>D. laxissima</i>	muthari	Liliaceae	Sisal-like monocotyledon

56	<i>D. steudneri</i>	muthari; ithare	Liliaceae	Sisal-like monocotyledon
57	<i>Drypetes gerrardii</i>	munenye	Euphorbiaceae	Young leaves red
58	<i>Ehretia cymosa</i>	mukui; murembu	Boraginaceae	
59	<i>Elaeodendron buchananii</i>	mutanga	Celastraceae	Large hard yellow fruits
60	<i>Ekebergia capense</i>	Cape Ash; mununga	Meliaceae	Also called Dog Plum; up to 30 m
61	<i>Ensete edule</i>	Wild banana; thendu, ihindu	Musaceae	Looks like a banana tree
62	<i>Erythrina abyssinica</i>	muhuti	Papilionaceae	
63	<i>E. lysistemon</i>		Papilionaceae	South African tree with scarlet flowers
64	<i>Euclea divinorum</i>	mukinyai	Ebenaceae	
65	<i>Euphorbia bussei</i>	kithui (ki-kamba)	Euphorbiaceae	
66	<i>E. candelabrum</i>	muthuri	Euphorbiaceae	Unmistakable candelabra-tree
67	<i>E. obovalifolia</i>		Euphorbiaceae	Similar to above but has small leaves
68	<i>Fagaropsis angolensis</i>	mukaragati	Rutaceae	Similar to Ekebergia but has gland-dots
69	<i>Fagaropsis hildebrandtii</i>	chisemberr (ki-kamba)	Rutaceae	
70	<i>Faurea saligna</i>	mutorothua	Proteaceae	Medicine
71	<i>Ficus bussei</i>		Moraceae	Coastal fig
72	<i>F. exasperata</i>	museno (ki-luhya)	Moraceae	Leaves sandpapery
73	<i>F. lutea</i>	mkuyu	Moraceae	Large leaves
74	<i>F. ovata</i>	omododo (ki-luhya)	Moraceae	Very large leaves
75	<i>F. sur</i>	mukuyu	Moraceae	Large leaves
76	<i>F. thonningii</i>	mugumo	Moraceae	Strangler tree
77	<i>Filicium decipiens</i>	Thika Palm; kamiti	Sapindaceae	
78	<i>Funtumia africana</i>	mutondo (ki-luhya)		
79	<i>Garcinia volkensii</i>	munyawa	Guttiferae	
80	<i>Grewia mollis</i>		Tiliaceae	Yellow flowers
81	<i>Grewia similis</i>	mutheregendi	Tiliaceae	Mauve flowers
82	<i>Grewia tricarpa</i>		Tiliaceae	Yellow flowers; leaf apex acute/acuminate
83	<i>Hagenia abyssinica</i>	muthithiku; mumondo	Rosaceae	Highest growing tree in Africa
84	<i>Harungana madagascariensis</i>	muithathua	Guttiferae	Orange/ red berries
85	<i>Heinsenia diervilleoides</i>		Rubiaceae	Understorey tree
86	<i>Juniperus procera</i>	mutarakwa	Cupressaceae	Pencil cedar, but having berries not a cone
87	<i>Lepidotrichilia volkensii</i>	mundara; muthigitha	Meliaceae	

88	<i>Macaranga kilimandscharica</i>	mukuhakuha	Euphorbiaceae	
89	<i>Maesa lanceolata</i>	mundume;	Myrsinaceae	
90	<i>Maesopsis eminii</i>	mutere (ki-luhya)	Rhamnaceae	Kakamega forest, grown in plantations
91	<i>Manilkara butugi</i>	ludulio (ki-luhya)	Sapotaceae	Moist forest
92	<i>Manilkara discolor</i>	mugambwa; Milkberry	Sapotaceae	15-30m; edible fruit
93	<i>Margaritaria discoidea</i>	mukarara	Euphorbiaceae	
94	<i>Markhamia lutea</i>	muu, muho	Bignoniaceae	
95	<i>Maytenus acuminata</i>	rurigi	Celastraceae	No spines
96	<i>Maytenus arbutifolia</i>	muburu	Celastraceae	Spines to 6 cm.
97	<i>Maytenus heterophylla</i>	muthuthi	Celastraceae	Very long spines; shrub to 6 m
98	<i>Maytenus senegalensis</i>	muenyuke	Celastraceae	Bluish-green leaves; tree to 9 m
99	<i>Maytenus undata</i>	muthuthi	Celastraceae	No spines; tree to 18 m
100	<i>Milicia excelsa</i>	mvule (Swahili)	Moraceae	Lowland rainforest tree; 5 specimens exist here
101	<i>Millettia dura</i>	muhatia	Papilionaceae	Lilac or purple flowers
102	<i>Mimusops kummel</i>	mugumo-ciano	Sapotaceae	Red Milkwood
103	<i>Morus mesozygia</i>	munuku (ki-luhya)	Moraceae	E. Afr. Mulberry
104	<i>Neoboutonia macrocalyx</i>	mutundu	Euphorbiaceae	
105	<i>Newtonia buchananii</i>	mukui	Mimosaceae	Mt. Kenya highlands
106	<i>Nuxia congesta</i>	muchorowe	Loganiaceae	
107	<i>Ochna holstii</i>	mungarima	Ochnaceae	Lance-shaped leaves with serrulate margin
108	<i>Ocotea kenyensis</i>	muthuta; muikoni	Lauraceae	Fruit sits in cup like acorn
109	<i>Ocotea usambarensis</i>	muthaiti; musili	Lauraceae	E. African camphor; fruit as above
110	<i>Olea capensis</i>	mutharage; mutharagi	Oleaceae	The new name of the two below
111	<i>O. hochstetteri</i>	mucharagi	Oleaceae	Regarded as the same as the one below
112	<i>O. welwitschii</i>	mutukuyu	Oleaceae	
113	<i>O. europaea</i> subsp. <i>africana</i>	mutheru; muthamayu	Oleaceae	Related to European olive
114	<i>Olinia rochetiana</i>	mwathathia	Oliniaceae	
115	<i>Onchoba spinosa</i>	muigaigua; kiage	Flacourtiaceae	
116	<i>Ozoroa insignis</i>		Anacardaceae	Medicinal
117	<i>Pavetta abyssinica</i>	mwathathia; muhuangware	Rubiaceae	Shrub with white flowers
118	<i>Piper capense</i>	muraya; suguya	Piperaceae	Medicine
119	<i>Piper guineense</i>		Piperaceae	Kakamega forest climber

120	<i>Pittosporum lanatum</i>	musumara	Pittosporaceae	Medicine (emetic, purgative)
121	<i>Pittosporum viridifolium</i>	munyamati	Pittosporaceae	Emetic
122	<i>Podocarpus falcatus</i>	muthengera	Podocarpaceae	The only African conifer family
123	<i>P. latifolius</i>	E. African Yellowwood	Podocarpaceae	The only African conifer family
124	<i>Polyscias fulva</i>	mwanzu (ki-luhya)	Araliaceae	Used for beehives
125	<i>P. kikuyuensis</i>	mutati	Araliaceae	Endemic to central Kenya
126	<i>Prunus africana</i>	mweri	Rosaceae	Bark used for prostate cancer
127	<i>Psychotria fractinervata</i>	mukomakoma	Rubiaceae	
128	<i>Psydrax parviflora</i>	ruathe	Rubiaceae	
129	<i>Rapanea melanophloeos</i>	mugaita	Myrsinaceae	
130	<i>Rauvolfia caffra</i>	mwerere	Apocynaceae	Riverine forest
131	<i>R. mannii</i>	mutongo	Apocynaceae	Forest margins
132	<i>Rawsonia lucida</i>	mutendera	Flacourtiaceae	Heavy wood, good for walking sticks
133	<i>Rhamnus prinoides</i>	mukarakinga	Rhamnaceae	
134	<i>Rhus natalense</i>	mukaragati	Anacardaceae	
135	<i>R. vulgaris</i>	muthigi	Anacardaceae	
136	<i>Ritchiea albersii</i>	munangamai	Capparaceae	Understorey tree; 3-5-foliolate
137	<i>Rothmannia urcelliformis</i>		Rubiaceae	
138	<i>Ruttya fruticosa</i>	mujuga	Acanthaceae	
139	<i>Sapium ellipticum</i>	muhathi; muthathi	Euphorbiaceae	Serrate margin
140	<i>Schrebera alata</i>	mutoma	Oleaceae	
141	<i>Schefflera abyssinica</i>	mwenyere	Araliaceae	Digitate leaves; flowers stalked umbellules
142	<i>Schefflera myriantha</i>	musaki	Araliaceae	Digitate leaves; flowers stalked umbellules
143	<i>Schefflera volkensii</i>	muthai	Araliaceae	Digitate leaves; flowers stalked umbellules
144	<i>Scutia myrtina</i>	murangari, mutanda-mbogo	Rhamnaceae	Cat Thorn; corky bark in older trees
145	<i>Scolopia zeyheri</i>	Thorn Pear	Flacourtiaceae	
146	<i>Senna didymobotrya</i>	mwino	Caesalpiniaceae	Forest margins; yellow flowers
147	<i>Spathodea campanulata</i>	Nandi Flame	Bignoniaceae	
148	<i>Strombosia scheffleri</i>	munyenye; muthiringu	Oleaceae	Edible seed
149	<i>Strychnos henningsii</i>	muteta	Loganiaceae	Dry forest species
150	<i>Syzygium cordatum</i>	mukui; muriru	Myrtaceae	Edible fruit
151	<i>S. guineense</i>	mukui	Myrtaceae	Edible fruit

152	<i>Tabermontana stapfiana</i>	mwelele; mwerere	Apocynaceae	Jasmine-scented flowers
153	<i>Tarconanthus camphoratus</i>	kileleshwa	Compositae	
154	<i>Teclea nobilis</i>	munderendu	Rutaceae	12 m; usually trifoliolate leaves
155	<i>T. simplicifolia</i>	mundurendu	Rutaceae	Smaller than above (4-10 m); simple leaves
156	<i>T. trichocarpa</i>	munderendu	Rutaceae	As above but lvs. Trifoliolate
157	<i>Terminalia brownii</i>	muuku; kiuuku (ki-kamba)	Combretaceae	Usu. in dry, deciduous woodland (Ukambani)
158	<i>Terminalia mollis</i>	olokhongwe (ki-luhya)	Combretaceae	W. Kenya highland species
159	<i>Thylachium africanum</i>	mutunguu (ki-kamba)	Capparaceae	Very similar to <i>Ritchiea</i> but no petals
160	<i>Trema orientalis</i>	muthethu	Ulmaceae	Pigeonwood
161	<i>Toddalia asiatica</i>	mururue	Rutaceae	Hooked spines; liana growing to 15 m
162	<i>Trichocladus ellipticus</i>	mutikati, mubarakira	Hamamelidaceae	Witch hazel family
163	<i>Trichilia emetica</i>	mururi	Meliaceae	In arboretum; common in Karura forest
164	<i>Trilepisium madagascariense</i>		Moraceae	Sap has a red dye
165	<i>Trimeria grandifolia</i>	muhindihindi	Flacourtiaceae	Scrambling tree to 12 m
166	<i>Vangueria infausta</i>	muiru;mviru	Rubiaceae	Velvety lvs; believed to possess evil powers
167	<i>V. madagascarensis</i>	mubiru	Rubiaceae	Limp, glossy green leaves
168	<i>V. volkensii</i>	mubiru-(ngombe)	Rubiaceae	Edible fruit
169	<i>Vitex keniensis</i>	Meru oak; muuru (ki-meru)	Verbenaceae	Not indigenous to Limuru area
170	<i>Warburgia ugandensis</i>	muth(a)iga	Canellaceae	Medicinal
171	<i>Xymalos monospora</i>	murundetii; mukohokoho	Monimiaceae	Lemon wood; understorey tree
172	<i>Zanthoxylum gillettii</i>	muchagatha; Satinwood	Rutaceae	Spines on bosses; from moist forests
173	<i>Z. usambarensis</i>	Knobwood; muguchua	Rutaceae	from dry forests
174	<i>Ziziphus abyssinica</i>	Buffalo thorn	Rhamnaceae	Heavily armed with curved thorns

Many of the above have been recorded as growing well in the area even though some are normally found well below this altitude range of 2200 m.

Names in italics are ki-kuyu names unless otherwise stated. If there is no ki-kuyu name, it means that the tree is not native to Gikuyu areas.