

# Conservation and Promotion of Indigenous Plants and Trees in Meru: A preliminary survey<sup>1</sup>

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## 1. Introduction

The research team set out on 8 August 2007 to visit Mr. Samson Mathiu's farm at Ntharu, Nkueni division, Mikumbune location, South Imenti, Meru district. Samson is an active environmentalist and expert on indigenous plants. He had been identified as a potential resource during the Memorialization & Museums Workshop facilitated by Prof Karega-Munene and held at USIU in May 2007. As part of its outreach and collaboration strategy, the SDIC team conducted an extensive two-day research in the area with the assistance of Samson and his friend Francis Kirimi Inoti. A great deal of notes were made and photographs taken on African indigenous trees and crops. The team returned to USIU on 10 August 2007. Of great interest to the research team was the evidence of the transit situation that exist in our rural areas moving from indigenous to current lifestyles within three generations in the region. According to Ibui (2007), the former were acquired over several generations and allowed the locals to use, manage and conserve wild resources in a sustainable mode. In the teams' observation, society's emphasis on a monetary system has seen a shift in plant value systems.

## 2. Research Rationale

Increasing population and changing lifestyles among the factors that have contributed to changing landscapes in rural Kenya. A consequence has been the loss of indigenous plants either through land use changes or via replacement by those plants deemed to have a higher economic value. There has been a growing realisation of the value of indigenous plants (some of which exist as wild plants) over the past few years and thus there has been a great deal of interest in promoting the growing and consumption of such plants including trees, tubers and African leafy vegetables among others due to their immense benefit to health. To do this, there is need to collect information, create awareness and experiment on the plants. The survey thus represented an effort to gain the local perspective of the plants they value and the level of awareness and knowledge of environmental conservation. The survey hoped to address the twin concerns of biodiversity loss and environmental degradation by tapping into whatever indigenous knowledge that still existed on wild plants and environmental conservation. It took cognisance of the fact that traditional and cultural values among varied and disparate communities across the region have governed the way in which people interact with the environment and the way in which natural resources have been managed (AEO, 2002).

## 3. Research aims and objectives

The overall aim of the survey was to investigate plant resource use and conservation within typical Meru homesteads to obtain data on the biodiversity status of useful plants and indigenous knowledge on environmental conservation.

<sup>1</sup> The research was supported by funds from the United States International University (USIU)

<sup>2</sup> Our local field expert in Meru. In addition, Mrs. Martha Waithera Griffiths was instrumental in research questions and photography.

Three key objectives were:

- a.) Documentation of common indigenous plants found in the region and their uses
- b.) Investigate effects of modernisation on the value placed on indigenous plants
- c.) Assess the overall environmental impact of the changing management systems of natural resources in the region

#### 4. Research questions

1. What are the indigenous plants and trees in Meru?
2. What are the uses of these plants and trees (medicinal, cultural, gender, etc)?
3. What effects does modernization have on the value placed on indigenous foods/trees (language, symbolism)?
4. What is the socioeconomic value of indigenous plants and trees?
5. What is the symbolic value of these indigenous plants and trees?

#### 5. Research methodology

The team conducted oral interviews on a number of farms (each about 2.5 acres) with informants and also visited the indigenous groves in the area. Still photographs were taken of the plants and trees and identification done where possible.

#### 6. The data

**Varieties of indigenous plants and their uses in a typical farm**

Name of plant in Kimeru	Scientific nomenclature	Other names	Uses
Nduma ya mwanake	Clocasia spp	Arrow root (black stalk)	Cures gout, has 60% iron, bark can serve as balm to wounds
Muriuntu	Clocasia spp	Arrow root	High in iron
Kina	Clocasia spp	Arrow root	Like potatoes
Mugombe	Clocasia spp	Arrow root	Like potatoes
Murao	Unknown	Unknown	Cures malaria
Muroo	Unknown	Unknown	Cures colds

Muebu	Unknown	Munyugunyugu	Goat fodder
Murunga	Unknown		Soup-making
Gitunduki	Unknown	Cape gooseberry	Cures worms, amoebiosis
Kigwa	Saccharium officinarium	Black sugar-cane	Cures colds
Ntui kinyoni <sup>3</sup>	Unknown	yam	Bark is balm to wounds, cures blood clots, menopause problems
Bari bate	Unknown	yam	Food
Mbeu mburia	Unknown	yam	Paying bride wealth
Karugwaci	Unknown	yam	Food
Gikana	Unknown	yam	Food
Naaro	Unknown	yam	Food
Mweru	Unknown	yam	Food
Mwanga	Milletia dura	cassava	Roots cure dysentery, can lead to sexual dysfunction in men
Mbariki	Unknown	Castor	Oil cures constipation, seed can control conception
Muringa	Cordia Africana	Makobokobo (swa)	Leaves cure colds
Makuri	Unknown	Unknown	Leaves cure colds, good for bee-keeping
Karenge ya ngurwe	Cucurbit	Marenge	Food
Mutuntu	Croton macrostachyus	Unknown	Cures boils, varicose veins, ear ache <sup>4</sup>

<sup>3</sup>Yams prefer special trees for support: muringa, mutunguu (*Commiphra eminii*) or mwanga.

<sup>4</sup>Secretion from cricket (*Githura mata*) can also cure earache.

Muthingiri	Unknown	Unknown	Leaves cure sexual inactivity
Mutero	Unknown	Unknown	Cures prostate cancer, malaria
Mukwegwe	Bridelia micrantha	Mukoigo	Building posts
Muratha ngigi	Unknown	Unknown	Cures diarrhoea
Muthiriti	Unknown	Unknown	Cures colds
Mukaragati	Unknown	Unknown	Leaves quench thirst
Manoria	Unknown	Unknown	Cures stomach worms
Mujara	Unknown	Unknown	Cures yaws
Muuti	Erythrina absynnica	kumurembe	Cures colds
Butonwa	Unknown	Unknown	Cures wounds
Muninkithia (a climber)	Unknown	Unknown	Cures earache
Muraiguna	Unknown	Unknown	Cures eye infections, itchiness – squeeze juice in the eyes.
Muaraka	Unknown	Unknown	Marking borders, root cure colds
Migorona	Unknown	Unknown	cures malaria

## 7. Research Notes

- The young generation (below 45 years) do not know the names or uses of the indigenous plants. They cannot identify them either.
- The yam is a man's crop. It requires strength and patience to grow and manage. It was used for nteguri (bridewealth) and served as a "food bank" during famine. The man regulated withdrawals.
- Arrowroots, millet, sorghum and vegetables were grown by women.
- Medicinal plants were managed by men as women could not be trusted, especially with poisonous plants.
- Consumption of indigenous foods declined with the advent of western education. There is great preference for imported foods, e.g. rice, tea, sugar, bread. These commodities were introduced by colonialists to students in schools. The effect was apparent by 1960.
- Indigenous vegetables requires less firewood to prepare and are high in nutritional value.
- Indigenous plants can fetch good prices in the market and are therefore economically viable as a venture.

## 8. Supplementary Indigenous knowledge

The research team visited the Ntharu museum owned by Samson Mathiu to memorialize Meru culture. The following were the results (cf photographs on CD).

*Gaar*u – man's hut

*Murana* (red cedar) – tree used for central pole in hut

*Muangwa* or *mwanjati* - used as vertical poles

*Muiria* and *mukwego* – used as horizontal poles

*Muthimbere* – girl's hut built by her suitor. Upon marriage, it was destroyed and another one built by the suitor of the next girl. The hut is built sealed, then a door is cut through it as a symbol of female virginity.

*Coro* –horn to call warriors

*Maaru* – horn for war

*Kiuru* – wife's hut

*Kirere* – hut for making porridge

*Marua* – porridge pot

*Ihiga ria ucuru* – stone for grinding millet

### **9. Environmental concerns at Ntharu**

Ntharu enjoys a natural spa with mineral water springing from underground. The spas can heal many diseases including acidity and skin ailments. The spas were a favourite spot for animals, especially elephants in the olden days.

However, pressure for cash-crop farming (mainly tea) has denuded the surrounding hills leaving them exposed to soil erosion. Eventually, this erosion will impact the water systems in the area, including the springs.

There is need to educate the local people on the importance of conserving trees as a means to safeguard water systems for sustenance.

The team visited the Mukia gorge and marvelled at the beauty of the grove, including a colobus monkey and other primates. The sanctity of the grove is threatened by unscrupulous people who want to cut part of it down for “development”. A meeting of local elders of the Ntukia Clan with NEMA experts and USIU team discussed the importance of safeguarding the 30.23 acres of ancestral forest. For example, the mutunguru tree is believed to be over 200 years old and commands immense respect in the community.

### **10. Other community concerns**

The community explained that a meteorite fell on 2 February 1942, 3 p.m., at a place near the home of Prophet Mugwe, the great Meru seer. The object was taken to the National Museum of Kenya but it disappeared after some time from the archives. The issue was recently raised in the Museums & Memorialization Workshop at USIU where the Meru community demands its meteorite back as collective memorabilia.

It is believed that the meteorite was a sign of bad luck.

### **11. Profile of principal informant:**

- Name: Samson Mathiu
- Born in 1949
- Educated at Kaaga Intermediate school and taught as an untrained teacher.
- Studied history, fine art, music at Kisii College
- Studied fine art and education at Kenyatta University
- Retired in 2005

- Post-retirement objective: Finish the museum and return to university for further studies on sculpting.
- He acknowledges his parents for educating him on indigenous plants:
  - o Father: Mathiu Nkanata (1876-1982); mother: Edith Mathiu (1886-2004).

## 12. Conclusion

The research mission found answers to the set research questions. There is need to create awareness and promote the growing and consumption /conservation of indigenous plants since their value is incommensurable. Each ecosystem, such as those of the Meru region, represents a solution to a particular challenge in life and certainly human development and security are linked to them (World Resources, 2002 – 2001). Knowledge of this is important and for the team, the Meru trip provided much of the information needed for an education and awareness campaign. Further, the data was useful in enriching the SDIC research agenda. The team further identified a number of threats to the biodiversity and the general conservation of the environment. These included the emphasis currently placed on market crops (an avenue for the loss of indigenous plants to exotic varieties), inadequate knowledge on the ecosystem services of trees (including erosion control and water amounts in local rivers) and restricted tree varieties (only eucalyptus and grevillea species being preferred).

## 13. Way forward

Collaboration needs to continue with local experts on the ground to prepare and complete a compendium on indigenous plants. To do this, the gaps in terms of scientific names need be filled.

There must also be an integrative initiative to conserve the environment of the region in a manner that allows people to also meet their livelihood needs. This emphasises a sustainable development in which all stakeholders are involved and follows fair principles that result in a balance between human needs and environmental conservation (GEO, 2002).

## 14. References

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