

# **PARTICIPATORY FOREST MANAGEMENT**

## **THE ROLE OF COMMUNITY FOREST ASSOCIATIONS**



**A Presentation to Wangari Maathai Institute  
November 13<sup>th</sup> 2013**



# Natural Forest





# PLANTATION FOREST



## PLANTATION FORESTS

- Plantation forests faced a similar fate

Very little replanting took place in the 1980s and 90s, while uncontrolled harvesting took place.

Residential forest workers were forcibly removed from the forests in 1986 turning communities into enemies of forests.

Excisions of most of the Mau Complex affected plantation forests





# FOREST COVER VS. TREE COVER

- **A forest ecosystem** covers the flora, fauna and ground environment within its micro climatic conditions and its relationships in the food chain. The fauna in a forest ecosystem will include the minute and the massive. It's the habitat for biodiversity.



# A PLANTATION FOREST

- The importance of plantation forest is more economic. Fast growing timber. Meets economic needs of the nation.
- However, their ecosystem services are limited. Some of them are pervasive species and domineering to the exclusion of other plants. Others take up so much water.





# TREE LANDSCAPES

- We do not call a large sugar cane or coffee or even palm oil plantation landscape a forest. Why?
- Should we define a large timber plantation of pine trees a forest?



# LIVING FORESTS AND “DEAD” FORESTS



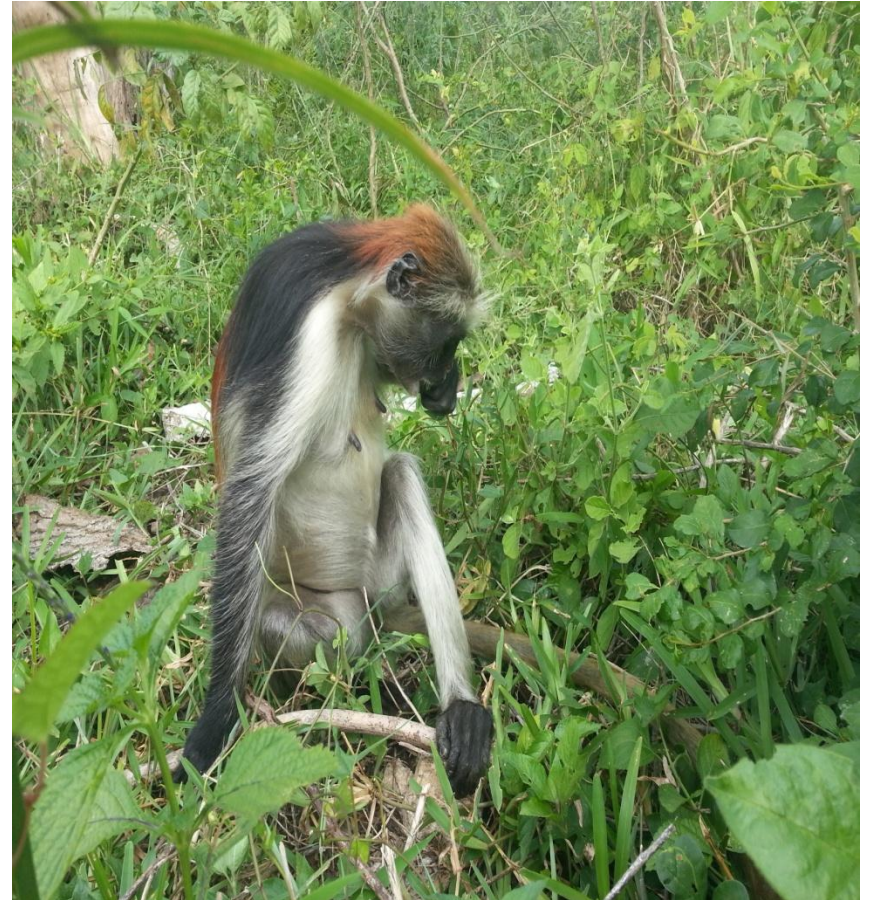


# FOREST ECOSYSTEMS





# HABITAT TO BIODIVERSITY





# CONSTITUTIONAL PROVISIONS

- Chapter 5

## Article 69 (b)

“Work to achieve and maintain a tree cover of at least ten per cent of the land area of Kenya”



# TREE COVER

**“Work to achieve and maintain **a tree cover** of at least ten per cent of the land area of Kenya”**



# TREE LANDSCAPES





# TREE LANDSCAPES



# TREE LANDSCAPES





## GAZETTED FOREST LAND

- **1.64 million ha gazetted forests**
- **100,000 ha Trust land Forests**



# FOREST DEGRADATION AND DESTRUCTION

- Between 1972 and 1980 natural forests shrank at an annual average rate of 2% (Doute et al 1980)
- Later, from early 1980s natural forests declined at an average rate of between 3700 ha to 5000 ha per year. (Wass 1995)





# Forest Destruction – Mau Forest

Photos courtesy of UNEP





Cultivation

# Encroachment into Forest Land

Settlement

Residential cultivation

Mau complex





# Impacts of Cultivation in Forest Land :- Massive Deforestation, Destruction of Biodiversity & Water Catchment





# Cultivation in the forest



**Aberdares forest**



# A Section of the Mau Water Catchment - 2010





# EXCISIONS OF FOREST LAND

- Massive raid on Forest land happened in the late 1980s to 2002
- Over 300,000 ha were lost by degazettment
- Another 60,000 ha lost without degazettment



# KARURA FOREST

**SAVED BY THE HEROIC STRUGGLE OF PROF WANGARI MAATHAI**



# URBAN FORESTS UNDER THREAT

- Menengai Forest near Nakuru
  - Loss of 1000 ha in ten years 1990 - 2000
- Karura Forest in Nairobi
  - Loss of approx 100 hectares (loss minimized by Wangari Maathai's Campaign)
- Ngong road Forest in Nairobi
  - Loss of over 2000 ha (loss minimized by Wangari Maathai's Actions)





# FOREST MANAGEMENT

- Forest Management went into a full blown crisis in the late 80s and early 1990s.
- Forest Fires some caused by disgruntled communities ravaged forests
- The Forest department had lost control



# THE FOREST ACT 2005

- **Provides a framework and incentives for community and private sector involvement in the forestry sector**



# PARTICIPATORY FOREST MANAGEMENT PRACTICES

The Forest Act of 2005 introduced the concept of Participatory Forest Management Practices in Kenya and established the Kenya Forest Service

Before then forest management was exclusive preserve of government through the Forest Department





# PARTICIPATORY FOREST MANAGEMENT

## **Goal:**

**“To enhance the contribution of the forest sector in the provision of economic social and environmental goods and services”**



# KARURA FOREST

**SAVED BY THE HEROIC STRUGGLE OF PROF WANGARI MAATHAI**









# FRIENDS OF KARURA FOREST

A COMMUNITY FOREST ASSOCIATION

- Registered in October 2009
- Made up of individual, family and corporate members and residents associations bordering the forest
- Run by a Board made up of 13 members supported by a management committee and various sub-committees



# MAIN OBJECTIVES OF FKF:



## To partner with the Kenya Forest Service to:

- Protect, manage and conserve Karura Forest
- provide access, livelihoods and employment to people living around the forest
- Restore natural indigenous trees removing the exotics in a systematic manner providing ecosystem services for all.





# ACHIEVEMENTS

- After participating significantly in the drafting of the Karura Strategic Management Plan 2010-2014 we submitted the FKF 5 year Management Agreement. Approved by FCC and signed by KFS.
- Completed securing the perimeters of the forest employing a fence manager and hiring, training and equipping 27 scouts to patrol and keep the forest safe.
- Maintained the fence through a contractor.





# ACHIEVEMENTS

- Created an efficient and transparent management system for gate and event fees and help generate revenue from eco tourism and recreational activities.
- Improved infrastructure in the forest such as signage and well maintained walking and jogging tracks.
- Finished the renovation of 2 ranger's houses and building of the washroom at the main gate.



# ACHIEVEMENTS

- Built a water purification unit to supply Huruma slum village with drinking water.
- Built and fenced a playing field for children of Huruma slum village.
- Organized a beekeeping training course and supplied 150 hives and assorted beekeeping equipment for Huruma slum villagers.
- Built and stocked a fish pond
- Created 29 permanent jobs and dozens of casual ones.



# ACHIEVEMENTS

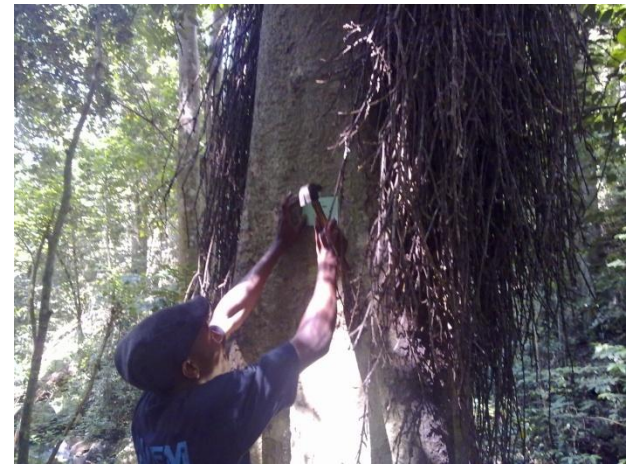
- Built steps down to the waterfall and the caves, two foot bridges over the Karura river and improve the trail
- Built a parking lot at the Sigiria main entrance
- Sign posted all junctions in the forest with numbered kerns
- Built a challenging obstacle course for group activities and physical challenging recreational activities





# ACHIEVEMENTS

- Designed and printed a revised and improved map of the forest with more details in Sigiria and a bird guide sheet with pictures of 80 species.
- Made an provisional inventory of 558 trees, shrubs and other plants in the forest and labeled 207 trees.



# ACHIEVEMENTS

- On going effort to control Lantana Camara – an invasive specie that is rampant in the forest, replanted with indigenous trees.



# ACHIEVEMENTS

Conducted a study to re-introduce Columbus monkey back into Karura - the project that will cost us 3million is well under way.





# KARURA'S MAIN INDIGENOUS SPECIES

- **Indigenous trees** 260 ha.
- *Olea europaeae* subsp. *auspidata*,
- *Croton megalocarpus*,
- *Warburgia ugandensis* (Muthiga)
- *Brachyleana huillensis* (Muhugu)
- *Uvaridendron anisatum*
- *Markhamia lutea*,
- *Vepris nobilis*,
- *Juniperus procera* (Cedar),
- *Craebea brownii*
- *Newtonia buchananii*,
- *Salvadora persica* (Mswaki)
- *Ficus thonningii* (Mugumu),
- *Trichilia emetica*
- *Calondendrum capense*
- *Dombeya goetzenii*.





# FOREST REGENERATION



# KARURA RARE SPECIES CORNER

- *Uvariadendron anisatum*
- *Croton alienus*
- *Vepris hanangensis* var. *unifoliata*
- *Canthium keniensis* and
- *Adenia metriosiphon*





# ARCHAEOLOGICAL PROJECT

- Carried out archaeological excavation work in two caves in the Karura valley
- Over 1,500 artefacts were found, cleaned, identified and catalogued
- Detailed analysis and dating is in progress

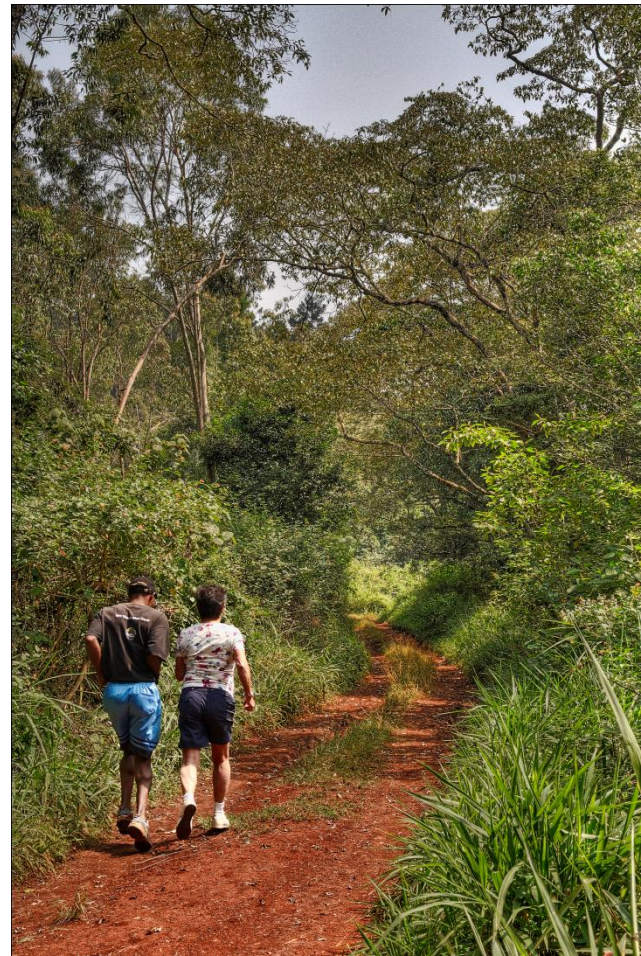


# KARURA ARTEFACTS



# PROJECTS

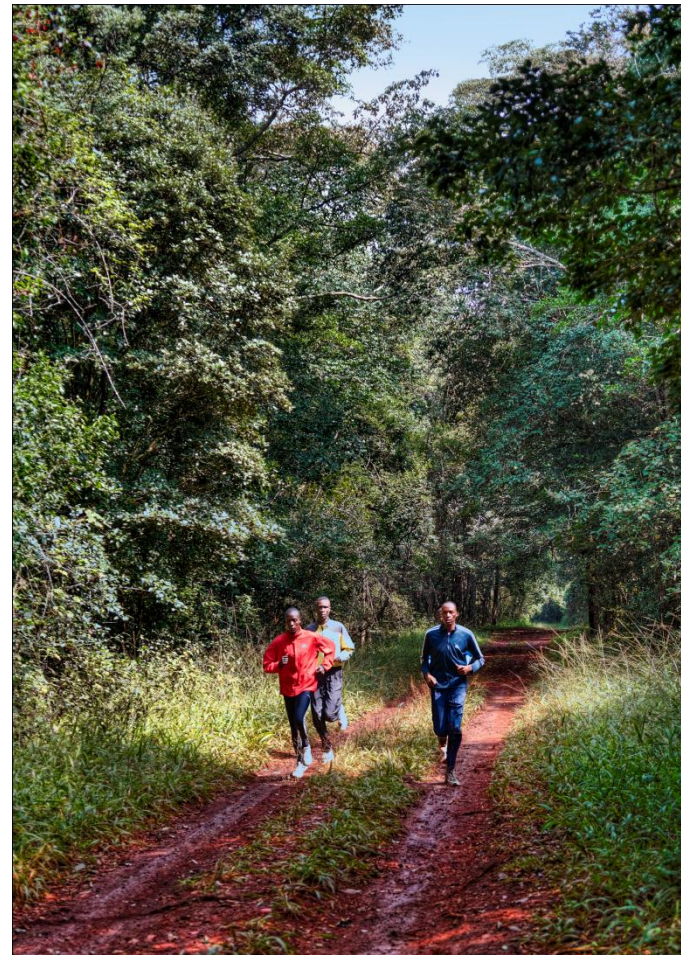
- At any one time in the last two years FKF has been handling projects worth 20m shillings





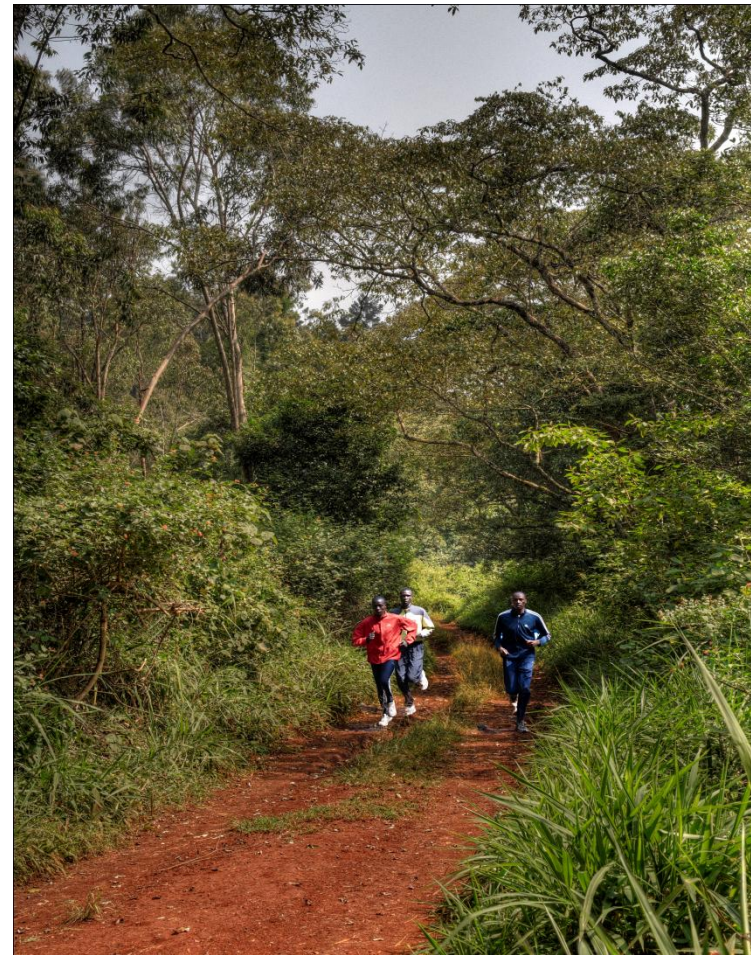
# DRAMATIC VISITORS RECORD

- **December 2011**      **559**
- **January 2011**      **1,139**
- **February**            **2,960**
- **March**                **2,922**
- **April**                 **3,896**
- **May**                  **3,334**
- **June**                 **6,900**
- **July**                  **4,800**
- **August**              **5,411**
- **September**        **4,035**
- **October**             **6,000**
- **November**         **3,203**
- **December**         **4,560**
- **January 2012**     **5,588**
- **February**            **5,786**



# DRAMATIC VISITORS RECORD

○ <b>March 12</b>	<b>5,922</b>
○ <b>April</b>	<b>6,896</b>
○ <b>May</b>	<b>5,334</b>
○ <b>June</b>	<b>5,900</b>
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○ <b>January 2013</b>	<b>8,588</b>
○ <b>February</b>	<b>8,786</b>
○ <b>March</b>	<b>9,560</b>
○ <b>April</b>	<b>10,730</b>
○ <b>May</b>	<b>11,170</b>
○ <b>June</b>	<b>12,450</b>





# WHAT WE PLAN TO DO

## **Infrastructure:**

Maintain and improve  
infrastructure

Build office space for FKF

Build foot bridge over the  
Limuru road and at Whispers

Cycling track in Sigiria block

Ranger's houses within KFS  
compound





# WHAT WE PLAN TO DO

## **Science:**

Inventories of mammals including counting, insects including butterflies, reptiles, improvement of plant inventory

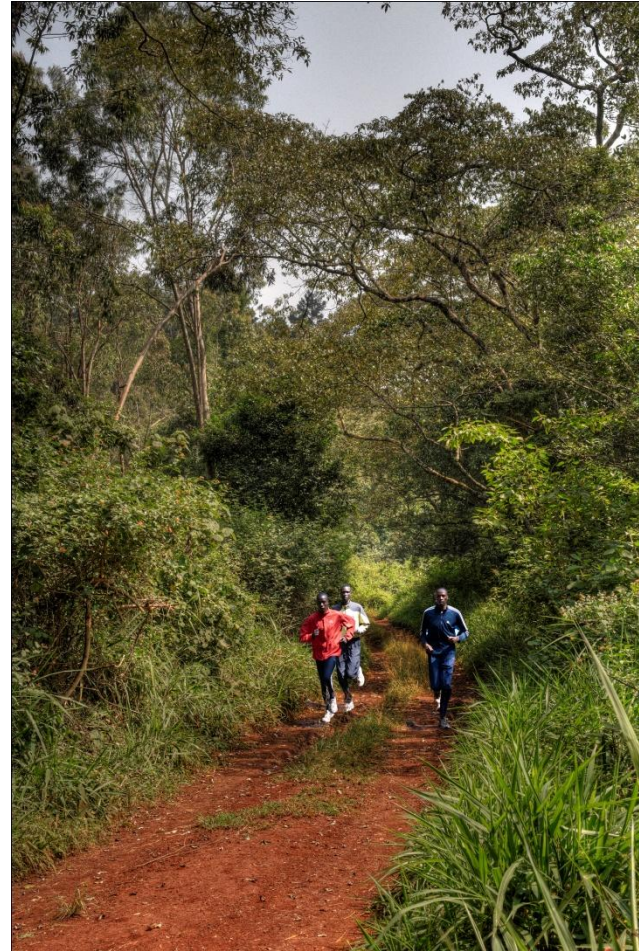
Mapping of soils in the forest

Developing educational activities in the forest such as thematic age or interest specific guided walks

Develop an exhibit at one of the caves showing the results of the archaeological work

Study the possibility of reintroducing highland species of colobus monkeys

Study the possibility of reintroducing indigenous highlands species of orchids



# WHAT WE PLAN TO DO

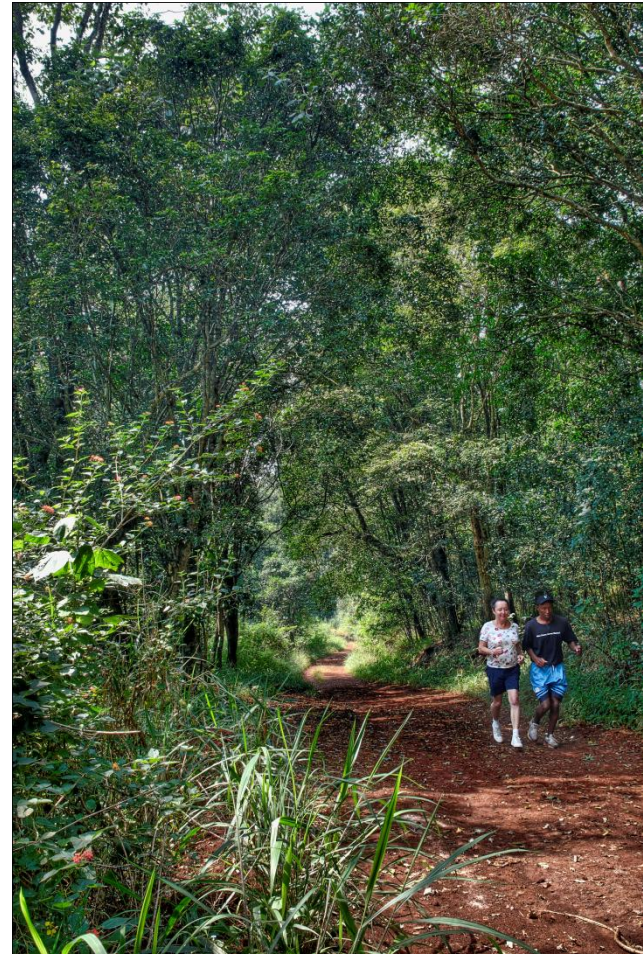
- Keep regenerating the forest, replacing exotic species with appropriate indigenous ones





# WHAT WE PLAN TO DO

Remain open minded and receptive to ideas, advice and needs of all interested parties within the framework of the Strategic Management Plan and our own Management agreement with KFS





# CONCLUSION

Karura forest, the story of a successful partnership between KFS and a FKF under the premises of the Forest Act 2005 that gives communities the right to participate in forest management.

[www.karurafriends.org](http://www.karurafriends.org)



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# **THANK YOU**

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