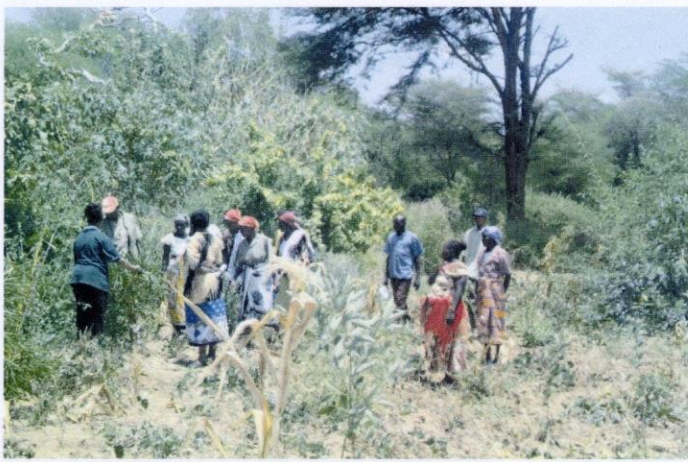




**KENYA FORESTRY RESEARCH INSTITUTE
KITUI REGIONAL RESEARCH CENTRE**

**FIELD DAY REPORT: PROMOTION OF BAMBOO IN
RIVERBANK PROTECTION HELD AT GRACE MUTEMI'S FARM ON
2ND MARCH 2011**



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June 2011

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INTRODUCTION

Why Grace Koki was selected as a demonstration farmer

This farm had been severely affected by floods from a seasonal river and she requested for assistance to protecting her farm against erosion and flooding. KEFRI provided 100 seedlings which she planted using her own resources (labour) in December 2009. However, due to severe drought about 40 plants had dried by March 2011 hence 40 seedlings were provided for beating up in April rains of 2011. The other surviving plants are well maintained. Being the only farm within the district where bamboo plants have been planted, it was selected for the field day in order to use it to demonstrate to other farmers that bamboo can grow in the area and create awareness on its importance.

1. Mobilization

Several Methods were used to advertise the field day

- ✓ Banner was erected next to the farmers gate



- ✓ Radio Promos – these were done three days before the field day
- ✓ Posters – A4 size posters were put strategically in Government offices, schools, churches and market areas
- ✓ Invitation Letters – These were sent to schools churches and other Government departments
- ✓ Personal visits –visited chiefs, sub chiefs and village elders to assist in mobilization of the people
- ✓ Chiefs Baraza – Chiefs were requested to announce the field day through the Barazas
- ✓ Radio talk – this was done two days before the field day

2. Media Coverage

The event was fully covered by the FM Radio stations: Musyi and Syokimau. This was aired during the 7 p.m news of the same day and a repeat of the same during the 4 '0'clock news the following day. It also appeared in the people daily newspaper.



One of the staff from different media houses covering the event

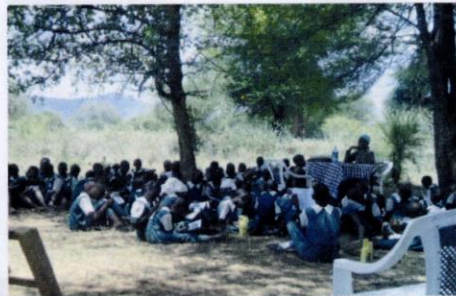
3. Displays

- **Registration**

All the attendants were registered, given reading materials and signed visitors' book.



Participants being registered



- **Brief introduction**

A brief introduction was given on what the field day was about and what the attendants' expected to learn during the field day.



Farmers being briefed on the purpose of the field day

- **Bamboo Propagation**

Propagation process was explained and farmers shown how it is done.



Bamboo propagation process

- **Field establishment**

The hole size (60x60 cm) was dug for simple explanation and to show how to planting is done



Planting hole sizes



- **Management**

This is the post care process after planting whereby the tree is protected from browsing at the early stages.



Protection and Field management



4. Bamboo products

Bamboo products were displayed because majority of the participants know bamboo as a weed which cannot be used to make furniture.



Bamboo products on display



5. Rehabilitated areas

The farmers/pupils were exposed to some of the area which had been damaged before but now have been rehabilitated.



Part of the area which had been degraded but has been rehabilitated

6. Other guests

This included the area chief, sub chiefs and village elders. The Divisional Officer sent an apology because he was attending another meeting.



Area chief addressing the congregation

7. Refreshments

The participants were refreshed with sodas as they interacted with the Scientists and the technical staff.



Pupils enjoying refreshments

8. Questions Raised and answers

The attendants had an opportunity to interact with the Centre Director/Scientists.



Requests:

The people requested KEFRI to assist in the following issues

- i. Train some people through Training of trainers (TOTs) so that they can assist the other community members in establishing bamboo nursery because Kitui KEFRI station is far from their reach
- ii. To open a station which can serve peoples interest closely
- iii. To establish two Bamboo demo plots in every location
- iv. Provision of planting materials

Qn. 1): Source of Bamboo Seedlings

Answer: Farmers interested in establishing Bamboo in their farms can purchase planting materials at Kitui Centre at Kshs. 100 per seedling

Qn. 2): After establishment of Bamboo plants for river bank protection, can the plants be washed away by water?

Answer: Once established, Bamboo plants form thick clumps which cannot be easily washed away by water. More so, the Bamboo plants are not to be planted within

the mud basin but at the banks and some distance within the farm depending on the width of the river

Qn. 3): What disease and pests affect Bamboo plants and how do address such?

Answer: Bamboo plants at the nursery stage need protection against termites attack which is addressed by use of Confidor 20 or Pyrenix 48 EC or Mocup. During the preparation of the cuttings from culms and their establishment in the beds, fungal attacks are also controlled by use of chemicals such as Bayleton, Ridomil or Wetttable powder of Copper Sulphate

Qn. 4): Can Bamboo plants be planted alongside other crops?

Answer: This depends on various factors such as the purpose of planting the bamboo as well as the kind of crops to be planted. For instance, bamboo planted for river bank protection purpose are closely spaced hence crops may not have adequate space except for fodder grass such as Napier grass. However, where the spacing in between bamboo lines is large, crops can be planted in between. Moreover, crops which are threatened by some amount of shading could also survive where bamboos are planted.

Qn. 5): Can bamboo be planted along small streams or galleys?

Answer: Yes. Bamboo can help to stabilize soil hence reduce soil erosion along such streams and gullies

Qn. 6): Can bamboo be established for commercial purpose?

Answer: Yes. Bamboo is a medium term cash crop given that it does not take long to start yielding income like other tree crops. After 3 years, some bamboo materials are ready for use e.g. culms for raising planting materials and for other uses can be obtained from such plants.

Qn. 7): What challenges are you facing in bamboo promotion?

Answer: So far in Kitui Centre, the major challenge has been drought which affected the plants severely especially after establishing the first demonstration farms in 2008.

Maintaining the planting material in the nursery during that period was also a challenge because of the water shortage in the country.

Qn. 8): Which are the recommended species for dry land areas?

Answer: There are many bamboo species in Kenya but as for Kitui Region, KEFRI Kitui Centre has been establishing *Oxytenanthera abyssinica*. This is because; it has been found out that it is able to survive in the dry lands and the culms for raising planting material are obtained within the region.

Qn. 9): Can bamboo plants be used as soil stabilizing materials instead of other conservation structures such as terraces?

Answer: Bamboo can be used in such cases but the spacing of the bamboo lines will have to be larger than for terraces and cut off drains in order to allow adequate space for crop establishment and growth.

Qn. 10): What parts of bamboo are eaten?

Answer: Young shoots of some particular species such *Yushania alpine* are consumed by communities around Mt Elgon in Uganda and to less extend in Kenya

Qn. 11): How is bamboo used for construction?

Answer: Mature bamboo culms which are also large and strong are used for construction. The culms are used for to support the stat until it dries and supports itself firmly. In Kitui region, we have been able to see bamboo used to construct animal kraals and food storage structures (Ikumbi). In some other countries bamboo is used for house construction, bamboo panels and mat board are also very important in construction work.

Comments by Mrs Mutemi (The Farm owner)

- The farmer encouraged her neighbors who had attended the training to plant bamboo, *Melia Volkensii* and other trees like mangoes.

Centre Directors Comments

- Bamboo has a great potential for use as an alternative source of timber which is becoming expensive to obtain especially for furniture production. KEFRI/ Karura is training local carpenters on how to use bamboo culms to make good furniture. Farmers stand to benefit a lot once the carpenters in their local market learn how to make furniture from bamboo. The Centre Director encouraged the farmers/schools to plant many bamboo plants which can be used as a seed bank to provide culms for vegetative propagation within the area. He also encouraged them to plant other trees like Mangoes, Melia and other species which are doing well in their area.

Call. 0722818020

Wish u Good

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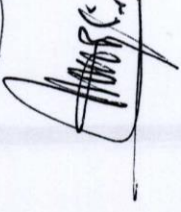
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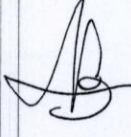
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