



Title: On-farm Green Tourism in Laikipia County, Kenya

Target Audience: Farmers, extension agents, learning and research institutions

Introduction

Laikipia County experiences a cool temperate climate, with mean annual temperatures of between 16°C and 26°C. The county receives an average of 400 mm and 750 mm rainfall annually. Agriculture is the dominant economic activity. Majority of residents keep livestock and grow different food cash crops as well as horticultural crops. However, due to climate change there is need for diversification of crop production system to provide alternative sources of food and income through adoption of innovative strategies. One such strategy is application of green tourism, an approach that provides sustainable tourism activities that are environmentally.

One of the Green Tourism farm in Laikipia County is found in Sipili location. The farm was started in 2005 on 3 ha land by Mr. Charles Mureithi, who is a farmer and a high school teacher. The vision of the farm is “Being the most beautiful farm in the world”. The Mission is “Making agriculture and environmental conservation romantic” while the core values are innovation, quality, aesthetic, efficiency, and peace. The main operations in the farm include: fruit farming beekeeping; root-crop growing; capacity building of farmers, primary and high school pupils, as well as international visitors.

Objectives

Objectives of on-farm green tourism include:

- To conserve the environment through on-farm green tourism.
- To improve farm productivity.
- To improve livelihoods.

Approach

Over the years, farmers in Laikipia County had limited information on the farming practices they could engage in to ensure sustainable crop production, livelihood improvement and enhanced income generation as well as environmental conservation. Mr. Charles Mureithi started green tourism on his farm in 2005 after attending a training in Japan on “Implementation and Promotion of Agribusiness for African Countries”. The main activities on Mr. Mureithi’s include: Orchard development where fruits such as mangoes, pineapples, pawpaws and passion are grown. Soil and water conservation, beekeeping, seedlings production, provision of picnic sites, awareness creation on environmental conservation by training students and farmers are also undertaken. Mr Mureithi carries out fruit-tree grafting on his farm. Grafting ensures increased fruit yields and production of high quality crop. For instance, the farmer has grafted mangoes in such a way that five to seven varieties can be produced from the same mango tree.

The fruit orchard is kept free clean through regular weeding. Pests and diseases are managed through constant monitoring and application of cultural treatment. At flowering stage, farm yard manure is applied to fruit trees to allow optimum growth and fruiting. Pruning is carried out especially for mango crop to allow crown spread and light penetration.

The farmer practices organic farming especially on orphan crops such as yams, a crop believed to have high calcium content.

The farmer harvests surface run-off water from rains. The water is either stored in a tanks or ponds, or is directed into farm for irrigation.

Under the Green tourism concept, visitors pay Ksh1000, are then allowed to walk around the farm, during which time they can pick own fruits straight from the trees, for consumption only. All parts of fruits that are not eaten such as seed, nuts or skin are left on the farm. Visitors also learn about different crops from the farmer during the farm tours.

Impact

- The farmer turned a once non-productive land to a green farm of high productivity.
- Food security and nutritional security is ensured with produce from the farm
- On-farm green tourism has improved farmers income through sale of farm produce, eco-tourism and sale of seedlings raised in the crop and tree nurseries.
- Activities in the farm have also has contributed to; soil and water conservation, improved soil fertility, enriched bio-diversity and improved resilience to climate change.
- Trees have also improved microclimate on the farm, aesthetic value and act as windbreak.
- Neighbours have also learnt a lot from Mr. Mureithi on how to turn land green, make it more productive and how to be economically empowered from farming.

- Bees are not only kept for honey production but also to act as pollinators for the fruit trees, an approach that has enhanced fruit production

Innovations and Success Factors

- On-farm green tourism has been adopted by many farmers in Laikipia County. This has been enhanced through training of farmers, water harvesting, own seedlings production and growing of food crops and various types of fruits.
- To improve on water harvesting techniques, the farmer has built big ponds and lined the same with polythene sheets to prevent water loss through percolation.
- The whole family is involved in the farm activities with the wife concentrating on marketing. Family involvement ensures sustainability of the project.
- Green tourism has promoted conservation of many food and tree crop.
- The county government promotion of crop production and marketing by providing extension services and linking producers to buyers has encouraged farmers to farm
- Visitors to the farm cause little damage to the environment, but provide socio-economic benefits to farmer through payment for eco-tourism.

Constraints

Some of the constraints experienced by the farmer include:

- Scarcity of water.
- Wastage of fruits by visitors.
- Pest and diseases such as; aphids affecting oranges; lizards causing absconding of bees from the hives; birds destroying fruits.

Lessons Learnt

Some lessons learnt include:

- Proper planning and utilisation of land by applying different farming practices such as fruit tree planting, root-and orphan crop farming, tourism, zero-grazing, beekeeping, and water harvesting are integrated to maximize farm productivity.
- Appropriate integration of formal employment and farming. The farmer is a high school teacher but able to undertake farming as well as conduct informal trainings to different groups of people such as schools, farmers, and individuals.
- Improvement of tree varieties through grafting including mature plants e.g. mango, tree tomato and avocado.
- Green tourism is an enterprise that allows land productivity improvement as well as increases income

- To succeed in agribusiness there is need to conduct appropriate research on kind of farming suited to particular ecological conditions, requirements, availability of market for the products.
- Record keeping is also very important in order to monitor expenses and profits.
- Mixed farming for small scale farmers affords them many benefits and avoids risks that is associated with monoculture
- The farmer hopes to make agriculture attractive to young people by incorporating environmental conservation and income generation from farming and ensuring low-cost farming technique and making agriculture a profitable business.

Conclusion

On-farm green tourism is a viable enterprise and has potential to; improve farmer's income, conserve environment, and enhance mitigation and adaptation to climate change.

Acknowledgements

The authors acknowledge Mr. Charles Mureithi of Laikipia County for providing information on on-farm green tourism which enabled the compilation of this manuscript.