I have been involved in forest management project for the purpose of sustainable 
forest management which included water resource conservation. The area 
involved is Mt. Kenya Forest ecosystem which measures approximately 270,000ha 
(200,000ha of Forest Reserve and 70,000ha of National Park) and it is the second 
largest continuous forest ecosystem in the country.

During the preparation of Kenya Forest Master Plan (1990-1994) Mt. Kenya Forest 
Ecosystem was rated as the first priority area for management interventions. At 
the same time, it was being considered for nomination as a World Heritage. The 
reasons for giving Mt. Kenya Forest Ecosystem the top priority were as follows;

1. It is the major water source in the country providing about 50% of the countries 
water resource. It was noted that about 90% of hydroelectricity is produced 
from rivers emanating from Mt. Kenya.

2. About 2.3 million people leaving adjacent to the forest derive direct benefits 
(firewood, grazing, medicinal herbs, water for domestic use and irrigation, 
construction material and food crops captivation through shamba system).

3. It provides many ecological benefits both locally and globally.

4. It contributes enormously to the countries economy through provision of timber, 
conservation of soil and water, harbours a wide range of flora and fauna 
species of which some are endemic and other threatened. It is also a major 
touristic attraction. The direct benefits from the Forest is estimated at 1.6billion 
Kenya shillings per year.

5. The ecosystem has over the years gone under unsustainable exploitation 
resulting in degradation and depletion of some species. There has also been 
unsustainable land use practices in the farms surrounding the forest resulting in 
serious soil erosion and deforestation.

6. Very little is known about the status of the forest resource as there has never 
been any inventories or research carried out.

7. The ecosystem has been without a management plan.
8. There has been over-extraction of water resulting in low or the absence of river flows during the dry season jeopardizing the livelihood of down stream users.

9. Serious human/wildlife conflicts surrounds the forest

10. Poaching of timber and game cause threat to biodiversity.

As a result of the foregoing, a project named CONSERVATION AND MANAGEMENT OF INDIGENOUS FOREST was born. The project was to be focused on Mt. Kenya from where other forest ecosystems could borrow lessons from. The primary objective of the project was to contribute to conservation and sustainable use of the indigenous forests of Kenya through capacity building of the Forest Department. As stated above, the project was to be focused on Mt. Kenya from where lessons were to be learnt.

To achieve this objective the following principles were adapted

1. Zonation of the ecosystem (setting aside forest areas for specific management regimes)

2. Multiple use of the forest (managing the forest to satisfy, as best as we can, all the realistic needs and desires of the community), and

3. The participation of the local communities in the planning and implementation of forest management plans (involving the local communities and other stakeholder in decision making and management planning).

Achievements

1. Inventory of tree resource carried out and documented

2. Volume tables for major timber species (12) developed.

3. Aerial photographs obtained and interpreted.

4. Zonation of the ecosystem carried out.

5. Socio-economic study carried out.

6. Communities assisted to form associations with capacity to negotiate for their rights and fund raising.

7. Draft management plan prepared.
8. Capacity building through training and provision of tools and equipment done.

9. Thematic maps of the ecosystem prepared.

10. Vegetation cover map prepared.

11. Promotion of environmentally friendly income generating activities such as insect farming and eco-tourism initiated.

12. Several seminars and workshops to sensitize the communities and other stakeholders on, importance and values of the forests, the need for sustainable management and farm forestry practices held.

13. Farm forestry and tree management practices promoted.

14. Programmes for replanting clearfell areas (Industrial plantations) and rehabilitation of degraded indigenous forests prepared and implementation underway.

15. Measures to mitigate human/Wildlife conflict such as building of electric fences and digging of game moats initiated.

**Lessons Learnt**

Among lessons learnt were as follows;

1. To achieve sustainable forest management and to maximize benefits it came out clearly that all stakeholders and in particular the communities leaving adjacent to the forest must be involved at all levels of management planning and decision making. This ensures that all stakeholders’ interests are taken care of and everybody feels satisfied.

2. There is alot of pressure for demand of forest products and land for agriculture and this pushes the forest ecosystem and its associated biodiversity beyond limits. To reduce this pressure, it is necessary to promote good agricultural practices to improve on farm production and water and soil conservation. It is also important to promote farm forestry to supplement forest products for the forest.

3. It was found out that poverty is one major reason why communities leaving adjacent to the forest encroach the forest and poach forest products to earn a living. The manner of the forest exploitation is very destructive because it takes
place without control. To address this it is important to come up with programmes that aim at poverty reduction.

4. It was also found out that wildlife causes poverty to the communities leaving adjacent to the forest by destroying crops and property and also causing death and injury to human. To address this measures have to be put in place to mitigate human/wildlife conflicts.