



Farm forestry side by side with eucalypt plantations for fuel. The trend today is to use firewood for curing tea, not fossil fuels. Tea factories increasingly buy wood from private farmers to supplement their needs. (Photo: KFS)

Forestry through the years

A history of forest management and development in Kenya

By PAUL KONUCHE

Forests in Kenya play an important role in the provision of environmental services and products needed for socio-economic development. Since the beginning of the last century, forests in the country have primarily been managed for protection of soil and water resources. Demarcation, reservation and protection were the main forest management activities in the early years of the last century.

To sustain wood production, forest plantations were developed from the late 1920s, using fast-growing exotic species. At independence, forest cover was 3 per cent of the total land area of the country. However, due to rapid growth in human population, this has declined steadily.

To sustain future wood production, development of farm forestry has received high priority since the 1990s. Research and training institutions have also been strengthened in order to enhance the development of the forest sector. This article outlines the history of forest development in Kenya since 1891.

Policy and legislation

The first legislation on forest management in Kenya was enunciated in 1891 and provided for protection of mangroves in Vanga, south Coast. In 1902, the Forest Department was established. Between 1891 and 1963, eight other legislations were published in the form of Forest Ordinances. These legislations supported forest demarcation, reservation and protection. The last Forest Ordinance was issued in 1954 and it transferred the responsibility of forests from the Governor to a minister.

In 1957, White Paper No. 85 was published as the first Forest Policy document for Kenya. The policy objectives were forest reservation and protection, management of forest reserves on sustainable yield basis, development of the forest industry, promotion of research and training.

After independence, the Forest Ordinance of 1954 was amended and the Forest Act, Chapter 385, enacted. This was followed by a review of the 1957 Forest Policy in 1968 but the policy

objectives remained the same. The Forest Act was again revised in 1982 and 1992 with a few modifications.

Management of indigenous forests

Most of the existing forest reserves were gazetted in the 1930s. The reservation process involved demarcation, survey and gazetting. However, the process was carried out without involving local communities and the people who were evicted were not compensated. Most of the gazetted forests were also located in high potential areas suited for agriculture.

In some forest blocks such as the Mau, forest dwellers were allowed to remain in the forest. This became a problem later as the Forest Department has not been able to evict them to date. By the end of British rule in 1963, the gazetted forest area covered about 3 per cent of the land area of the country.

Apart from forest reservation, other management activities during the colonial period

were mainly law enforcement and exploitation. The latter was done through selective cutting of valuable species such as cedar, Elgon teak, podo and camphor, which had been over-exploited at independence.

During the colonial period, sawmills were the main wood-based industries in operation. After independence, forest protection, licensing extraction of produce and maintenance of infrastructure such as roads continued to be the main forest management activities. Exploitation of indigenous forests using selection system also continued. In 1982, however, a Presidential directive banned logging in indigenous forests, including bamboo forests.

In 1986, the Nyayo Tea Zone Development Corporation was established to develop tea strips to act as buffer zones between agricultural land and indigenous forests. The forest area cleared for planting tea is estimated as 11,000 hectares and this represented a major reduction in forest cover.

Forest plantations development

At the beginning of the last century, there was concern that the growth of indigenous forests was inadequate to meet the future timber needs of the country and the policy objective of managing forest estates on a sustainable yield basis would not be achieved. At the same time, it was realised that some exotic species were faster-growing compared to indigenous species.

In 1907 therefore, the then Chief Conservator of Forests, David Ernest Hutchins, started a programme of planting exotic trees. The first plantations were established with eucalypts and Australian acacias to produce firewood for the

Uganda railway. Cypresses (*Cupressus lusitanica* and *C. macrocarpa*) were later planted.

In 1912, a new Chief Conservator of Forests, E. Battiscombe, favoured the planting of indigenous species and planting of exotics was suspended, but it resumed in 1927. From the early 1930s, the *shamba* system was adopted as a cheap method of establishing forest plantations. The system relied on squatter labour to grow trees alongside agricultural crops for the first three years.

After the Second World War (1939 – 1945), the plantation programme gained impetus when an annual planting target of 2,400 hectares was set. In 1955, the planting target was raised to 4,800 hectares per year.

Just before independence, a long-term Forest Industrial Development Plan with a target of planting 136,000 hectares of timber and 24,000 hectares of pulpwood by 1980 was prepared. The new government continued to implement the plan, even after independence.

From 1969 to the mid-1980s, the plantation development programme received funding from the World Bank and the target of planting 170,000 hectares of industrial plantations by 1980 was achieved. However, replanting of harvested areas in the mid-1980s became a problem because the *shamba* system was no longer effective and the structural adjustment programme of the 1980s reduced funding to the Forest Department.

In addition, the *shamba* system was abolished in 1989 as the squatters were increasingly using political pressure to have some of forest areas excised for agricultural settlement. Inadequate funding led to poor plantation establishment and a backlog of replanting harvested areas and carrying out silvicultural operations.

The softwood established after the Second World War reached full rotation age in the 1970s and 1980s. The plantation-grown wood therefore became the major source of industrial wood and several wood-based industries were started. These included six pulp and paper mills, three plywood mills, one fibreboard mill and two particle board mills. Among the pulp and paper mills, the Pan African Paper Mill at Webuye was the largest. Others were small and produced recycled fibre-based packaging paper and tissue. By the mid-1990s, there were 450 sawmills in the country, but most were small.

Tree planting on farms

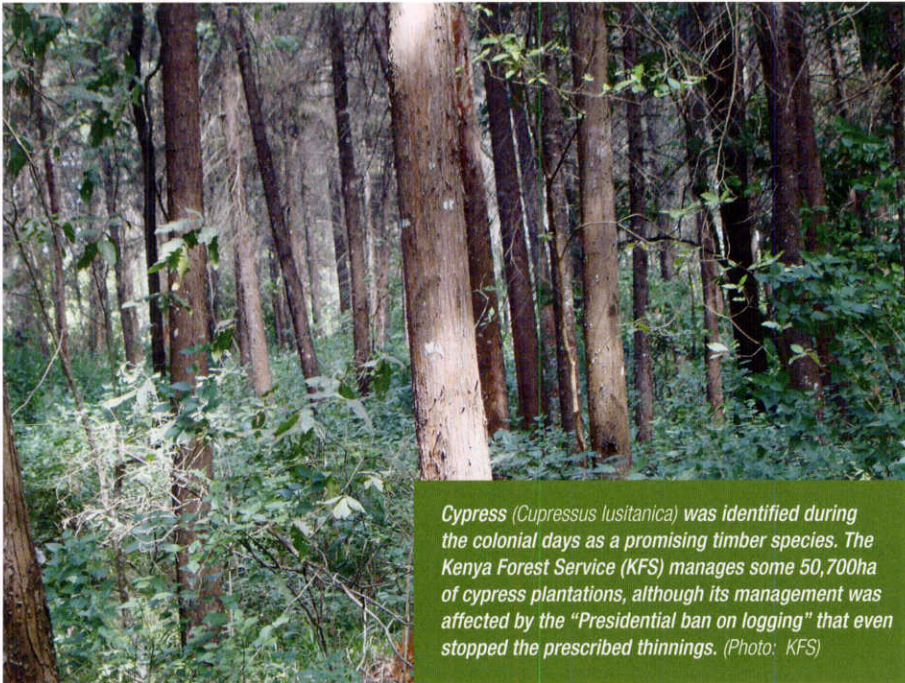
On-farm tree planting started in the 1930s when white settlers established windbreaks and shelter belts in their farms. The African Land Development Programme (ALDEV), prepared under the Swynerton Plan of 1954, promoted tree planting by Africans in their farms as a means of controlling soil erosion and conserving water catchments outside forest reserves. This was the period when farmers adopted the growing of cypress, eucalypts, *Grevillea robusta* and black wattle. The latter was also grown on a larger scale by white settlers for production of tannin.

On-farm tree planting continued after independence. In 1971, a Rural Afforestation Extension Scheme (RAES) was started by the government to promote tree planting outside forest reserves. The 1970s and 1980s were periods of intensive tree planting, mainly because of political support.

Apart from the Forest Department, other players that promoted tree planting in farmlands were the Agricultural Extension Service of the



Destruction of forest in Lamu for farming activities. Clearing of indigenous forests outside protected (gazetted) areas still goes on. (Photo: BGF)



Cypress (Cupressus lusitanica) was identified during the colonial days as a promising timber species. The Kenya Forest Service (KFS) manages some 50,700ha of cypress plantations, although its management was affected by the "Presidential ban on logging" that even stopped the prescribed thinnings. (Photo: KFS)

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Ministry of Agriculture, the Ministry of Energy, the Permanent Presidential Commission on Soil Conservation and Afforestation (PPCSCA) and many NGOs.

With the establishment in Nairobi of the International Centre for Research in Agroforestry (ICRAF) in 1976, agroforestry became an important strategy of promoting tree planting in densely populated areas of the country. Through a social forestry project started in 1986 with the support of the Japan International Co-operation Agency (JICA), KEFRI also played an important role in promoting tree planting. The project built the capacity of middle level extension staff over a period of 15 years.

A survey carried out in the early 1990s showed that tree cover had increased significantly outside forest reserves in high potential areas of the country.

Forestry research and development

A forestry research unit was established in 1934 under the former Forestry Department. The unit later became a research branch and undertook research in silviculture, forest entomology, forest pathology and wood utilisation. In 1948, the East African Agriculture and Forestry Research Organisation (EAAFRO) was established in Muguga, near Nairobi, by the East African Community. It addressed regional forestry concerns common to Kenya, Uganda and Tanganyika (now Tanzania).

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The research branch of the Forest Department was converted into a Research Conservancy in

1973. In 1981, forestry research was transferred to the newly established Kenya Agricultural Research Institute (KARI), which was integrated with the former Forestry Division of EAAFRO to form the Forestry Research Department. Then in 1986, the Kenya Forestry Research Institute (KEFRI) was established, through the Science and Technology Act, Chapter 250, as an independent research institution.

Following this development, the forestry research programme was expanded to include new disciplines like agroforestry, social forestry, biotechnology, socio-economics and seed technology.

Education and training

During the colonial period, Londiani Forest Training School was the only institution providing technical training in forestry in the country. It was started in 1957 to train practically-oriented forest technicians and sub-professionals. The few Kenyan professional foresters who joined the Forest Department in the early 1960s had received their training outside Kenya.

After independence, Londiani College continued to train technical and sub-professional foresters. However, a crash programme was started in 1965 at Egerton Agricultural College to train sub-professional foresters to replace the British who left Kenya.

In addition, a Forestry Training Centre (FITC) was established in 1965 at Nakuru to train workers from wood-based industries in order to improve productivity and efficiency of sawmills. In 1976, FITC received support from the Government of Finland through the Finnish International Development Agency (FINNIDA). However, FINNIDA support ended in 1988 and activities slowed down due to lack of funding.

Forestry education at professional level in Kenya started in 1977 when a Department of Forestry was started at the Faculty of Agriculture, University of Nairobi. In 1984, the department was transferred to Moi University in Eldoret. In addition, a Department of Wood Science was established at Moi University in 1984.

Egerton University also has a Department of Natural Resources which offers forestry courses for professional foresters. Since 1990, however, few graduates have been employed by the main institutions in the country, leading to a decline in student enrolment in the universities.

Before the late 1990s, postgraduate training was mainly undertaken in overseas universities. However, this has changed and local universities now offer postgraduate training up to PhD level.

Forestry Master Plan

Forest management in Kenya began to decline by the late 1980s as the policy and legislation were no longer relevant in addressing the challenges faced by the country. In 1994, preparation of a Kenya Master Plan, which led to preparation of new policy and legislation, was completed. Some of the key elements of the draft policy include:

- Expanded mandate in the management of all types of forests;
- Involvement of communities and other stakeholders in forest management; and
- Transformation of the Forest Department into a semi-autonomous Kenya Forest Service.

The draft policy has not been published but a new legislation was enacted in 2005 and created the Kenya Forest Service (KFS), which is now operational.

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