PLANT EXPLORATION IN UGANDA

The Map of Uganda shows its situation and neighbouring territories. It lies in the heart of Africa and is between latitudes 1°30′ south and 4° north; longitudes 29° and 35° east. It is about 1 300 km from the eastern coast. The land mass and lakes have varying altitudes above sea level. In the east, it borders Kenya, in the west Zaire, in the north Sudan and in the south Rwanda and Tanzania.

Uganda is referred to as a crossroads of continental vegetation. There is the Sahara vegetation represented by the north-eastern succulent scrubland. From neighbouring Tanzania in the south, Miyombo savanna-vegetation crosses the country into Sudan. The west African vegetation can be found in the south-west highlands of Uganda and the Semliki Forest in the western rift valley. The Mau Plateau vegetation from western Kenya occupies the eastern grasslands. There are three high mountains namely the Ruwenzoris, Elgon and Mufumbiras. Ericaceous zones occur on these mountains, adding a temperate type of vegetation to the rich Ugandan flora.

Each type of vegetation is very diversified. An example is the lake shore forest which is dominated by *Piptadeniastrum* in the upper storeys, whereas the lower storeys are composed of very many different genera and species. In some swamp forest areas palms like *Raphia* are characteristic of the formation and may be associated with many species of pteridophytes.

Among the many water plants, *Cyperus papyrus* is a common sedge found on rivers and lake edges. Other plants are small and free floating, for example species of *Utricularia.*

Arable lands have a flora of their own. It is a flora which has evolved through ages of land use. *Bidens pilosa, Oxalis latifolia* and many others are noxious weeds.

It is this richness and diversity of flora and vegetation that stimulated plant exploration of Uganda. First and foremost were the early continental explorers. Among many others was Emin, who is commemorated in the tree *Maesopsis eminii,* one of the commonest and most useful plants in Uganda. The continental explorers were followed by scientists, whose collections were sent to European herbaria.

In the late 19th century, a scientific department was set up in the country. Among other things, its object was the collection and study of Ugandan plants of economic importance. It began with the founding in 1898 of the Entebbe Botanical Garden and the herbarium now known as the Kawanda Herbarium. The herbarium was later moved to Kawanda Agricultural Research Station. It is housed and shares a room with an insect museum in a complex of administrative buildings. Among the notable collectors in Uganda was Purseglove, who collected many specimens. He was once an agricultural officer in the district of south-western Uganda. The early thirties and late forties were characterized by a spate of plant collecting. However, amongst local scientific workers, political awareness appeared earlier than scientific awareness.

When the expatriate experts left the country, there was nobody to curate the herbarium collections. Sometime before Uganda became independent, the Kawanda Herbarium came to a standstill. Maintenance of the existing specimens fell below normal standards. As a result, some sheets, about 12%, have been destroyed: instead of the original 25 000 specimens there are now 22 000. However, it is gratifying to report that a fresh and dedicated effort has been organized at the Kawanda Agricultural station. The herbarium now has a graduate

curator presently training abroad, an assistant curator and assistants. 3 310 specimens were collected and incorporated into the herbarium during the period 1978–1980. This means that before 1978 the number of specimens amounted to 18 690.

In 1900 Entebbe Herbarium proper was established under the management of Forest Department staff. As with its sister herbarium at Kawanda, plant collecting was marked by alternating periods of enthusiasm and disinterest, although plant collecting by the staff was encouraged. After independence, nothing further was added to the number of specimens. In 1979 all the cupboards were looted immediately after the war of liberation. The specimens were displaced and 80% were destroyed. This herbarium is in a hopeless condition. It requires immediate assistance, if the remaining specimens are to be saved. There is a minimum maintenance of specimens, but expert advice is required.

Makerere University Herbarium is housed in one of the rooms in the Faculty of Science. The collections were started by the staff and students of the Botany Department in 1946 and collecting is still being continued. However, in the late sixties the herbarium received a grant and experts from Norway. With this assistance, it was possible to establish the post of curator, assistant curator and two assistants. A plant collection programme was drawn up whereby a number of specimens were acquired. The original number of 6 000 specimens rose to over 25 000. However, the grant and programme expired and the experts left the country in 1972. The economic crisis obtaining then forced the assistants to look for better opportunities in other fields, and the assistant curator was obliged to run the herbarium single-handed. During this trying period, materials like spirit, paper and poison could not be obtained. Herbarium pests have invaded the cupboards and 6% of the sheets have been destroyed. There is a faint hope, however, that a graduate assistant will be appointed and earmarked for the post of curator of the herbarium.

Makerere University herbarium is associated with a small botanic garden. The garden has suffered from lack of funds. Labels are missing; a few ponds containing aquatics are kept mainly for teaching purposes; and the greenhouse and orchid shed are worthless. The greenhouse is a mere frame structure and the orchid shed contains hardly any orchids.

CONCLUSION

In this report I send an SOS to the AETFAT Congress. The three herbaria and the gardens have no expert, adequate and experienced research workers. Left alone, the prospects of progress for these herbaria and gardens are quite remote. It is suggested that the three herbaria be brought together and that an international hand be extended in the form of aid to undertake firstly, rehabilitation, secondly staffing and thirdly extension of research to a time when local staff would be in a position to run the amalgamated herbarium. Much plant exploration remains to be done, especially in the western region, and economic uses of indigenous plants need to be studied.

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