



Oil palm in western Kenya



10-13 June 2002

FAO is promoting in Africa a cold-tolerant, high yielding oil palm that could help boost the region's edible oil production. Until recently, the only oil palm variety that grew in cold African climates was the *dura* type, which produces fruit with a low volume of pulp and therefore low yields of edible oil. FAO agronomists first noted the potential of the *dura* type while working in the highlands of Tanzania and Cameroon in the 1970s. They transferred the material to Costa Rica where it was crossed with the high yielding, precocious *tenera* variety. FAO then returned the resulting hybrids to Africa through a series of demonstration projects in Cameroon, Ethiopia, Kenya, Malawi and Zambia.

Trials in Ethiopia have shown that the oil palm becomes productive at 38 months, and grows well at altitudes of 950 metres and at low temperatures that usually limit fruit production. In Zambia, the hybrid yields nine litres of oil three years after field planting, and is expected to produce 20-30 litres at year six (the local *dura* palms begin production at about year eight, with one third the oil yield).

Edible oil imported. Through its programme on integrated farming systems, FAO is now exploring opportunities for boosting production of palm oil in western Kenya, where seedlings from Costa Rica are being grown in community nurseries and by the region's largest sugar company. At present, Kenya's domestic production covers only about one-third of its annual demand for edible oils, estimated at some 380,000 tonnes. The remainder is imported, at a cost of around \$140 million, making edible oil the country's second most important import item after petroleum.

The oil palm hybrids seem to be an ideal solution. Their cultivation would allow small-scale and industrial producers to reduce the edible oil deficit and, in the process, provide a badly needed source of extra income for western Kenya's rural areas, where one in two of the population lives in poverty. The local climate is already favourable to a range of annual and perennial oil seed crops, including sunflower, soya, groundnuts, safflower, sim-sim and



linseed, many of which are traditional crops in the area. The climate for oil palm in some of the western districts is comparable to - or even better than - that of the world's biggest oil palm grower, Malaysia: rainfall is more evenly distributed and thus the cumulative sunshine intensity is greater.

What's more, western Kenya is well placed as a centre for industrial crop development. It is centrally located within the country, is adjacent to Kisumu (a large trading centre on Lake Victoria), and lies on the main trading routes between the east coast, Nairobi and the hinterland of Uganda, Rwanda and the Democratic Republic of the Congo, where economic growth and population are expanding rapidly. Kenya is also moving strongly into industrial agricultural production. Foreign investment and sales focus on relatively new sectors such as cut flowers, selected green vegetables and pharmaceutical crops, and there is interest in diversification into new and alternative plantation crops that show potential. FAO is exploring the potential of oil palm in partnership with one of western Kenya's largest agroindustrial producers, the Mumias Sugar Company, and its outgrower network of some 40,000 farmers. Most of the farmers are smallholders and many are part of FAO's Farmers Field Schools. Under a proposed

two-year project, the company will build upon a plot of mature palms already available on-site, and about 1,500 plants recently imported from Costa Rica. The palms are ready for harvesting at age three, and annual yields from mature trees are around 20 tonnes per ha of fresh fruit bunches (or four tonnes/ha of mesocarp oil). Studies suggest that, over the next 10 years, large-scale producers could plant as many as 20,000 palms.

Small-scale oil extraction. Cropping of this scale is beyond the resources of most farmers. But the project envisages distribution to poor farm households in western Kenya of planting material and technical assistance to provide the basis for small-scale oil extraction industries. This will be no simple task: local farmers face stiff competition from across the border in Uganda - same crops and production systems but better growing conditions, higher yields and lower costs - and from production areas in Kenya that enjoy closer trading links with the main urban centres. The farmers are also unfamiliar

with oil palm, and the edible oil that it produces is largely unknown in local cuisine.

To compete, FAO says, they will need access to small-scale processing and associated crop storage, handling and servicing technology, and to reliable, regularly available trading information. In addition, small-scale farmers/entrepreneurs must accept risk as part of the commercial system in which they work. For these relatively inexperienced newcomers to oil palm cultivation, commercial risks also represent a considerable danger, sometimes out of all proportion to the limited resources available.

FAO says profitable oil palm production in Western Kenya will have significant benefits for socio-economic development in rural communities and for food security in farm households. Whether the downstream effects also enhance the balance of trade in food oils will depend largely upon local production costs and the ability of Kenyan producers to meet the competitive pricing of foreign producers.

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