

Tall orders for trees

Prices rise as demand for wood products outstrips supply

By Joshua K. Cheboiwo

In western Kenya, farm forestry is an important land use activity with vast production and market opportunities in the whole country. However, information on long-term tree product price movements, especially for products from farms, has not been available to farm forestry stakeholders to forecast their potential income and investment opportunities in the sector.

To address the inadequate information on price movements for major tradable tree products in the country, KEFRI in 1999 initiated a long-term study with specific emphasis on western Kenya. The study involves conducting annual market surveys to collect information on commodity flows, changing market niches and product prices in major market outlets in western Kenya. The data collected was analysed using MS Excel 2003 and results presented by graphs.

The results of the study revealed that the major tradable tree products were charcoal, sawn wood, transmission poles, firewood and construction poles with an aggregated demand value of Ksh 1.6 billion. The data showed that between 1999 and 2008, tree product prices increased by a wide margin. Prices of charcoal, for instance, rose by 150 per cent, sawn wood by 260 per cent and sawlogs by 275 per cent, among others. This brought a financial windfall to farmers, transforming them from subsistence to key commercial producers of tree products in the region.

The unison price movements for various tree products in regional product marketing outlets was due to a high degree of price transmission within the market chains attributed to good communication and transport infrastructure. The findings of the study explain why farmers in western Kenya and other parts of the country have gone into tree growing in large numbers.

Charcoal

The reduction of available woodlots in the former East African Tannin Extract Company (EATEC) farms and dwindling sizes of farms under black wattle (*Acacia mearnsii*) woodlots in the North Rift translated into an increase of charcoal prices at the farmgate and regional retail outlets. In addition, the Kenya Government ban on harvesting of wood in public forests and restrictions on the movement of tree products increased market



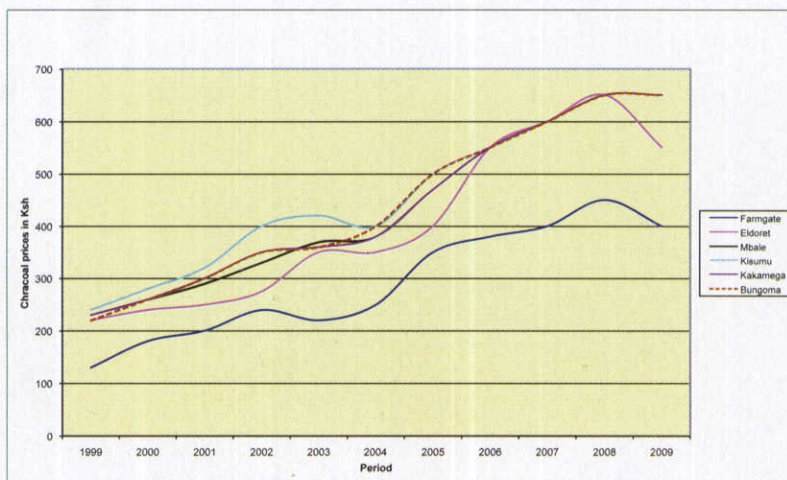
The writer (left) and Jean-Paul Deprins (MD of Better Globe Forestry) in front of sawlogs of cedar and cypress at Londiani Forest Research Centre

ing costs, mostly in the form of bribes, permit related payments, loss of time and other risks that translated into rapid price increases in regional markets despite modest increases in farmgate prices.

Increased charcoal prices ensured better returns to black wattle woodlot owners that realised a tripling in price from Ksh 50,000 to Ksh 150,000 per hectare of well-stocked woodlots. To improve their price bargaining position and reduce transaction costs, black wattle owners in Nandi North have formed charcoal producer groups.

Sawlogs and sawn wood

The freeze on harvesting of public forests in 1999 and the subsequent ban in 2002 had an immediate impact on aggregate output



Charcoal price trends 1999-2008

from sawmills as most of them closed. This translated into a rapid increase in sawn wood prices in most regional markets.

Strict policing and temporary suspension of movement permits cut off all the saw log and sawn wood supply routes. Sawn wood retail prices rose from Ksh 7,000 to over Ksh 25,000 per tonne by mid 2003. Similarly, cypress saw log prices at farm level rose from Ksh 800 to Ksh 3,000 per cubic metre for premium logs, mostly over 25 years.

The lucrative saw log and sawn wood markets brought a financial boon to farmers who planted trees in the 1960s and the 1970s. However, the rise in sawn wood prices in western Kenya was checked in 2003 when imports from Tanzania started to enter the Kenyan market. This had an immediate bearing for exporters of sawn wood from western Kenya for they lost their lucrative markets, mostly in Nairobi and Mombasa.

The sudden entry of Tanzanian softwood sawn wood into Kenya reduced retail prices from Ksh 25,000 to less than Ksh 20,000 per tonne in most outlets in western Kenya. Faced with competition from high quality Tanzanian sawn wood in key market outlets of Mombasa and Nairobi, timber merchants were forced to divert their merchandise to western Kenya markets, thus reversing the upward price trend and stabilising western Kenya prices. Consumers of course welcomed this. (Cheboiwo and Langat, 2004). The timber merchants and farmers were the losers as they were forced to reduce wholesale and retail prices in local markets.

Construction poles

Eucalyptus construction poles are some of the most traded tree products in western Kenya. Kisumu remains the dominant market for construction poles in the region with Kondele and Nyalenda markets dominating the stock volumes. Most of the construction poles stocked and sold in Kisumu are harvested and transported from Vihiga and Kakamega districts.

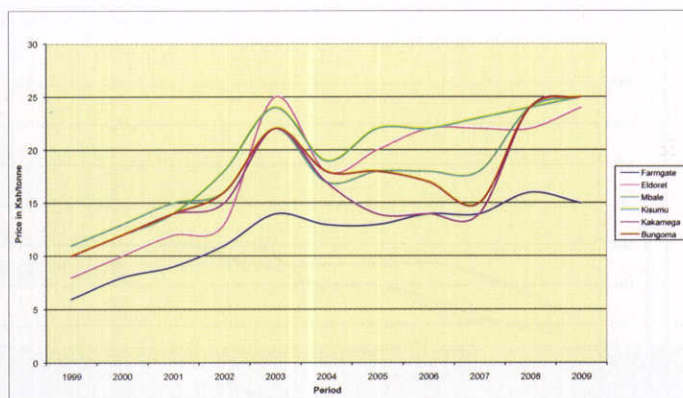
In Kisumu, construction poles recorded a steady price rise that was more pronounced at the retail outlets. King post farmgate prices doubled from Ksh 25 to Ksh 45 and retail prices rose from Ksh 40 to Ksh 80 during the period. The price increase was mostly caused by increasing demand in construction activities and an increase in the number of customers dependent on urban stockists.

Trade in construction poles has transformed *Eucalyptus grandis* woodlots into one of the most competitive commercial land-based enterprises in Vihiga District and are fast spreading into neighbouring districts.

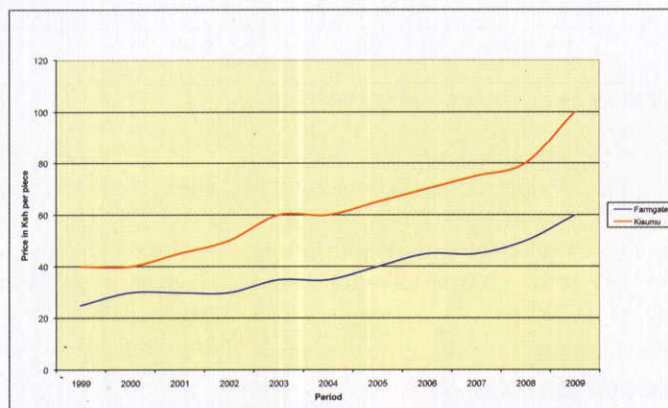
Industrial firewood

Firewood merchants that purchase trees from farmers and public forests for sale to firewood-dependent industries, mostly by order, control the trade in industrial firewood.

During the study period, industrial firewood prices experienced a steady rise due to increased demand for firewood by several industries in the region. The dramatic increase experienced from 2001 was a result of the entry by the Kenya Tea Development Authority (KTDA) affiliated factories and diversion of on-farm trees into high value products such as sawn wood



Cypress sawnwood price trends 1999-2009

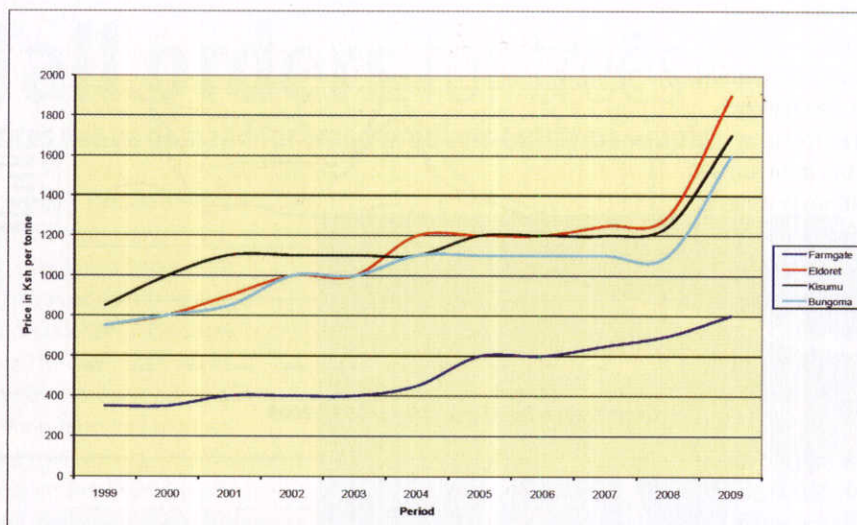


King post price trends 1999-2009 in Kisumu

and transmission poles. By 2005, firewood prices had risen from a farmgate price of Ksh 350 to Ksh 600 and at factory gate from Ksh 800 to Ksh 1,200 per tonne. Higher price offers of Ksh 1,300 per tonne were observed in areas of high competition for firewood, such as Eldoret town where several firewood-consuming industries



A trial by KEFRI, on the introduction of *Eucalyptus regnans* (five years old) for high altitudes (Kamara, 2300 metres above sea level)



Factory gate price for firewood 1999-2009

are located. However, the recent entry of Pan Paper Mills into the firewood market in western Kenya increased competition for industrial firewood in the region with factory gate offers of Ksh 1,600 per tonne (Cheboiwo and Langat, 2006).

Transmission poles

There are nine commercial treatment plants for transmission poles in the country, six of which are in western Kenya. Out of these, two are not operational with a combined capacity of over 250,000 treated poles per year (Cheboiwo and Langat, 2006). There is only one major consumer of treated transmission poles left in the country, which is the Kenya Power and Lighting Company (KPLC), after Telkom-Kenya ceased expansion of telegraphic wiring in favour of wireless technologies.

The study revealed that all the treatment plants operated below installed capacities due to shortage of semi-processed poles. The treatment plants were thus unable to

meet the increasing demand for treated poles for expanded power supply projects. As a result, in 2007, Kenya imported 150,000 treated transmission poles from various countries, mostly Tanzania, South Africa, Brazil and Finland. The shortage of semi-processed poles resulted in a farmgate price increase of 233 per cent, from Ksh 750 to Ksh 2,500 per piece.

Older and taller trees can produce up to three pieces of between 9 and 12m in length that attract different prices depending on total pole length and diameter sizes, earning producers a combined income of Ksh 3,500 per tree in some tea estates. The attractive offers have motivated hundreds of farmers to enter into commercial growing of *E. grandis* and *E. saligna* in Rift Valley and Western provinces for production of semi-processed polewood markets (Cheboiwo and Langat, 2005).

In 2006, KPLC's demand for transmission poles had a deficit of 200,000 poles, valued at Ksh 2 billion, leading to continued import

of treated poles from various countries (Cheboiwo, 2008). The competitive market prices for treated transmission poles have remained steady at between Ksh 10,000 and Ksh 13,000 for the last five years from both local processing plants and imports from outside the country (Cheboiwo and Langat, 2005).

Conclusions and recommendations

Trade in tree products has increasingly become an important economic activity in western Kenya. The trade involves thousands of players who share incomes generated in the market value chain from farmgate to consumption outlets. Price changes for various products within the last eight years indicate that trade in tree products from farms in terms of volume and value is on the increase.

The increase in the prices of tree products reflects the low supplies and high demand due to a number of reasons, ranging from government interventions to imports and declining forest resources in traditional production areas. The unison price trends observed in charcoal and sawn wood trade in production areas and regional markets indicate a high degree of price transmission within the tree product market chains in the region. This can be attributed to good road and telecommunication infrastructure and a high concentration of forestry production in the Rift Valley.

These factors ensure that competing suppliers transmit price information from the production areas to the regional outlets in the shortest time possible. Since the suppliers are from the same region, they can exchange market and price information on a routine basis.

Farm forestry in western Kenya has great potential to transform livelihoods of millions of smallholder tree growers through increased opportunities in the tree product market and diversification of on-farm incomes. However, a few bottlenecks have to be streamlined in order to tap the vast income opportunities such as improved production practices, harvesting and processing technologies, market infrastructure, organised producer associations and legal and policy constraints in the trade in tree products.

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Factory gate transmission pole price trends 1999-2009