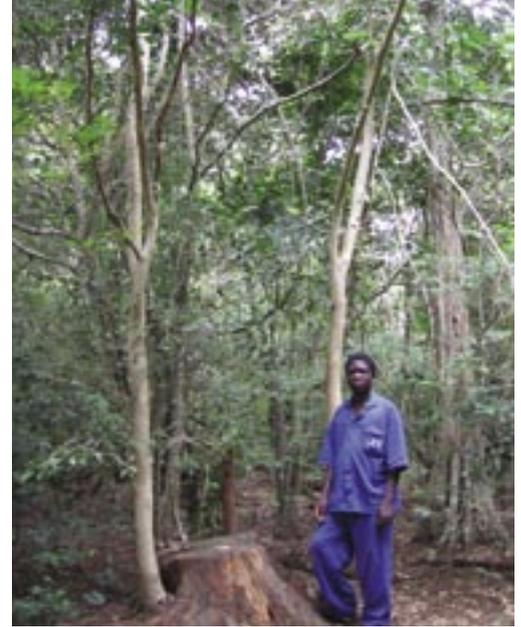


Forestry in Mozambique

Carrie Davies reports on challenges facing African forestry and certification



Part of the Dalmann nursery back in 2007. The company aims to be comprehensive, from the forest to furniture, producing high quality timber and products. It's early days for coppicing (top right), but the company thinks it might be able to fell new growth after only 30 years

Forestry in Africa often has negative connotations. The sector has been seen as destructive and as allowing the abuse of resources, the environment and local communities. In Mozambique these issues are magnified. High levels of poverty as a result of 20 years of conflict, lack of significant income in rural areas, and weak governance have left the country's forests vulnerable. To those looking to make a quick profit the country's rich hardwood forests have provided an attractive source of income, and little has been done to prevent widespread abuse and environmental damage. Until recently this has been exacerbated by high global prices, particularly in China. However, the global financial crisis has led to a collapse in prices for hardwood and has had a significant impact on the export of African timber.

Mozambique's forests are largely open miombo woodland, featuring a variety of hardwoods of different colours, densities and working quality.

Some species are unique to Mozambique (such as the dark brown, lively-grained panga panga), others are relatively well known (such as chanfuta and African blackwood) and there is a plethora of lesser known species, the commercial value of which remains unexplored and untapped.

In colonial times the better known, commercial species were harvested and shipped to Portugal and other markets. Generally offtake was low. During the civil war parts of the country were completely cleared, and since the end of the war poor forestry practice and lack of control have led to further damage.

However the future for Mozambique's forests is not entirely bleak. The government seems keen to reduce uncontrolled logging and to promote sustainable use, environmental sensitivity and the participation of communities in earning income from the forests in which they live. While much remains to be done on the enforcement side, a legal





framework designed to promote good management practice is in place.

One company which has been pioneering sustainable practice is TCT Dalmann. TCT operates along the full value chain, from managing a 25,000ha concession in a remote part of central Mozambique, to sawing and primary processing within the concession, through its furniture factory in the port city of Beira, to its two retail outlets. TCT's forest manager and his team live in the concession and have spent the past 10 years getting to know and understand the forest, and the communities around the concession. Based on their experience they have been able to feed in various ideas which are now becoming standard practice in concessions in Mozambique. There is little scientific knowledge about the forest in which they operate so they are working to combine research and local knowledge into workable solutions which respect the need for commercial use and at the same time protect the forest and its inhabitants.

Rotational cycles

Techniques include dividing the concession into blocks allowing for a 25-year rotational cycle with no block being harvested more than once in each 25 year period, and a pioneering series of low-cost reforestation and forest management techniques. TCT's concession produces 2400m³ round log per year of panga, chanfuta and mutondo. The company is currently experimenting with 10 lesser known species to determine sustainability of use, recovery rates and workability. Timber from the concession is used to make furniture for the local market, and a small amount of parquet blanks for export to Europe.

Employees in the concession work in teams dealing with forestry, sawmilling and processing, and reforestation. In the main they are drawn from the communities that surround the concession, providing vital income in a remote rural area. Ant White, TCT's forestry manager notes that this has another benefit: "When people get a decent income



from the forest they understand its value and begin to respect it as a resource" he says.

TCT started its reforestation programme as soon as the company moved into its concession (called Catapu) in 1996. Noticing the degradation which had been caused by previous felling and uncontrolled burning, White became determined to restore the damaged areas of the forest and not to cause any further damage.

Initial efforts at producing and planting seedlings were thwarted by lack of knowledge and by local wildlife. White and his employees gathered seeds, but these proved difficult to germinate. After experimentation they discovered that some need to be burnt, others excoriated, and some merely planted. The first saplings produced provided

TCT Dalmann sells its furniture to embassies, donors and companies, plus government and private sales as disposable income increases. But some 85% of furniture sold in Mozambique is thought to be imported. Boards are sent from the mill (top) to Beira to be made into furniture

Certification



TCT Dalmann have recently installed new kilns inside their Mozambique concession (top). Many schools are held under trees, but Dalmann are helping to build basic classrooms and has initiatives (like bee keeping, above) to generate income for communities. The sawmill (top right) is also located with the concession

welcome dietary variation for local porcupine, warthog, monkeys and buck.

Since the early days the Catapu reforestation team have become wiser. Nowadays women and children from surrounding communities collect seeds and deliver them by the sackload, and are paid for their efforts. Some seeds are germinated and planted in special seedbags in the nursery where they are watered and cared for until the rains begin. Saplings are planted out in the first rains of

“A breakthrough came when the team noticed stumps had coppiced. This may grow four times faster than seedlings”

the year and are protected by timber guards made from sawmill offcuts. This prevents animal damage, and makes the tiny saplings easier to find as the undergrowth flourishes in the rainy season. TCT plants 10,000 saplings per year, of which around 4,000 survive.

However White points out: “Seedbags have to be imported, and are expensive, and so is maintaining a healthy, disease-free and well-watered nursery, so



while this method of enrichment is great, it's not going to be viable for everyone. We're always looking for alternatives.”

One option the company has come up with, which seems particularly successful, is scattering mixed seeds in the draglines left in the forest when trees are felled and removed. The draglines make a perfect series of shallow ‘furrows’ of turned soil for the seeds to germinate in.

A breakthrough in TCT's forest management programme came in 1997 when White and his team were looking at stumps of trees felled during the colonial period. They noticed that the stumps of several of the commercial species, principally panga panga and to a lesser extent chanfuta and mutondo, had coppiced. Since then coppice management of trees felled by TCT makes up a major part of the forest management programme. White estimates that a new tree growing from a coppice grows four times faster than a planted seedling, and data-gathering is in process at Catapu to demonstrate the value of this method of regeneration. Data collection is only 10 years old so exact growth rates to maturity are still unknown.

Coppice management is also a cheaper option, making it more viable for use in some types of forest in Mozambique. “Overall,” White says, “I would advocate a mixture of methods. Some things work better for some species and some for others, and there is great variation in forest type over relatively small areas. Even so a mixture of coppice management, seeding and use of a nursery provides a really good basis for regeneration and enrichment in general, and for reforestation of fire-damaged areas”.

As part of their commitment to sustainable forestry in March, 2006 TCT opted to become FSC



The company pays communities four times, for germinating seeds and then annually if those trees survive for the first three years. This motivates care

had planned to launch its furniture outside Mozambique in 2010, but the current unfavourable economic environment has put plans on hold.

Consumer demand

White recognises that FSC has not always had good press in Europe, but says that TCT found its criteria for certification the most comprehensive and well-known. He believes that consumer demand for certified products will drive improvements in the forestry sector in Africa. "When companies realise they can get significantly better prices for the timber they produce, by being certified, and when they see that certification is not some far-off dream but is actually within reach of even relatively small investments, then things will change."

He says that Mozambique is a good example of this. At the moment, even with a reasonable legal framework to guide the sector, timber operators are able to be unscrupulous because there is a financial incentive to produce large volumes of cheap timber and put nothing back. However, he argues, even without the framework, if the market dictated that certified products were more desirable, and better priced, then the sector would self-regulate. White's aim, and that of TCT, is to work with the FSC, with certifiers, and the Mozambican government, to develop a stepwise approach to certification which, over a period of five years, could lead a small company from destructive practice to sustainable management, without costing them significantly more, and with the incentive that in the end the timber they produce will be worth more.

"We cannot expect to completely protect Mozambique's forests," White points out. "That's a pipe dream. But what we can aim to do is to have them given their true value, and be managed as the great resource they are, reaping benefits now and for future generations." He believes that FSC certification provides a viable route to achieve this. "With FSC educating consumers, and certified companies educating producers and governments of the benefits, we really could achieve something."

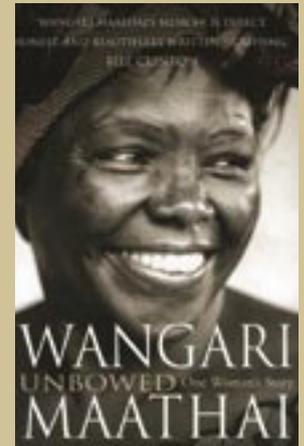
certified. The company is 100% pure, meaning that it is certified throughout its entire chain of custody, from the forest to its retail outlets. It was the first company to be certified in Mozambique, and is one of only two with certificates in the country today. The decision to become certified was a risky one. There was no evidence that the company would benefit financially from certification since most of its products are sold on a local market which is completely unaware of FSC. Indeed preparation for certification, and then regular audits of the company to maintain the certificate are a significant cost.

The future is certification

However White defends the decision. "If we were to truly demonstrate that what we are doing is one way to protect Mozambique's forests, then certification was the only choice." However, three years down the line, has FSC certification led to the changes in national policy the company had hoped to motivate? White agrees that it has not but he believes that it has put these issues on the agenda at national level. He also thinks, and TCT continues to show, that international certification can be achieved without huge investment and complex technology, in a rural setting, in one of the more difficult business environments in Africa. "At some point," he says, "we all have to realise that destruction of forests has to stop. One of the things we've tried to show here is that with low technology, and relatively small investment, which would be affordable to a small investor, it is possible to run a well-managed, sustainable forest and make money."

TCT has yet to test the value of its certificate on the international market. With recent investment backing from the International Finance Corporation, the financing arm of the World Bank, the company

Book Review



The story of Wangari Maathai is one of the most remarkable you're ever likely to read. The roots of her childhood in rural Kenya during the 1940s and '50s underpin everything this Nobel Peace Prize winner has gone on to achieve, and the memoir *Unbowed* is as much a personal journey as the telling of a unique tale.

More than anything, though, Maathai reveals the growing pains of an emerging nation, notably through the repressive years when Daniel Arap Moi took control of Kenya, and allowed its resources to be plundered. Tribal and gender discrimination were commonplace, and the environment suffered with farmers encouraged to grow increasing quantities of cash crops like coffee and tea. The health of the land and of rural people suffered, and vast areas of forest were cleared for agriculture.

Maathai was disturbed by the stories she heard from rural women, and decided that they needed to plant trees. So began the Green Belt Movement, the organisation she formed, which encouraged women, particularly, to collect seeds and plant seedlings. It had been assumed you had to be an 'expert' to do so, but the Green Belt Movement has now planted some 35m trees, and its campaigning has helped to force political change in Kenya. This is a gripping tale of a remarkable woman, whose work is well worth supporting.

Unbowed, by Wangari Maathai, £8.99, Arrow Books