

# Growing bamboo market in Africa

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As the world bamboo market - led by China and an increasing demand for sustainable products in Europe and the United States - shows growth, African countries hope to generate income and create jobs for the rural poor. It wasn't until recently that widespread commercialisation of bamboo began on the continent. Agronomists believe it can restore degraded landscapes while economists think it is a potential "green gold".



Image by 123RF

## Kenya: green opportunity

Bamboo, nicknamed the wonder plant, is the strongest and fastest-growing woody plant on earth, and supplies a global trade worth an estimated US\$2 billion per year. The lion's share is earned by Asian countries, whose bamboo-based industries span a vast range from paper making and scaffolding to luxury flooring and foods. But Africa is also witnessing a boom in bamboo.

In African countries that produce bamboo, research and development is usually the work of the forestry or agricultural sectors. However, scaling up requires expertise in specialised areas — such as micro-enterprise development, small-scale or industrial bamboo growing, and production of bamboo products — that might be better found in the private sector.

In Kenya, the bamboo industry involves a multi-stakeholder approach, with consultations among relevant government

ministries, NGOs, research institutes and universities and others, facilitated by the Kenya Forestry Research Institute (KEFRI).

One of the largest stakeholders to take up bamboo development so far is Green Pot Enterprises, launched in 2014 to promote bamboo farming in Kenya and to help the country maximise the commercialization of bamboo.

So far the organisation has farmers covering over 1,000 acres of land in Narok County, with another 2,000 acres to be planted this year. It is targeting 4,000 acres by the end of 2016.

Green Pot has two principal development plans. With a “gated community of forests”, the organisation buys a large parcel of land then subdivides it into 10-acre and 2-acre plots for lease by Kenyans at “affordable rates”, according to its website.

Each buyer gets a title deed (the bamboo farm is managed as one whole unit despite the multiple owners) and a 30-year sublease. The company plants and fully maintains the forests and markets the produce once it is ready.

A parallel community outreach programme ensures that for every acre of bamboo planted in the gated communities programme, a corresponding acre is planted by members of the local community. This programme finances the supply of seedlings, Green Pot explains.

“Globally, there is a big push for bamboo because of its immense financial and environmental benefits. It brings wealth to the people, cleans rivers, stops soil erosion, and so on,” Green Pot’s chief executive officer, Caroline Kariuki, told *Africa Renewal*. She says the gated communities programme is mainly in Narok County, but the outreach campaign is active in more than 10 counties across the country.

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For Kenya, Green Pot selected three main varieties of bamboo—moso, giant bamboo and *Dendrocalamus membranaceus*—because they are highly suitable for the chosen areas and have more economic viability than other varieties.

“When we began the project, we did a strategic plan to ensure we have a ready market for our growers. We are building factories with three main areas of focus: construction materials such as flooring, block boards and veneer; bamboo textile products; and bamboo energy products ranging from generation of electricity to briquettes for mass domestic use,” said Kariuki. “Considering that more than 70% of Kenyans use wood and wood-based products as their main source of fuel, this is a massive market.”

The group has partnerships with county governments, NGOs, government agencies and even local universities and is now seeking partnerships with climate change-focused funds for the rehabilitation of the Mara River and Njoro River.

“We are keen to establish partnerships with strong technology expertise and key buyers of our products to ensure that we are on track to deliver the promise to our customers upon maturity of our bamboo in four years’ time,” said Ms. Kariuki, who is also the finance/administrative director of the Open Society Initiative for East Africa.

## **Tanzania: income for rural women**

Bamboo has been increasing in importance as a non-timber forest product in Tanzania over the last two decades, according to INBAR (International Network for Bamboo and Rattan). Locally bamboo is sought for handicrafts, residential fencing, flower farming, farm props for banana plantations, furniture and other minor cottage industry products like basketry and toothpicks.

Almost all the bamboo products made in the country are used domestically. Bamboo farms should be established to ensure a sustainable supply for the handicraft, construction and horticultural industries, among others.

INBAR, in partnership with the International Fund for Agricultural Development, helped establish 100 bamboo nurseries and set up micro-enterprises, and trained 1,000 locals in a specially created Bamboo Training Center.

Today some 5,000 women in these rural communities produce crafts and desks for local schools and sell charcoal briquettes.

## Ethiopia: strategic crop

With about 1 million hectares of indigenous bamboo, Ethiopia is the biggest bamboo grower in Africa. It is home to 67% of all African bamboo.

The country has two species—*Yushania alpina*, planted and managed by farmers in the highlands, and *Oxytenanthera abyssinica*, which grows naturally in the lowlands.

Despite the size of its natural bamboo forest, Ethiopia has only recently started to tap its potential and is now eager to embrace bamboo technologies and knowledge transfer, mostly from INBAR and a range of Chinese experts.

“Bamboo should be considered the most important, fast-growing, strategic intervention for afforestation and deforestation in the mountainous and degraded areas of the country,” said Ethiopia’s state minister for agriculture, Ato Sileshi Getahun, at a recent event.

In Ethiopia bamboo is being used for protecting watersheds, for intercropping, to create shade for other crops, as a windbreak and as a natural mulch to provide drought protection. People also use it for fuel, fencing and furniture, and sometimes bamboo shoots are used for food and animal fodder.

However, bamboo value-addition in the country is still relatively small, hence limited export earnings.

The country has three factories and the sector employs more than 1,000 people.

## Ghana: big business

Ghana currently has about 400,000 hectares of bamboo, a mostly natural stand in the western region. Some exotic species have been introduced into Ghana, including the thick-walled Beema bamboo from India, and the near-solid *Oxytenanthera abyssinica* from Ethiopia. These two are particularly useful for biomass energy and are well adapted to drier areas.

According to Michael Kwaku, director of INBAR Ghana, 18 species of exotic bamboo were first introduced into the country from Hawaii in 2004 by the Ghanaian branch of the Bamboo and Rattan Development Programme (BARADEP), as part of a project with the Opportunities Industrialization Centre. The project was also extended to neighbouring Togo.

BARADEP-Ghana distributed the species to some institutions and nongovernmental organisations, which propagated them and monitored their growth conditions and adaptability in Ghana. It aims to provide adequate planting materials for private and commercial bamboo plantation developers in Ghana.

“Until recently, bamboo was a non-commercial open-access resource in Ghana. Over the past few years, the usefulness of bamboo and its commercial value is being appreciated. Commercial exploitation has begun for such products like bamboo bicycles, bamboo charcoal, furniture, bamboo boards and building support poles,” Kwaku

told *Africa Renewal*. Bamboo is also being used to restore degraded mining areas.

## **Zambia: innovation at its best**

In Zambia, a local company, Zambikes, is producing bamboo bikes, bike trailers for transporting agricultural goods, and innovative bike-drawn “Zambulances” to be used at clinics around the capital, Lusaka.

## **Challenges to commercialisation**

Challenges to the development of commercial bamboo planting include the slow pace of state uptake and support as the sector is still young and financial institutions are reluctant to grant credit facilities, including loans. The micro-enterprises are still considered poorly organized, according to Kwaku, which makes receiving support from stakeholders difficult. The skills and technology gap is a challenge.

INBAR is helping in western Africa with an awareness campaign about the economic potential of bamboo and about forming partnerships with governments. Currently eight member countries in West and Central Africa have conducted training workshops and educational tours to China to acquire first-hand experience of the bamboo economy.

“Bamboo is a big plus for building green economies. It is the promise of earnings at the household level that will attract the most interest across the population,” said Nii Osha Mills, Ghana’s minister for lands and natural resources, at a recent INBAR event.

Bamboo’s untapped potential to restore degraded lands and forests, store carbon and supply energy to millions of rural communities is immense.

In addition to its prospects for manufacture, bamboo can make a major contribution to reducing carbon emissions, the article said. In China alone, the plant is projected to store more than one million tons of carbon by 2050.

Despite bamboo’s potential, Dr Hans Friederich, INBAR director general, says many decision makers, planners and national sustainable development action plans have not yet taken into account this resource and the benefits it can bring to society.

“Properly applied, bamboo will help many low- and middle-income countries achieve their sustainable development goals,” says Friederich.

**Source:** [\*Africa Renewal\*](#).