

Bamboo and rattan: a world of innovative uses for green economies

The value chain for bamboo and rattan commodities and products starts in rural areas of the world's bamboo-indigenous countries. The economics of bamboo production mean that most goods made for the world market will be produced locally, creating increased income and jobs for these populations.

As a result, these strategic development resources offer a pathway out of poverty, and where relevant, should be an input to the UN's Sustainable Development Goals (SDGs), specifically SDG 1 which aims to end poverty in all its forms. INBAR is working with its member countries to develop bamboo and rattan sectors worldwide, ensuring these plants drive green economy plans and contribute to the global sustainable development agenda.

Examples of innovative economic activities using bamboo and rattan:

Community enterprise and small business. There is a growing body of evidence and examples of bamboo use for new income-generating activities, bringing cash to poor rural and peri-urban communities. INBAR has facilitated the creation of a number of women-led enterprises in India that use bamboo to produce low cost products that are bought by a year-round market demand – including matches, chopsticks, incense sticks, small household items, etc.

Value Chain: locally-created social enterprises use locally-sourced or planted bamboo to bring income to unemployed/underemployed and marginal populations, generating cash with low entry cost.

Rapid landscape restoration. Since bamboo grows to maturity in just 3-7 years, it can be used to rapidly restore severely degraded landscapes in poor rural areas, returning life and productivity to the soil, and income to local communities. A recently-documented case in Allahabad India, tells of the rebuilding of rural livelihoods where



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80,000 hectares of degraded land were brought back into productivity using bamboo as a pioneer species.

Value Chain: Communities plant bamboo that rejuvenates land over five years, opening a range of new village-level economic activities – from farming of new crops, to fisheries and timber production.

Sustainable animal fodder. Agricultural research is developing new varieties of forage and crops, or commodities such as barley for animal feed. Bamboo serves these same markets in areas where it grows or can be cultivated. Unlike food crops that have a seasonal growing cycle, bamboo is a perennial plant that requires less maintenance very low inputs and provides a constant source of food for livestock.

Value Chain: communities harvest from managed forests, or local farmers plant bamboo for year round harvesting for livestock or selling a feed.

Low-cost, climate-smart housing. In Latin America, low-cost, earthquake-resilient bamboo housing has wide applications for improving livelihoods in natural disasters or refugee situations, where rapid building with affordable materials is needed.

Value chain: Locally sourced bamboo poles are transformed into housing kits for use by community organizations, disaster relief or government agencies.



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Energy and biogas. Bamboo holds huge promise for reducing deforestation for firewood production. Much of Africa's deforestation is due to harvesting of wood for daily cooking. Bamboo plantations can be harvested instead and converted to charcoal for home use. A growing research area is the use of bamboo charcoal and chips to power small-scale electricity generators that can produce biogas for

local electricity, powering villages and communities that receive poor services or are off the grid.

Value Chain: Local forests are harvested to provide bamboo for charcoal production; bamboo plantations are created to provide a local source of 'perennial' firewood; waste from bamboo factories is made into charcoal, creating profits from production waste.

Local industry. In Ethiopia, a growing number of local entrepreneurs are creating businesses to tap and expand the country's one million hectares of lowland and highland bamboo – creating jobs and generating income among rural communities and marginal economies. They produce products such as cellulose, charcoal, flooring and furniture. An entrepreneur in the Western Province has harnessed bamboo to create 1000 jobs in a remote rural area with no previous large-scale economic activity.

Value Chain: local communities maintain forests in partnership with local industry, for products transformed locally and sold on the national market.

Industrial and engineered products. Entrepreneurs in many locations, particularly East and South Asia, are creating new products for industrial use, such as pipes and conduits, filters and special engineered pieces used in heavy industrial processes. Several companies in China have perfected a bamboo screen for cooling high temperature steam in power plants and heavy industry cooling towers. It replaces PVC screens, lasts three times longer (15 years) and is fully recyclable at the end of its lifetime.