



# Bamboo and land restoration

*With 40% of global land degraded and 3 billion people affected, the world urgently needs scalable restoration solutions. Bamboo delivers them.*

## Taking the World Stage

Bamboo is the world's tallest grass and one of its most powerful tools for healing degraded lands. Some species can grow up to a meter a day, with rhizomes and roots measuring up to 100 kilometers. These systems bind soils, reduce erosion, regulate streamflow and aid soil health. The plant can survive for over a century, regenerate after fire, flooding or drought, and add organic matter and nutrients to soil through its leaf litter.



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In October 2025, the United Nations (UN) named the International Bamboo and Rattan Organization's (INBAR) Bamboo-Based Restoration Initiative an official World Restoration Flagship, recognizing bamboo's restoration credentials. The initiative operates across nine countries (Cameroon, Ecuador, Ethiopia, Ghana, Kenya, Peru, Sri Lanka, Uganda and Viet Nam), with 200,000 hectares already restored and an additional 300,000 targeted by 2030.

## Restoration, Livelihoods and Climate Resilience: Lessons from East Africa

From 2020 to 2024, the Dutch-Sino-East Africa Bamboo Development Programme ran in Ethiopia, Kenya and Uganda, driven by a unique partnership between INBAR, China, the Netherlands and local stakeholders. The project showcased how to leverage inclusive value chain development to create lasting results through land restoration, economic development and climate adaptation.

In total, 9.8 million bamboo plants were produced by 36 large-scale and 100 micro-nurseries, over 5000 hectares of new plantations established on degraded lands, lake shores and river banks, and another 5000 hectares of bamboo forests and farms brought under sustainable harvesting and management. Approximately 15,000 people now benefit from improved climate resilience.

The project also addressed root drivers of land degradation, training more than 5100 women in bamboo charcoal production and improved cooking stove use. Harnessing energy from bamboo reduces the need for unsustainable fuelwood harvesting and helps avoid deforestation. Rural producers also received training in generating sustainable income from bamboo, showing that land restoration and rural economic development often go hand in hand.

## Bank in the Backyard: The Case of Viet Nam

For generations, people in Viet Nam's Nghe An Province have relied on *lung* bamboo (*Bambusa longissima* sp. nov.) to make everyday items like toothpicks, fences, baskets and lanterns. Yet by the mid-2010s, overharvesting had severely depleted local bamboo forests.

In 2019, INBAR partnered with the International Climate Initiative (IKI), the Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC) and the Nghe An Forest Protection and Development Fund to implement FLOURISH, a forest landscape restoration initiative that combines market forces with community forestry. The goal was to help locals restore their bamboo forests and secure sustainable livelihoods.

The initiative trained hundreds of villagers in bamboo management, harvesting and processing, while helping 120 smallholders sign partnership agreements with a local handicraft company, connecting them to a growing international market for bamboo products. By end of 2020, 240 households had applied for land titles covering 1500 hectares, awarding the legal right to plant and harvest bamboo. By 2021, average annual incomes from selling *lung* bamboo had doubled.

## Redefining Restoration: Schools of Life in the Amazon

In the Ecuadorian Amazon, Indigenous communities are leading a biocentric approach to ecosystem restoration, integrating ancestral knowledge with sustainable land management. Through an alliance between the Food and Agriculture Organization (FAO) of the UN,

INBAR and local partners, the initiative has been restoring degraded landscapes across four Napo Kichwa communities since 2022, combating deforestation, biodiversity loss and unsustainable agricultural practices. It now stands as a successful case study with clear potential for replication.

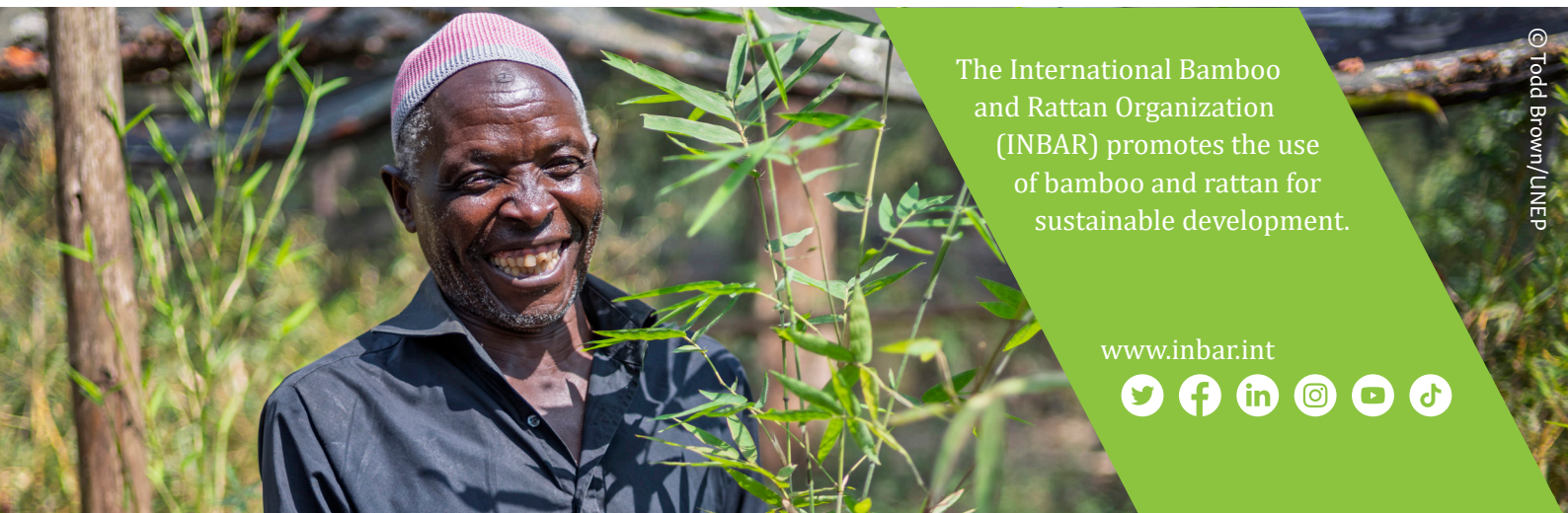
At the heart of the project are its "Schools of Life," intergenerational spaces where elders, women and young people exchange knowledge and plan sustainable land use, ensuring Indigenous wisdom drives restoration decisions. Native bamboo, known locally as *wamag*, is central to this model. Its root systems stabilize soil, its dense growth builds habitat corridors for returning wildlife and its rapid regeneration makes it a practical climate resilience tool, while its shoots are used in traditional dishes like *wamag yuyo*.

The results are concrete: over 55 hectares under restoration, more than 150 native species reintroduced, four community nurseries established and over 20,000 plants produced. This Indigenous-led, bamboo-based restoration model offers a scalable template for neighboring communities and regional governments working toward biodiversity conservation, climate resilience and sustainable development in similar contexts.

### DID YOU KNOW?

INBAR Member States have pledged to restore 5.7 million hectares using bamboo.

April 2026



The International Bamboo and Rattan Organization (INBAR) promotes the use of bamboo and rattan for sustainable development.

[www.inbar.int](http://www.inbar.int)

