

Sharing the latest news and activities from the bamboo and rattan sectors



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Bamboo and Rattan Update

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Cover Image

Climbing, munching, hiding, red pandas show us why bamboo forests are essential for life on land. Credit: Flickr.

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About INBAR

INBAR is an intergovernmental organization which promotes the use of bamboo and rattan for sustainable development. www.inbar.int

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EDITORIAL

Welcome to the third issue of the Bamboo and Rattan Update for 2025, which details bamboo and rattan's capacity to protect, restore and promote sustainable use of terrestrial ecosystems, combat desertification, sustainably manage forests, and halt and reverse land degradation and halt biodiversity loss.

The wonders of Earth have built the crown jewel of the solar system. Our natural systems make the planet livable for us and a wide array of other life forms. The United Nations' Sustainable Development Goal (SDG) 15: "Life on land" puts this message at the heart of its mission, seeking to protect, restore and promote the sustainable use of terrestrial ecosystems.

Forests, grasslands, wetlands and drylands provide food, clean water, medicine and more, while also critically regulating the climate. Despite these countless benefits, anthropogenic activities are putting these ecosystems under immense strain through deforestation, land degradation and biodiversity loss. SDG 15 calls for urgent action to restore degraded land, halt biodiversity decline and promote the sustainable use of terrestrial ecosystems, so that future generations inherit a planet capable of sustaining life, in all its forms.

In the execution of such a mission, bamboo has an indispensable role to play. Bamboo grows rapidly, even on degraded soils, which makes it useful for restoring land and combating desertification. Its strong root systems, called rhizomes, can help hold soils in place, preventing erosion and protecting rivers and watersheds. It also provides a sustainable alternative to wood, minimizing the need for logging operations and thereby lowering pressures on forests and wildlife habitats. Bamboo landscapes can also be their own habitats for a wide range of species. Best of all, delivering all of these positive impacts to natural systems does not have to impede economic growth; in fact, well-managed bamboo cultivation can support resilient livelihoods, providing income and jobs for communities.

In the first article, which is an interview with INBAR conducted by the Food and Agriculture Organization's Mountain Partnerships, we learn more about the specific contributions of bamboo to SDG 15. The interview highlights bamboo and rattan as sustainable solutions for environmental protection, climate resilience and rural development, especially in mountain regions. These mountainous zones are home to fragile ecosystems that are uniquely threatened by the effects of climate change. Bamboo can help here through land restoration, biodiversity conservation,

erosion prevention and locking in carbon. High-value products can also strengthen the climate resilience of mountain communities. Case studies from Latin America, East Africa and Asia show how bamboo initiatives have improved incomes, empowered women and created jobs, all while safeguarding ecosystems.

The second article focuses on East Africa, where INBAR recently implemented the Dutch-Sino-East Africa Bamboo Development Programme. The project operated in Ethiopia, Kenya and Uganda, seeking to tap into the economic and environmental potential of bamboo through South-South and triangular cooperation. Bamboo value chains were holistically strengthened through supporting plantations and nurseries, teaching sustainable management practices and organizing trainings that impacted thousands of stakeholders, including over 5000 women. Jobs were created, particularly in areas of bamboo charcoal, furniture and construction materials. Aside from these noteworthy results, the project restored over 10,000 hectares of degraded land while integrating bamboo into national policies. This shows the real potential for generating people-oriented benefits contributing to targets of SDG 15.

And if you want an up-close look at the organisms who dwell among bamboo and rattan habitats, look no further. The last article showcases some of the remarkable organisms who rely on them for food and shelter, from giant pandas and elephants to frogs, tarantulas and even glow-in-the-dark fungi. As versatile non-timber forest products, these plant resources deliver a suite of ecological and economic benefits; however, unsustainable harvesting and deforestation threaten their supply, underscoring the need for sustainable management. Through global commitments like the Kunming-Montreal Global Biodiversity Framework, INBAR and its Member States are working to heal degraded lands, with pledges to use bamboo to restore 5.7 million hectares by 2030, ensuring these plants continue to contribute to the twin goals of biodiversity conservation and poverty alleviation.

This issue represents a clarion call for the world's policymakers and stakeholders to recognize the value of bamboo and rattan in sustainable development strategies, particularly through policy frameworks, resource mobilization and coordinated action plans. When these green plants are at the heart of SDG 15, we can take a practical step toward realizing what "Life on land" truly means.

THE EDITORS



BAMBOO AND RATTAN: DRIVING MOUNTAIN PARTNERSHIPS



Smoke drifting through the bamboo forest. Credit: Kyaw Kyaw Winn.

INBAR is an official partner of Mountain Partnerships, an alliance seeking to improve the lives of mountain peoples and protect mountain environments. This article features an interview conducted when INBAR first joined the coalition.

What is the driving mission behind the International Network for Bamboo and Rattan, and how does it relate to mountains?

The International Network for Bamboo and Rattan, or “INBAR,” is an intergovernmental organization

with 52 Member States across Africa, the Americas and Asia that promotes environmentally sustainable development using bamboo and rattan. INBAR’s headquarters are located in China, with five regional offices in Cameroon, Ecuador, Ethiopia, Ghana and India.

Bamboo grows across over 50 million hectares, primarily in the Global South where most of INBAR’s Member States are located. INBAR helps deliver skills, knowledge and technology to vulnerable mountain communities around the world. Projects have spanned from promoting the sustainable use of bamboo ecosystems in East Africa’s highlands and Asia’s mountain regions to

facilitating safe, low-carbon bamboo construction in the Amazon. Rattan is also critical to INBAR's sustainable mandate, with many species growing in biodiverse montane rainforests up to 1500 meters. Rattan can help improve rural livelihoods through its agroecological and economic potential, as it can grow in degraded soils and can be made into a plethora of high-quality and durable products.

What should Mountain Partnership members know about bamboo and rattan?

Bamboo, a fast-growing grass, and rattan, a spiky climbing palm, can offer versatile nature-based solutions to many pressing global challenges, such as climate change mitigation and adaptation, poverty alleviation, job creation, environmental conservation, green trade and resilient construction. With this regard, they can play a key role in accelerating Sustainable Development Goal (SDG) 15: Life on land.

In the global highlands, these plants hold special cultural, economic and ecological value. Since bamboo and rattan can be harvested annually without re-planting, they sustain livelihoods, provide income for many mountain communities and drive economic growth. Bamboo can capture more carbon than some tree species and stores it throughout its lifespan, while supporting a range of endangered species and habitats. Both plants are ideal for agroforestry, as they do not compete with other crops, deliver a range of sustainable benefits and diversify household income streams through value-added activities.

Both plants can be used to make baskets, building materials, fabrics and furniture. Bamboo can be made into over 10,000 products such as cutlery, chopsticks, bowls, packaging and other durable products like flooring, furniture, construction materials and more. Since it provides a continuous supply of material, bamboo can also be a renewable source of energy, mitigating deforestation. Rattan is even being explored for innovative uses in the medical sector to help bone repair. These diverse applications have resulted in a booming global bamboo and trade sector worth approximately USD 70 billion. There

is enormous potential for mountain communities to harness their traditional skills and knowledge to generate new products and services while sustainably managing their forestlands.

What is the role of bamboo and rattan in conserving biodiversity in mountains, and how does it benefit these ecosystems?

Bamboo and rattan play a vital role in conserving and restoring mountain ecosystems. Mountains are particularly vulnerable to climate-induced floods, landslides and droughts, disproportionately affecting mountain communities. Bamboo can grow across sloping and degraded lands, making it ideal for halting and reversing land degradation. Its extensive root and rhizome systems tightly bind soils and regulate streamflow, helping to safeguard watersheds from natural disasters. For example, in India, a bamboo-based landscape project successfully increased the groundwater table by 10 meters in 20 years. Additionally, bamboo's leaf litter enriches soil organic matter, particularly in harsh mountain environments.

Bamboo and rattan are also essential food sources for many endangered wildlife in mountains, including giant and red pandas, mountain gorillas, apes, Indian elephants, South American spectacled bears and bamboo lemurs. Additionally, bamboo provides shelter for various flora and fauna, including bioluminescent fungi, and offers a unique habitat for insects that have adapted to live inside its inner walls.

What tangible impact has INBAR had on mountain communities?

Since its founding, INBAR has been making a real difference in the lives of millions of people and environments around the world. Many of these actions have been launched in mountain areas. Two of our recent mountain projects, the Bambuzonía project and the Dutch-Sino East Africa Development project, operated in the Amazon and East Africa.

Undertaken across Colombia, Ecuador and Peru, the Bambuzonía project harnessed the potential of bamboo to address land

degradation, deforestation and climate change while bolstering livelihoods in rural mountain communities. The Bambuzonía project yielded many positive outcomes across the Latin America and the Caribbean region, with over 3000 smallholders now implementing bamboo-farming systems and sustainable management practices. Specifically, in the Peruvian Amazon, women of the rural Awajún ethnic group formed their own association – the Tajimat Women’s Association – and are now using bamboo to make jewelry. The Economic Development Sub-Administration of the Municipality of Awajún connected the women of the association with INBAR’s Bambuzonía project. Project staff were then able to help the community learn more about bamboo and its historical uses in the area. Members of the association now champion this model of ecological stewardship coupled with artistic innovation. Bamboo jewelry has created additional economic opportunities for the mountain community through the manufacture and sale of their high-quality jewelry, putting cash

into the pockets of Amazonian women.

In East Africa, the Dutch-Sino East Africa Development project uses an innovative Triangular Cooperation model to improve the bamboo supply chains in Ethiopia, Kenya and Uganda to end poverty, create jobs and safeguard nature. The project facilitates the transfer of knowledge, technologies, experiences and vital resources to stakeholders. Work included significant progress for holistically upgrading the bamboo sector by conducting technical and entrepreneurship trainings, providing skills for thousands of beneficiaries. In addition, nearly 5000 rural women were provided access to bamboo charcoal briquette-making units, boosting household income and lowering pressure on forest ecosystems. The project also supported large-scale and small-scale nurseries, leading to the production of millions of new seedlings that have supported hundreds of hectares of new bamboo plantations, forests and farmlands.



Sustainable bamboo and rattan production supports livelihoods in Asian communities. Credit: WWF/Eng Mengey.



Making bamboo baskets. Credit: Koeh Bhahari.

How does INBAR address climate change challenges in mountains?

INBAR comprehensively promotes bamboo as an effective tool to fight climate change in mountain regions, contributing to mitigation and adaptation. INBAR's interventions, from landscape restoration, agroforestry development and renewable energy production, all contribute to climate change mitigation, land restoration and resilience in mountain communities. INBAR has also developed over 20 national policies and strategies incorporating measures to mitigate and adapt to climate change impacts.

In Southeast Asia, INBAR has worked to refine landscape policy in mountain areas. With donor support from the Government of Germany, the FLOURISH programme aimed at enhancing the potential of forests for climate change mitigation and adaptation as well as livelihood development. The project championed production-driven landscape restoration and community-private sector partnerships in Lao People's Democratic Republic, Thailand and Viet Nam. These efforts culminated with a national policy brief in 2022 and visual media showcasing

how lung bamboo (*Bambusa longissima* sp. nov.) can bolster resilience for Indigenous Peoples and other forest communities.

What does INBAR hope to gain by being a member of the Mountain Partnership?

INBAR is thrilled to be a part of the Mountain Partnership. As a longstanding ally of mountain peoples and communities, we are excited to have the opportunity to work alongside other great organizations involved in sustainable mountain development. INBAR will benefit by deepened cooperation with organizations through sharing knowledge, identifying new synergies, mobilizing resources and developing and implementing joint projects. Ultimately, these new synergies will also play a meaningful role in effecting positive change toward SDG 15: Life on land.

This is a re-publication of an interview held between FAO's Mountain Partnerships and INBAR as part of the Mountain Voices series. It has been lightly edited for brevity.

BAMBOO FOR JOBS AND ENVIRONMENT IN EAST AFRICA



Capacity building workshops held across the region delivered skills to local stakeholders.

The Dutch-Sino-East Africa Bamboo Development Programme delivered real on-the-ground benefits to stakeholders and ecosystems.

East African countries are home to abundant bamboo resources, but the plant's full potential for poverty alleviation, job creation and environmental protection has yet to be fully realized. Major obstacles for utilizing the resource include supply chain bottlenecks, small-scale production, low product quality, limited operational, technical, research and innovation capacity at all levels, inadequate institutional governance mechanisms and insufficient capacity to adhere to international standards. Connecting beneficiary countries to regional and international

markets can drive green economic development in East Africa while also enhancing livelihood opportunities, food security and environmental management.

Bamboo is a fast-growing, renewable resource that is easy to plant, manage, harvest and utilize for diverse value addition. Its strong-but-flexible nature makes it an ideal material for a range of products, including food (shoots), construction material, furniture, pulp and paper, packaging, flooring, daily use products, toothpicks, barbecue skewers and more. Bamboo products can also replace many single-use plastics, making it a powerful tool for fighting plastic pollution. As a versatile nature-based solution, bamboo also plays a vital role in sequestering carbon, restoring degraded land and building disaster-resilient construction, strengthening climate

change mitigation and adaptation efforts while making a substantial contribution to Sustainable Development Goal (SDG) 15. With a total output value in excess of USD 70 billion and trade value of over USD 4 billion, the global bamboo industry demonstrates the immense potential of the plant to be part of countries' economic and environmental policies.

Towards a Solution

The Dutch-Sino-East Africa Bamboo Development Programme leveraged South-South and triangular cooperation to apply the experiences and lessons learned from the transformation of Asia and Europe's bamboo markets to East Africa, allowing Ethiopia, Kenya and Uganda to participate in and benefit from the new bamboo economy of the 21st century. The main goal of the programme has been to enhance climate change mitigation and adaptation benefits by developing inclusive and sustainable industrial and small and medium-sized enterprise (SME) bamboo value chains, resulting in better livelihood opportunities, food security and environmental management in East Africa. The main pathways for achieving this goal include strengthening pro-poor industries and SME development, sustainably managing bamboo resources and fostering an enabling business environment. The programme was implemented by INBAR, with support from China, the Netherlands and local stakeholders.

Phase II of the programme lasted from April 2020 to June 2024. During this period, INBAR and local partners facilitated users and producers in the region to harness bamboo resources to generate sustainable employment and income, restore degraded lands and combat climate change. The programme specifically supported the establishment and sustainable management of plantations, capacity building, market development, product upgrading, and the formulation of certification and standards.

Capacity building is an important way to equip stakeholders with the necessary skills to develop new bamboo enterprises. Overall, the programme conducted over 150 technical skills trainings on value addition, with 5500 participants benefiting from training on new processing methods and

technologies for the diversification of bamboo SME value chains and specialization of industrial bamboo value chains. In addition, 10 common production and training centers that provide direct employment to over 1000 beneficiaries were provided with machinery and technical support. Moreover, 5100 women were trained on bamboo charcoal and improved cooking stoves linked to three charcoal-briquetting enterprises, putting cash directly into the pockets of rural women while providing a cheaper source of fuel and avoiding the need to gather fuelwood from forests, protecting vital ecosystems. These efforts built the capacity of stakeholders and promoted the key role of women in different bamboo value chains to strengthen livelihoods.

These efforts were reinforced with basic research aligned with project objectives, which included conducting three site-specific matching studies, developing five tissue culture protocols for bamboo species and testing age-wise properties and product compatibility for three bamboo species. This research supported on-the-ground activities by helping farmers and entrepreneurs choose the right species for cultivation and identifying the suitable applications for bamboo varieties.

INBAR also worked closely with partners across the region to support nurseries, boost production and distribute bamboo plants. In total, 9.8 million bamboo plants were produced from 36 large-scale and 100 micro-nurseries supported by the programme, significantly bolstering the overall resilience and efficiency of the fledgling bamboo industries across the three East African countries. These nursery-based activities particularly benefited women and youth. Highly relevant to SDG 15, in terms of land management, nearly 5000 hectares of new plantations were established on degraded lands, lake shores and river banks, along with over 5000 hectares of bamboo forests and farms also brought under sustainable harvesting and management regimes. Bamboo restoration and sustainable management have improved the climate resilience of nearly 15,000 beneficiaries. Almost 8000 smallholder farmers, extension workers and line department officials were educated on bamboo resource development, which aimed to trigger knowledge cascades

among targeted communities. These actions have generated positive impacts for climate change mitigation, landscape preservation and resilience for thousands of beneficiaries. What's more, they contribute to several specific targets of SDG 15, particularly regarding the sustainable management of terrestrial ecosystems and reducing the degradation of natural habitat.

The programme supported the development of six multi-product supply chains, local market infrastructure and 31 cooperatives through various activities. This has provided jobs and income to over 3100 youth and women through supplying commoditized products to SMEs and industries. By supporting working groups and technical committees within national standards agencies, 29 national standards were developed for the three countries, which are critical elements for fostering an enabling business environment. Furthermore, the programme contributed to the development of the Ethiopian Interim National Standard approved by the Forest Stewardship Council Policy Steering Group for the certification of 1000 bamboo forests in Kaffa, Southwest Region of Ethiopia.

Project stakeholders also participated in international, regional and domestic trade fairs, championing the benefits of bamboo to different audiences, while also hosting dozens of workshops for banks, regional stakeholders, farmers, consumers and policymakers. Two investor study tours and cross-country study tours were organized to encourage new financial investment in the bamboo sector in the beneficiary countries. These tours aided in sharing experiences and best practices and also highlighting the potential business opportunities in the region. The Ethiopian Investment Commission and Uganda Investment Authority both now identify bamboo as a potential sector in their investment planning in part due to the programme's targeted awareness-raising efforts, which can help mobilize resources and promote conservation and reforestation as additional benefits of the sector's economic growth.

Multi-stakeholder platforms facilitate communication and partnership between a diverse range of institutions, organizations and individuals.



Group photo during a consultative bamboo multi-stakeholder product policy development held as part of the programme at the Kenya Forest Service Headquarters, Nairobi, Kenya.



Working with bamboo can help improve livelihoods while benefiting the environment.

Dedicated bamboo offices hosted in the three beneficiary countries' governments have been supported and/or established, including a Bamboo Directorate in the Ethiopian Forestry Development, a Bamboo Unit at the Kenya Forestry Research Institute, and a Bamboo Unit at Uganda's National Forestry Office. These units are linked to bamboo cooperatives and associations, disseminating related knowledge and fostering dialogues with line departments involved with the bamboo sector. These official units in government and cross-learning have enabled mainstreaming bamboo and support its broader integration into environmental and economic planning.

Phase II of the programme ended in June 2024, marking eight years of total programme implementation. The work is expected to have lasting impacts in several key areas. Areas of key overlap with SDG 15 include generating and strengthening green, resilient jobs in the forestry sector and elsewhere for the sustainable use and management of ecosystems; and restoring large swathes of overexploited and degraded landscapes. In addition, Ethiopia, Kenya and Uganda have already begun integrating bamboo sector development into their economic, environmental, climate change and development

policies and programs, constructing a supportive policy framework for the holistic future growth of the bamboo sector.

Overall, this innovative South-South and triangular cooperation project addressed multiple but interlinked objectives, creating substantial benefits that will continue to have ripple effects after the project's completion. The deep synergistic impacts of these benefits will not only support these East African countries in achieving their national goals and targets but also meaningfully contribute to the multiple Goals of the UN 2030 Agenda for Sustainable Development. Success stories like these are critical for demonstrating to governments the potential of bamboo as an effective multifunctional instrument for sustainable development – and protecting life on land.

This is a re-publication of an article posted on the United Nations South-South Galaxy Platform. It has been lightly edited for brevity.

BAMBOO, RATTAN AND BIODIVERSITY

Bamboo and rattan play a vital role in biodiversity conservation, forest management and land restoration, and a staggering range of life forms depend on these plants for survival.

Of all the Sustainable Development Goals (SDGs) of the United Nations, none are so explicitly concerned with the welfare of biodiversity as SDG 15. With the direct objective to “protect restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss,” the Goal includes unambiguous targets related to biodiversity. These involve conserving and restoring ecosystems, reducing habitat degradation, protecting threatened species, ending poaching and trafficking, preventing invasive species and integrating biodiversity into broader planning. To this end, bamboo and rattan should not be overlooked when considering relevant actions within the scope of the Goal.

Food source

To start, bamboo and rattan are already important sources of food for a number of endangered wildlife species. Most notably, bamboo shoots and leaves comprise over 99% of the diet of the giant panda, which can consume between 12 to 38 kilograms of bamboo per day. Additionally, red pandas, mountain gorillas, apes, Asian elephants, South American spectacled bears, bamboo lemurs and more all rely on bamboo as a food source. Bamboo fodder can be an affordable year-round feed source for livestock, including cows, goats, chickens and fish. Rattan fruits also provide nutrition to a number of birds, bats, monkeys and the Asian sun bear. However, habitat loss and poaching are now threatening the survival of many of these astonishing creatures. This means that efforts to conserve and protect bamboo and rattan will necessarily safeguard the wide range of animals that depend on them for nourishment.

Shelter

In addition, bamboo and rattan offer shelter to flora, fauna and fungi. For example, the endangered ploughshare tortoise in Madagascar and the South American bamboo rat both live in bamboo thickets. Moreover, some birds dwell exclusively in bamboo stands, with some research revealing that at least 5% of bird species in the Amazon rainforest are dependent on bamboo. The African mountain bongo feeds on bamboo and depends on it for shelter during the dry season. Poisonous frogs deposit their tadpoles inside broken bamboo sections. Perhaps most otherworldly, mushrooms that glow in the dark – “bioluminescent fungi” – have recently been found growing in a mutualistic relationship with bamboo.

But beyond the larger, more visible organisms, bamboo culms are also an important habitat for smaller invertebrates. The water-filled internodes of the culms can be punctured by large insects. Once open, they form an aquatic environment for specifically adapted macrofauna, with the culm cavity providing protection from predators. Indeed, one tarantula species has been discovered to live inside bamboo stems in Thailand, weaving a silken retreat tube to ease its passage inside the stem. Some butterflies also use bamboo as their caterpillar host plant. Several ant species inhabit the “ocrea” – spiky sheaths growing at the base of the stem – and will even defend the plant against herbivores! So many diverse organisms have adapted to make bamboo and rattan their special niche in the world at large.

Regulating Services

Bamboo is an important plant for conserving soil and protecting watersheds, capable of growing across sloping and degraded lands. This means it has a pivotal role to play in the toolkits of sustainable development policymakers around the world. Its extensive rhizome systems are able to tightly bind soils and regulate streamflow, helping



A panda's diet is 99% bamboo, tying its survival to the forest that grows it. Credit: Mark de Jong.

to safeguard watersheds from natural disasters like landslides. Bamboo's renewable nature means it does not require re-planting after harvesting, and if the aboveground biomass suffers from fire, flooding or drought, the plant is able to naturally regenerate. This makes it a natural ally in regions of the world currently fighting to halt the spread of desertification. For these reasons and more, bamboo plays a critical role in landscape restoration, catchment rehabilitation and soil erosion control.

Poverty Alleviation

Today, bamboo and rattan are among the world's most valuable non-timber forest products, capable of being transformed into a diverse range of marketable goods. Unlike most monoculture plantations, natural bamboo forests harbor biodiverse ecosystems. With appropriate training and awareness-raising, farmers and rural communities can secure a sustainable source of income while contributing to biodiversity

protection. Target 15.9 of the Goal emphasizes the need to "integrate ecosystems and biodiversity values into national and local planning, development processes, poverty reductions strategies and accounts." Bamboo is an effective way to contribute to this Goal, as it can deliver real poverty alleviation results and environmental stewardship through different mechanisms.

For these reasons, bamboo and rattan are excellent plants for aligning community practices with biodiversity conservation and management. Bamboo and rattan provide on- and off-farm jobs and generate diverse income streams. Farmers integrating bamboo with agroforestry or intercropping derive many economic and ecological benefits from the plant's multifunctional uses.

Rural and forest-dependent communities can even process bamboo into a range of marketable products and applications, increasing their profits. Demand is increasing in many countries for



The golden monkey within its fragile bamboo ecosystem. Credit: Vadim Nefedov.



The enchanting Roridomyces phyllostachydis at night, found adorning bamboo stems near a stream in Meghalaya, Northeast India. Credit: Stephen Axford.

responsibly sourced, low-carbon products. One downstream benefit of this is reduced pressure to unsustainably exploit less renewable forests.

Conserving Bamboo and Rattan

Unfortunately, in some places, the importance of bamboo and rattan products in local economies has led to overexploitation and a decline in the supply of these plants. Largely growing in forests, they are highly vulnerable to deforestation caused by agricultural encroachment and settlement expansion. Hence, the sustainable management of bamboo forests is at the heart of INBAR's work.

As an Observer to the UN Convention on Biological Diversity, INBAR is part of the Kunming-Montreal Global Biodiversity Framework. Included in that framework is the "30-by-30" target, referring to the goal of protecting 30% of the world's land and seas by 2030. Currently, bamboo covers an estimated 50 million hectares of land. INBAR Member States have pledged to use bamboo to restore 5.7 million hectares by 2030, constituting a significant effort to foster biodiverse landscapes in the tropics and subtropics to achieve that crucial target.

In Profile...

In coastal Ecuador, over 90% of forest cover has been lost since the 1990s due to intensive cattle ranching, industrial agriculture and aquaculture activities. It is estimated only 1% of the original forest habitat remains for arboreal wildlife like primates. The Ecuadorian mantled howler (*Alouatta palliata aequatorialis*) and Ecuadorian white-fronted capuchin (*Cebus aequatorialis*) are two endangered primate species currently on the IUCN Red List. Howler monkeys and capuchins both rely on dense bamboo habitats as a substrate for safe forest passage, vocalization behavior and foraging. In Latin America and elsewhere, INBAR aims to strategically protect forests and leverage bamboo and rattan to regenerate degraded ecosystems.

This is a re-publication of an INBAR fact sheet on bamboo and rattan's contributions to biodiversity. It has been lightly edited for brevity.

Collating the latest international news and activities around bamboo and rattan sectors development.



A refresher training on bamboo resource development, agroforestry and eco-business creation was held in Cameroon.

Japan to fund \$400 million bamboo biofuel refinery project in India

Japan is committing nearly USD 408 million to fund a bamboo-to-biofuel refinery in Assam, India. This marks its largest clean energy investment in northeast India. The financing, led by the Japan Bank for International Cooperation with USD 244 million and supported by private lenders like Sumitomo Mitsui Banking Corporation, is set to be channeled through India's Power Finance Corporation to Assam Bio Ethanol Private Limited (ABEPL).

Located in Golaghat district, the refinery is nearing completion, and is set to process locally grown bamboo into bioethanol, acetic acid and furfural, while using leftover biomass to generate electricity. Once it becomes operational, the plant is expected to produce 49,000 metric tons of bioethanol annually, making a significant contribution to India's efforts to limit fossil fuel imports and expand its renewable energy base.

The project aligns with India's E20 ethanol blending program, which aims to mix 20% ethanol with petrol to cut emissions and enhance energy security, with plans of reaching 27% blending in the near future. In addition, Japan's involvement goes beyond funding, as it will also provide technical expertise, including advanced distillation and fermentation technologies already being incorporated at the ABEPL facility. This shows the growing interest in using international, multistakeholder frameworks for coordinating investments in the green energy space with bamboo biofuel.

By promoting bamboo-based industries, the initiative also seeks to create new income streams for farmers in the region. The announcement coincides with the visit of India's Prime Minister Narendra Modi to Japan, where broader investment commitments exceeding USD 68 billion are also expected.

Source: Business Standard, 29 August

Bamboo workshop targets disabled in Southeast Asia

Once dismissed as a “poor man’s timber,” bamboo is increasingly gaining traction in Southeast Asia as an effective tool for sustainable development and social inclusion, particularly for disabled individuals.

Filipino architect Jed Michael de Guzman, who has long promoted bamboo construction, attended a recent training program in Beijing focused on bamboo weaving. Bamboo weaving offers accessible employment opportunities for disabled individuals and small enterprises. Organized by the National Academy of Forestry and Grassland Administration and sponsored by China’s Ministry of Commerce, the two-week program brought together 20 officials and experts from Laos, Nepal, Malaysia, Thailand and the Philippines to explore the ways multiple pathways through which the craft can contribute to poverty eradication, local development and social empowerment. Participants attended seminars with international experts and then traveled to Sichuan to learn traditional weaving techniques from master artisans, including skills recognized as intangible cultural heritage.

The workshop underscored the potential of bamboo weaving as an inclusive craft capable of transforming underutilized resources into sustainable, resilient livelihoods. Inspired by China’s approach, De Guzman plans to introduce bamboo weaving to his community as part of his ongoing bamboo education programs. At the same time, another participant, Sandra from Malaysia’s Sarawak OKU Skills Development Association, sees immense potential in expanding weaving initiatives in her own bamboo-rich region. Both individuals who attended the workshop made clear that bamboo handicrafts not only generate income but also boost confidence and foster independence for people with disabilities by providing sustainable income. They also mentioned that the program demonstrates how China is leveraging its bamboo resources to foster inclusive growth and reflects its commitment to ensuring that disadvantaged groups are not left behind.

Source: China Daily, 5 September

New foundation champions bamboo for sustainability, heritage preservation

The Vietnam Bamboo Foundation was officially launched in Ho Chi Minh City on 2 August, introducing its flagship initiative “Luy Tre Làng” (Bamboo Village) to promote a sustainable bamboo industry while preserving cultural identity and tackling climate change.

Established by the social enterprise Bamboo Foundation, the organization envisions bamboo as both a powerful cultural symbol and a practical solution for sustainability, innovation and resilience. Its mission rests on three core pillars: Protecting cultural and ecological values by supporting craft villages and rural landscapes; raising awareness of bamboo’s environmental benefits; and promoting research and innovation to expand its applications in fields such as construction, fashion, agriculture and design. Bamboo is well positioned to build upon these pillars, as it can be utilized for a diverse range of products and applications. In addition, it possesses other key qualities, such as its rapid growth, high rate of carbon absorption and ability to restore degraded land. These qualities and more allow bamboo to shine as a green alternative to plastics, steel and concrete materials, which have much higher carbon footprints.

The “Luy Tre Làng” initiative marks the foundation’s first major step toward change, focusing on the creation of bamboo eco-villages and cultural hubs that integrate bamboo into architecture, education, tourism and daily life. By fostering sustainable livelihoods through a variety of avenues, the initiative seeks to reduce carbon emissions and encourage responsible consumption at the community level. Bamboo is not just symbolic solution, but a scalable one for sustainable development and climate resilience. The launch also paves the way for events in the build-up to World Bamboo Day, including the Vietnam Bamboo Forum, where stakeholders will collaborate on integrated strategies for the bamboo sector’s sustainable growth.

Source: Viet Nam News, 2 August

INBAR commissions research, conducts project work and raises awareness about bamboo and rattan across its 52 Member States.



Local builders were trained in bamboo construction techniques, helping install a briquette plant in Piura, Peru.

Driving climate resilience with agroforestry and eco-enterprise development

From 8 to 13 June, INBAR, in partnership with Cameroon's Ministry of Forestry and Wildlife (MINFOF) and the ACREGIR Project, organized a bamboo-focused refresher training in Maroua. The program aimed to build community resilience to climate change by equipping participants with practical skills in bamboo nursery establishment, agroforestry techniques, eco-enterprise development and land restoration with bamboo and other non-timber forest products. The six-day training gathered 10 community stewards, national park conservators, vocational training directors, academic representatives and MINFOF officials, who participated in presentations, group discussions, field visits and business plan development sessions.

The training highlighted bamboo's role as both a climate-resilient resource and a driver of green enterprise. Experts emphasized the importance of business planning for securing

funding and partnerships, as well as the critical role of community stewards, particularly women, for ensuring lasting project impact. Participants were encouraged to disseminate their knowledge with local communities, helping strengthen a collaborative network for sustainable bamboo-based enterprises in Cameroon that are eco-friendly and climate-resilient.

INBAR organizes national dialogue for Liberia's bamboo and rattan development

On 13 May, INBAR and the Liberia Forestry Development Authority (FDA) convened a national stakeholders' dialogue in Monrovia to garner support for the advancement of the country's bamboo and rattan sector. The meeting sought to mobilize national stakeholders, international partners and potential donors to raise awareness and secure funds for future projects.

Liberia's forests, rich in naturally occurring bamboo and rattan, offer abundant raw materials for furniture, construction and handicraft industries

that could create jobs, increase overall GDP and support sustainable development. Despite these abundant resources, the sector has yet to receive sufficient investment, prompting INBAR and the FDA to organize this first-of-its-kind dialogue, with representatives from the World Bank, Food and Agriculture Organization of the United Nations, European Union, embassies, government ministries and the private sector in attendance.

Speakers at the event highlighted the sector's potential to create jobs, fight climate change and cultivate a national culture of environmental responsibility. Rudolph Merab Sr., Managing Director of the Liberia Development Authority, emphasized the dialogue as a key step toward national recognition of bamboo and rattan as resources capable of driving economic development and environmental protection. Other partners in attendance expressed strong interest in supporting a range of projects, particularly those that target land restoration and climate resilience. At the same time, INBAR and the FDA committed to developing future proposals for donor consideration. The dialogue laid an important foundation for positioning bamboo and rattan as central elements to Liberia's green economy strategy at the nexus of collaboration and investment.

Togo to incorporate new Bamboo and Rattan Strategy into national forest programs

On 26 June, Togo's Ministry of Environment and Forest Resources confirmed plans to integrate the country's new National Bamboo and Rattan Development Strategy (2025–2029) into its National Forest Sector Plan. This move supports Togo's broader objective of raising forest cover to 25% by 2030 while promoting biodiversity conservation and livelihoods through sustainable forest management and the development of the non-timber forest sector. The strategy was officially presented to the Government of Togo by Michael Kwaku, INBAR's Acting Director for the West Africa Regional Office (WARO), during a meeting with Minister Katari Foli Bazi.

Government officials expressed strong appreciation and support for the initiative, recognizing its role in enhancing environmental

protection, job creation and climate change mitigation. Dr. Lydia Atotonu, Director of Togo Forest Resources, noted that her department will lead implementation in close collaboration with INBAR WARO, working with all stakeholders and international partners to develop national programs and projects for funding. The strategy is part of a broader set of INBAR-supported assessments, including a National Bamboo Resource Assessment and a National Bamboo Value Chain Analysis, which in totality are providing critical baseline data to guide bamboo and rattan sector development in Togo.

Piura invests in technical training for bamboo construction

In Piura, Peru, 20 builders and foremen received specialized training in bamboo construction techniques under the project, Productive and Technological Innovation with Bamboo in the Economic Border Corridor of Northeastern Peru. The initiative was implemented by INBAR in collaboration with the Binational Border Development Plan Peru–Ecuador and the National Forest and Wildlife Service across the regions of Piura, Cajamarca and Amazonas. As part of project activities, a Specialized Training Program for Bamboo Builders was conducted, which consisted of 15 sessions, during which participants completed 120 hours of instruction. These lessons integrated virtual learning with hands-on practice, before finally culminating in the official certification of 15 trainees.

The practical phase of the program concluded with the construction of a 300 m² bamboo charcoal briquette processing center in the village of Piscan, Yamango District. This new facility will benefit 60 members of the Association of Small Bamboo Producers, enabling them to transform bamboo residues into briquettes as a sustainable alternative to algarrobo (carob) charcoal, which dominates the regional market. Bamboo-based briquettes, as a more environmentally friendly solution, can help reduce pressure on dry forests. The project thus serves a key purpose by promoting sustainable construction, generating new economic opportunities for locals and creating new income for producers with the briquette plant.

BAMBOO AROUND THE WORLD

From rural villages to bustling cities, bamboo and rattan are part of the fabric of human life. They are tools for survival, materials for innovation and allies in protecting the planet.

This photo journey explores a global story: How two plants support biodiversity, livelihoods and resilient communities.



Mozambique | Francisco Pinho Tourigo



Philippines | Michelle Marie Ajoc





INBAR PAVILION TAKES CENTER STAGE AT CIFTIS 2025

INBAR's exhibition attracted many visitors eager to learn more about bamboo's potential for tackling plastic pollution and climate change.

On 10 September 2025, the China International Fair for Trade in Services (CIFTIS) opened in Beijing. The INBAR Exhibition Pavilion, located on the first floor of Hall 1 of the Shougang International Convention and Exhibition Center, made its stunning debut. This marks INBAR's fifth participation in the major international fair.

This year, INBAR's exhibition was held under the theme "BASP: Making the World Greener and Cleaner for Future Generations." The diverse and innovative bamboo products on display attracted widespread attention from attendees.

EVENTS

17 March - 15 October

INBAR International Bamboo and Rattan Photo Competition 2025

Global

9 August

International Day of the World's Indigenous People

20 August

Webinar - Future-Proof Housing: Sustainable construction, comfort, and climate resilience in Latin America

Online, Ecuador

10 - 14 September

China International Fair for Trade in Services (CIFTIS) 2025

Beijing, China

9 - 23 September 2025

The 80th session of the UN General Assembly

New York City, United States

12 September

International Day for South-South Cooperation

18 September

World Bamboo Day

Join now!

INBAR International Photo Competition 2025

www.inbar.int/event/photocompetition2025





A farmer climbs up a bamboo ladder to harvest palm sugar. Credit: Aqil Fadhlullah.



INTERNATIONAL BAMBOO
AND RATTAN ORGANIZATION

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