

# Banko Janakari

A Journal of Forestry Information for Nepal

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## **Status of bamboo and rattan sub-sector in Nepal**

Belonging to the family "Poaceae", bamboos are characterized as evergreen woody grasses. Nepal's landscape hosts bamboos in both natural forests and farmlands. In contrast, rattans belong to the sub-family "Calamoideae" of palms, and mostly occur in the Tarai lowlands. Both these plants are considered as Non-timber Forest Products (NTFPs). Nepal's diverse flora comprises 23 genera and 81 bamboo species/varieties, with over 40 native species, together with 2 genera and 10 rattan species although only 7 have been documented so far.

In Nepal, bamboos and rattans together cover an area of approximately 63,000 hectares of which 60% lie in natural forests. Rattan resources have been significantly depleted due to their overexploitation, immature harvesting, and habitat destruction. Bamboos play a pivotal role in maintaining ecosystems as well as in long-term carbon sequestration when harvested sustainably. Both bamboos and rattans are commonly used in producing household and garden furniture. In the rural areas, bamboos are used in constructing huts and sheds. Additionally, bamboos are used in producing various household items including cabinets, baskets, and handicrafts. Moreover, bamboo culms are utilized for scaffolding during the construction of houses and other structures. Furthermore, bamboos provide essential support to various wildlife species such as red pandas, bamboo lemurs, and rats. These animals rely on bamboos either for sustenance or as their habitat. Conservation of bamboo ecosystems aids in preserving these species. Nepal's varied climate supports large-scale bamboo cultivation in community/leasehold forests and private lands, stabilizing slopes and alleviating pressure on national forests.

Bamboo's versatile utility encompasses food, fodder, fuelwood, and construction materials, making it colloquially known as "poor man's timber". Demand for bamboo and rattan products is surging in Nepal, driving planting efforts and cottage industries. Tens of thousands of people are involved in bamboo and rattan-based enterprises in the nation. National policies and strategies such as the Major Forest Products Strategy (1989) underscore their importance. The Herbs and NTFP, Development Policy (2004), the National Forest Policy (2019), Forest Sector Strategy (2016–2025), Industrial Policy (2011), Trade Policy (2015), Forest Act (2076), Forest Regulations (2079), National Park and Wildlife Conservation Act (1973), and various government plans and other frameworks advocate for their development.

During the early 1980's, the then Forest Survey and Research Office under the Department of Forests had started taxonomic study & research on bamboo propagation, and the then Department of Forest Research and Survey (DFRS) under the Ministry of Forests and Soil Conservation (now the Forest Research and Training Center, FRTC, under the Ministry of Forests and Environment) followed the

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biological research on bamboo and rattan. Furthermore, DFRS in collaboration with the International Bamboo and Rattan Organization (INBAR) had established bamboo research plots in the different year at different places of Nepal through the then Market Development of Bamboo and Rattan Products with Potential Project. Some plots have been already handed over to the concerned community forest (CF) user groups. Nevertheless, the Moso Bamboo (*Phyllostachys edulis*) research plots established at Baikiwa CF, Dhaneshwor, Kavrepalanchowk and Dharapani CF, Kaudanda, Kaski are still in operation. Besides, the FRTC has been conducting research on nursery technology development and extension of Moso Bamboo for restoration of degraded lands.

The development of bamboo and rattan sub-sector in many developing countries is hindered by lack of-policy frameworks, research resources, and infrastructures. However, various national and international organizations, projects, and institutes are actively involved in advancing this sector to enhance climate change adaptation, mitigation, livelihoods, and green economies. Out of 29 articles set in paris agreement 2016 five articles as identified by INBAR were related to climate change alone. Established in 1997, the INBAR promotes sustainable development through the use of bamboo and rattan in its 50 member states. It fosters south-south cooperation, particularly in construction of safe bamboo structures, land restoration, capacity-building, and green policies. Nepal faces a lack of accurate, comparable, and spatially explicit data on bamboo resources. In this regard, the FRTC aims to establish a comprehensive inventory of bamboo resources along with their area coverage, distribution and biomass occupancy. Nepal has undertaken significant initiatives, including the draft "Bamboo and Rattan Development Strategy," a first national road map, planting of 10 million bamboo in the Chure region under the President Chure-Tarai Madhes Conservation Board, and assessment of financial resources related to bamboo and rattan .The FRTC holds the responsibility of executing various initiatives aimed at advancing the development of the bamboo and rattan sub-sector across the nation. Furthermore, it serves as the central entity for dealing with the INBAR-related matters on behalf of the country. The 12<sup>th</sup> Council Session of the INBAR held in Beijing, China unanimously elected Nepal as Chair for its 13<sup>th</sup> Council Session (2023–2025). Nepal is committed to bamboo usage, replacing plastics with bamboo, as promising and noble endeavor.

To foster the comprehensive development of the bamboo and rattan sub-sector in our nation, appropriate policies need to be formulated, strategic plans need to be prepared, and collaborative networks among the relevant organizations and institutions need to be established. Equally important is training the interested farmers and community forest users on proper cultivation techniques of bamboos and rattans. Likewise, supporting entrepreneurs/artisans involved in producing high-quality products for international markets is also a vital aspect of this endeavor. Apart from that, establishment of advanced, high-tech nurseries at provincial-level and carrying out research on both native and exotic species of bamboo and rattan are essential. Furthermore, collaborations with research-oriented and academic institutions are crucial for boosting up this sub-sector. These concerted efforts will contribute significantly to the growth of the nation's rural economy.

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