

## Developing the Rattan Sector in Africa



*Rattan artisans taking part in an INBAR training course in Ghana in 2018. Credit: Akweley Okertchiri / IPS.*

- *There is huge economic potential to create a competitive market for rattan products in Africa, but the sector is plagued with multiple challenges including resource overexploitation, low interest in plantation development, and use of basic pre- and post-harvesting processing techniques.*
- *Governments in Africa can prioritise rattan production by formulating policies on rattan production, providing funding for research, and supporting the development of standards for rattan products.*
- *High efficiency and improved quality of rattan products could be achieved by mechanising and modernising production, harvesting and post-harvesting processes involved in the rattan value chain.*

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### **RATTAN: AN OVERLOOKED RESOURCE WITH GREAT POTENTIAL**

Rattans are spiny climbing palms that grow in tropical rainforest ecosystems across the tropics and subtropics in Africa, Asia and the Americas. Their long, flexible canes are versatile materials which can be used to create diverse handicraft and furniture products. Because rattan grows back after harvesting without the need to replant and reaches maturity within around ten years, it can be a valuable source of income and an important non-timber forest product which can substitute for wood.

There are 22 rattan species across Africa and a long history of rattan use across many parts of the continent. However, despite the huge importance that the rattan sector can offer in terms of environmental sustainability and livelihood improvement, especially in local communities, it is plagued with multiple factors, including rattan overexploitation in their natural habitats, very low interest in rattan plantation development, and a lack of funding for research and development. Furthermore, the identification of commercially important species, the establishment of high-quality plantations and the continuous supply of high-quality rattan poles are all serious issues to deal with.

In this context, experts of the INBAR Taskforce on Rattan Uses and Development, as well as representatives of standard organisations in Africa, have identified several factors limiting the sustainable development of rattan resources, as well as measures to improve the quality of rattan resource processing and product delivery, and ways to create a competitive market for the rattan sector in Africa.

## FACTORS LIMITING RATTAN DEVELOPMENT IN AFRICA

Several factors are limiting the development of the rattan sector:

- i. Non-standardised taxonomic identification: Rattan taxonomies in anglophone West Africa (for example, Gambia, Ghana, Nigeria, Tanzania and Zambia) are often different from those in francophone and Central Africa (for example, Angola, Cameroon, Senegal). Widespread rattan species are often assigned different names associated with different uses or various stages of growth, particularly when local trade names are not used in conjunction with botanical names.
- ii. Uncontrolled harvesting: There are no standard regulations guiding rattan harvesting, which often results in over-exploitation.
- iii. Absence of modern silvicultural practices: rattans are still treated as 'open access resources that can be readily harvested from the wild.
- iv. Low level of mechanisation: rattan harvesting, peeling and weaving remain manual processes, which are often laborious and hazardous, particularly when rattans become entangled with each other and in the canopies of adjacent trees.
- v. Lack of rattan commoditisation: rattan products are for the most part not developed for international markets. Commercial trade for rattan products is currently concentrated in local and domestic markets. This limits rattan's economic value.



*High-quality rattan products can be sold for more money, or even for export. Credit: INBAR.*

- vi. Manpower training and development: there is a short supply of expert craftsmen in the rattan sector. An apprenticeship system, where skills are transferred from one artisan to another, is the current vocational training arrangement for rattan furniture makers.
- vii. Lack of entrepreneurship in the rattan industry: There is limited product variation, and a large number of low-quality rattan products, which does not attract investors.

## SUGGESTED SOLUTIONS TO THE CHALLENGES

- i. Governments in Africa should provide an enabling environment for rattan production, funding for research, and support the rattan nursery and plantation establishment. For example, the Ghana National Bamboo and Rattan Strategic Plan is catalysing the rattan development
- ii. Higher education curricula in botany, forestry, wood sciences and technology, and wood products engineering, should incorporate studies on rattan anatomy, properties, and utilisation.
- iii. Moving rattan product manufacture from the small-scale hand-craft artisanal process, dominated by craftsmen towards efficient and standardised machine processing.
- iv. The quality of rattan processing and products should be improved, in the following ways. (See below sections.)
- v. There is a need to create a competitive market for the rattan sector. (See below sections.)

## IMPROVING THE QUALITY OF RATTAN PROCESSING AND PRODUCT DELIVERY

There are several ways to improve the quality of rattan products and make rattan processing more efficient.

- i. Rattan harvesting can be improved in many ways:
  - a. Rattan harvesting mechanisation of rattan harvesting
  - b. Standardise harvesting technologies
  - c. Standardise the age of harvesting rattan and discard immature parts of the cane
- ii. Primary processing of rattan can be improved by:
  - a. Timely pre-treatments (e.g., within a week)
  - b. Reduction of moisture content to avoid spoilage
  - c. Improved design of treatment tank, and ensured efficient heating
- iii. Product quality can be improved in several ways:
  - a. Improved machinery for various stages of product development
  - b. Product diversification for efficient utilisation (e.g., rattan waste can be used for biochar, briquettes or particle board)
  - c. The design of products can be improved, including contemporary designs which attract different buyers
  - d. Training of artisans in product design and manufacture





*Figure 1 Incentivising the rattan sector in Africa requires more than just sustainable harvesting and resource management: it also requires political support, investment and capacity building. Credit: INBAR.*

## **CREATING A COMPETITIVE MARKET FOR THE RATTAN SECTOR**

In addition to the technical improvements for rattan processing and product creation, policymakers, investors and entrepreneurs should consider the following recommendations for creating a competitive rattan sector:

- i. Government incentives for collectors and artisans:
  - a. Government should establish centres to help improve product processing techniques and marketing skills, to enhance international markets. Common Production and Training Centres for bamboo have already been established in countries across Africa, and have provided useful incentives to the development of the bamboo sector. This can be replicated for rattan in rattan dominant countries such as Liberia and Sierra Leone
  - b.
  - c. Measures used for other sectors, such as organising the cocoa sector in Ghana, could provide a useful template for incentivising rattan sector development.
- ii. Increase the availability of the rattan resources:
  - a. The establishment of sustainable raw material resources should be promoted, to ensure a ready supply of materials.
  - b. An intentional plan to invest in rattan plantations and propagation could be very helpful.

- c. Production should be market-focused. That means that, while investing in production, there is the need to develop a niche market that will give producers value to compensate for the production cost.
  - iii. Improved skilled labour force:
    - a. Invest in technical and vocational training for younger artisans, to encourage them to find work in the rattan sector
    - b. Encourage cooperative artisanal training and production.
  - iv. Value addition is an important way to change consumer perception of bamboo and rattan, as it is currently regarded as poor quality. This can be achieved in several ways:
    - a. Improve product quality and finishing.
    - b. Enhancing the appearance and aesthetics of rattan resources and products.
    - c. Identifying innovative products to be made from rattan.
    - d. The development of standards for rattan product designs can improve the quality, consistency and marketability of products.
  - v. Demand and supply can be increased by:
    - a. Making prices competitive on the market.
    - b. Higher quality products.
    - c. Increasing promotion and awareness about rattan products and their environmental and livelihood benefits.
    - d. Increasing rattan production to cater for the growing demand.
    - e. Producing video documentaries and promotional activities about rattan and rattan products.

## REFERENCES

- Gonmadje, C., Kaam, R., Trinh, T. I., Ehabe, E. & Brian, C. (2018 a). Rattan Value Chain Analysis in Cameroon. INBAR Working Paper, 104 p.
- Gonmadje, C., Kaam, R., Trinh, T. I., Ehabe, E. & Brian, C. (2018 b). Biophysical assessment of Rattan in Cameroon. INBAR Working paper. 40 p
- Muralidharan, E.M., Sreekumar, V.B., Kaam, R. et al. (2020). Establishment of Rattan Plantation. A Publication of the INBAR Task Force on Rattan Uses and Development. INBAR Technical Report N° 42. 32 p.
- Nfornkah, B. N., Kevin, E., Rene, K., Armand, D. T., Cedric, C. D., Walter, G. F. & Princely, A. N. (2021). Growth Potential and Sustainability of Economically Important Rattan Species in Agro-Ecological Zones of Cameroon. INBAR working paper. 52 p.
- Sunderland, T.C.H. (2012). A taxonomic revision of the rattans of Africa (Arecaceae: Calamoideae) (Phytotaxa 51) 76 pp.
- Vorontsova, M. S., Lynn, G. C., Dransfield, J., Govaerts, R., & William, J. B. (2016). *World Checklist of Bamboos and Rattans*. INBAR Technical Report. International Bamboo and Rattan Organisation (INBAR): Beijing, China.

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