

Importance of riverbank stabilization

- Riverbank stabilization is highly important to enhancing an eroding river bank. Erosion along a river bank can cause loss of land and property damage

Livelihood

- Bamboo has many uses in rural economies. Its economic role is expanding - locally and in international trade - as climate change puts more strain on forest resources.

OTHER TRENDS IN BAMBOO PRODUCTS AND APPLICATIONS



Products from Leaf Extracts
Bamboo Tea



Bamboo Fiber



Medicine

- Bamboo has for centuries been used in Ayurvedic medicine and Chinese herbal medicine
- Bamboo oil is used to treat asthma, kidney disease, venereal disease, cancer and as an aphrodisiac



Timber Replacement



High-end Bag



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LOCAL MARKET DEMAND FOR BAMBOO PRODUCTS

- Tables and chairs; plaques from laminated bamboo
- Pulp and Paper
- Biomass for Energy
- School desks & armchairs
- Bamboo Poles
- House Construction

OTHER MARKET POTENTIALS

- Barbecue sticks
- Coffee stirrer
- Bamboo charcoal
- Handicrafts
- Laminated Bamboo Products
- Bamboo Bikes



Printed & produced by:

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Bamboo: Facts & Uses



INTRODUCTION:

Bamboo (subfamily **Bambusoideae**), genus Arundinaria, has been an integral part of Philippine culture for centuries. Not only, it is a versatile and durable material, but it also has a significant impact on the environment.

With the increasing demand for sustainable and eco-friendly products, bamboo has become popular choice for many industries.

In the Philippines, bamboo products have gained attention as a solution for a greener future.

- Bamboo grows faster than trees and can develop rhizome system in short period.
- An efficient nature-based solution to the protection of infrastructures.
- Native bamboos (site-specific species) promote a biodiversity suited to the local landscape.
- Bamboo can also provide food for the community.

TAXONOMY AND CLASSIFICATION

- Bamboo is the biggest and tallest grass, belonging to the same family as rice, wheat, other cereals and sugar cane, **Poaceae** or **Gramineae**.
- Its culm grows as much as 1 meter in 24 hours and completes its growth, both in diameter and height, in only 80 to 110 days.



Bamboo is a grass not a tree



BAMBOO GENERA AND SPECIES

There are about 1,718 currently accepted bamboo species with 128 genera divided into 3 tribes (of subfamily Bambusoideae), such as:

- Temperate woody bamboos (33 genera and 593 species)
- Tropical woody bamboos (75 genera and 995 species)
- Herbaceous bamboos (20 genera and 130 species)

BAMBOO'S AS GROWING DEMAND BOTH IN LOCAL AND INTERNATIONAL MARKET

BAMBOO GENERA AND SPECIES

Fast disappearing forests

- Bamboos are excellent for restoring degraded lands

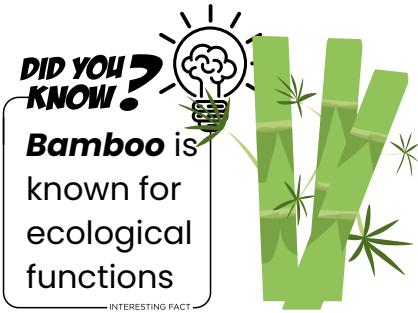
Total log ban

- Bamboo is an excellent replacement to timber

Need to conserve remaining forest resources

- Bamboos can be selectively harvested annually and non-destructively.

- A culm matures and ready for harvest in about 4 years.
- Bamboos can be characterized as having woody, usually hollow culms, complex rhizome and branch systems, and prominent sheathing organs.



Carbon Sink

- **1 ha.** of bamboo can sequester up to **62 tons of CO₂** per hectare per year.
- It releases **35% more oxygen** than equivalent stand of trees.

Rainforest Preservation

- Utilizing bamboo can help save our remaining forest cover.

Climate Change Mitigation

- Bamboo rapidly sequesters carbon, avoids fossil fuel use, and offers highly renewable source of biomass energy - as a substitute for wood fuel and fossil fuels.

Landscape Restoration

- Bamboo rapidly restores degraded lands. It thrives on problem soils and steep slopes that are unsuitable for other crops.

Protect hillsides & riverbanks

- It is common knowledge that bamboo can bind and hold the soil, minimizing erosion
- Its rhizomes and fibrous mass of roots bind and hold the soft banks, while its thick culms arrest strong currents during flood.