



Tendu: The Green Gold of India's Forests

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How a simple forest leaf supports millions of livelihoods and generates crores of rupees

Walk through the dry deciduous forests of central India during the scorching summer months and you will notice a remarkable transformation. As many other trees begin to shed their leaves, one tree becomes especially important to thousands of forest-dependent families. Its leaves are carefully collected, bundled, dried and carried to collection centres. The tree is **tendu**, scientifically known as *Diospyros melanoxylon* Roxb. To an ordinary visitor, tendu may appear to be just another forest tree. But to millions of people living in and around India's forests, its leaves are much more than leaves—they are a source of seasonal employment and income. Tendu leaf is one of India's most important non-timber forest products (NTFPs), and it has earned the popular name “**green gold**” because of its remarkable economic value. The importance of tendu comes mainly from its leaves, which are traditionally used as wrappers for bidis. The leaves are large, flexible, leathery and capable of being rolled without easily cracking. These characteristics make them particularly suitable for the purpose. Your report notes that the leaves are available for collection mainly during April–June, around the time when many other deciduous trees have shed their foliage. But the story of tendu does not end with the bidi industry. The tree also provides edible fruits, fuelwood, timber and fodder. More importantly, the collection and marketing of its leaves create an extensive rural economy involving collectors, packers, transporters, traders and processing workers.

A Tree Deeply Connected with India's Forests

Tendu belongs to the family Ebenaceae and is native to the Indian subcontinent. It is one of the characteristic trees of India's dry deciduous forests and occurs across a large geographical area, including Madhya Pradesh, Maharashtra, Odisha, Jharkhand and other parts of peninsular India. In Odisha and Jharkhand, it is commonly called **Kendu**, while names such as Temburini and Tendu are also used in different regions. The species is remarkably hardy. It can grow in dry and difficult environments and is capable of surviving on poor, rocky and denuded soils. It occurs on lateritic and black soils as well as stony soils derived from quartzite, shale and sandstone. However, better growth is obtained on loose, porous soils with adequate moisture and humus. A mature tendu tree can reach considerable size, growing up to about 25 metres in height under favourable conditions. Depending on its habitat, it may behave as a deciduous or evergreen tree. Its leaves are leathery and can become quite large, while its fruits are soft, sweet and edible. During May and June, the tree produces olive-green fruits containing seeds surrounded by soft, yellow pulp. These fruits are locally consumed

and may also be sold in local markets. Thus, tendu is truly a multipurpose forest tree. Yet, among all its products, the humble leaf has become the most commercially significant.

How Did Tendu Become So Valuable?

The commercial story of tendu leaves is closely connected with the development of the bidi industry in India. The use of tendu leaves for wrapping tobacco became popular because the leaves possess almost all the characteristics required of a good wrapper. They are sufficiently large, pliable and durable, and they do not crack easily when rolled after drying. The first bidi factory, according to the report, was established at **Jabalpur in 1911**. Bidi consumption subsequently increased, and the demand for suitable wrapper leaves grew along with it. What began as a use of a naturally available forest leaf gradually developed into an organized forest-based industry. And this is where tendu became important not only as a botanical species but also as an economic resource.

The Summer Harvest That Brings Income

Every year, during the tendu collection season, thousands of forest-dependent households become involved in leaf collection. For many families, this is an important source of cash income during a period when agricultural work may be limited. The leaves are collected, counted and arranged into bundles before being taken to purchasing centres. The scale of employment is enormous. The report cites historical estimates of around **7.5 million people involved in tendu plucking**, while associated bidi rolling involved millions more people. It also reports more than **100 million person-days of employment in collection activities** and hundreds of millions of person-days in secondary processing. This explains why tendu is sometimes described as the “**lifeline of the forest economy**” in areas where the collection of minor forest produce is an important livelihood activity. The value of tendu therefore cannot be measured only by the price of a bundle of leaves. Behind every bundle is the labour of people who walk through forests, collect leaves, sort them, bundle them and prepare them for the market.

From Forest to Collection Centre

The journey of a tendu leaf from the forest to the market involves several stages. After collection, the leaves are brought to a purchasing centre, commonly known as a **phad** in several areas. Here the leaves are spread out for drying in the open sun. The drying process requires care. The leaves are turned so that both sides dry properly. After several days, the leaves are gathered into large heaps. Then comes one of the most important stages—packing. Dry tendu leaves become brittle, and careless handling can result in considerable damage. To make the leaves flexible again, the dried heaps are moistened and covered with jute bags for several hours. The moisture and heat soften the leaves, making them easier to handle. They are then counted and packed into bags. After packing, the bags are dried again and transported to storage godowns. It is a simple-looking process, but every step affects the final quality and therefore the value of the leaves.

Tendu and the Forest Economy

Tendu is one of the most important examples of how a forest product can connect ecology with economics.

At the beginning of the chain is the **forest**.

Then comes the **collector**.

After collection come **drying, bundling, packing and storage**.

Then come **transportation, trading and processing**.

Finally, the leaves reach the **bidi manufacturing sector and markets**.

This creates a long value chain and provides income to many people.

The economic importance of tendu is particularly visible in states such as Madhya Pradesh, Chhattisgarh, Odisha, Jharkhand and Maharashtra.

Government agencies and cooperative organizations have also become involved in regulating and marketing tendu leaves in several states. These systems are intended to improve transparency in trade and provide better returns to forest collectors.

How Much Revenue Does Tendu Generate?

The answer varies considerably from state to state and from year to year because tendu production depends on weather, forest conditions, leaf quality, market demand and procurement prices. Official data from the Rajasthan Forest Department illustrate this variation. In 2021–22, Rajasthan recorded production of 317,206 standard bags of tendu leaves and revenue of about ₹4,069.54 lakh—approximately ₹40.7 crore. In another year, revenue was substantially higher, demonstrating how strongly tendu income can fluctuate between seasons. Such figures give us an idea of the financial importance of this forest product. However, the total revenue generated through tendu trade should not be confused with the income received by individual collectors. The money generated by the entire trade passes through different stages, and the amount reaching collectors depends on the procurement and benefit-sharing system operating in a particular state.

This is why **fair pricing and transparent procurement are extremely important**.

Odisha's Kendu Leaf Economy

Odisha provides another striking example of the importance of tendu, locally known as Kendu leaf. Government information has reported large-scale Kendu leaf production involving around **8 lakh pluckers**, with substantial amounts paid as wages to pluckers and processing workers.

Such figures reveal an important fact: tendu is not simply a forest product—it is an **employment-generating industry based on a natural resource**. For communities living close to forests, this seasonal income can help meet household expenses and supplement earnings from agriculture and other activities.

What About Exports?

Although the majority of the tendu-leaf economy is associated with domestic trade and the Indian bidi industry, tendu leaves have also entered international markets.

Historical trade records document exports of bidi wrapper leaves from India to countries including **Sri Lanka and Pakistan**. This demonstrates that the usefulness of tendu leaves has extended beyond India's domestic market.

However, there is an important point to remember when discussing tendu exports.

International trade databases often classify tendu leaves under broader customs categories that may contain several types of plant products. Therefore, a figure reported under a broad HS code should not automatically be described as the value of “tendu leaf exports.”

For a scientifically and economically accurate article, tendu-specific shipment data should be distinguished from broader NTFP or plant-product export statistics.

India is fundamentally a major producer of tendu leaves, and domestic collection and interstate trade form the core of the sector. Imports of tendu leaves are comparatively limited and are not central to India's supply system.

More Than Just a Bidi Leaf

It would be a mistake to judge the importance of tendu only by its role in the bidi industry.

The tree provides several other useful products. Its **fruits are edible** and are consumed locally. The fruits are also sold in local markets. Its leaves can be used as **fodder**, and the report records appreciable crude protein and fibre content. Its wood is useful as **fuelwood**, with the report recording calorific values of nearly 5,000 kcal/kg. The wood is also hard, tough and fairly durable and has been used for various purposes including construction, mine props and ornamental carving.

In other words, tendu is a **multipurpose forest resource**, even though its leaves dominate its commercial identity.

Can Tendu Continue to Be “Green Gold”?

The answer depends on how we manage it. Tendu provides income because forests provide tendu. If the forest becomes degraded, the long-term availability and quality of leaves may decline. Therefore, the future of the tendu economy is closely connected with **forest conservation and sustainable harvesting**. Improved management practices, scientific harvesting, better drying and storage, transparent marketing and stronger community participation can all increase the benefits obtained from tendu without placing unnecessary pressure on forest ecosystems. Another important opportunity is **value addition**. Instead of communities receiving income only from collecting raw leaves, greater participation in processing, grading, packaging and marketing could potentially increase the share of value retained locally.

A Future Beyond the Leaf

India's experience with tendu teaches us an important lesson about forests.

A forest does not have to be cleared to generate economic value.

A living forest can provide fruits, leaves, fibres, medicines, fodder and employment while continuing to perform its ecological functions.

Tendu is a powerful example of this idea.

The challenge is to make sure that economic exploitation does not undermine ecological sustainability and that the people who collect the resource receive a fair share of its value.

Better cooperative systems, minimum support mechanisms, transparent auctions, improved processing facilities, value addition and investment in forest regeneration can strengthen the tendu-based economy.

Conclusion: Why Tendu Deserves the Name “Green Gold”

Tendu may not have the visual glamour of a famous timber tree, but its economic story is extraordinary. A single leaf can become part of a vast value chain connecting remote forests with markets. Millions of people have historically depended on tendu collection and associated activities for seasonal employment. Governments have earned significant revenue from its trade, while international markets have also provided opportunities for export. The tree itself is equally remarkable. It survives in dry and difficult environments, provides edible fruits, fodder and fuelwood, and produces timber of useful quality. But its most important contribution is perhaps invisible. It is the **human livelihood hidden behind every bundle of leaves**. For the forest collector, tendu is income. For the trader, it is a commodity. For the forest department, it is a source of revenue. For the rural economy, it is employment. And for the forest, it is one of its many renewable gifts. That is why *Diospyros melanoxylon* truly deserves to be called **India's “Green Gold”**. If managed wisely, fairly and sustainably, this humble forest tree can continue to support both **people and forests for generations to come**.