

Conservation of Kalp Vriksha: *Adansonia Digitata*, as Sacred Tourism

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Introduction

The Kalp Vriksha, also called as Parijat tree, is considered to be a divine tree, belongs to Bombacaceae family and native to Africa. It is a rare medicinally important sacred tree. In Africa it is commonly named as “Baobab” possibly from North African Arabic world bu-hibab, means fruit with many seeded. Baobab also known as dead rat tree, Ethiopian sour gourd, Judas bag, lemonade tree, monkey bread tree upside down tree. Name upside down tree points out the appearance of this tree in its leafless state, when the trunk has the form of a gigantic swollen tap root, and the sparse branches resemble roots directed to sky rather than in to the ground. Name dead rat tree has been given due to its long fuzzy fruits hanging on long stalks, look like dead rats hanging by their tails. Its name monkey-bread tree is due to its soft, dry edible fruit , generally eaten by monkey. In India it is commonly named as Parijat, kalptaru, kalp Vriksha, Gorakh imli. In Botany, the Parijat tree is named as *Adansonia digitata*. The genus name *Adansonia* commemorates French naturalist philosopher and explorer Michel Adanson (1727-1806). *Digitata* in the scientific name refers with its finger like arrangement of the leaflets on the leaves

Mythological Importance

The tree is considered as sacred tree and worshiped by both Hindu and Muslim religion. In Hindu the tree is considered tree of life, eternity and environment harmony. It is also known as the mythical tree that fulfills desires. It is believed that The Parijat tree was originated during the Samudra Manthan and was planted in Indralok. On the earth, this tree was brought by Lord Krishna for his wife Satyabhama after a battle from Lord Indra . In the



Fig. 1: *Adansonia digitata*; (a) flower, (b) exposed roots, (c) tree and (d) peeled of trunk.

Harivansh Puraan, the tree is referred to as a “KALP-VRAKSH”, or wish bearing tree. The tree is the symbol of our uniqueness and its potential. It has the importance not only in Hindu religion but also in the country like Indonesia. In Indonesia, Kalpataru is used as the logo of Indonesian Environment Institution. In Muslim, this tree is called as Sacred Tuba Tree which is believed to be a tree from 'Sada-Adan' garden of Heaven.

Habitat

The trees usually grow as solitary individuals. It is very long lived tree and can live several thousand years of age (Varmah and Vaid 1978). *Adansonia digitata* (*A. digitata*) is native to African savannahs and prefers arid or semi-arid region (Rahul et al., 2015). In India, it is found in MP, Uttar Pradesh, Gujarat and Coromandel Coast and Ceylon (Sundarambal et al, 2015). It is sensitive to water logging and frost. All locations where the tree is found are. According to an American taxonomist, the sturdy seed pods of Baobab might have been swept by sea currents and reached India. According to Professor H.Y. Mohan Ram, a prominent botanist from Delhi, “This enormous tree supposedly has brought in by sailors who came to establish trade links with India; they thereafter planted them across the Indian subcontinent” (The Hindu, 2013). Thus the Baobab trees which love arid zones have been found growing as stragglers in the Indian subcontinent, including Sri Lanka (The Hindu, 2013). The trees can tolerate high temperatures and long spans of drought. All baobab trees are deciduous, losing their leaves in the dry season, and remains leafless for nine months of the year. It has white flowers (Figure 1a). It is unisexual tree and seeding is very difficult. They can grow to between 5–25 m (16–82 ft) in height. They are in fact known both for their height and trunk's girth. The trunk tends to be bottle-shaped and can reach a diameter of 10–14 m (33–50 ft). The baobab has been said to be the most drought resistant of trees, during rains the trees swell greatly absorbing water large trees can store thousands liters of water in their trunk for later use. Due to its huge size, *Adansonia* is regarded as the “Queen of all carbon storage trees” (Sundarambal et al, 2015).

Medicinal Uses

The different plant parts are widely used as foods, medicines and the bark fibres are also used. The fruit, leaves, and flowers are very important in terms of their

nutritional value. Both the fruit and leaves are high in vitamin C. The seed and flower are high in protein, and the kernel contains an edible oil. The various parts of this tree are used to treat a large number of ailments. Nearly every part of the tree has traditional medicinal value. A few include: powdered bark mixed with porridge for malaria; the pulp of the fruit is mixed with honey and is used for coughing; the leaves are used for diarrhoea, fever, inflammation, kidney and bladder diseases, blood clearing, and asthma; the leaves also serve as emollients and are used to help extract guinea worm; the fruits and seeds are used for dysentery, fever, haemoptysis and diarrhoea; dry powdered roots are prepared as a mash for malaria; and gum from the bark is used for cleaning sores. *Adansonia digitata* has a particularly high antioxidant capability mainly because of its high natural vitamin C content. Hot water extract of *Adansonia digitata* fruit show analgesic activity. Leaves are used as laxatives” (Sundarambal et al, 2015).

Impacts of Social Negligence on Status of Kalp Vriksha in Jhansi Allahabad

A very massive, magnificent yet lonesome tree of *Adansonia digitata* is located in Jhansi Allahabad at Sangam. It is growing on the left bank of the Ganga at Prayag near 'Ulta Kila' and 'Samudra Koop'. Probably one of the largest and longest living trees in India, this monolithic tree has been thriving albeit precariously by sipping water at the confluence. Reportedly over 1000 years old, this Baobab tree is a living monument and a mute witness to numerous Kumbh Melas held under its branches. Though the tree has mythologically and medicinally important, it has been forlorn and ignored (The Hindu, 2013). Social negligence has brought this sacred and endangered tree species in danger. Recently, A team of Scientist from Centre for Social Forestry and Eco-rehabilitation (CSFER), Allahabad and Botanical Survey of India (BSI), Allahabad; and Officer from UP Forest Department, visited the tree. The team has found that since the tree is located on the slope of the river Ganga it is under threat due to soil erosion and exposure of its most of the roots. Small tunnels like structure have been created through roots. Due to its exposed roots,

it is in danger as the roots of Kalp Vriksha (*Adansonia digitata*) are not deeply rooted in the ground and due to great size of the trunk it may fall any time, especially during rainy season and flood (Figure 1b). The tree trunk was huge of nearly 50 to 60 feet in circumference with bumps and plenty of bulges (Figure 1c). It was bearing holes and susceptible to the bacterial and fungal attack. The bark of the tree was peeled off exposing the soft tissues by the local people for medicinal and religious purposes which made it more susceptible for bacterial, fungal and termite attack (Figure 1d). The tree of “immense rarity and antiquity” importance was lying unattended. Social negligence and unawareness are identified as major cause for its ruined conditions.

Conservation Measures Proposed

It was observed that the major threats to this endangered tree species is due to exposition of its root which has made it more susceptible to pathogen attack. Therefore it has been recommended to treat the trunk and exposed roots with anti-termite, fungicide and antibiotic to prevent this rare medicinally important ancient tree from any bacterial, fungal and termite attack. Construction of a concrete base is also recommended to check the soil erosion during rainy season. Nearby area may be developed as conservation zone of some important medicinal plants. Efforts have been initiated by the Forest Department officials in technical

collaboration with the scientists from CSFER, Allahabad and BSI, Allahabad. Media representatives and youth organizations have also participated and joined the hands in the efforts for conserving this tree and for public awareness regarding this tree. This area may be developed as sacred place to promote eco-tourism.

Conclusion

In India this tree is considered as endangered. As of April 2015 baobabs are not yet classified by the IUCN's Red List criteria, but they are a part of the “Catalogue of Life.”, 2015. Even if they are not the mythological 'Kalpa Vriksha', they are definitely very old, historical and medicinally important trees, and need proper attention. It needs urgent protection, not only from whimsies of nature and miscreants, but also from an eroding riverbank that has exposed its huge roots. Since it is endangered species and seeding is difficult, efforts have to be made for its propagation, through vegetative and micro propagation. Conservation of this ancient tree may achieve two objectives first one the conservation of endangered plant and promotion of Eco-tourism. Since it is sacred for Hindu and Muslim both, its conservation will promote secularism and sacred tourism, too.

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