

# A Study on Sthalavrikshas in Temples of Madurai District, Tamil Nadu

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**Abstract-** India delivers rich biodiversity and it is not just the world's twelve mega diverse countries, but also one of the eight major centers of origin and diversification of domesticated taxa. These taxa are conserved and have been considered sacred because of their cultural, religious and economic importance. In Tamil Nadu, some sacred trees are in the status of extinct, endangered, threatened, and vulnerable and vary rare habit. The sacred trees are very good examples of ex situ conservation, where a single plant is conserved and worshipped. A study of Sthalavrikshas is also known as sacred trees (or) temple trees was conducted in the temples of the Madurai district during 2016-2017. The study revealed the presence of Sthalavrikshas in 65 temples out of 100 temples studied. Totally 31 species of Sthalavriksha recorded in these 65 temples.

**Index Terms-** Biodiversity, Conservation, Sthalavrikshas.

## I. INTRODUCTION

Sacred groves and *sthalavriksha* (temple tree) have been acting as a major role in the conservation of plants and animals. In the location are certain ethnic groups an residential district in India, which have been worshiping forests, trees and certain animals since time immemorial. Occurrence of sacred groves at several spaces in India, clearly defines the community's attachment to nature.

Sacred plants play a really significant role in ecology. Due to their ecological value and effective properties, sacred plants continue to be employed in the religious and social festivals of the Hindus. The five most sacred leaves of pipal, Cluster fig, white fig, banyan and mango are ubiquitously employed in making prayers and oblations. On auspicious occasions, mango leaves are attached to train and strung up on doors as a welcome banner, and leaves of *purasu* and banyan make workable plates and bowls during community feasts. Leaves of some other trees are also customarily offered to deities e.g., *Vilvam* (Bengal quince) to Lord Siva, of banana and *Arjuna* to Lord Ganesha, and of *kontrai* (*Cassia fistula*) to all the gods and goddesses. The red flowers of the Indian coral tree are used in the worship of Lord Vishnu and Lord Siva; of *Alari* (*Nerium indicum*) in the worship of Lord Siva and the Sun-god; of *ketaki* (*Yucca gloriosa*) in the worship of Lakshmi, and of *pala* or breadfruit (*Artocarpus integrifolia*) in the worship of Lord Vishnu. The purpose of some flowers is prohibited in worship rites like *vaagai* (sirisa or parrot tree/*Albizia lebbek*) in the worship of Lord Ganesha and *vengai*

(*Pterocarpus marsupium*) in the worship of Lord Siva. The wood of the sacred trees like *vilvam*, banyan, *vanni*, *purasu* and pipal is never employed as fuel, as it is believed to invite the anger of gods. But it is employed in other ways, in sacrificial rites and ceremonies. (Sudhakar., 2016). *Sthalavriksha* worship in temples is a popular exercise. Most of these temples have their own *Sthalavrikshas* (temple trees) and *Nanthavanam* (flower garden). Sacred plants provide food, shelter and nesting substratum for several species of birds and squirrels. All souls of certain species are completely protected. *Sthalavriksha* is a natural tree found in the temple site before construction of the temple and most temple myths (*Sthalapuranas*) and temple histories (*Sthalavaralaru*) refer to a prime deity that was first unearthed or found under the tree (Gunasekaran & Balasubramanian, 2005). Every temple has one plant or tree as *sthalavriksham*. *Sthalavriksha* means the tree of the locality (*sthal*-place; *vriksha*-tree). In Tamilnadu state, about sacred trees are in the status of extinct, endangered, threatened, and vulnerable and vary rare habit. Such trees are both ethno botanically or culturally important and ecological representative of the area.

*Sthalavriksha* or temple tree is a single plant worshipped as equal as the prime deity in the temples. In both Hinduism and Buddhism, temple tree worship holds a bigger significance. The plant, primarily worshipped are Peepal (*Ficus religiosa*), Neem (*Azardirachta indica*), Bael (*Aegle marmelos*), Sandalwood (*Santlum album*), etc.

There are temples which have more than one *Sthalavriksham* simultaneously, whereas some temples like a Sri Kallalagar temple (*Prosopis cineraria* (L.) Druce and (*Pterocarpus santalinus* L.f.) to have different *Sthalavriksham* is different yugas. On that point are also examples of more than temple having the same trees as *sthalavriksham* (eg.) *Aegle marmelos* (L.) Corr.serr. and *Azardirachta indica* Adr. Juss. etc. Some of the important temple festivals are associated with the *sthalavriksham* of the temples concerned *mavadi sevai* of *kanci Ekambareswara* temple and *makizhadi sevai* of *tiruvottiyur* temple are two such festivals.

*Sthalavriksha* mostly occurs in tree habit, in main or big temples of Tamilnadu. In some temples, it occurs in herb, shrub, grass or climber forms. Sacred trees are therefore handled as any other sacred space, and it is thus not surprising that many of the customs and ceremonies mentioned in sacred places, in general, are also observed at the sites of sacred trees. This habit shows characteristically the importance of medicinal plants in Indian System of Medicine. Medicinal parts of the Sacred Trees



occurring species was *Aegle marmelos* (L.) Correa recorded in 17 temples followed by *Ficus benghalensis* L. Druce in 6 temples and *Azadirachta indica* Adr. Juss and *Neolamarckia cadamba* (Roxb.) Bosser was recorded in 4 temples each. All the 31 species were reported to have medicinal properties. Tholkappiyavathi *et al.*, (2013) reported that 16 temples have Sthalavrikshas while 20 such element exists in remaining temples. 9 species of Sthalavrikshas have been recorded in these

16 temples. Prabakaran *et al.*, (2017) surveyed the sthalavriksha of 106 temples in Salem, Namakkal, Karur district. They record sthalavriksha were found in 81 temples and a total 18 plant species belong to 18 genera and 14 families. Among this Caesalpiniaceae was the dominant family represented by 3 species followed by Rutaceae and Moraceae represented by 2 species each.

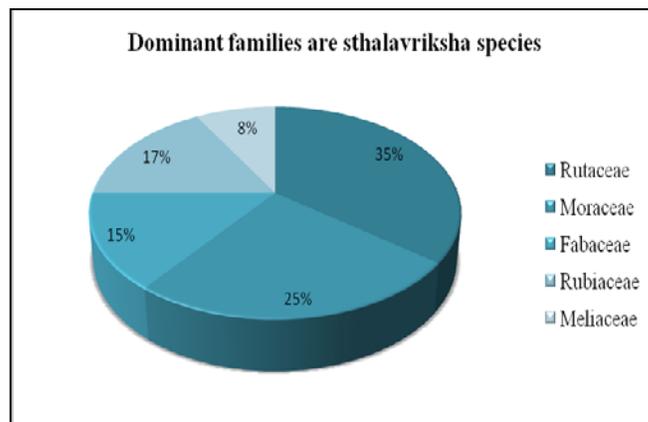
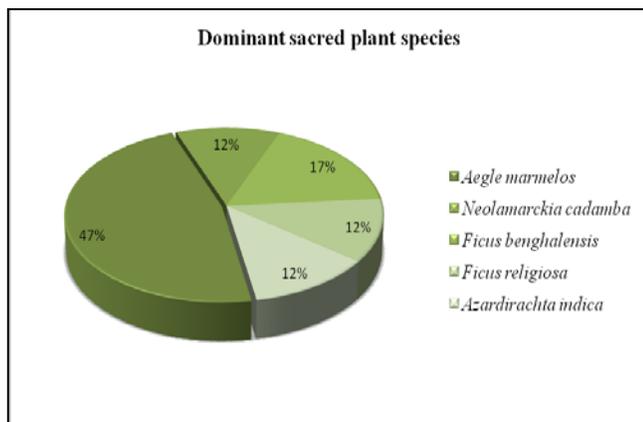


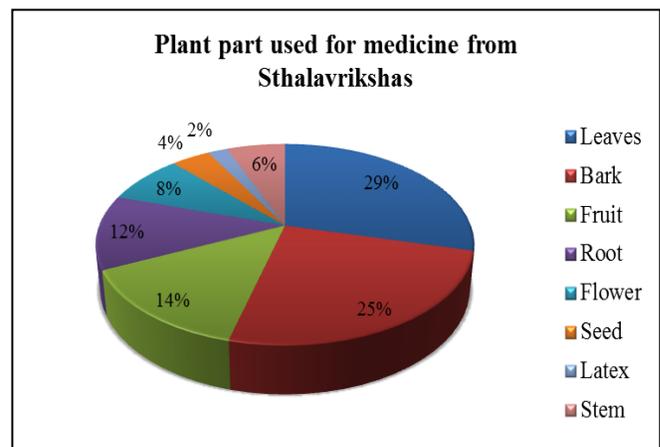
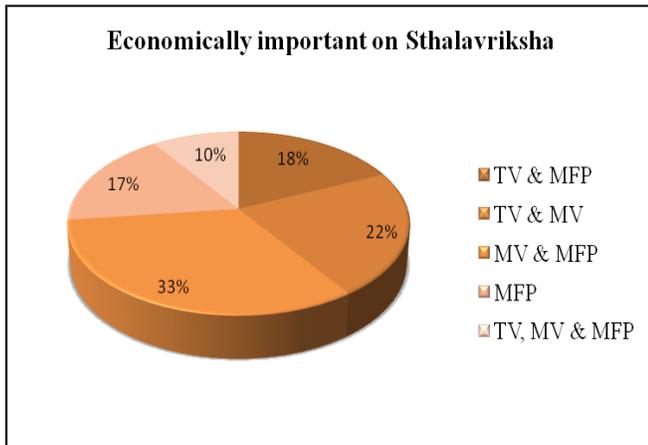
Table-1 list of Sthalavriksha species

S. No	Botanical Names	Family	Habit	Local name	Temple Name	IUCN Status	No of Individuals
1	<i>Acacia leucophloea</i> Wild.	Mimosaceae	Tree	Velamaram	Mathichiya karupu	Least Concern	2
2	<i>Acacia nilotica</i> (L.) Willd. ex Del.	Mimosaceae	Tree	Palkrucelai	Ellai karupha	Least Concern	1
3	<i>Aegle marmelos</i> (L.) Corr.serr.	Rutaceae	Tree	Vilvam	Agnieaswer	Least Concern	16
4	<i>Ailanthus excelsa</i> Roxb.	Simaroubaceae	Tree	Peru	Periya kathavarayan	Least Concern	1
5	<i>Alangium salviifolium</i> (L.f.) Wangerin	Cornaceae	Tree	Alangi	Munisamy	Least Concern	2
6	<i>Albizia amara</i> (Roxb.)	Mimosaceae	Tree	Usilaimaram	Periya ayyan	Least Concern	1
7	<i>Azadirachta indica</i> Adr. Juss.	Meliaceae	Tree	Vembu	Kaaliamman	Least Concern	4
8	<i>Borassus flabellifer</i> L.	Arecaceae	Tree	Panai	Muniyandi	Least Concern	1
9	<i>Cassia fistula</i> L.	Fabaceae	Tree	Sarakontrai	Thiruvappudaiyar	Least Concern	1
10	<i>Crateva adansonii</i> DC.ssp.odora (Buch.Ham.) M.Jacobs	Capparaceae	Tree	Mavilingam	Kadasari nallakurumpa	Least Concern	1
11	<i>Ficus benghalensis</i> L.	Moraceae	Tree	Alamaram	Kanni kamachi	Least Concern	6
12	<i>Ficus microcarpa</i> L.f.	Moraceae	Tree	Ithimaram	Pandi aandi	Least Concern	1

13	<i>Ficus religiosa</i> L.	Moraceae	Tree	Arasu	Madhana gopalan	Least Concern	4
14	<i>Ficus tintoria</i> G. Forst	Moraceae	Tree	Kallathi	Supiraminiya swami	Least Concern	1
15	<i>Lannea coromandelica</i> (Houtt.) Merr.	Anacardiaceae	Tree	Uthiyamaram	Manathiraiyan amman	Least Concern	2
16	<i>Lepisanthes tetraphylla</i> (Vahl) Radlk	Sapindaceae	Tree	Kookamathi	Cinna puli ayyanar	Least Concern	2
17	<i>Mangifera indica</i> L.	Anacardiaceae	Tree	Maa	Mottu kaiyan	Least Concern	1
18	<i>Millingtonia hortensis</i> L.f.	Bignoniaceae	Tree	Kattumalli	Ellamal & pappamal	Least Concern	1
19	<i>Mimusops elengi</i> L.	Sapotaceae	Tree	Magizham	Thirupaapudaiyar	Least Concern	1
20	<i>Morinda tinctoria</i> Roxb.	Rubiaceae	Tree	Manjanathi	Ellai amman	Least Concern	4
21	<i>Musa paradisiaca</i> L.	Musaceae	Tree	Vazhai	Koodalagar perumal	Least Concern	1
22	<i>Naringi crenulata</i> (Roxb.) Nicolson	Rutaceae	Tree	Thasathala vilvam	Imailum nanmai tharum thiruvapudayar	Least Concern	1
23	<i>Neolamarckia cadamba</i> (Roxb.) Bosser	Rubiaceae	Tree	Kadambam	Sri meenachi sokkanathar	Least Concern	4
24	<i>Pongamia pinnata</i> (L.) Pierrc	Fabaceae	Tree	Punnai	Naagar	Least Concern	1
25	<i>Prosopis cineraria</i> (L.) Druce	Fabaceae	Tree	Vanni	Kallalagar	Least Concern	1
26	<i>Pterocarpus santalinus</i> L.f.	Fabaceae	Tree	Santhanamaram	Kallalagar	Endangered	1
27	<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	Tree	Naval	Pazhamudhir solai	Least Concern	2
28	<i>Tabernaemontana divaricata</i> R.Br. ex Roem. & Schult.	Apocynaceae	Shrub	Nanthiyavattai	Seiya mutthaiya ayyanar	Least Concern	1
29	<i>Tamarindus indica</i> L.	Caesalpinaceae	Tree	Puli	Ayyanar	Least Concern	1
30	<i>Terminalia arjuna</i> (Roxb.ex DC.)Wight & Arn.	Combretaceae	Tree	Maruthu	Marutha kaali amman	Least Concern	1
31	<i>Thespesia populnea</i> (L.) Sol.ex Corr. Serr.	Malvaceae	Tree	Puvarasu	Veyil ugantha amman	Least Concern	1

### 3.1. Economically important on Species

Most of the plants put down from sacred plants (Sthalavriksha) of Madurai district are economically significant. The medicinal plants comprise about 31 species, 29 species having timber value and 19 species were regarded for minor forest produce. Many multipurpose species have also been reported from the groves. Of these, 23 species are used as timber and medicine, 34 species as medicine and minor forest produce, 18 species as minor forest products and timber, and 10 species as timber, medicine and minor forest produce. Sukumaran *et al.*, (2010) reported 329 species belonging to 251 genera of 100 families and economically important plants such as medicinal value (194 sp.), timber value (34sp.) and minor forest product (19sp.)



### 3.2. Quantitative analyses of Medicinal use

The village people have used the Sthalavriksha plants for many ills. It may be noted here that most of the sacred trees usually have great medicinal value. Traditional medicine continues to act as an important role in health maintenance. Medicinal parts of the Sacred Trees (Sthalavrikshas) are practiced in dissimilar kinds. It is presented in the form of a paste, juice, dried powder and juices mixed with sugar and honey to cure several diseases. The similar documented was made for 31 plants belong to 20 families are identified as traditional medical used species (Table-2). Gastrointestinal problems like digestive problems, diarrhea, dysentery, stomach ache and constipation were treated using specific herbal prescriptions by the local peoples same reported. Respiratory problem like cough, cold, and asthma also used medicinal plant. The plant parts, mostly reported in this regard were Leaves (29%), Bark (25%), Fruit (14%), Root (12%), Flower (8%), Stem (6%), Seed (4%) and Latex (2%). Gunasekaran., *et al* (2012) - Ethnomedicinal uses of 91 Sthalavrikshas (temple trees) in Tamil Nadu, southern India, posses medicinal uses and cured various diseases like Toothache, Dysentery, Stomach ache, Diarrhea, etc.

**Table-2 Ethinomedicinal uses of sacred plants**

S.No	Botanical Names	Plant part	Medicinal uses
1	<i>Acacia leucophloea</i> Wild.	Leaf, bark, root	Cough, throat infection, dysentery
2	<i>Acacia nilotica</i> (L.) Willd. ex Del.	Leaf	Diarrhea, dysentery
3	<i>Aegle marmelos</i> (L.) Corr.serr.	Whole plant	Fever, diarrhea, skin disease
4	<i>Ailanthus excelsa</i> Roxb.	Bark	Cough and cold
5	<i>Alangium salviifolium</i> (L.f.) Wangerin	Fruit	Eye disease
6	<i>Albizia amara</i> (Roxb.)	Gum	Ulcer
7	<i>Azardirachta indica</i> Adr. Juss.	Whole plant	Skin infection, malaria
8	<i>Borassus flabellifer</i> L.	Fruit	Skin disease
9	<i>Cassia fistula</i> L.	Leaf, flower, root	Skin disease, snake bite
10	<i>Crateva adansonii</i> DC.ssp.odora (Buch.Ham.) M.Jacobs	Bark, leaf	Stomach troubles, jaundice
11	<i>Ficus benghalensis</i> L.	Whole plant	Toothache, female sterility
12	<i>Ficus microcarpa</i> L.f.	Leaf, bark	Headache, liver diseases, stomach pain
13	<i>Ficus religiosa</i> L.	Leaf, bark	Jaundice, skin diseases, ulcer
14	<i>Ficus tintoria</i> G. Forst	Leaf	Broken bones
15	<i>Lannea coromandelica</i> (Houtt.) Merr.	Bark	Stomach pain

16	<i>Lepisanthes tetraphylla</i> (Vahl) Radlk	Leaf, stem	Cough
17	<i>Mangifera indica</i> L.	Seed	Diarrhea
18	<i>Millingtonia hortensis</i> L.f.	Root, leaf	Skin disease, cough, lung disorder
19	<i>Mimusops elengi</i> L.	Bark, flower, fruit	Headache, urinary bladder, fever
20	<i>Morinda tinctoria</i> Roxb.	Leaf, fruit	Diarrhea, digestion problem, wound, fever
21	<i>Musa paradisiaca</i> L.	Whole plant	Kidney and urinary bladder
22	<i>Naringi crenulata</i> (Roxb.) Nicolson	Leaf	Vomiting
23	<i>Neolamarckia cadamba</i> (Roxb.) Bosser	Bark, leaf	Fever, mouth gargle, stomach pain
24	<i>Pongamia pinnata</i> (L.) Pierrc	Seed	Skin problems
25	<i>Prosopis cineraria</i> (L.) Druce	Bark	Rheumatism, cold
26	<i>Pterocarpus santalinus</i> L.f.	Wood	Inflammatory disease, skin disease
27	<i>Syzygium cumini</i> (L.) Skeels	Leaf, fruit	Abdominal pain, dysentery, sore throat
28	<i>Tabernaemontana divaricata</i> R.Br. ex Roem. & Schult.	Root, latex	Dysentery, healing wounds, eye diseases
29	<i>Tamarindus indica</i> L.	Flower, fruit	Diarrhea, blood purifier
30	<i>Terminalia arjuna</i> (Roxb.ex DC.)Wight & Arn.	Bark	Urinary disorders
31	<i>Thespesia populnea</i> (L.) Sol.ex Corr. Serr.	Bark, leaf	Joint pains, rheumatism

### 3.3. Medicinal preparations

The medicinal preparations followed by the Sthalavrikshas of Madurai district to cure a disease were based on many kinds of preparations which are as follows.

- 1. Decoction :** A decoction was obtained by boiling the plant in water until the volume of liquid was reduced to more than 1/2 or 3/4 of the original amount of liquid.
- 2. Extract :** The plant material was ground with some amount of water as per the need and filtered. The filtrate was used as an extract.
- 3. Juice :** The juice was obtained by grinding the plant material and this preparation was administered wholly (This juiciest material used for filtered or non-filtered)
- 4. Latex :** Latex was obtained by detaching the leaf or young stem at normal region of the plants and used.
- 5. Paste :** The paste was prepared by grinding fresh, dried material with water.
- 6. Powder :** The powder was prepared by grinding dried material.
- 7. Raw :** The plant material is also used in raw form, was used immediately after harvesting.

It was also likewise mentioned that the sthalavrikshas in Madurai district in Tamil nadu used the medicinal preparation mostly in the form of Paste (19%), followed by decoction (20%), juice (20%), extract (15%), Powder (9%), Raw and Latex (17%). Some of the sacred plants cure to various diseases, taken from various forms, such as *Aegle marmelos* species bark decoction is used to treat intermittent fever. Bark powder used for skin diseases. Leaf act as a blood purifier. *Cassia fistula* species taken from various forms, Leaf (paste) flower (juice) and root (extract)

cured of some diseases such as skin diseases, snakebite, fever and cold. Gunasekaran *et al.*, (2012) - Ethnomedicinal uses of 91 Sthalavrikshas (temple trees) in Tamil Nadu, southern India, they reported medicinal uses and taken from various formations such as juice, decoction, powder, paste, used to cure for various diseases and ailments like Diarrhea, fever, cough, cold, etc.

From the present investigation, it was noted that the Sthalavriksha plants on Madurai district of the study area used to herbal preparation made from the medicinal plants mostly used for the treatment of diarrhea (5 species: *Aegle marmelos*, *Mangifera indica*, *Acacia nilotica*, *Morinda tinctoria*, *Tamarindus indica*), dysentery (5 species: *Acacia nilotica*, *Acacia leucophloea*, *Syzygium cumini*, *Tabernaemontana divaricata*, *Morinda tinctoria*), fever (5 species: *Acacia leucophloea*, *Aegle marmelos*, *Mimusops elengi*, *Morinda tinctoria*, *Neolamarckia cadamba*), cough (5 species: *Ailanthus excels*, *Acacia leucophloea*, *Lepisanthes tetraphylla*, *Prosopis cineraria*, *Millingtonia hortensis*), skin diseases (9 species: *Aegle marmelos*, *Azardirachta indica*, *Alangium salviifolium*, *Cassia fistula*, *Ficus religiosa*, *Millingtonia hortensis*, *Pongamia pinnata*, *Pterocarpus santalinus*, *Borassus flabellifer*). Gunasekaran *et al.*, (2012) - Ethnomedicinal uses of 91 Sthalavrikshas (temple trees) in Tamil Nadu, southern India, they reported medicinal plants, mostly cured of fever (23 species), dysentery (13 species), asthma (10 species), rheumatism (10 species) and diarrhea (8 species). Nandkishor *et al.*, (2013) reported that the Some Sacred Trees and their Medicinal Uses from Amravati District (Maharashtra), used the medicinal plants, mostly for the treatment of fever (12 species), followed by dysentery (8 species) and diarrhea (3 species).

### 3.4. Conservation status of the plants

The plant species *Pterocarpus santalinus* comes under the Endangered category, all other species are of least concerned status.(Table-1)

### 3.5. The necessity of security

Sthalavrikshas worshipped in plants are a means of conservation of plants. Plants in the temple gardens are cultivated and maintained and this is also a means of conservation of plants. The role of people in the conservation of plant has been an age old practice since historic period. It was concluded that the Sthalavriksha worship is an age old practice, myths, beliefs and this practice play a major role in the conservation of plants.

Thus, the above results and discussion proved the relation of the human and the nature towards plant conservation. The traditional worshipping has protected many plants which have tremendous medicinal value and made them as sacred, so that with the fear of deity nobody eradicates it. So we have to protect these sacred plants for us and our next generation for better survival. On the basis of this study, we have to follow our ancestors belief in humanity and nature sustainability.

## IV. CONCLUSION

Madurai district, unitary of the ancient districts of Tamil Nadu famous for its religious culture, was studying for the sthalavriksha plants. It was noted that a total of 31 plant species was recorded. The recorded plant species belong to 20 families. Among that family of Moraceae and Fabaceae dominated together with 4 species followed by Rutaceae, Rubiaceae, Anacardiaceae and Mimosaceae family consequently represented with 2 plant species. Medicines are obtained from the Sthalavrikshas and are used in different forms. Sthalavrikshas are valued for their botanical, medicinal, environmental, religious and mythical importance. The sthalavrikshas of Tamilnadu constitute a lot of genetic resources for the conservation of species diversity. Propagation of sthalavrikshas in temples contributes to the conservation of our floral diversity. Some trees are significant for their economic use of shipbuilding or in the timber industry, some for providing homes for various animals, birds, and others for their medicinal value. In the present study, it is concluded that the religious activities are having a close relationship with plants boost up the mental health of local people of Madurai district and many of the sacred plants found in the household and temples were used for various religious cultural activities as well as for health care. These sacred plants are worshipped by the local people for getting the blessing of

health and wealth by positive powers of nature. Hence the religious ceremonies, rites act as a protective factor or device for the conservation of sacred plants. So, it is the duty of the present generation to preserve and promote these aesthetic treasures to conserve biodiversity and nature, which will surely play a part in the progression of human beings. These sacred trees preserved through millennia by our ancestors as potential bioresources should be respected and conserved for the future generation. The sthalavrikshas is a mean of conservation of biodiversity.

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