



ROLE OF HOLY PLANTS IN HEALTH CARE SYSTEM OF THE PEOPLE IN KANYAKUMARI DISTRICT, TAMIL NADU, INDIA

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Abstract

Biodiversity is an important gift of nature is now under great threat owing to mankind's rare towards modern development. People of Kanyakumari district traditionally worshipping some plants. All such plants have some role in the health care system of the people in this district. 38 holy plants were identified in this study. All most all the plants, which are declared as holy plants by our fore fathers have high medicinal value and are used in many ayurvedic preparations. Most of them are in the verge of extinction. All the holy plants are connected with a particular God and people used to worship the plants to overcome their difficulties. The main reason for associating plants with religious rites and beliefs is probably for conservation of rare plants.

Key words : Sacred grooves, ritual, worship, conservation.

Introduction

The traditional culture and religion human beings have deep faith in the nature and in components in every walk of life. Our ancestors recorded some very important plants as sacred plants, which have enormous role in the health care system of human beings. The traditional culture and religion of human beings have deep faith in the nature and its components in every walk of life (Dhiman, 2003). The religious activities as well as hypothesis also act as conserving tool for bio-diversity.

Biodiversity, an important gift of nature, is now under great threat owing to mankind's race towards modern development. Deforestation, wetland losses, habitat loss, environmental pollution, overexploitation, fragmentation, industrialization and many other factors are responsible for the depletion of biodiversity and about 320 plants have already come under the category of endangered species. Biodiversity is not depleting in high growth regions, but also in slow or negative growth regions. India being a tropical country is rich in vegetation with a wide diversity. Tribal communities dwelling the remote areas depend on forest resources to meet their livelihood and healthcare needs. The medicinal plants in the wild contribute to cater 80% of raw material used in the preparation of drugs. Herbal medicines have been used since antiquity in treating diseases including infectious diseases. Therefore,

documentation of traditional knowledge and ethno botanical information play an important role in scientific research (Awadh *et al.*, 2004). However, scientific evaluation of herbals is mandate before they are included in the main stream of primary health care practice. In recent times, interest in traditional medicine has continuously been increasing, therefore ethno botanical studies have gained prominence to explore gained prominence to explore the traditional knowledge from tribal communities, particularly in the developing countries (Patrick, 2002). It is evident that many valuable herbal drugs have been discovered by knowing that particular plant was used by the ancient folk healers for the treatment of some kind of ailment (Ekka and Dixit, 2007). The traditional wisdom is based on the intrinsic realization that man and nature from part of an indivisible partner, and therefore should lived in partnership with each other (Ramakrishnan *et al.*, 2002). It is also observed that more than 35,000 plant species are being used.

More than 8,000 plants are used in our country especially for their medicinal values by the rural people (Tiwari, 2000). Around 25,000 formulations in modern allopathic system of medicine are derived from those plant species, which are being used as folk medicines throughout the world since ages. Only 15% of pharmaceutical drugs are consumed in developing countries and relatively more affluent people take a large proportion of it (Toledo *et al.*, 2002). It is due to extinction

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less availability of some of the rare plant species and partly due to poor recognition of the traditional knowledge. It is need of the hour to collect, update and document this scattered knowledge of folk medicine. A movement's reflection clearly shows that "traditional medicine" is that what was found to be effective by millions of ordinary people farmers, traders, workers, tribal's and the like over thousands of years and hence has stood the test time now, it is up to the people to make use of the common heritage of the all the people of the world. The knowledge about medicinal plants often symbolizes the only therapeutic option for many communities and ethnic groups. The comments about the popular use and efficacy of medicinal plants contribute significantly to the dissemination of therapeutic properties of plants commonly used by medicinal effects they produce, although chemical constituents sometimes are not known (Lopez, 2006).

Materials and Methods

In the present study, it aims to identify holy plants in Kanyakumari district and to study their sacred belief and medicinal values. There are twenty hamlets from different parts of Kanyakumari district were selected as study sites.

Identification of holy plants

Repeated visits were made to all the selected study sites and identify all the sacred plants with the help of the traditional believers and confirmed it by referring the book "Sacred plants in India" (Woodray, 1998). Flora of the Presidency of Madras (Gamble, 1956) and Flora of Tamil Nadu (Hendry and Chitra, 1987) were referred to find out the scientific names of the identified plants.

Medicinal values

Identified holy plants were taken to the traditional sidha practitioners to find out the medicinal value of the plants, parts which is used as medicine, the method of preparation of medicine and days taken for healing various diseases.

Sacred belief of plants

In all the study sites, temples were visited. The poojari who perform the pooja and perching were interviewed with prepared questions connected with the sacred belief of the plants and the interactions were recorded. The offering worships were attended to find in all the selected hamlets. They are were cross checked through dictionary of Indian folk medicine and Ethno botany (Jain, 1994).

Results and Discussion

Biodiversity is an important gift of nature, is now under great threat owing to Mankind's race towards

modern development. Deforestation, wetland losses, habitat loss, environmental pollution, overexploitation, fragmentation, industrialization and many other factors are responsible for the depletion of biodiversity. Traditionally our ancestors adopted many methods like formation sacred grooves, tree worshipping, planting the rare plants in the holy places etc to conserve some very important medicinal plants. The people of Kanyakumari district traditionally follow these beliefs. In the present study twenty hamlets were selected in Kanyakumari district and investigation was made about the holy plants and their role in the health care system of the people in Kanyakumari district (table 1).

Diversity of holy plants

In this study, 38 holy plants were identified from the selected study sites, which are worshipped by the people in various rituals and religious ceremonies. The 38 identified sacred plants included under 26 families. Areaceae is dominant with three species. Among the 38 holy plants identified 20 are trees, nine shrubs, seven herbs, and two aquatic perennial plants. This study found that all the holy plants are connected with a particular God and people used to worship the plants to overcome their difficulties. Among the identified plants *Ocimum* and *Ficus* are dominant species grown in all Hindu houses, temples and other holy places. People believed that by regular worship of these plants gives happiness and all success in life.

Sacred beliefs

Present study observed that 38 plants are associated with the sacred belief and have religious importance. These plants are regularly used by the people of Kanyakumari district in various religious activities and traditional healing system. This study observed that *Ocimum sanctum* is the most sacred plant in the Hindu religion and is consequently found in or near almost all Hindu houses throughout the study area. It is frequently grown in courtyards and temples and is believed to protect from misfortune and sanctifies the people. It represents purity, serenity, harmony, luck, happiness and good health. People of the study area especially Hindus believes that the water becomes pure when the leaves of *Ocimum* is placed. This study noticed that in all Hindu families, the female members worship *Ocimum* species every day in the morning. This study observed that people of the study area used to grow the *Ocimum sanctum*, *Azadirachta indica*, *Aloe vera* and *Zanthoxylum aromaticum* to keep away evil spirits. Perumasamy and Ignacimuthu (2000) states that holy basil is a highly sacred plant in Hindu religion and dedicated to Vishnu. This sacred plant has

Table 1 : List of holy plants identified.

	Binomial	Local Name	Family	Habit
1.	<i>Adhatoda vasica</i> Nees.	Adhathodai	Acanthaceae	Shrub
2.	<i>Aegle marmelos</i> (L.) correa	Vilvam	Rutaceae	Tree
3.	<i>Aloe vera</i> (L.) Burn. f.	Sottukattalai	Liliaceae	Herb
4.	<i>Areca catechu</i> L.	Pakkumaram	Arecaceae	Tree
5.	<i>Azadirachta indica</i> (A.) Juss	Vampu	Meliaceae	Tree
6.	<i>Borassus flabellifer</i> L.	Panaimaram	Arecaceae	Tree
7.	<i>Calotropis gigantea</i> R. Br	Erukku	Asclepiadaceae	Shrub
8.	<i>Citrus limon</i> (L.) Burm. f.	Elumichai maram	Rutaceae	Tree
9.	<i>Cocos nucifera</i> Linn.	Thennai maram	Arecaceae	Tree
10.	<i>Coleus aromaticus</i> Benth	Navarapachilai	Lamiaceae	Herb
11.	<i>Couroupita gulanensis</i> Aubl.	Nagalingam	Lecythidaceae	Tree
12.	<i>Curcuma longa</i> L.	Manjal	Zingiberaceae	Herb
13.	<i>Cynodon dactylon</i> Linn.	Arukampul	Poaceae	Herb
14.	<i>Erythrina</i> L. Species	Indian coral tree	Fabaceae	Tree
15.	<i>Ficus benghalensis</i> Linn.	Alamaram	Moraceae	Tree
16.	<i>Ficus religiosa</i> Linn.	Arasamaram	Moraceae	Tree
17.	<i>Gomphrenia globosa</i> L.	Vada malli	Amaranthaceae	Herb
18.	<i>Hibiscus rosa sinensis</i> L.	Cemparutti	Malvaceae	Shrub
19.	<i>Ixora coccinea</i> L.	Theitti	Rubiaceae	Shrub
20.	<i>Jasminum grandiflorum</i> Linn.	Picci	Oleaceae	Climbing Shrub
21.	<i>Jasminum sambac</i> (Linn. Ait)	Malligai	Oleaceae	Climbing Shrub
22.	<i>Lawsonia inermis</i> L.	Maruthani	Lythraceae	Tree
23.	<i>Mangifera indica</i> Linn.	Mango	Anacardiaceae	Tree
24.	<i>Michelia champaca</i> Linn.	Chempakam	Magnolinaceae	Tree
25.	<i>Moringa oleifera</i> Lam.	Murungai maram	Moringaceae	Tree
26.	<i>Musa paradisiaca</i> Linn.	Banana	Musaceae	Tree
27.	<i>Nelumbium speciosum</i> Willd.	Thaamarai	Nymphaeaceae	Aquatic perennial
28.	<i>Nerium odorum</i> Linn.	Arali	Apocynaceae	Shrub
29.	<i>Nymphaea alba</i> L.	Alli	Nymphaeaceae	Aquatic perennial
30.	<i>Ocimum sanctum</i> Linn.	Tulsi	Lamiaceae	Herb
31.	<i>Oryza sativa</i> Linn.	Neil	Poaceae	Herb
32.	<i>Phyllanthus emblica</i> Linn.	Nelli	Euphobiaceae	Tree
33.	<i>Rosa borbonia</i> L.	Pannir rose	Rosaceae	Shrub
34.	<i>Santalum album</i> L.	Santhanum	Santalaceae	Tree
35.	<i>Saraca asoca</i> (Roxb.) Wilde	Asogam	Caesalpiniaceae	Tree
36.	<i>Tabernamontana divaricata</i> (L.) R. Br.ex. Roem & Schultes	Nandyarvattam	Apocynaceae	Shrub
37.	<i>Vitex negundo</i> L.	Notchi	Verbenaceae	Tree
38.	<i>Zanthoxylum aromaticum</i> DC.	Moingil	Caesalpiniaceae	Tree

been valued and cultivated since ancient times in India as an intimate link between the household and the spiritual world. Hindu religion and culture firmly preached that all constituents of our ambient nature are part and creation of supreme power itself. The God has bestowed some specific powers to certain plants, which play important role in prosperous of human life. Hindu scriptures tell us that a wide range of plants like *Ocimum sanctum*, *Azadirachta indica*, *Curcuma longa*, *Ficus religiosa*, *Cynodon dactylon* has divine qualities; hence they are used in number of religious activities and rituals from marriage, baptism to health care system (Ary and Agarwal, 2007).

Trivedi (2003) pointed out that *Azadirachta indica* is worshipped in India and its leaves are used to keep away the evil spirit, while in case of Rajasthan, it is associated with the farmer's traditional method of weather forecasting. This study observed that *Ficus* tree is the most sacred plant next to *Ocimum* in the study area. It is found in all most all the temples and other holy places in the study area. People consider this plant as a symbol of prosperity, grandeur, stability and unity in diversity. Narayanan, a monk who was interviewed for this study states that married women must worship this plant by moving around the tree 108 times daily for the longevity of their husbands and for fulfilment of their wishes.

Adhikari *et al.* (2007) reported that papal (*Ficus religiosa*) is believed to be inhabited by the sacred triad Brahma, Vishnu and Siva. It is used at the investiture and at the laying of the foundation of building. It is worshiped and never cut down by Hindus. It is well known "Bodhi" tree, 'the tree of wisdom' under which Gautama sat for meditation for 49 days and received light, there after emerged as Buddha. Dhar *et al.* (2002) state that women are exhorted by worshipping *Ficus* tree they attain one of the heavens, Sivaloka. The Hindu mythology states that Savitri, the wife of Satyavan who brought back to life her deceased husband through the adoration of *Ficus* tree. *Ficus* tree has immense spiritual significance from the Vedic period till today and is one of the most holy trees under which religious preaching was imparted (Mao, 2008). This investigation depicts that the people of study area worship *Aegle marmelos* on Durga pooja, women worship banana plant on Thursdays for timely marriage, people worship *Saraka asoka* on Chithirai thirunal for peaceful life, *Mangifera indica* is worshiped on Sivaratri day to ensure the protection of their house. This study found that the leaves of *Aegle marmelos*, *Ocimum sanctum*, *Mangifera indica*, *Saraca asoka*, *Cynodon dactylon*, *Lawsonia inermis*, *Vitex negundo*, nuts of *Areca catechu*, *Cocos nucifera*, flowers of

Michelia chempaca, *Jasminum grandiflorum*, *Nerium odorum*, seeds of *Oryza sativa*, inflorescence of *Areca catechu* and rhizome of *Curcuma longa* are offered to god during various ritual ceremonies.

Shah (2003) reported that each rituals are associated with a specific holy plant and people worship the particular plant on that day. The most important occasion of tree worship is during Durga pooja. Alongwith goddess Durga, mix branch with mine leaves such as *Mangifera sp*, *Saraca sp*, *Cynodon sp*, *Ficus sp* and *Aegle marmelos* are worshipped with chanting mantras. In a number of religions in India, certain trees are still worshipped as deities by tribal of pre- australoid stock. Certain plants, flowers leaves, and fruits are offered daily in the worship of God. Growing holy plants in most of the homesteads strongly indicate the historical tradition of worshipping various Gods like Devi, Ayyappan, Ganapathi, Nagarajan, Murugan, Sivan etc. Important among the plants are *Ocimum sanctum*, *Jasminum grandiflorum*, *Ixora coccinea* etc. Various plants and plant parts like Coconut, Mango, Jack, Arecanut, Beetle leaves and Banana are also used in many social ceremonies like marriage, and house warming ceremonies, Agriculture, Pongal etc. Plants have a special role in religious and social ceremonies of every society Manilal (1989). Subramanian *et al.* (2000) states that the Padukas, tribal community in Palani hills strongly believe in the evil spirits. They perform offering pooja called 'Koduthi' on the last Fridays in every month, during koduthi they offer the inflorescence of *Areca catechu*, fruits of *Musa* and nuts of *Cocos nucifera* to Karumpandiamman (God) for control the evil spirits.

Medicinal values

This investigation reveals that all the sacred plants identified in the study have high medicinal value and are used in preparing many aurvedic medicines. This study observed that leaves form the major plant part used as medicine. Among the plants studied, leaves of 30 plants are used as medicine, roots of three plants used for various folk medicine, the fruits of seven plants used for the preparation of various aurvedic medicines, flowers of 17 plants utilized in the aurvedic formations, rhizome of one plant is used in the treatment of human diseases, bark of two plants have medicinal value and three plants are used wholly for making Sidha medicines.

This study observed that *Ocimum sanctum* is useful in the treatment of various diseases. Its leaves have great medicinal value and are effective in cold, cough, sinus infection, chest congestion and other respiratory diseases. Because of its antiseptic value its stem pieces are also worn around the neck. Devendran and Balasubramanian

(2011) reported that the leaves of *Ocimum sanctum* contain eugenol and caryophylline are considered mainly to be responsible for various antimicrobial activities. Eugenol attributes to its antioxidative property and is also thought to be responsible for lipid peroxidation. This property helps in maintain good health. Sangaran, the traditional Sidha practitioner who was interviewed for this study states that the dried flowers of *Michelia champaca* and *Cynodon dactylon* are powdered, put in warm water and taken in the early morning is a very good medicine for diabetes.

Edwin *et al.* (2008) reported that the flower buds of *Michelia champaca* can control the blood glucose level and is the key for preventing or reversing diabetic complications and improving the quality of life in patients with diabetes.

This study found that the decoction prepared from the dry fruits of *Aegle marmelos* is used to cure diarrhoea. The unripe fruit is effective medicine for chronic digestive disorders like constipation, ulceration and bulging in the intestine.

Ganesh *et al.* (2011) reported that the seeds of *Aegle marmelos* contain alkaloids, carbohydrates, proteins, glycosides and rich in carbohydrates, which enhance the bowl action and control all stomach disorders.

This study observed that the latex extruded from the bark of *Ficus bengahalensis* is useful against rheumatism. The extract prepared from the bark of *Ficus religiosa* is used to cure insomnia and relax the mind. The flowers of *Calotropis gigantea* are used to treat cough and asthma, the juice extracted from the leaves of *Coleus aromaticus* is a medicine for painful urination, the dried flowers of *Saraca asoca* is mixed in Coconut oil, applied for scabies and the seeds of *Zanthoxylum aromatum* is used to make tooth powder. Thompson (2002) reported that the decoction prepared from the leaves of *Coleus aromaticus* is taken orally once a day for one weeks to get relief from urinary complaints.

Singh *et al.* (1996) state that the *Calotropis gigantea* contains calotropine, which exhibits anthelmintic properties. This study observed that the warm leaves of *Adathoda vasica* is applied on the chest for asthma, the pulp of *Aloe vera* with salt and fermented sugar cane juice is used for body pain and fever, the flowers of *Hibiscus rosa-sinensis* used to treat kidney troubles and juice extracted from the flowers is given for hypertension.

Latif (2002) states that *Aloe vera* fresh leaves are cut longitudinally and applied on the forehead for fever and headache. Majumder *et al.* (2002) reported that the *Adathoda vasica* can be given for asthma, cough and

bronchitis. The leaves of *Azadirachta indica* is grinded using cow milk and the paste is applied for eczema continuously for forty days. It is also used for all skin diseases. The wax extruded from stem of this plant is a very good medicine for toothache. According to Bhattacharyya (2002), *Azadirachta indica* given for the treatment of pox and skin diseases. Singh (2003) states that the root pieces of *Azadirachta indica* are chewed for curing toothache. Bako *et al.* (2002) observed *Azadirachta indica* is used to cure fever, stomachache and diabetes. The juice extracted from the *Cynodon dactylon* is good for digestion. One can take this juice daily in the morning for 90 days it would reduce the body weight up to 5-10kgs. The fruit of *Lawsonia inermis* is powdered mixed in curd and is good for purification of blood. According to Rao *et al.* (2002), *Cyandon dactylon* the whole plant is used during religious purpose and the juice of the plant used to cure pyrexia, swelling and also used as a vital tonic.

Conclusion

The legend "Old is gold" is more appropriate in the present context. The future of any nation depends on its knowledge bank and resources. Our ancestors had left various religious beliefs for us towards nature and it was a very constructive device for conservation of plant biodiversity not only during their time but at present also. Our forefathers have attached a religious belief or rites as part of ritual to most of the plants, which in fact proved more than functional. All most all the plants which are declared as holy plants by our forefathers have medicinal value and most of them are in the verge of extinction. Therefore, the main reason for associating plants with religious rites and beliefs was probably for conservation or we can say that it was the hidden concept of conservation of plant biodiversity.

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