

Nature Tourism in India-Red Sander Plant Species of YSR District, Andhra Pradesh

Ramabrahmam Vellore¹, Varija Vudhayaraju²

^{1,2}Dept. of History & Archaeology, Yogi Vemana University, Andhra Pradesh, India.

ram.vellore@gmail.com

Abstract

The Medical tourism studies report for the year 2015 indicates that more than 2,000,000 patients from abroad travelled to India. Ayurveda has attracted the attention of global population especially the developed countries since ages for the promotion of medical tourism encompassing modern medical sciences and the ancient Indian medical systems Ayurveda, Yoga, Unani, Siddha and Homeopathy (AYUSH). Foreign travellers were coming to India since centuries in search of knowledge. Medical tourism in India is a multibillion-dollar provider industry and attracting millions of foreigners and domestic to visit incredible heritage of country and enjoy the medicinal blessings of traditional Vedas and Upanishads. India is full of well trained, qualified and experienced professionals and doctors. India 's medical tourism sector is expected to experience an annual growth rate of 30%, making it Rs. 9,500-crore industry by 2015. Estimates of the value of medical tourism to India go as high as \$2 billion a year by 2012. Currently, India is second only to Thailand in the number of medical tourists it has attracted since the early 1990s. Red sandalwood grown on the shale subsoil, at altitudes around 750 meters (2,460 ft), and in semi-arid climatic conditions gives a distinctive wavy grain margin. Lumber pieces with the wavy grain margin are graded as "A" grade. Red sandalwood with wavy grain margins sells at higher prices than the standard wood in market. Red sandalwood is used for treating digestive tract problems, fluid retention, and coughs and for "blood purification." Red sandalwood might increase the loss of body water through the urine (diuretic effect). Red sanders are used for Cosmetic remedies face pack for dry skin. Many of the Indian hospitals have a holistic center in its premise with more ancient forms of treatments such as yoga and meditation programs, and herbal medicine, naturopathy, homoeopathy, and acupuncture departments.

Keywords: *Cosmetics, Health, India, Medical tourism, Plant species.*

Introduction

India has a very old civilization of more than 5000 years and is known for her cultural and religious diversities with diverse geographical landmarks. In India, in addition to the existence of modern medicine, indigenous or traditional medical practitioners continue to practice throughout the country. Popular indigenous healthcare traditions include Ayurveda, Siddha, Unani, Naturopathy, and Yoga. Ayurveda provides a complete system of preventive medicine and healthcare, which has been proven as its effectiveness over a long period in India. The science of Ayurveda is based on the knowledge of the human constitution. The five great elements, viz., ether, air, fire, water and earth are manifested into the three biological organizations known as Vata, Pitta and Kapha (Suman kumar Dawn et al., 2011).

Ayurveda is conventional, time-honoured traditional Indian system of medicine native to the Indian subcontinent. In Sanskrit language *Ayu* means 'life' and/or 'long life'; *Veda* means 'knowledge'. Ayurveda (the knowledge of long life or energetic life) is an integral part of the Indian heritage. The number of studies on the history of Ayurveda is relatively lesser than the studies on other traditional disciplines like music, architecture. Sculpture and philosophy of India. Ayurveda is now redefining its role in India's healthcare industry as modern medicine, popularly known as English medicine, is dominating the Indian medical establishment.

Ayurveda is a mosaic of folk and tribal healing practices and beliefs of people living and migrated into the Indian subcontinent. The approaches to understanding health and longevity, disease and death in the pre and proto historic Indian sub-continent underwent a sea-change with the entry of new tribes with new perspectives and experiences. A wave of urbanization and Sanskritization that swept the Indian subcontinent during the last 3000 years has helped to fuse the pluralistic medical beliefs and practices into an apparently 'complete' medical system, Ayurveda (Ranganayakulu, 2008).

The important treatises of Ayurveda, the *Charaka Samhita* and the *Susruta Samhita* claim the origins of Ayurveda to the god Brahma. Who revealed this knowledge to

Indra? The duo Asvini gods have learned Ayurveda from Indra and transmitted to Atreya, who had six students: among them, Agnivesa and Bhela are well known because their treatises are available today. The *Agnivesa Samhita* is now known as the *Charaka Samhita*. Major portion of the *Bhela Samhita* is also available now. On the one hand, *Charaka* mostly deals with internal medicine (treating diseases with medicines), on the other, the school of Surgery has another proponent, Dhanvantari, the king of Kasi, Susruta was the student of Dhanvantari, who later compiled the *Susruta Samhita* treatise on surgery.

Ayurveda is an ancient health care tradition that has been practised in India for at least 5,000 years. Though Ayurveda (or) Ayurvedic medicine was documented in the sacred historical texts known as the Vedas many centuries ago, Ayurveda has evolved over the years and is now integrated with other traditional practices, including yoga. National as well as international acceptance of Ayurvedic healing has definitely widened up the bounds and prospects of Ayurveda tourism (or) Medical tourism, with its systematic means of detoxification as enshrined in the process of 'Panchakarma', it proves to be a better option if the affected individuals try to avail of its beneficial methodologies by participating in one of its curative centres.

Ayurveda has attracted the attention of the global population especially the developed countries since ages. Foreign travellers were coming to India for centuries in search of knowledge. They were studying Ayurveda along with religion and philosophy at premier Universities like Nalanda, Taxila and Kashi. This is evident from the amalgamation of various Ayurvedic principles and procedures in other traditional systems of medicine world over. Religious persons also played a major role in propagating Ayurveda in foreign countries. Especially Buddhist religious persons had carried Ayurveda to the Asian countries particularly East Asian countries like Malaysia, Cambodia, Thailand, Myanmar, Japan, Singapore, Korea and Tibet. After the revival of Ayurveda in India with the independence of the country again Ayurveda started to attract the attention of the general public and medical fraternity world over.

The reasons behind the resurgence of interest in Ayurveda in foreign countries can be listed as below: ·

- i. Holistic approach as opposed to over specialization.
- ii. Importance of individual, its constitution (Prakruti) in the planning of individual diet plan. Concept of homeostasis as a basis of health in Ayurveda.
- iii. Importance of sensible lifestyle in harmony with nature, climate and customs. Use of natural resources as medicine to which our body system is geared through predisposition.
- iv. Hazardous effect of modern chemical therapeutic agents.
- v. Deep spiritual thinking of Ayurveda resulting a respectful attitude towards nature and its ecological balance (Muralidhar, 2016).

Materials and Methodology

The Nature tourism industry in India is currently growing at an immense rate. The Medical tourism report for the year 2015, more than 2,000,000 patients from abroad travelled to India. For the promotion of medical tourism, the Government of India coined a term AYUSH encompassing modern medical sciences and the ancient Indian medical systems viz., Ayurveda, Yoga, Unani, Siddha and Homeopathy. Medical tourism in India is a multibillion-dollar provider industry and attracting millions of foreigners and domestic to visit the incredible heritage of the country and enjoy the medicinal blessings of traditional Vedas and Upanishads. India is full of well trained, qualified and experienced professionals and doctors. India ranks second for medical tourism in the world. Though it spends less than 1.2% of its GDP on medical services but makes extra efforts to provide extra care and services to the foreign tourist while dealing with them. Medical treatment in India is very cost-effective as it charges 20% less than any other foreign country for providing health facilities.



Figure 1: some of the major countries that promote Medical tourism
Source: CBC News, 2004

Nature tourism is a growing sector in India. India's medical tourism sector is expected to experience an annual growth rate of 30%, making it a Rs. 9,500-crore industry by 2015. Estimates of the value of medical tourism to India go as high as \$2 billion a year by 2012 (Anupama Sharma, 2013). Currently, India is second only to Thailand in the number of medical tourists it has attracted since the early 1990s. Also, starting in 2002, India was one of the first countries to promote medical tourism as an export industry by offering special tax incentives to medical tourists' care providers (Connell, 2011), the country's diverse medical-care offerings further enhance India as a good case study. These offerings include advanced, hi-tech medical care such as heart surgeries, dental procedures, and hip resurfacing as well as more holistic forms of treatment such as Ayurveda, yoga, and spa therapy. This range provides abundant research opportunities.

Results and Discussion

It is a light-demanding moderate sized tree growing up to 8 m tall with a trunk 50–150 cm diameter. It is fast-growing when young, reaching 5 m tall in three years even on degraded soils. It is not frost tolerant, being killed by temperatures of -1°C but stays well at semi-arid climatic conditions. The leaves are alternate, 3–9 cm long, trifoliate with three leaflets. The flowers are produced in short racemes. In Hinduism, this wood has been traditionally used as a sacred wood. The priests and higher-class

casts such as Brahmin extensively use this wood on many of their rituals. It is found mainly in South India, Sri Lanka, and some parts of Nepal and Pakistan.

It is observed that the red sanders grew on the shale type of subsoil, at an altitude of 750 meters above sea level. Red sanders with a wavy grain margin fetch a higher price than non-wavy wood. This species is listed as Endangered by the IUCN, because of overexploitation for its timber. Red sandalwood is grown on the shale subsoil, at altitudes around 750 meters (2,460 ft), and in semi-arid climatic conditions gives a distinctive wavy grain margin. Lumber pieces with the wavy grain margin are graded as "A" grade. Red sandalwood with wavy grain margins sells at higher prices than the standard wood (Ramabrahmam, 2016).

The wood at the center of the trunk (heartwood) is used as medicine. Red sandalwood is used for treating digestive tract problems, fluid retention, and coughs and for "blood purification." Red sandalwood might increase the loss of body water through the urine (diuretic effect). It might also have drying effects that may help reduce diarrhoea and break up mucus to make it easier to cough up. It is used in diseases like cough, vomiting, fever, hyperpiesia, helminthiasis, diseases of the blood and eye, wounds etc. The heartwood and fruits of Rakta Chandana have great medicinal value. It reduces the burning sensation, arrests bleeding, alleviates oedema and ameliorates various skin disorders, hence, is an effective external application as a paste, in burning sensation, headache, dermatomes and ophthalmopathies been extensively used in Ayurveda to treat fever, digestive problem, treating high blood pressure and lowering the Sugar level of diabetic patients.

The heartwood has various uses in traditional medicines and is popular for the treatment of diabetes apart from other ailments. The wood paste is applied externally especially for healing various skin diseases and blemishes. Yerukula and Irula tribes of Chittoor district in Andhra Pradesh use the whole plant of *P. santalinus* for ulcer treatment (Vedavathy, 1997). For treating acute jaundice, about one hundred grams of powdered stem bark is boiled in 500 ml of water for 3-4 hours till the volume is reduced to half the original content. The solution is cooled and then ten grams of

jaggery is added and made into pills, two to three pills are administered every day for ten days (Manjunatha, 2006). Malamalasar tribe of Perambikulam wildlife sanctuary in Kerala considers wood paste as a blood purifier, for curing skin diseases and poisonous affections (Bhandari, 2011). Various tribes in coastal Karnataka use Red Sanders as an anti-inflammatory for the treatment of Herpes (Reddy, 2010). Also known as *Rakta Chandana Powder/ Pterocarpus santalinus* is a variety of sandalwood powder. It is a dark maroon and has no fragrance to it. It is different from sandalwood powder.

- i. It is an antiseptic, wound healing agent.
- ii. It is an age-old effective remedy to fight acne, skin rashes, sunburn, blemishes and premature Ageing.
- iii. It works equally well for skin and health care.
- iv. Use sandalwood powder and green tea mask to ***get rid of wrinkles*** and sun-induced ageing.
- v. ***Get rid of scars and pigmentation*** by using a paste of dried lemon peel powder, sandalwood powder, a pinch of turmeric, curd and lemon juice. Excellent for ***removing tan*** too.
- vi. Make a paste of red sandalwood powder and rose water. Work well to ***calm down skin rashes*** and angry ripe pimples. Works well with cystic acne too.

Dried out skinned men and women can mix red sandalwood using milk and honey to be able to pack that over confront? Spread this kind of cream in excess of your confront and fret board and wash off using cold mineral water after 20 minutes. The multiple cosmetic uses of Red Sanders are given in the below table.

Regular face pack	Add two three pinches of red sandalwood powder to any regular homemade/store acquired face pack. There you are done adding some sensational ingredient to improve your face pack results!
Acne & black spots	Sandalwood powder should be mixed with tomato juice and used as a face pack to take out tan and lighten skin tone naturally. This particular face pack also helps in getting rid of acne and dark spots effectively, if used regularly.
Blackheads remover	Mix this red sandal lumber powder using rice powdered with required water to use as a facial exfoliating clean. After making use of the stick over your epidermis gently clean in spherical motion using finger guidelines. It allows clearing out there even those stubborn blackheads you could have.
Improve skin tone	Red sandalwood powder can be mixed with your bath therapeutic massage oil to improve the firmness and texture of your skin.
Body spray	Dilute red sandalwood with water and spray this all over your body to minimize excess body heat. This process not just helps in balancing the body's heat, but also stops skin transmissions.

Table 1: Uses of Red Sanders

Conclusion and Recommendations

Soukya Holistic Health Center (Fig.2) is located just outside the city of Bangalore in a rural setting. It combines modern medicine with ancient techniques and complementary therapies. Soukya's goal is to treat patients in mind, body, and soul unlike most hospitals, which deal only with the body (soukya.com). The concept of the therapeutic landscape plays a key role at this facility. It is set on a large organic farm that promotes simplicity among nature. Surrounded by gardens, trees, plants and farm animals, this health centre believes in the concept of a therapeutic landscape in promoting healing and good health. Although many Indians frequent the health centre, it is well known for having a large foreign clientele. Over the years, the health centre has attracted notable celebrities from around the world. Most foreign patients at Soukya are from Western Europe and the U.S. The health centre's holistic treatments such as Ayurveda and homoeopathy were the primary draw for medical tourists. The

use of both nature and holistic medicine in the setting forms the therapeutic landscape basis for treatment.



Figure 2: Soukya Holistic Health Center, Bangalore (Site 5) Source: Soukya Website

Certain types of Health & Medical tourism such as massage and yoga therapies and other forms of Holistic treatments may have created a sense of place attachment to particular locations among medical tourists. If these specific locations become therapeutic landscapes, it is likely that medical tourists will frequent them. Indian hospitals that cater to foreign patients use this notion of therapeutic landscape within their hospitals. Many of these hospitals have a holistic centre in its premise with more ancient forms of treatments such as yoga and meditation programs, and herbal medicine, naturopathy, homoeopathy, and acupuncture departments. The hospitals believe that these alternative forms of treatments can be combined with western treatments to enhance the overall health of the patients (Arunkumar, 2014).

The Government agencies must take a lead role to encourage the farmers and entrepreneurs to grow Red Sanders, suggested that, it is imminent to have a sustainable wood trade policy formulated by strongly incorporating stakeholder's perceptions. Therefore, to revive the past glory of this valuable species to mankind, Government agencies, farmers, entrepreneurs and policy makers have to join hands

together in protecting, conserving and sustainably utilizing Red Sanders. Finally, the paper throws much light on not only selling the Red Sanders for commercial value, including the importance of Red sanders in Medical Tourism for future generation to attract the international tourist to the Indian Sub-continent.

References

- Anupama Sharma. (2013). Medical tourism: emerging challenges and future prospects. *International Journal of Business and Management Invention, ISSN (Online): (Print): 2319 – 801X* Volume 2 Issue 1. January, 21-29.
- Arunkumar, A.N., and Joshi, G. (2014). Pterocarpus santalinus (Red Sanders) an Endemic, Endangered Tree of India: Current Status, Improvement and the Future, *Journal of Tropical Forestry and Environment* Vol. 4. No 02. Tree Improvement and Genetics Division, Institute of Wood Science and Technology, Bangalore. India, 6-7.
- Bhandari, M.J. and Chandrashekar, K. R. (2011). Herbal therapy of herpes in the ethno medicine of coastal Karnataka, *Indian Journal of Traditional Knowledge*, (10(3), 528-532.
- Connell, J. (2011). A new inequality? Privatization, urban bias, migration, and Medical tourism, *Asia Pacific Viewpoint*, (52(3), 260-271.
- Manjunatha, B.K. (2006). Hepato-protective activity of Pterocarpus santalinus L. f. an endangered plant. *Indian Journal of Pharmacology*, 38, 25-28.
- Muralidhar & Karthikeyan. (2016). Ayurvedic Tourism in India: Practices and Policies. *Asian Journal of Research in Social Sciences and Humanities*, (Vol. 6, No.6), 1043-1052.
- Ramabrahmam, V & Sujatha, C. (2016). *Red Sanders in Rayalaseema Region of Andhra Pradesh: Importance to Commercial & Medicinal Value*, *IOSR Journal of Pharmacy and Biological Sciences (IOSR-JPBS) e-ISSN: 2278-3008*, (p- Volume 11, Issue 1 Ver. IV), 57-60.
- Ranganayakulu, P. (2008). *Ayurveda through the Ages in Andhradesa* [Unpublished doctoral dissertation] Sri Venkateswara University.Tirupati.
- Reddy, S and Imrana Qadeer. (2010). Medical tourism in India: Progress or predicament? *Economic and Political Weekly*,14(20).

Suman kumar Dawn, Swati pal. (2011). Medical Tourism in India: Issues, opportunities and Designing Strategies for growth and Development, *International Journal of Multidisciplinary Research*, (Vol.1 Issue 3), 185-202.

Vedavathy, S. Sudhakar, A. and Mrudula, V. (1997). Tribal medicinal plants of Chittoor Ancient, *Science of Life*, (26), 307-331.

Yeshodharan, K. and Sujana, K.A. (2007). Ethno medical knowledge among Malamalasar tribe of Perambikulam wildlife sanctuary, *Indian Journal of Traditional Knowledge*, 6(3), Kerala, 481-485.