

**Government of India**  
**Economic Advisory Council to the Prime Minister**  
**NITI Aayog Bhawan, Sansad Marg, New Delhi - 110 001**

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No. EAC-PM/Sandalwood/2021

3<sup>rd</sup> March 2021

**OFFICE MEMORANDUM**

**Subject: Constitution of Sandalwood Development Committee**

**Introduction**

1.1 Sandalwood is the most important segment of the vast Flavours & Fragrance Industry in the country. Its oil is used in Attar industry, perfumery, soaps & toiletries, scented tobacco, pan masala and pharmaceutical applications. Indian Sandalwood and its oil & products are famous world over because of which the international market was dominated by India.

1.2 Sandalwood is the fragrant heartwood procured from the species of genus *Santalum*, of family *Santalaceae*. In India, Sandal distribution occurs in the Deccan plateau i.e. Karnataka, Tamil Nadu and small parts of Kerala and Andhra Pradesh. However, recently, non-traditional states have picked up Sandalwood Cultivation due to scope for long term income generation. Sandalwood tree is hemi-parasitic i.e. it requires a primary host, intermediate host as well as a long-term secondary host making it an ideal one for agroforestry. It is able to withstand soil pH up to 9 but, is unable to grow in waterlogged sites. It is capable to grow in regions with any kind of rainfall. It can tolerate extreme temperatures from 4-46° C. As per surveys, heartwood initiation generally happens between 6-9 years of age. Girth as well as age of the tree influence yield of oil from the heartwood, the highest being for a girth of >80 centimeters.

1.3 There is a huge scope for sandalwood cultivation in nontraditional states like Gujarat, Rajasthan, AP, MP and Maharashtra. A preference for horticultural species like Indian Gooseberry, Pomegranate, Citrus, Guava, Mango etc. as secondary long-term host ensures intermediate returns during the 15-20 years it takes for the trees to mature.

1.4 There are 16 varieties of Sandalwood spread over the world. These are grouped into the following variants based on the regions in which they are grown:

- East Indian (*Santalum album*)
- Australian (*Santalum spicatum*)
- Hawaiian
- Pacific Islands

**Uniqueness of East Indian Sandalwood**

2. East Indian Sandalwood is known as the queen among the sandalwood species because it yields the superior quality essential oil used for perfumery and related industries. The species is hardy, can be grown in dry and degraded lands and in a variety of soils and is

ideal to be grown in combination with horticultural species as secondary hosts. There is no uniform pattern in formation of heartwood and oil content with increasing age. Therefore, the population of East Indian Sandalwood grown anywhere in the world may have same yield.

### **Import/Export Trends of Indian Sandalwood**

3. India is hardly able to satisfy its domestic sandalwood needs and rely mostly on Australia and African nations to meet its requirements. In the 1970s when Indonesia had banned export of Sandalwood to meet its domestic requirements, India had utilized the occasion to meet the international requirements, thereby creating an environment for over exploitation and smuggling, giving rise to notorious Sandalwood smugglers like Veerappan. This eventually led to the decline in production in India. At that time, Australia started planting East Indian Sandalwood due to its high yield and entered the international market. India faced a wide gap between demand and supply. Now, India is a huge importer of Australian Red Sandalwood powder, Sandal Wood Oil from Ethiopia and Tanzania, Wooden Frames from China. Sandalwood currently enjoys vulnerable status in India.

### **Reasons for Decline in Sandalwood production in India**

4. The following reasons could be attributed to the decline in Sandalwood production in India:

4.1 Legal Hassles Faced by Potential Sandalwood Farmers - In most of the states, although owner of the land is legally entitled to the sandalwood tree in his land, harvesting is strictly prohibited. Owner of the land cannot fell, sell, convert or dress sandalwood obtained from such a tree or possess, store, transport or sell the sandalwood.

4.2 Security Concerns - State Acts make the owner of the land to protect the Sandalwood tree from thefts. Due to increasing global demand, theft concerns have risen to an extent that plantations have perimeter fencing and armed guards resulting in increased input cost.

4.3 Quality Planting Material of Sandalwood - Traditionally, seedlings are raised in 1500 mm poly bags while it can be grown in much smaller root trainers of 270 mm size. Sandalwood plants require primary host at the nursery stage and long-term secondary host when planted in the field. Seedlings exhibit better growth when grown in small root trainers with a leguminous host.

4.4 Lack of Scientific Studies - Information is lacking on growth, cultivation methods, disease management, heartwood formation, oil yield and best possible compatibility with horticultural crops when grown on private lands under a controlled environment. For example, closely spaced plantations/tree resulted in poor growth and yield of oil in Gujarat.

4.5 Less Incentives for Sandalwood Cultivators - In 2017, the average procurement price of Sandalwood from farmers by Karnataka Soaps and Detergents Ltd (KSDL) was Rs.6,400/kg of heartwood and a 15-year-old tree is expected to yield 15 kg heartwood under cultivated conditions. This price is much less compared to the retail price. There is a

Monophony where there is only a single buyer - Forest Department or Government Undertakings.

4.6 Not able to generate sustained income – In order to meet the cost of protection and maintenance, sustained income needs to be generated.

4.7 No Scheme on Sandalwood Tree Insurance.

4.8 Threat from Invasive species like Lantana camara has altered ecology of natural sandal ecosystems.

4.9 Longer time, around two years, taken to get export license.

### **Central Government agencies dealing with Sandalwood**

5. There are several Central Government agencies such as MoEF&CC, MoA&FW, Ministry of AYUSH, Ministry of Commerce, National Medicinal Plant Board, etc. dealing with Sandalwood. There is a need for a single agency in the Government of India to govern the state-owned sandalwood resources and to initiate policy making in this regard.

### **Importance of developing indigenous Sandalwood plantation/industry**

6.1 If India needs to compete against contenders like Australia and Africa whose export trends have seen a steep incline, India will need to attempt to grow Sandalwood both in in-situ and ex-situ. Various inter-plantation methods must be adopted and efforts are required to convert unproductive waste lands into productive lands.

6.2 Moreover, Sandal or Chandan in India has religious importance, aesthetic value in terms of furniture making and other woodworks apart from usage in traditional perfume or attar. People are gradually turning back to using natural products which is likely to boost sandalwood oil-based attars in the global markets. Therefore, there is likely to be a huge domestic as well as international demand for a superior quality East Indian sandalwood – heartwood and oil. We should not let such an opportunity slip through our fingers. India can be Atmanirbhar while meeting the Sandalwood needs of our society in the present and in the future.

### **Constitution of Sandalwood Development Committee**

7.1 Keeping in view that farming of sandalwood can act as a platform for rural employment generation and significant foreign exchange generation through exports of sandalwood and its various other by products, it has been decided to constitute a Sandalwood Development Committee (SDC) with the following composition:

- |       |                                       |   |             |
|-------|---------------------------------------|---|-------------|
| (i)   | Dr. Bibek Debroy, Chairman, EAC-PM    | - | Chairman    |
| (ii)  | Shri Ratan P. Watal, Member Secretary | - | Co-chairman |
| (iii) | Secretary, MoEF&CC or his nominee     | - | Member      |
| (iv)  | Secretary, MoA&FW or his nominee      | - | Member      |
| (v)   | Secretary, M/o AYUSH or his nominee   | - | Member      |

(vi)	Secretary, Ministry of Commerce or his nominee	-	Member
(vii)	CEO, National Medicinal Plants Board	-	Member
(viii)	Dr. M.P. Singh, Director / Dr Arun Kumar, Scientist - F, Institute of Wood Science & Technology, Bengaluru	-	Member
(ix)	Dr Shyam Vishwanath, Director, Kerala Forest Research Institute, Thrissur	-	Member
(x)	Dr K.T. Parthiban, Dean, Forest College & Research Institute, TNAU, Mettupalayam	-	Member
(xi)	Shri Pradeep Kapoor, Jagat Aroma Oils Distillery, Kannauj	-	Member
(xii)	Shri K. Rajeswara Rao, Sr Adviser, EAC-PM	-	Member Convenor

The SDC may induct any other expert as its member.

7.2. Following would be the Terms of Reference of SDC:

- (i) To identify issues relating to Sandalwood plantation and marketing in consultation with various State Governments and agencies;
- (ii) To examine the legal provisions and suggest amendments to increase Sandalwood plantation and marketing in different parts of the country;
- (iii) To study the Australian model of Sandalwood plantation and its marketing, including its bye products, and suggest measures to adopt the same or any other better ways in India;
- (iv) To study the domestic & International markets/trade for Sandalwood and its bye products and suggest measures for promoting production and marketing to increase value addition and employment domestically; and
- (v) Any other matter relating to the development of Sandalwood in the country.

The SDC shall submit its report by August 2021.

  
 (K. Rajeswara Rao)  
 Senior Adviser, EAC-PM &  
 Member Convenor, SDC

**Distribution:**

**Chairman, Co-chairman and Members of the Sandalwood Development Committee mentioned above**