(280)

Government of Tripura
Forest Department
Secretariat, Agartala

No.F.4-12/For/NCE/Agar Policy/2021/1092 Dated 19 July 2021

NOTIFICATION

The Governor of Tripura is pleased to notify "The Tripura Agarwood Policy 2021," which has been uploaded in the website of Forest Department. The policy will come into effect with immediate effect.

Barun Kumar Sahu 19/7/21
(Barun Kumar Sahu)
Principal Secretary (Forest)
Government of Tripura

To

The Manager, Tripura Government Press, Agartala with a request to publish this notification alongwith Tripura Agarwood Policy 2021 in the Extraordinary Gazette.

TRIPURA AGARWOOD POLICY 2021

1.0 Introduction

Agar[1] (*Aquilaria malaccensis*) is an evergreen tree, which grows in Bangladesh, Bhutan, northeast India, Sumatra and Kalimantan islands of Indonesia, Malaysia, Myanmar, Luzon Philippines, Singapore and southern Thailand. In India, it is found in North Eastern states, viz., Assam, Arunachal Pradesh, Meghalaya, Manipur, Tripura, Mizoram, Nagaland, Sikkim and northern West Bengal. Agar is also found in some southern Indian states like Karnataka, Kerala and Goa. Agar is a precious floral wealth of North East India, and has been identified as a potential aromatic plant.

Northeast India is particularly significant in this precious wealth locally known as "agar" or "xasi" (and 'aguru' in Sanskrit), and is considered to be the cradle of agarwood aromatics with ancient traditions of agarwood production which is thriving and growing. It has been used for over 2000 years for medicinal, aromatic and religious purposes. *Aquilaria malaccensis* is the preferred source of Agarwood for perfumery and religious traditions in the Middle East and in India. In Northeast India, agar is found mainly in Assam and Tripura.

Agartala, the state capital of Tripura is believed to have origin of its name from Agarwood. This species has a huge potential of creating another "economic revolution" in Tripura after rubber, bamboo and other major forestry crops of Tripura. The low input for management and growth, lack of site specificity and intercropping adaptation could make agar a preferred cash crop. In Tripura, this critically endangered tree is quite adaptable to the land. In order to promote agar tree, its plantation, its sustainable harvesting and promoting

[1] In this policy document, the word 'agar' does not refer to jelly-like edible substance obtained from red algae.

agarwood based industry, detailed policy for promotion of agarwood is presented.

2.0 Background

The resin-embedded agarwood is valued in Northeastern culture for its distinctive fragrance, and thus is used for making incense, perfumes and cosmetics. The aromatic qualities of agarwood are influenced by the species, geographic location and parts of the tree like its branch, trunk and root origin, length of time since infection, and methods of harvesting and processing. First-grade agarwood is one of the most expensive natural raw materials in the world.

In Tripura, preliminary survey shows that agar resources are available in huge quantity especially in the North Tripura district. Agar trees are also adaptable to grow in other districts of the state as well. However, agar did not gain importance like rubber and bamboo during the past years. It might be because of lack of quality of agarwood produced from the existing plantations, lack of inoculation to the extent required for economic revolution, absence of recognized and formal trade mechanism, illegal distillation leading to poor quality extraction of agar oil / lack of quality control mechanism and also due to inadequate encouragement to agar growers for registration of agar trees with Forest Department.

Moreover, because of the relative scarcity and high cost of agarwood, this species is considered as potentially threatened species and accordingly the primary source i.e. agar (*Aquilaria malaccensis)*, has been listed in *Appendix II* (potentially threatened species) by the *Convention on International Trade in Endangered Species (CITES) of Wild Fauna and Flora.*

With this policy, a comprehensive roadmap for promotion of agar for economic revolution in the state of Tripura is attempted to make agar sector ₹20 billion sector in next five years. This may be achieved by way of planned intervention in promotion of the sector, policy prescription for making it easier for growers to grow and harvest agarwood and incentivize the industrial use of agarwood.

3.0 Current Status on Agarwood

Agar plantation is one of the species of miscellaneous plantation being taken by Forest Department in its plantation programs over the years. The department encourages plantation of agar in private land through different public awareness campaigns. The department allows extraction of trees on private land as per existing guidelines of extraction of trees from private land.

Forest Department as the nodal department for all trees, attempted to explore the economic benefit of this important species as early as in 2008. References can be seen in NTFP Volume II published by NTFP Centre of Excellence (NCE) in 2008, where preliminary Economic and Profitability Analysis of Agarwood had been presented.

In subsequent years, NCE tried to increase the awareness about agar by way of different workshops, seminars, trainings and even by taking some project for artificial inoculation as well. This encouraged private growers to take Agar Plantation extensively. Forest Department had come up with a detailed guideline for sustainable extraction/utilization of agar trees available in private lands in Tripura in January 2019. With this guideline, the growers are being encouraged to register the trees growing in their private lands so that in future, at the time of harvesting and transport, Forest Department may issue the 'certificate of origin' permit required under CITES.

Recently, a special drive had taken place in North Tripura district for registration of agarwood trees. Similar drives are being arranged regularly to convince the private growers for registration of trees.

All these activities are taken by the Forest Department independently and while pushing the agenda further it was felt that there is a need for comprehensive policy on Agar, which can provide direction to all stakeholders and also prescribe definite road map for development of the sector through this policy on Agar.

4.0 Objectives:

The objectives of the Tripura Agarwood Policy 2021 are:

a) To ensure sustainable utilization of the agarwood by emphasizing on all the aspects of cultivation, harvesting, processing, transit and trade.
b) To promote trade in agarwood by easing the procedures of procurement, processing and selling of various products, within the country and export subject to the provisions of CITES.
c) To encourage the growers for planting agarwood trees on their farm/private and homestead lands for livelihood generation and better source of income.
d) To promote the agarwood based industries by Ease of Doing Business and providing proper market linkages.
e) To encourage the research and development in the field of artificial inoculation for agarwood formation, sustainable harvesting and improvement in the quantity and quality of products, development of quality planting material, agro-forestry model, establishment of germplasm and gene bank etc.
f) To set up agar trade centre for buyer-seller meet on agar products.

g) To establish agar product testing laboratory preferably in private sector for quality testing of such products.

h) To train and to build capacity of local youth in plantation and nursery techniques, artificial inoculation of agarwood, agarwood extraction and processing; and marketing of agarwood products.

i) To encourage community participation by having popular campaign "ghar-ghar agar, har ghar agar" through the involvement of Joint Forest Management Committees (JFMCs) /Bio-diversity Management Committee (BMC)/ Self Help Groups (SHGs)/agar growers companies/ farmer producer organizations etc in plantation of agar trees and also in processing and marketing of agar based products.

j) To streamline registration of existing and new agarwood processing units under the provisions of the Tripura Wood Based Industries (Establishment and Regulation) Rules, 2006 to ensure forward and backward market linkages.

5.0 Agar: Present Status

5.1: Edaphic Factor:

Agar plantations are suitable and preferable for planting in warm and high humid sub-tropical climate. Agar tree grows appropriate at a temperature between 22°C to 43°C having about 70% sunlight and with rainfall ranging from 1800-3500 mm per annum. It grows at an altitude up to 2000 m above mean sea level. Agarwood plantation is suitable in the land types of soft and sandy clayey soil with a pH ranging between 4 and 6. Currently, agarwood trees are mostly confined to Kadamtala block of North Tripura district, Khowai subdivision of Khowai district and some pockets of South Tripura and Gomati districts. However, it can grow well in all parts of Tripura, as edaphic factors required for tree to grow exist in the entire state.

5.2: Importance of infection of Agar tree:

It is only when *Aquilaria* trees are bruised by external factors such as physical injury, chemical treatment insect attack or bacterial/fungal infection, that agar resin start forming in the tree as defense mechanism. The resin is produced as an immune response to attack from fungi or injury by borer insect called Neurozerra conferta (Zeuzera conferta). In Tripura, it is noticed that insect borers aids agar resin formation more in North Tripura district naturally as compared to other areas of the state. This necessitates the policy prescription to plant tree across the state and on highways so that insects responsible for agar wood formation can propagate naturally throughout the state.

5.3 International Legal scenario:

The population of *Aquilaria* species, a critically endangered tree species of India, has markedly decreased in the forests due to illegal and unsustainable harvesting of mature trees for agarwood trade, forcing the government to bring the international trade within sustainable limits. Hence, the species was included in Appendix II (potentially threatened species) of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES 1994). It is listed as Critically Endangered in the IUCN Red List. However, over the years, its population increased substantially in private lands in many pockets of northeastern states, and to some extent in southern states. Accordingly, efforts are continuing to allow official exports of products, which are sourced from sustainable managed plantations.

5.4 World Market:

Agarwood processing and trade is secretive and restricted to only few groups/individuals. Three grades of oil are being extracted from the Agar namely Boya, Boha and Khara. These oils are being measured in units of tola (one tola = 11.66 gram). The agarwood chips are also high value product and

are classified as per quality, viz., Jura, Muri, Challa, Sisor etc. Both oil and agarwood chips are being sold in markets in Assam. However, its value in international market is many times more than what it is being sold at in North East Market. This policy attempts to fetch the right price to the growers of agar and for the agar products originating from Tripura.

5.5 Export and Re-export processes:

The export of agarwood is prohibited since 1991, when the export of all wood products (including log, timber, chip, powder, flake, dust etc) of all species was banned through the EXIM Policy in force at that time. In the EXIM Policy (2009-2014) published by the Directorate General of Foreign Trade, Government of India, export of agarwood was restricted and is subjected to the provisions of Convention of International Trade in Endangered Species of Wild Fauna and Flora (CITES). Regarding the export provision of agarwood, the export of agarwood is regulated under Chapter 12 (serial number 80 to 83) of ITC (HS) Classification of Export and Import items. As per this provision, the export of "plants, plant portion of wild or cultivated origin, of species specified in Appendix II or III of CITES" is free but it is subjected to production of a certificate of legal possession in favor of the exporter issued by the competent authority having jurisdiction where the exporter is situated.

For District Forest Officer to issue such certificate, he/she needs to verify its origin. In order to ascertain origin of such agar wood, self and voluntary registration of agar tree is recommended.

6.0 Proposed policy Intervention for promotion of Agarwood in Tripura:

Following specific intervention may be taken up by Government of Tripura in a time-bound manner for promotion for agarwood.

6.1 Resource Mapping:

Preliminary resource survey of agar resources in the state on sampling basis has already been completed by Forest Department. This was done for submission of information to Rain Forest Research Institute[2] (RFRI), Jorhat, which is listed as Scientific Authority of CITES, and is involved in preparation of Non-Detrimental Finding (NDF) study report required by the CITES Management Authority of India to ascertain the availability and harvesting of agarwood in wild and cultivable area for issuance of CITES export permit.

Like rubber and bamboo, plantation of agar also has been encouraged by Forest Department in the state, which captured the imagination of the people of North Tripura district of the state, probably because of its protection by private growers and proximity to Assam and Hojai area where agar processing mostly takes place.

As per report, the total number of agarwood trees estimated in the non-forest areas of Tripura is more than 5 million covering about 2000 hectares of plantations in the state. Almost 95% of these trees are concentrated in North Tripura district. However, in recent years, people of other districts have also shown interest in agar plantation, and many growers are planting agar trees in districts like Khowai, South Tripura and Gomati.

However, in order to have extent of agar trees, both in forestland and private land and also to know the age-wise distribution of trees, extent of infection and possible availability of agarwood for processing, there is a need of thorough resource mapping. Accordingly, the Forest Department may take up detailed resource mapping by engaging a suitable agency, which will be given the task

[2] It comes under Indian Council of Forestry Research and Education, Ministry of Environment, Forest and Climate Change, Government of India.

to identify the total agar tree resources in each village of the state. Its task will also include finding the total number of growers, their identification, GPS locations of plot, girth class wise distribution of trees, level of natural or artificial infection etc. With this information, the department will be in a position to plan in better way about sustainable utilization of agarwood and prescribe the appropriate policy for its sustainable economic utilization and industrial processing. This resource mapping may be completed in a time bound manner by December 2022.

If required advanced remote sensing-based technology like LiDAR survey may also be used for completing the resource mapping for agar species.

6.2 Resource Augmentation:

Augmentation of agar trees resources deserves attention. Agar (*Aquilaria malaccensis*) has been listed in Appendix II as potentially threatened species by the Convention on International Trade in Endangered Species (CITES) of Wild Fauna and Flora. Although it is available in good number in Tripura, but it is concentrated in specific pockets, such as in Kadamtala block of North Tripura district. The plantations are on private lands, and are protected by private growers.

In order to spread agar plantation, and to encourage it as cash crop on the patterns of rubber, bamboo, pineapple etc, augmentation of agar tree resources by way of promotion of its cultivation is proposed in this policy. It may also be encouraged through JFMCs and the community.

For the promotion of cultivation of agar tree amongst the private landholders, small growers and farmers, the following activities may be encouraged.

6.2.1 Availability of Quality Planting Material (QPM) in Nurseries:

Good quality agar saplings will be raised in both departmental and private nurseries with support from Forest Department. Both departmental as well as private nurseries will be promoted. Wherever required, nurseries may be certified for producing QPM. Agar species will be given prominence for raising seedlings through different schemes available with Forest department including Decentralized People's Nursery, School Nursery etc. As per the existing policy, these quality seedlings will be available for the growers at the suitable rate to be specified by Forest Department from time to time.

6.2.2 Block Plantation on Private land:

All those growers who plant in at least one kani land (0.4 acre) may be brought under Block Plantation Program for promotion of agar cultivation. Necessary awareness program will be conducted to encourage farmers to participate in Block Plantation Program.

6.2.3 Agar Plantation as fencing:

Growers who cannot spare the land for agar plantation may be encouraged to grow agar trees as fencing and shade to their existing plantation, residential plot etc.

One of the peculiarities of agar is that it can grow at the spacing as less as one foot. Once tree become two to three years old, barbed wire fencing can be laid out using this tree as poles. This will help in inducing the artificial infection in these trees. It is proposed to promote agar plantation as a fencing crop in various plantations.

For this, special information and communication campaign may be taken up to promote the idea of planting agar. Forest Department will provide seedling at reasonable rates from its nurseries.

6.3 Training and Capacity Building of stakeholders:

Although, agar is easy to grow, making it commercially viable and economically valuable requires skill. Skill is important to infuse infection in the trees, for identification of tree having infections, for separating infected wood from stem of the tree and also to know quality of wood, oil etc. Skill development and training are essential for realizing economic potential from agar sector.

As such, the government may supplement in training and capacity building. Training will be imparted for raising quality nursery, for raising plantation, for artificial inoculation, for extraction of infected wood from wood stem, for oil extraction and so on. Training will also be provided for various aspects like proper drilling, cutting, oil extraction process, making powder, chips cutting, etc.

Some enterprising agar tree farmers may be sent outside the state under relevant skill development schemes to develop skills in testing of agarwood and training on physical/chemical evaluation process techniques for the various agarwood oils so that growers can get the right price. Entrepreneurship Development Program (EDP) may be arranged for entrepreneurs interested in developing their own businesses in agar sector like agar trading, digital marketing, engaging in future contract for standing agar trees and for establishment of Agar distillation unit.

Such, training can be imparted by some recognized institute like Rain Forest Research Institute (RFRI) /IIT Guwahati or some private agencies/ institutes/NGOs recognized by the Skill Development Council.

The state and district level workshops, seminars may be organized and participation of traders in national and international trade fairs and exhibitions may be promoted for the better development of agarwood sector. Exposure

visits of the stakeholders including farmers will be arranged for the study of best practices in plantation, harvesting, marketing and trading.

All this will require scientific manpower like graduates in or with experience of working in the field of botany, forestry etc. In order to address the skilled manpower shortage, a concept of Chartered Forester is proposed. Those interested to work in this sector may be selected for training, and after passing out of the requisite test, will be registered as Chartered Forester. Such manpower may be deployed by private people to work in agar sector to carry out work like scientific cultivation, inoculation and extraction. The Chartered Forester may charge fees from the agar farmer based on market rate. Forest Department shall advertise the contact details of the Chartered Foresters so that agar growers can contact them.

6.4 Research and Development:

It is observed that agar tree has huge potential not only for its medicinal utility and for high quality perfume but also for other purposes as well. There is documentary evidence that shows that young agar leaves can also be used as beverages just like tea because of its medicinal properties. Agar wood, which is not infected, can also be used for carving purpose. There is need to have proper research on utility of Agar as well. In addition, we need to have laboratories to test different quality of infected agarwood, agar oil etc. Furthermore, there is a need to know how fast infection can be induced in agarwood, and at the same time, there is also need to develop good quality planting stock.

All these activities can only be possible by way of systematic approach in research and development in agar sector. Accordingly, R&D on agarwood may be promoted for identification of fast–growing genotypes, variability in infections, pests and diseases, nursery practices, silviculture, agro-forestry,

role or the insect in causing infection, micro propagation and also for the proper agarwood market (demand & supply) research. R&D will also be taken to find alternative economic use of agar wood and its parts like leaf, stem etc. In this regard, committee under the chairmanship of PCCF and HoFF has identified following research topics to be taken up in near future.

a) To compare the quality of agar wood produced using different available inoculum in market;
b) To develop our own inoculums;
c) To identify and develop the best quality planting material and agar plantation;
d) To identify different uses of agar products especially which is not infected;
e) Development of agarbatti using agar and its complete value chain;
f) Standardizing techniques for rearing of the borer insects;
g) Studies on the reproductive biology of the borer insect;
h) Identification of area specific local fungal strains for agarwood induction;
i) Studies on critical parameters influencing agarwood induction;
j) Early identification of agarwood inducing trees using biochemical markers;
k) Standardization of agronomic practices to enhance agarwood induction;
l) Studies on qualitative parameters of resin obtained through natural infection and artificial induction;
m) Pre conditioning studies for higher agarwood induction;
n) Establishment of preservation plots.

The national level research organizations like RFRI Jorhat, IIT Guwahati, and other similar academic and research organizations, which are working on agarwood may be encouraged by funding agar related projects. The private agencies, which are doing research on agarwood in collaboration with

government institutes, may also be funded. A research fund may be created for supporting the research on Agar by both Government and private institutes. An International Agarwood Trade and Research Centre may be set up by the Government of Tripura at suitable location in or around Agartala. Fellowship on the pattern of UGC pattern may be extended to the selected students who wish to take up research under their doctoral thesis on agarwood related scientific issues.

Attempt may be made that research activities will be taken in collaboration with existing research laboratories/ research organizations of different departments and by engaging already researchers/research officers/ scientist in different organizations and will be monitored centrally by the authority constituted under the policy to look after agar sector development issues.

6.5 Ease of Doing Business:

Government of Tripura is committed to further streamlining the processes for growers/farmers, agarwood processing units, traders to trade in agar wood and its product, entrepreneurs who want to start agar wood processing units in the state, trading platform, laboratories, and agar-related business operating guidelines as per the requirements of CITES and other laws.

Accordingly, necessary steps will be taken in a time-bound manner to streamline and automate the processes of registration of trees, obtaining license under relevant wood-based industries rules and other license as required to set up an industry from the relevant authorities etc. Online registration processes will be developed for voluntary registration of the trees by the growers. The transport of agar wood from plantation site to processing unit, transport of valuable products from processing unit to the trade center, and the transport of the valuable products from the trade centers to outside the state and the international market shall also be covered.

In order to issue certificate of origin of raw material, such units may be required to keep records of agar wood/ products procured, used, converted, sold etc as per guidelines that may be issued by Forest Department.

With these interventions, it is anticipated that all those who are involved in agar related business will find it easier to do the business.

6.6 Artificial inoculation of Agar trees:

An agar tree is valued based on its infection level. Infection can be classified into two categories: natural infection and artificial infection. Natural infection occurs through the fungal infection and its takes years. Only about 10-15% agar trees get affected by natural infection. Artificial infection can be done by various methods. The various methods of artificial infection of agar trees are like artificial injury, microbial infection, and chemical treatment etc. Most common among these is artificial inoculation of some fungal inoculant in the tree. Research on this is going on, and may be promoted.

6.7 Processing:

The processed agarwood is available in the following forms:-

a. Agarwood chips

The agar wood chips are very costly and valuable incense in the international market. It is a rare and precious aromatic natural resource, which are used for high quality incense, especially in Gulf countries, China and Japan.

The extraction of agarwood chips from the respective tree trunk is highly skilled activity and requires special toolkits and skill.

b. Semi solid gel-Boya

Boya Oil Gel (semi solid) is extracted from non-infected agarwood trees aged above five years. It is creamish in color. Boya (gel) is used in cosmetics, perfumery etc.

c. Agarwood oil

The essential oil from agarwood is valued as high-class perfumery and is highly priced by European perfumers who blend their best grade scents. Agarwood oil also known as the "king of incense". Moreover, it has been used in treatment of many medical conditions.

The entrepreneurs may establish small distillation units as cottage industries, or bigger units as micro and small-scale industries. Some such units may be cluster-based approach for better collaboration. Special industrial estates may also be established. Agarwood oil-based industries may also be promoted through incentives on plant and machinery as per the schemes of Industries and Commerce Department.

6.8 Marketing

It is well known that agar growers of the state are extracting the tree and selling the products mostly in informal markets in Assam. In absence of required documents and formal route of export or sell of such products, these growers are unable to get the true value of the products.

Main purpose of this policy is to make trade formal so that ultimate grower can sell their product directly to wholesale trader in the white market, and in return, the grower gets the right price.

In order to promote such formal trade and also allow export of products, following may be done.

1. Agar products need to be certified that these are sourced from legal sources, and not from the wild sources. For this, grower needs to register his plantations. Online registration of trees based on self-certification and sample checks by Forest Department may be considered while simplifying the entire procedure. If growers register the trees, they may be considered for online felling permit as well as transit pass to transport the felled logs to nearby registered agarwood industry. The available data on web portal will also help concerned DFO to issue Certificate of Origin as and when required.
2. State government may establish one Agarwood Trade and Research Centre, in or around Agartala. This will be a marketing platform to be provided by government to local growers, where every transaction will be notified and certificate of origin will be issued by the centre. The center will be a private entity, and run on the basis of fees from buyers and sellers. In this center, buyers-sellers meet will be arranged regularly, where buyers from across the country and the globe may be invited for buying agar products. All trade originating from this centre will be legal and supported by necessary documentation as required for CITES authority.
3. State government will provide the required services from Forest Department, Regional CITES authority, Customs etc if required at this Trade Centre for easy clearing of export of traded products. State of the arts product testing laboratory will also be established in such Trade Centre for testing of products. The laboratory may be accredited to National Accreditation Board for Testing and Calibration Laboratories (NABL) in due course.
4. State Government has already taken up the matter with MoEFCC, Government of India for allotment of export quota as per NDF study

conducted by RFRI Jorhat. Once this quota is finalized, state government through its designated agency will monitor the trade being conducted.

5. Based on informal sources, it appears that the quota set for country for agar oil and agar wood chips by RFRI Jorhat may be too meager. The state government and other stakeholders, including other state governments, may take up with MoEFCC to contest the quota, and demand reasonable quota commensurate to the potential in the state.
6. Detail procedural guidelines for growers, agar processing unit holders, Trade Centre authority / traders and exporter will be issued separately, wherein detail procedure for formal trade within the country and also for export will be given. These guidelines will clarify the how each product can be traced back to particular tree from where it is extracted, based on which Legal Procurement Certificate (LPC) can be issued.
7. Attempt will be made so that documents issued from state implementing agency will have all the authenticity and no one will question the contents of such documents on the way while such products are under transit.
8. Government may explore use of advanced technologies, including Blockchain technology to ascertain the origin of products, avoiding duplicity, ensuring payment of GST etc.
9. For export, implementing agency will facilitate the trader and grower to obtained legal procurement certificate (LPC) from local District Forest Officer and approval from Wild Life Crime Control Bureau (WLCCB) Government of India, which is the CITES management authority.
10. In order to promote export of agar products, Special Economic Zones may be notified for processing of agar products for export.

6.9 Promoting different Agar based Business Models:

Some investors may like to invest in agar related business in the state, which may be encouraged. Some of the identified business models that can be promoted for attracting investment are as given below.

1. Agar contract farming.
2. Agar inoculation production unit and inoculation of agar trees:
3. Raising of private agar plantation by taking land on lease basis from local land owners.
4. Establishment of agar oil/ chips processing unit.
5. Quality planting material/ agar nursery/ tissue culture based planting material development.
6. Banking solution to agar growers.
7. Business opportunities from agar byproducts.

6.10 Other Initiatives:

Depending upon the resource survey and extent of industrialization of agarwood trade and volume involved in agar trade, government may decide and review the size of establishment of Agarwood Trade and Research Centre (ATRC) in or around Agartala. This center will be used for the research, for establishment of testing laboratory, for promotion and expansion of agarwood trade. It will mainly facilitate the national and international trade. It will have facilities like buyers and sellers meeting place, video conferencing space, trade information and education services, oil testing lab, research space, exhibit space and many other similar facilities. Agarwood farmers and traders will be largely benefited from this centre.

Further, the following initiatives will also be taken through this policy for the promotion of this sector: -

1) Regional and state level exhibitions on agarwood products.
2) Conducting exhibition of agar products and also other major products of Tripura in major cities within India, in Gulf countries and some of the major European cities.

(262)

3) Participation in different national and international agarwood-specific exhibitions and trade fairs to showcase the products of Tripura.
4) Training on documentation and procedure for international marketing.
5) Contacting different Delhi/Mumbai/Kolkata based embassies of the countries where agar wood is in great demand to promote agar products from Tripura.
6) Contacting pharmaceuticals companies, cosmetic industries, refreshment products companies, neurotherapy centers etc for business-to-business promotion of Tripura based agar products in the domestic market.

Support from MSME schemes of Government of India may be sought for marketing promotion and trade facilitation.

The digital marketing may be explored for agarwood product marketing. It may be extended to non-internet channels that provide digital media, such as television.

6.11 Offering Agarwood sector the Status of 'Industry':

Considering the potential of agarwood sector in the state's economy in future, the Government may consider conferring the agarwood sector the status of 'industry'.

With this, any stakeholder working in the field of agarwood sector can avail the government facilities, which any other industry is entitled to get. This includes inclusion of agarwood related small business under self-employment scheme, concessional rate of interest from banks, inclusion of agarwood sector under priority sector lending program of financial institutions, getting shades/plots within the industrial estates of Tripura Industrial development corporations etc.

7.0 General Incentives:

Agarwood is a lucrative industry. It just needs some support in the initial stage before the sector grows. It should be kept in mind that traders and entrepreneurs are not unduly distracted to incentives, even though they will be encouraged to avail all the incentives due to them.

7.1 Incentives for the artificial induction of Agarwood- Since the natural infection of agarwood takes a long time and is fraught with uncertainty, artificial infection is a better option with certainty. For increasing rate of infection, government proposes following measures in this policy: -

7.1.1 For the artificial inoculation of agar tree of 8-10 years of age, a special drive will be taken to identify different inoculum providers, to test the efficacy of inoculum being provided by such inoculum providers and encourage grower to go for artificial infection of un-infected trees.

7.1.2 Inoculum production units will be encouraged in collaboration with the institutes that are already doing research on the microbes viz RFRI (Rain Forest Research Institute), Jorhat or IIT Guwahati or any other agency having microbiology lab.

7.1.3 In order to finance the growers taking up inoculation of a large number of trees, the state government may take steps so that banks finance such projects, preferably in the priority sector.

7.2 Incentives for processing of Agarwood

All eligible new industrial units for the distillation of agar oil, perfumery and packaging may be provided with Capital Investment Incentives as applicable by relevant provisions under Tripura Industrial Promotion Scheme and NEIPP scheme of Government of India.

7.3 Incentives for Research-

Research related to novel techniques of induction of agarwood, new distillation methods and finding superior varieties or any other development related to agarwood may be encouraged by extending special incentives as and when required.

7.4 Support to Training and Capacity Building:

Government may sponsor training in different training institutes and skill development centers for providing training to different stakeholders as and when required.

7.5 Marketing support:

For facilitating the marketing of agarwood and its products, the different activities may be funded by the government. Some of such activities are;

a. For the participation in national and international trade fairs/exhibitions;
b. For development of online portal for marketing of agarwood products;
c. For arranging buyers and sellers meet from time to time.

8.0 Fund requirement and sources of funding:

About ₹100 crore may be earmarked from different sources for promotion of agar sector as per roadmap prescribed in this policy.

9.0 The Institutional Mechanism:

Since agarwood sector economy is expected to be ₹2000 crore economy in near future and it requires quite concerted effort mainly on policy and fiscal front, the state government may consider forming a Special Purpose Vehicle (SPV)/ Agar Development Board to take up this sector in large scale as and when such need arises. In the meantime, NTFP Center of Excellence may continue to look after implementation of this policy by strengthening its resources as required.

10.0 Right of the State Government to amend the Policy

The Government of Tripura reserves the right to amend any provision(s) of this policy as and when required.

11.0 Period of validity of the Policy:

The policy will be effective from immediate effect. The policy may be reviewed from time to time to adapt to the necessary changes based on the performance of this sector. A thorough review of the policy may be done after five years.

12.0 Expectation from this policy intervention:

Through this policy, the Government of Tripura intends to promote

a. Value addition of agarwood and its export.
b. To cover additional about 2000 hectares of agar plantation and increase number of agar tree count by another 5 million trees.
c. Export of locally cultivated agarwood, subject to the fulfillment of requirements under the CITES and EXIM Policy of Government of India; besides large-scale cultivation of agar trees and its inoculation for agarwood production.

d. The government will also take necessary steps to bring Agartala airport in the lists of ports specified in EXIM Policy for foreign trade in respect of species listed in Appendix II and III of CITES.

13.0 Conclusion

Tripura Agarwood Policy 2021 seeks to cover various aspects of agarwood sector for the benefit of all the stakeholders in the state. With the synergy from various stakeholders, the endeavor shall be to make Tripura the main hub for the agarwood trade in the country.

For the purpose of effective implementation of the policy, Forests Department has already initiated steps to modify the existing guidelines and initiating the creation of agar nursery in all its subdivisions. It is iterated that the extant provisions of all existing Acts, Rules, Regulations, etc. of the Forests Department, Government of Tripura and Ministry of Environment, Forest and Climate Change, Government of India shall be complied with.

The targeted area to be covered under agar plantation is about 2000 hectare in next five years. As an outcome of this intervention, it is expected that the addition to the economy may be to the tune of ₹20 billion per year by 2025.

AT A GLANCE

Agarwood trees: Present and Future:

Agar resources	Present agar resources (2021) [3]	Expected agar resource by 2025
Number of trees	54 lakh	104 lakh
Area under agar plantation	2000 ha	4000 ha

Agarwood products: Present and Future:

Agar sector turnover	Unit	Present annual turnover (2021)	Expected turnover by 2025
Trees harvested	number	1 lakh	2.5 lakh
Agar wood chips (infected) @ 1 kg per tree	lakh kg	1	2.5
Value of chips @₹50,000 per kg now, @₹60,000 per kg in future	crore ₹	500	1500
Agar oil 20 g per tree	kg	2000	5000
Value of agar oil @₹5 lakh per litre now, @₹6 lakh per kg in future	crore ₹	100	300
Boya gel from uninfected tree	crore ₹	100	200
Agar economy	crore ₹	700	2000

Non-Detrimental Finding (NDF) limitations under CITES

Present: The present export quota for the country is NIL.

Future: Action is going on in MoEFCC to decide quota for the country, and to distribute it among the state. It is informally learned that RFRI Jorhat recommended only 25000 kg of agarwood chips and 1500 kg of agar oil for export from the country. This quota will have to be divided among states. So, the export quota for Tripura may be only a fraction of its current production. The success of Tripura Agarwood Policy 2021 hinges on fixing reasonable quota for the state, and enhancing the quota as the sector grows.

Proposed Intervention:

Nursery:

- Supply of quality saplings at competitive rates from government/private nurseries.
- Encourage private nurseries

Agarwood plantations:

- Encourage tree plantation on private lands.
- Awareness and capacity buildings on plantation, silvicultural practices & harvesting.
- Bank loan linkage

[3] As per preliminary study conducted for NDF study.

256

Agar resin formation:

- Promotion of artificial inoculation of agar tree for agar resin formation
- Identification of genuine agar inoculum provider
- Information sharing and publicity regarding advantage of artificial inoculation
- Deployment of Chartered forester to assist growers for agar formation on payment basis.

Registration of agar trees:

- Online/mobile based registration of agar tree and trunk branches;
- Registration of be actively encouraged and recommended.
- Registration to be free of cost from Forest Department
- Registration based on self-certification, geo-reference plot boundary, and by entering details of plot, number of trees etc.
- Online tree felling permit/transit pass to processing unit at the time of tree felling.
- Forest Department to do sample check, especially in case of allegation and disputes.
- Online data will be used for issue of certificate of origin as and when required.

Processing units:

- All agarwood processing units to be registered under relevant rules and guidelines of Forest Department and Department of Industries and Commerce.
- All units required to maintain necessary documentations about the incoming raw agarwood and the outgoing processed products as per procedure to be issued separately.
- Forest officials to inspect and verify the records on regular intervals along with record of inputs and production.
- Transit permit for movement of agarwood oil and chips to trade center and outside state.
- Industry status, and incentives.
- SEZ option may be explored in due course.

Trade centre and testing laboratory:

- Establishment of Agar Trade and Research Centre at Agartala.
- This will be a place for regular meeting of buyers and sellers.
- Trade centre will be equipped with necessary supporting offices like Forest Office to issue certificate of origin, laboratory to test the agar products, courier service to dispatch the traded products, bank counter etc.
- Testing laboratory will be established on priority in time-bound manner for testing of agarwood products to ascertain the quality of traded products.

Expected cost of intervention:

- Interventions: resource mapping, research, trade center, laboratory, capacity building, nurseries, development of software applications, campaigns, exhibitions, incentives.
- Cost of establishment of Trade Center and Testing Laboratory:

	Cost	Revenue
Infrastructure	₹10 crore	
Recurring cost including salary	₹3 crore	₹4 crore per year (₹2 crore from testing and ₹2 crore from trade centre charges)