

Inventory and Assessment of High Conservation Value Forest in TNPL Captive & Farm Forestry Area



Tamil Nadu Newsprint and Papers Limited Kagithapuram – 639136, Karur District

Inventory and Assessment of High Conservation Value Forest in TNPL Captive Plantation and Farm Forestry Area

2023 - Issue No.6

Submitted By

SOCIETY FOR SOCIAL FORESTRY RESEARCH AND DEVELOPMENT CHENNAI

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INVENTORY & ASSESSMENT OF HIGH CONSERVATION VALUE FORESTS IN TNPL CAPTIVE PLANTATION & FARM FORESTRY AREA

I) INTRODUCTION

High Conservation Value Forests are the forest areas which have environmental and social values. The values it contains may include rare species, recreational sites or resources harvested by local residents, where these values are considered to be of outstanding significance or critical importance. Such forest can be defined as a High Conservation Value Forest (HCVF).

Generally, the FSC's definition of HCVs encompasses exceptional or critical ecological attributes, ecosystem services and social functions. A High Conservation Value Forest is the area of forest required to maintain or enhance a High Conservation Value. A HCVF may be part of a larger forest, for example a riparian zone protecting a stream that is the sole supply of drinking water to a community or a patch of a rare limestone-loving forest within a larger forest area. In other cases, the HCVF may be the whole of a large forest management unit, for example when the forest contains several threatened or endangered species that range throughout the forest.

As per FSC standards the following are the six high conservation values:

HCV 1 – Globally/regionally/nationally significant concentrations of biodiversity values

- HCV1.1 Protected Areas
- HCV1.2 Threatened and endangered species
- ➤ HCV1.3 Endemic species
- HCV1.4 Critical temporal use

HCV 2 – Globally, regionally or nationally significant large landscape level forests

HCV 3 – Forest areas that are in or contain rare, threatened or endangered ecosystems

HCV 4 – Forest areas that provide basic services of nature in critical situations

- ➤ HCV4.1 Forests critical to water catchments
- ➤ HCV4.2 Forests critical to erosion control
- ➤ HCV4.3 Forests providing barriers to destructive fire

HCV 5 – Forest areas fundamental to meeting basic needs of local communities

HCV 6 – Forest areas critical to local communities' traditional cultural identity

1.1. FSC PRINCIPLES ABOUT HCVF's

Forest Stewardship Council is covering the aspect about identification, consultation, management planning and monitoring of HCVFs under Principle number 9. The four criteria governing management of High Conservation Value Forests under principle 9 are

Criterion 9.1

Assessment to determine the presence of the attributes consistent with High Conservation Value Forests will be completed, appropriate to scale and intensity of forest management. The purpose of this criterion is to ensure that any outstanding or critical values (i.e., HCVs) that occur within a forest management unit are identified. This will entail the demarcation of the forest necessary to maintain and enhance the value (i.e., the HCVF) on operational planning maps.

> Criterion 9.2

The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof. This criterion requires Forest Managers to consult with stakeholders on the options for the maintenance of any High Conservation Values that are identified. This requirement places a safeguard on the management of HCVFs as it allows stakeholders to raise significant and credible points that may be important in maintaining or enhancing the identified HCV.

Criterion 9.3

The management plan shall include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. These measures shall be specifically included in the publicly available management plan summary. This criterion specifies the general goal of management of HCVF – to maintain or enhance the HCV – as well as ensuring that stakeholders are informed about the proposed management regime for the HCVF.

Criterion 9.4

Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes.

The National Forest Policy of 1988 resolved to phase out the supply of raw material to wood based industries and ultimately to stop the raw material supply totally from the forest. The policy also indicated that wood based industries have to become self-reliance in meeting the raw material demand by establishing direct linkages with the farmers by providing lending facilitates and other input needs.

To meet the raw material requirement and also to sub-serve the 1988 National Forest Policy Guidelines of Indian Government, TNPL has initiated plantation programme during 2004-05 and has accelerated the pace to increase the area under pulp wood plantations.

The wood based industries in the country have been directed by the state and central government policy and legal guidelines to generate their own raw material resources by establishing necessary linkages with farmers and other stake holders. This policy and legal guidelines also regulated and almost put a ban on supply of raw materials to wood based industries from the regular forests. This besides, the international consumer countries also demanded production of paper from known and established captive and farm forestry plantations and not from native forests in order to ensure conservation and sustainable utilization of forest resources. The regional policy and legal restriction coupled with compulsion made by International consumers demanded establishment of

strong and sustainable captive & farm forestry plantation development programme which will ensure the long term availability of industrial wood raw material besides protecting the regional, local and community based social, cultural and environmental values.

The Forest Stewardship Council (FSC) involved in Forest Certification Program established strong given guidelines and issued rationale for plantation programme for obtaining Forest Management Certification and also provided guidelines for management of captive and farm forestry plantations to ensure protection of High Conservation Value Forests (HCVF) in and around the industrial wood plantations.

Further, the plantation programme implemented by TNPL has the desired result in green cover and thus restore the ecological balance of the operational area. Implementing the tree farming activity outside the forest area will enable definitely converting the underutilized degraded lands into green cover. Further, by establishing pulpwood raw material outside the forest area, an equal amount to this area of natural forest is conserved without disturbance for pulpwood and firewood.

Hence, Tamil Nadu Newsprint and Papers Limited have assessed 1839.01 hectares of captive plantation with 45 FMUs and 18799.34 hectares of farm forestry plantations with 11380 FMUs for the year 2022-23 in almost 22 districts of the state. To fulfill the FSC directions of obtaining Forest Management Certification coupled with the industry's corporate social responsibility of protecting the flora, fauna, socio-economic, cultural and environmental values of the operational area, the current study has been designed and carried out by team of members from Society For Social Forestry Research & Development Tamil Nadu (SSFRDT), Chennai to analyse and assess the status of high conservation value forests in and around the TNPL captive and farm forestry plantation operational areas with the following objectives:

➤ To assess the globally, regionally or nationally significant concentrations of biodiversity values (HCVF 1).

- > To determine the globally, regionally or nationally significant large landscape level forests (HCVF 2).
- > To assess the forest areas those are in or contain rare, threatened or endangered ecosystems (HCVF 3).
- > To inventories the Forest areas that provide basic services of nature in critical situations (HCVF 4).
- > To identify the Forest areas fundamental to meeting basic needs of local communities (HCVF 5).
- > To evaluate the Forest areas critical to local communities' traditional cultural identity (HCVF 6).

II) METHODOLOGY

The captive and farm forestry plantations established by Tamil Nadu Newsprints and Papers Limited, Karur across the 11425 FMUs of 22 districts of Tamil Nadu formed the basis for current evaluation of high conservation value forests (HVCF) assessment. The methodologies adopted by the scientific team towards assessment of high conservation value forests (HVCF) for the plantation established under TNPL captive and farm forestry schemes are given below.

The scientific team of Society For Social Forestry Research & Development Tamil Nadu (SSFRDT), Chennai recorded the presence & status of HCVF in consultation with stakeholders and other local sources.

2.1. Study area and study period

The captive and farm forestry plantation established by Tamil Nadu Newsprints and Papers Limited, Karur across the state of Tamil Nadu formed the materials for the current evaluation. The species planted in the captive and farm forestry plantation majorly with Eucalyptus and Casuarina species. The other species also planted with limited extent. Based on the list obtained, the in and around the TNPL captive and farm forestry plantation was used for assessment of HVCFs for the implementation. Totally 11425 FMUs from 109 Taluks coming under 22 districts with an area of 20638.35 hectares (Table 1). The Study conducted and the data collected were related to the year 2021-22.

Even with this Covid-19 pandemic situation, the study conducted through Participatory Rural Appraisal (PRA) by interviewing the local stakeholders Forests with suitable safety measures as directed by Government of Tamil Nadu to find the effectiveness of Protection given by TNPL on High Conservation Value Forests presents in its Captive and Farm Forestry Plantation areas.

2.2. Description about High Conservation Value Forest (HVCF)

2.2.1. HCV 1: Globally, regionally or nationally significant concentrations of biodiversity values

This value is intended to include areas with extraordinary concentrations of species, including threatened or endangered species, endemics, unusual assemblages of ecological or taxonomic groups and extraordinary seasonal concentrations.

Any forest/plantation that contains the species identified as HCVs, or which contains habitat critical to the continued survival of these species, will be a HCVF. This will include forests/plantations with many species that are threatened or endangered or many endemic species (e.g. "Biodiversity hotspots"). Exceptionally, it may even be that a single species is considered important enough to be an HCV on its own. Since there is a range of ways in which biodiversity values can be identified, this value has been sub-divided into four elements:

> HCV 1.1: Protected areas

Protected areas perform many functions, including conserving biodiversity. Protected area networks are a cornerstone of the biodiversity conservation policies of most governments and many NGOs and the importance of them is recognized in the Convention on Biological Diversity (CBD). Although the processes of selecting areas for protection have varied greatly in different countries and at different times, many are nonetheless vital for conserving regional and global biodiversity values.

HCV 1.2: Threatened and endangered species

One of the most important aspects of biodiversity value is the presence of threatened or endangered species. Forests that contain populations of threatened or endangered species are clearly more important for maintaining biodiversity values than those that do not, simply because these species are more vulnerable to continued habitat loss, hunting, disease etc.

> HCV 1.3: Endemic species

Endemic species are ones that are confined to a particular geographic area. When this area is restricted, then a species has particular importance for conservation. This is because restricted range increases the vulnerability of species to further loss of habitat etc, and at the same time the presence of concentrations of endemic species is proof of extraordinary evolutionary processes.

HCV1.4 Critical temporal use

Many species use a variety of habitats at different times or at different stages in their life-history. These may be geographically distinct or may be different ecosystems or habitats within the same region. The use may be seasonal or the habitat may be used only in extreme years, when, nevertheless, it is critical to the survival of the population. This component includes critical breeding sites, migration sites, migration routes or corridors (latitudinal as well as altitudinal) or forests/plantations that contain globally important seasonal concentrations of species.

2.2.2. HCV 2: Globally, regionally or nationally significant large landscape level forests

This part of the HCVF definition aims to identify those forests that contain viable populations of most if not all naturally occurring species. It often also includes forests that contain important sub-populations of very wide-ranging species (e.g. tiger, elephant) even though the sub-populations may not in themselves be viable in the long term. It includes forests where ecological processes and ecosystem functioning (e.g. natural disturbance regimes, forest succession, species distributions and abundance) are wholly or relatively unaffected by recent anthropogenic activities. Where forest ecosystems naturally form a landscape-level mosaic with other vegetation types and where many species use both forest and non-forest ecosystems, then it may be decided that this value relates to the mosaic of natural vegetation and not just the extent of forest.

It is also worth emphasizing that the forest considered under HCV2 is not necessarily confined to a particular administrative unit (e.g. forest management unit). This is because several contiguous administrative units of forest land may together form a significant large landscape level forest. An individual forest management unit can be a HCVF under HCV2 if it is whole or part of a significant large, landscape level forest.

2.2.3. HCV 3: Rare, threatened or endangered ecosystems

Some ecosystems are naturally rare, where the climatic or geological conditions necessary for their development are limited in extent. Recent processes, such as land conversion, may have decreased their extent even further. This value is ensuring that threatened or endangered forest ecosystems, communities or types will be maintained. It includes forest types which were previously widespread or typical of large regions. In these cases, the HCV is the rare ecosystem itself, which may be all or part of any particular forest. Native forest ecosystems or species assemblages that are characteristic of a region but are not rare or endangered should not be considered HCVFs under this part of the definition.

2.2.4. HCV 4: Forest areas providing basic services of nature in critical situations

All forests provide some services of nature, such as watershed protection, stream flow regulation or erosion control. These services should always be maintained under good management, a fact reflected in the requirements of most forest management standards. The value can be considered an HCV if the consequence of a breakdown in these services would have a serious catastrophic or cumulative impact. For example, a forest that forms a large proportion of the catchments area of a river that has a high risk of damaging and destructive flooding downstream may be critical in preventing flooding and would be considered an HCVF. Since there is a range of separate ecosystem services, this value has been sub-divided into three elements:

- > HCV 4.1: Forests critical to water catchments
- ➤ HCV 4.2: Forests critical to erosion control
- ➤ HCV 4.3: Forests providing barriers to destructive fire

2.2.5. HCV 5: Forest areas fundamental to meeting basic needs of local communities

The definition of HCVFs recognises that some forests are essential to human wellbeing. This value is designed to protect the basic subsistence and security of local communities that are dependent on forests - not only for "forest-dwelling" communities, but also for any communities that get substantial and irreplaceable amounts of income, food or other benefits from the forest.

Employment, income and products are values that should be conserved if possible, without prejudice to other values and benefits. However, management of HCVFs does not imply excessive and unsustainable extraction of resources, even when communities are currently economically dependent on the forest. A forest may have HCV status if local communities obtain essential fuel, food, fodder, medicines, or building materials from the forest, without readily available alternatives. In such cases, the High Conservation Value is specifically identified as one or more of these basic needs.

2.2.6. HCV 6: Forest areas critical to local communities' traditional cultural identity

As well as being essential for subsistence and survival, forests can be critical to societies and communities for their cultural identity. This value is designed to protect the traditional culture of local communities where the forest is critical to their identity, thereby helping to maintain the cultural integrity of the community. A forest may be designated a HCVF if it contains or provides values without which a local community would suffer an unacceptable cultural change and for which the community has no alternative. Example: Sacred groves.

III) RESULTS AND DISCUSSION

High Conservation Value Forests (HCVFS) was assessed in the TNPL captive plantation and farm forestry area under six categories and the detailed result of the report are furnished as below:

3.1. HCV 1: Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values

The presence of this High Conservation Value at TNPL captive and farm forestry plantations are assessed by evaluating the presence of the following four elements (Table 2),

- > HCV 1.1: Protected areas
- HCV 1.2: Threatened and endangered species
- ➤ HCV 1.3: Endemic species
- HCV 1.4: Critical seasonal use

3.1.1. HCV 1.1: Protected Areas

Protected areas included as an element of HCV 1 because they are a vital component of biodiversity conservation. Protected areas are usually categorized by management objective, ranging from areas that are managed mainly for science of wilderness protection (IUCN Category I) to those that are managed mainly for the sustainable use of natural ecosystems (IUCN Category VI). Protected areas are mainly owned and conserved by state and central government in India. The current inventory and evaluation found no such protected areas in the Forest Management Unit established by TNPL. (Table 2)

3.1.2. HCV 1.2, 1.3, 1.4: Threatened and endangered species, endemics and temporal concentrations

These elements concern significant concentrations of rare, endemic and temporal concentrations of species respectively. The assessment study revealed that the TNPL captive and farm forestry plantation area is not a priority site for threatened or

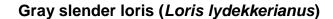
endangered species, endemics or maintaining significant temporal concentrations of species. The TNPL captive and farm forestry plantation areas are not within a part of the country that is a priority for rare species, endemics or for maintaining significant temporal concentrations of species. The TNPL captive and farm forestry plantations are not witnessed the presence of the concentrations of rare species, endemics or contains significant temporal concentrations of species. The study found that the FMU's were established mostly in barren fallow lands wherein the existence of rare and endemic species was not witnessed.

- ➤ The study showed that several rare species, endemic species or exceptional seasonal concentrations of species are not present within the TNPL captive and farm forestry plantation areas
- > The boundaries are not with a protected area or part of captive and farm forestry plantations that not connects one or more protected areas;
- > The captive and farm forestry plantations are not in a region where protected areas are threatened by encroachment, degradation or by land-use plans that would result in use incompatible with their status
- ➤ It also not contained landscape or habitat features likely to contain critical temporal concentrations of species (Table 2).

The High Conservation Value Forests of the state (Reserve Forest, Protected Forest, etc.,) are owned by the State Forest Dept only and are protected as per the provision of Indian Forest Act 1927 and Forest Conservation Act 1980. The current captive and farm forestry plantation programme of TNPL is not concentrated in these plantations and the question of Reserve Forest and Protected Forest does not arise.

The study revealed that the TNPL captive and farm forestry plantations has not witnessed the presence of rare species, endemics and seasonal concentrations of species and also not contained a significant concentration of threatened or endangered species, endemics or a significant temporal concentration of species. However, the grey slender loris habitat has been found in nearby TNPL Unit II Plantation areas which is

documented and presented in the table. TNPL has taken remarkable protective measures to protect this habitat. The IUCN Red List of Threatened Species puts them as least concern, which means they are doing well. TNPL protecting the grey slender lorises which are present in the TNPL Unit II Plantation areas through proper protective measures such as planting more habitat trees and avoiding disturbances of habitats. TNPL also taking remarkable steps to create awareness among the local people about Grey slender loris.





Scientific classification

Kingdom: Animalia

Phylum: Chordata

Class : Mammalia

Order : Primates

Suborder: Strepsirrhini

Family : Lorisidae

Genus : Loris

Species: L. lydekkerianus



Geographic Distribution

Found endemically in India and Sri Lanka, lorises are distributed along the Western Ghats in Kerala, Karnataka and Western Tamil Nadu continuing along the Eastern Ghats to southern Andhra Pradesh. Lorises prefer dry zones, with scrub and dry tree species. They are also found near plantations, and cultivated areas near taller forests

Behavior and Characters

The gray slender loris is a curious looking primate, with its large, round eyes and thin, elongated limbs. Their eyes are so large because it helps them see better at night. They are nocturnal primates so they are awake at night and sleep all day. Despite their name they are not always gray. Sometimes they are a reddish brown color.

They have small, super thin ears that are almost totally hidden by fur. They have no tail. They range between 17.5 - 26 cm and weight around 85 - 350 grams. Their hands are small and fingers are slender allowing for them to have amazing grip on the branches! They have a special muscle and vascular system around their wrists and ankles that allows them to not get cramps even days after holding on. It is nearly impossible to detach a Loris's hand from a branch it's clinging to.

The unique thing about Loris's hands is that every hand and foot has nails except for the second toes, which have claws. This allows for better grooming! Their teeth are also unique in that the bottom four front teeth are fused together and are called a toothcomb.

Gray Slender Loris spend their day curled up with 2-7 other gray lorises, but when night comes they go their separate ways and find food alone. They primarily stay in groups of one female (with her offspring) with one or more males. The females can give birth to twins which is unusual for primates to do.

Feeding Behavior

They mostly feed on insects but will resort to other type of food if necessary. They can eat shoots, fruit, flowers, small mammals, small birds and leaves.

Conservation Status

The IUCN Red List of Threatened Species puts them as least concern, which means they are doing well. They are low on the list because they are spread out in a wider area and are not found just in one location. Their ability to adapt to differing environments is extremely important for this species. With habitat loss it has become increasingly important that species are able to adapt, and adapt quickly to different environments.

Gray slender loris conservation status at Unit -II, Mondipatti

Available locations: 3rd block 150 years old British period ammunition structure and few large trees are the major hibernating habitats. During night hours loris distribute in the entire plantation area for feeding.

Breading Area: 150 years old British period ammunition in nearby 3rd block and large teak tress in first block of our plantation.

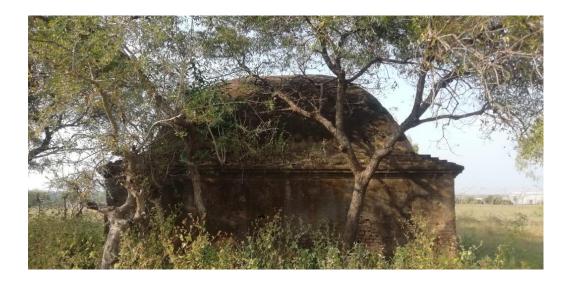
Conservation zones:

TNPL marked the areas of Grey slender loris habitat located as Conservation Zones and conserving the habitat trees without any disturbance. TNPL also planted the habitat trees like Azadirachta indica, Thespesia populnea to enhance the habitat areas for Grey slender loris.

Population: With the concrete effort made by TNPL, the population of Grey slender loris is improved in TNPL Plantation areas. **Around 28 no's are sighted against the earlier recorded of 17 No's.** The population increased due to the habitat improvement taken by TNPL which should be appreciable.

- The Gray slender loris habitat maintained without any disturbance and protecting from the hunting moreover enriching the habitat through planting of suitable trees.
- Awareness created among the local public about Grey slender loris.
- Monitoring of habitat may also be included in the TNPL monitoring system





HABITAT TREES CONSERVED BY TNPL





3.2. HCV 2: Forest areas containing globally, regionally or nationally significant large landscape level forests

The assessment and evaluation study has been carried out to identify whether TNPL captive and farm forestry plantations contain viable populations of most if not all naturally occurring species or important sub-populations of very wide-ranging species (Table 3).

To identify the above HCV values at TNPL captive and farm forestry plantations areas the following aspects were studied and reported as follows,

Whether the TNPL captive and farm forestry plantations are critical to maintaining the integrity of the priority landscape?

It is to be noted that the TNPL captive and farm forestry plantations are not at all having the significant landscape values. Hence maintenance of such landscape integrity does not rise.

Whether the TNPL captive and farm forestry plantations are part of a large landscape level forest?

The study found that most of the TNPL captive and farm forestry plantations area is less than 50 ha in case of captive and farm forestry plantations in size and again these areas are sporadically distributed. The TNPL captive and farm forestry plantations are not part of a large landscape level forest and this HCV is not present within the TNPL captive and farm forestry plantations.

Whether large landscape level forest is significant?

The assessment carried out to identify whether the landscape is unusually valuable. The knowledge and opinions of independent, informed stakeholders are also considered to make decision about the above HCVS. The TNPL captive and farm forestry plantations are not having any significant landscape level forest.

Whether the TNPL captive and farm forestry plantations has been identified as all or part of a priority landscape level forest?

The current TNPL captive and farm forestry plantations established across the state through 11425 FMU indicated that these captive and farm forestry plantations are not be potentially a significant large landscape level forest.

- a) The captive and farm forestry plantations are not all or part of an 'intact forest landscape;
- b) The all or part of a captive and farm forestry plantation areas are not within a large protected area or gazetted to maintain a natural landscape
- c) The borders / boundaries are not within a large protected area that has been created to maintain a natural landscape and that not connects two or more protected areas
- d) They are not rare within the country. They are not coming under protected area network within the country.

3.3. HCV 3: Forest areas that are in or contain rare, threatened or endangered ecosystems

The TNPL captive and farm forestry plantations are assessed to identify the presence of threatened or endangered forest ecosystems if any and the management perspectives of these areas. Since the TNPL captive and farm forestry plantations are mainly artificial and established in barren farm lands, the presence of diversified vegetation is not witnessed as in natural forests. The TNPL captive and farm forestry plantations are surveyed and compared with existing information about forest types which are occurring in India like priority forests for ecosystem conservation, priority ecosystem within the country. The study indicated that priority ecosystems with High Conservation Values are not found in the TNPL captive and farm forestry plantations (Table 4).

3.4. HCV 4: Forest areas that provide basic services of nature in critical situations

Since there is a range of separate ecosystem services (Table 5), this value has been sub-divided into three elements as follows,

- > HCV 4.1: Forests critical to water catchments
- > HCV 4.2: Forests critical to erosion control
- ➤ HCV 4.3: Forests providing barriers to destructive fire

3.4.1. HCV 4.1: Forests critical to water catchments

The TNPL captive and farm forestry plantations area mainly raised in marginal and barren lands across different farm lands of the state. Hence, the water catchments areas which are critical to conserve are not present in the TNPL captive and farm forestry plantations. The TNPL captive and farm forestry plantations are not to be considered as critical to watershed protection since they don't need protects against:

- Potentially catastrophic floods or drought
- > Widespread loss of irreplaceable water for drinking, agriculture and other uses,

The assessment team found that the TNPL captive and farm forestry plantation areas are not within critical catchments and not play a critical role regarding water catchments. However, there are certain places were artificial percolation ponds, check dams and water storage tanks have been witnessed around the plantation sites established by various line departments like Agrl. Engineering, Agriculture and Horticulture Departments to auger the rainwater harvest system to increase the agricultural productivity.

Buffer Zones along watercourses:

TNPL plantations are developed in the degraded, dry land belongs to farmers, institutions and government, and the presence of diversified vegetation (ecosystem) is not witnessed as in natural forests. The natural forests, key biological areas, ecosystem are owned by state/central government and conserved without any disturbances. Hence, there will not be any ecosystem conservation zones present in TNPL plantation areas except buffer zones/habitat conservation zones in few plantations.

Even though there is no water flow in the water channel TNPL is maintaining a buffer zone in the channel bank. The plantations are raised with a required distance from water channel i.e., minimum of 10mm width by which the plantation activities will not disturb the nature of water channel. It is also found that TNPL taking maximum precautions before establishing plantations and not disturbing the natural vegetation if any presence in the buffer zone.

The location of water course and buffer zone in TNPL Plantations is as follows:

S.L NO	FARMER CODE	NAME OF THE LAND OWNER	DISTRICT	LOCATION	Remarks
1	S04017	A/M NITHIYAKALYANAPERUMAL THIRUKOIL	KANCHIPURAM	N12.73396 E80.16943	Plantation
		Artificial Pond	KANCHIPURAM	12°44'02.2"N , 80°10'22.8"E; N12° 43.904' E80° 10.415'	Artificial Pond
		Buffer Zone maintained ByTNPL	KANCHIPURAM	N12 44.039 E80 10.360; N12° 43.904' E80° 10.415'	Buffer Zone
2	S04024	A/M MASIMAGA SOMASUNDARA MUDALIYAR ARAKKATTALAI	TIRUVANNAMALAI	N12 41.092 E79 34.246	Plantation
		Artificial Pond	TIRUVANNAMALAI	12°40'58.8"N , 79°34'18.1"E	Artificial Pond
		Buffer Zone maintained ByTNPL	TIRUVANNAMALAI	N12 40.977 E79 34.260	Buffer Zone
3	S04029, S04030, S04031	A/M GANDHIMATHIAMMAN THIRUKOIL	TIRUNELVELI	N8 34.012 E77 46.734, N8 33.578 E77 47.465, N8 35.019 E77 46.483	Plantation
		Artificial Pond	TIRUNELVELI	8°34'08.3"N , 77°46'45.4"E; 8°34'28.5"N , 77°46'39.2"E	Artificial Pond
		Buffer Zone maintained ByTNPL	TIRUNELVELI	N8 33.997 E77 46.607; N8 34.517 E77 46.581	Buffer Zone
4	S04040	A/M NARUMBUTHASAMY THIRUKOIL	TIRUNELVELI	N8 45.278 E77 28.696	Plantation
		Artificial Pond	TIRUNELVELI	8°45'21.41"N,, 77°28'53.51"E; N8° 45.996' E77° 28.904'	Artificial Pond

		Buffer Zone maintained ByTNPL	TIRUNELVELI	N8 45.686 E77 28.930; N8° 45.996' E77° 28.904'	Buffer Zone
5	S04042	A/M SUBRAMANIYASWAMY THIRUKOIL	TIRUNELVELI	N8 39.540 E77 38.671	Plantation
		Artificial Pond	TIRUNELVELI	8°39'14.0"N, 77°38'39.6"E; 8°38'31.75"N, 77°38'57.76"E	Artificial Pond
		Buffer Zone maintained ByTNPL	TIRUNELVELI	N8 38.616 E77 38.842; N8 39.562 E77 38.719	Buffer Zone
6	S04045	A/M EKANTHALINGASAMY THIRUKOIL	THOOTHUKUDI	N8 27.649 E77 48.871	Plantation
		Artificial Pond	THOOTHUKUDI	8°27'59.4"N , 77°49'05.6"E; 8°28'05.9"N , 77°49'00.6"E	Artificial Pond
		Buffer Zone maintained ByTNPL	THOOTHUKUDI	N8 27.991 E77 48.983; N8 28.246 E77 48.865	Buffer Zone
7	S04046	A/M BOOMINATHASAMY THIRUKOIL	TIRUNELVELI	N8 40.635 E77 29.415	Plantation
		Artificial Pond	TIRUNELVELI	8°40'03.8"N , 77°29'41.1"E; N8° 40.268' E77° 29.273'	Artificial Pond
		Buffer Zone maintained ByTNPL	TIRUNELVELI	N8 40.081 E77 29.712; N8° 40.268' E77° 29.273'	Buffer Zone
8	T00316	GOVT.WASTE LAND	TRICHY	N10 39.975 E78 45.924	Plantation
		Artificial Pond	TRICHY	10°40'01.6"N , 78°46'05.1"E	Artificial Pond
		Buffer Zone maintained ByTNPL	TRICHY	N10 40.005 E78 45.930	Buffer Zone

9	T00316	GOVT.WASTE LAND, SOORIYUR (VAARIKADU)	TRICHY	N10 40.512 E78 46.182	Plantation
		Artificial Pond	TRICHY	10°40'38.2"N , 78°46'11.4"E	Artificial Pond
		Buffer Zone maintained ByTNPL	TRICHY	N10 40.650 E78 46.025	Buffer Zone
10	T02505	TNPL UNIT I OWN LAND	KARUR	N11 03.733 E77 59.443	Plantation
		Artificial Pond	KARUR	N 11° 03.936, E077°59.569	Artificial Pond
		Buffer Zone maintained ByTNPL	KARUR	N11 03.947 E77 59.544	Buffer Zone
11	T02506	TNPL UNIT II OWN LAND	TRICHY	N10 41.372 E78 29.318	Plantation
		Artificial Pond	TRICHY	N10°41'34.16, E78°28'52.97"	Artificial Pond
		Buffer Zone maintained ByTNPL	TRICHY	N10 41.572 E78 28.831	Buffer Zone
		Conservation Zone Maintanined by TNPL	TRICHY	N10° 41.317' E78° 28.367'; N10° 41.433' E78° 28.250'; N10° 41.367' E78° 28.233'	Conservation Zone

3.4.2. HCV 4.2: Forests critical to erosion control

The natural forests are important in maintaining terrain stability, including control of erosion, landslides and avalanches because they are having multiple storey's of trees/vegetations. Whereas the TNPL captive and farm forestry plantations are not like natural forest which developed mostly in degraded wasteland and also they are small in size and extent.

The study indicated that the TNPL captive and farm forestry plantations are not playing a critical role in protecting against erosion and terrain instability since:

- ➤ The TNPL captive and farm forestry plantations are not containing the area of vulnerable soils or slopes.
- ➤ The particular topographic situation of the TNPL captive and farm forestry plantations is not needed to protect to avoid severe erosion.

Therefore, all or part of the TNPL captive and farm forestry plantations is not identified as being critical to erosion control and also not within a critical erosion area. The High Conservation Values regarding critical to erosion control are not present within the TNPL captive and farm forestry plantations.

3.4.3. HCV 4.3: Forests providing critical barriers to destructive fire

This High Conservation Values are not present in the TNPL captive and farm forestry plantations since,

- All or part of the TNPL captive and farm forestry plantations is not in a region where there is a high risk of uncontrolled, destructive fire.
- > They do not contain forest types that naturally act as a barrier to fire.
- The area covered by these plantations is too small to act as barriers against uncontrolled destructive fire.
- ➤ There are no protected areas that contain threatened or endangered species or ecosystems within or are adjacent to the TNPL captive and farm forestry plantations.

Since the FMU's are not playing a critical role under this category, the HCV 4 is not present within the TNPL captive and farm forestry plantations.

3.5. HCV 5: Forest areas fundamental to meeting basic needs of local communities

The TNPL plantations are mainly raised in the patta lands belongs to the farmers or institutions or government. The rights of the lands are belonged to landowners only. The TNPL plantations are not at all raised at community land. Therefore the question of using the captive and farm forestry plantation area for water for daily use, food, fuel, or construction materials, etc by local communities does not arise. Also the presence of indigenous people, local communities or other ethnic groups as like in forest have not been evidenced in TNPL captive and farm forestry plantations. (Table 6).

However, as a welfare to local community, TNPL is permitting the local community for the following:

- Collection of fire wood from TNPL captive plantations
- Grazing their animals in TNPL captive plantations.

3.6. HCV 6: Forest areas critical to local communities' traditional cultural identity

Since the TNPL captive and farm forestry plantations are raised at individual farmers/institutions/government land, these captive and farm forestry plantations are not containing the features of cultural significance for one or more local communities. The study revealed that the TNPL captive and farm forestry plantations have not witnessed the following

➤ The presence of any indigenous people, local communities that are dependent on the TNPL captive and farm forestry plantations for their livelihoods as well as groups that are known to have strong cultural links with captive and farm forestry plantations.

In some of the plantations the local village people residing nearby using the lesser area for cultural and religious reasons at some period. TNPL is also permitting them to use that plantation area for the same. For example, TNPL not raised the plantations in an extent of 50 acres in Paruthipadu Captive plantation (FMU Code: S04031) to use the land by local villagers for festival and grazing purposes as a welfare activity to society. The details of cultural and religious utility near by the FMU's are furnished in Table 7. The presence of cultural, religious importance and artificial water bodies in farm forestry plantations are maintained by farmers and the local communities. TNPL is helping them to maintain the same.

TNPL is protecting the sacred grove trees, cultural identity present in its plantation areas without disturbing them. TNPL administrative unit also participated and contributed towards protection of traditional cultural identity and participated in all the social events.

The TNPL plantations are predominantly established on degraded and marginal farm lands as directed by the National Forest Policy 1988 and its own plantation policy programme of converting unproductive land into productive pulpwood plantations. The assessment study revealed that the plantations of TNPL have not witnessed the presence of High Conservation Values Forest barring few exceptions like presence of cultural and religious importance, artificial water bodies like percolation tanks, check dams and Grey slender loris at Unit-II.

Since TNPL is always infront to conserve the High Conservation Value Forests if any TNPL following the guidelines given by FSC standards for the same.

TNPL also ensured that they will conceive, design and adopt the following planning process to identify and conserve the HCVF in all their future plantations programe.

a. Identify all HCVs

To inventory the TNPL plantation area and identify all HCVs if any and document the same in the management plan documents, wherever possible mapping or otherwise delineating their location and extent. This will sometime be an on-going process.

TNPL will collate/compile all relevant, available baseline information for each identified HCV if any, including:

- Current status, trends and threats to the HCV
- Known impacts of forest management

b. Detail of the management regime for each HCVs

The management regime would fulfill the site-specific objective of maintaining or enhancing the HCV within the defined HCVF area if any. The main types of options for management are:

Protection of the area:

Through reserves, buffer zones, marking boundaries and control of activities that degrade the HCV if any (e.g. hunting of rare species / protection of sacred grooves etc.,)

• Modifications or constraints on operations, or specific operational prescriptions /systems:

Any threats to the HCVs which will be posed by operations or other activities in the TNPL plantations area will need to be identified and documented if any. This analysis should include all potential effects, both direct (e.g. harvesting operations or use of chemicals) and indirect (e.g. increased hunting as a result of better access along logging roads). The decision to adopt any particular operation must be made based on the precautionary approaches.

Restoration:

The restoration activities if any needed where the plantation area requires some remedial action like planting the native species; the industry offered to carry out all restoration process.

Schedule of Management for Each HCVF

1. Protection of Area

- A) Category sacred groves / temple trees / cultural sites / others
- B) Total extent
- C) Boundary coordinates

2. Operational Prescription For Maintenance

- A) Avoid heavy machineries entering into HCVF area
- B) Place the caution boards
- C) Protect the area with natural fences if necessary

3. Restoration

A) Documentation and Planting the native species if needed

c. Integrate HCVF management into the broader forest management process if any

In the current and future plantation programme, the identified HCVF will be suitably integrated into the broader Forest Management Process in order to ensure protection of the same.

d. Training:

Training their plantation officers, farmers, loggers, contractors, local villagers and other stake holders about the HCVs and its management proposals and their importance towards conservation and management of Resources on a sustainable basis. This besides, identification of HCVF and the associated management process will also be taught to ensure protection of these high value resources.

The general guidance described above is followed for each of the HCVF identified if any and nature of the HCVF in the TNPL plantation areas.

e. The Precautionary Approaches for protection of HCVF

An important component of the management of HCVFs if any is the application of the Precautionary Approach. HCVFs are, by definition, the most important forests from a

conservation or social perspective (depending on the HCV identified if any). Therefore, it is essential to use the precautionary approach when dealing with HCVFs if any.

In practice, this means:

"Planning, management activities and monitoring of the attributes that make a forest management unit a HCVF should de designed, based on existing scientific and indigenous/traditional knowledge, to ensure that these attributes do not come under threat of significant reduction or loss of the attribute and that any threat of reduction or loss is detected long before the reduction becomes irreversible. Where a threat has been identified, early preventive action, including halting existing action, should be taken to avoid or minimize such a threat despite lack of full scientific certainty as to causes and effects of the threat".

f. Suggested plan for identification and protection of HCVF

The following activities identified by the assessment team will help to inventorise new HCVF and also to manage and protect these HCVFs for use by the future generations for their social, cultural and religious activities.

i) Identification of HCVF

- The TNPL should use the given format in Annexure-III & IV for its plantations and identify the HCVF if any.
- The identification works may be executed by its officials and document the HCVF present in and around the plantation sites.

ii) Conservation measures to be followed

The following conservation measures are suggested for protection and conservation of various HCVFs.

a. Protection of RET species

 Once the RET species identified TNPL should ensure adequate protection to protect the species.

b. Protecting the basic needs

- Wherever possible the TNPL should ensure the basic needs of the local community particularly collection of firewoods, harvesting of water and providing employment in all plantation activities.
- During this activity adequate incorporation of poor, landless, backward and women members need to be included

c. Protection of cultural and heritage sites

 The identified cultural and heritage sites need to be protected through active participation in the cultural, religious and other social events. The corporate social responsibility of TNPL could be effectively utilized in these social events.

iii) Awareness creation to stakeholders regarding HCVF

Training need to be given to create adequate awareness among the stakeholders towards identification, management and protection of HCVF present if any in the TNPL plantation sites.

IV) SUMMARY AND CONCLUSION

The TNPL plantation programme established in the form of captive plantation and farm forestry have been assessed for the presence and absence of High Conservation Value Forests to cater the needs of FSC and the findings are summarized.

- b. The TNPL captive and farm forestry plantations to the tune of around 20638.35 hectares have been assessed at 11425 FMUs for the captive and farm forestry plantations.
- c. The assessment indicated that the TNPL plantation programme did not witness the presence of globally, regionally or nationally significant concentrations of bio-diversity values *viz.*, protected areas, threatened and endangered species, endemic species and critical temporal use. However, the presence of Grey slender loris and its habitats has been found in the TNPL Unit- II Plantation areas which are well protected by TNPL.
- d. TNPL may also considered including the monitoring of Grey slender loris habitat in its monitoring system.
- e. The evaluation of High Conservation Value Forest Assessment in TNPL plantation indicated that the TNPL captive and farm forestry plantations are established mostly in the non forested areas and preferably in barren and marginal agricultural land which holistically exhibited the absence of globally, regionally or nationally significant large landscape level forests.
- f. The plantations established by TNPL are predominantly in barren, marginal and fallow lands wherein the natural regeneration of rare and threatened species was not found. The ecosystem in general was normal with practices of agriculture and horticulture crops and not with the fragile forested ecosystem. Hence, the areas did not contain rare, threatened or endangered ecosystem.
- g. The plantation programme promoted and popularized by TNPL has been mostly in arid and semi arid tracts of the state of Tamil Nadu and these

plantations never witnessed the presence of critical situations like presence of watershed, forest critical to soil erosion and forest provides barriers to destructive fire. These three critical situations are predominant in hilly and fragile ecosystem and are not found in the regular captive and farm forestry plantation programme of TNPL. However, in the wider landscape ecosystem, presence of artificial water bodies such as check dams and percolation ponds are witnessed in certain localities which do not come under the category by prescribed FSC.

- h. Traditionally the forest dwellers and local communities depend on natural forests to meet their basic needs. But the current captive and farm forestry plantations programmes are located in non-forest areas and preferably in barren and marginal agricultural lands and the dependence of local communities on these captive and farm forestry plantations are not evidenced. However the plantation programme of TNPL have generated huge employment and income generation activities to the local village people thereby helped in livelihood security of the society.
- i. The plantations also serve as a source of livelihood by providing firewood through lops and tops collection to the local people and permitting to graze their animals.
- j. TNPL plantations also serving the need of cultural value of local community like protecting the cultural vale trees, temple, etc.,
- k. TNPL is protecting the HCVF present in their captive and farm forestry plantations as in their natural state without any disturbances. TNPL also taking atmost care while doing any plantation operations like ploughing, weeding in their plantations without disturbing the existing HCVF if any. They are also having the policy that not using any chemical fertilizers or pesticides in their plantations which itself an evidence of their commitment towards environment (HCVFs) and social protection.

I. It is also evidenced that TNPL is doing commendable activities to protect the HCVF and welfare of the society by protecting their cultural identity while discussing with local stakeholders.

The assessment of TNPL captive and farm forestry plantations exhibited the presence of certain traditional and cultural identity in the boundaries of TNPL captive and farm forestry plantations. These included temples, temple trees, termite mounds etc., which are traditionally used by the local villagers and groups as their worship and cultural dissemination locations. The TNPL administration where ever possible extended all needed helps by way of donation to construct temples, perform pooja and repair and renovation of existing temples in local community celebration and other religious festivals in these localities which provided local people participation in protecting the pulpwood plantations. In certain places these temples and heritage sites are protected without any disturbances.

The assessment of captive and farm forestry plantations of TNPL carried out across the state indicated that the plantations are mostly established in nontraditional forest areas like patta lands, barren waste lands owned by government and other institutional land areas and these areas have not witnessed the presence of globally, regionally or nationally significant concentrations of biodiversity values, landscape level forests and other rare threatened, no water catchment and endangered ecosystem. The industry has also indicated holistic precautionary approach for the protection of HCVF if identified in the future captive and farm forestry plantation programme.

Table 1. Abstract on district wise TNPL plantation in Tamil Nadu

		CAP	TIVE	FARM FO	DRESTRY	TO	TAL
SN	DISTRICT	FMU	Extent (Ha)	FMU	Extent (Ha)	FMU	Extent (Ha)
1	ARIYALUR			2483	3,129.51	2483	3,129.51
2	CHENGALPATTU			431	840.88	431	840.88
3	CUDDALORE			821	1,661.28	821	1,661.28
4	ERODE	1	12.96	315	215.25	316	228.20
5	KALLAKURICHI			30	72.82	30	72.82
6	KANCHIPURAM	1	22.69			1	22.69
7	KARUR	9	120.58	817	977.81	826	1,098.39
8	MADURAI	1	14.70			1	14.70
9	NAMAKKAL			434	368.52	434	368.52
10	PUDUKKOTTAI			1986	4,319.78	1986	4,319.78
11	SALEM			357	392.35	357	392.35
12	SIVAGANGA	6	199.82	352	1,484.23	358	1,684.05
13	THANJAVUR	3	58.76			3	58.76
14	THENI	1	8.10			1	8.10
15	THOOTHUKUDI	3	147.77			3	147.77
16	TIRUCHIRAPPALLI			210	420.34	210	420.34
17	TIRUNELVELI	8	910.85			8	910.85
18	TIRUPPUR			122	129.57	122	129.57
19	TIRUVANNAMALAI	1	17.12			1	17.12
20	TRICHY	9	291.92			9	291.92
21	VILUPPURAM	1	6.88	3022	4,787.00	3023	4,793.89
22	VIRUDHUNAGAR	1	26.86			1	26.86
	Total	45	1,839.01	11380	18,799.34	11425	20,638.35

Table 2. Globally, Regionally or Nationally significant concentrations of Biodiversity Values

S.L NO	FARMER CODE	NAME OF THE SITE	DISTRICT	LOCATION	EXTENT (HA)	PRESENT	ABSENT
1	A02477	ARS, BHAVANISAGAR	ERODE	N11 29.121 E77 07.844	12.96		$\sqrt{}$
2	S04017	A/M NITHIYAKALYANAPERUMAL THIRUKOIL	KANCHIPURAM	N12.73396 E80.16943	22.69		$\sqrt{}$
3	T00315	GOVT.WASTE LAND BLOCK-3	KARUR	N10 33.788 E78 14.125	8.00		$\sqrt{}$
4	T00315	GOVT.WASTE LAND,BLOCK-1	KARUR	N10 36.417 E78 13.347	8.10		
5	T00315	GOVT.WASTE LAND,BLOCK-4	KARUR	N10 33.981 E78 14.293	8.11		$\sqrt{}$
6	T00315	GOVT.WASTE LAND,BLOCK-5	KARUR	N10 33.573 E78 12.944	8.70		$\sqrt{}$
7	T00315	GOVT.WASTE LAND,BLOCK-6	KARUR	N10 34.029 E78 12.601	11.19		$\sqrt{}$
8	T00315	GOVT.WASTE LAND,BLOCK-7	KARUR	N10 34.952 E78 09.800	10.00		$\sqrt{}$
9	T00315	GOVT.WASTE LAND,BLOCK-8	KARUR	N10 36.675 E78 12.424	15.00		$\sqrt{}$
10	T02505	TNPL UNIT I OWN LAND	KARUR	N11 03.733 E77 59.443	21.12		V
11	V01825	VILLAGE RECONSTRUCTION ORGANIZATION	KARUR	N10 46.908 E78 28.714	30.36		$\sqrt{}$
12	S04039	A/M KALLALAGAR THIRUKOIL,ALAGARKOIL	MADURAI	N9 46.171 E77 58.202	14.70		$\sqrt{}$
13	M01749	MARIYA ANTONY PRAKASI.S	SIVAGANGAI	N9 46.559 E78 29.027	41.53		$\sqrt{}$
14	R03834	RAVEENDAR.V	SIVAGANGAI	N9 47.007 E78 30.057	24.21		$\sqrt{}$
15	C03351	CHAIRMAN BS BIOFUEL COMPANY PVT LTD	SIVAGANGAI	N9 43.160 E78 32.976, N9 43.675 E78 33.088	58.30		$\sqrt{}$
16	U00126	UDAIYAPPAN & CO	SIVAGANGAI	N9 50.560 E78 41.785	26.82		$\sqrt{}$
17	G03204	K.P.GANESAN & CO	SIVAGANGAI	N9 49.923 E78 48.546	27.18		$\sqrt{}$
18	D02784	DRYLAND AGRICULTURAL RESEARCH STATION	SIVAGANGAI	N10 10.838 E78 48.109	21.78		$\sqrt{}$
19	T00311	GOVT.WASTE LAND	THANJAVUR	N10 42.482 E78 53.381	19.49		$\sqrt{}$
20	A02494	ARS, VAIGAIDAM	THENI	N10 01.065 E77 33.795	8.10		V
21	S04045	A/M EKANTHALINGASAMY THIRUKOIL	THOOTHUKUDI	N8 27.649 E77 48.871	46.15		V
22	S04629	SCAD KRISHI VIGYAN KENDRA	THOOTHUKUDI	N8 44.532 E78 00.724	10.93		$\sqrt{}$
23	A02476	ACRI, KILLIKULAM	THOOTHUKUDI	N8 41.662 E77 52.176	90.69		

24	C00388	TNPL-WIND FARM	TIRUNELVELI	N8 56.897 E77 39.193, N8 56.537 E77 39.027	100.00	\ \
25	S04040	A/M NARUMBUTHASAMY THIRUKOIL	TIRUNELVELI	N8 45.278 E77 28.696	108.10	V
26	S04046	A/M BOOMINATHASAMY THIRUKOIL	TIRUNELVELI	N8 40.635 E77 29.415	78.54	
27	S04042	A/M SUBRAMANIYASWAMY THIRUKOIL	TIRUNELVELI	N8 39.540 E77 38.671	136.44	V
28	S04041	A/M SUBRAMANIYASWAMY THIRUKOIL	TIRUNELVELI	N8 39.833 E77 38.846	41.34	V
29	S04031	A/M GANDHIMATHIAMMAN THIRUKOIL	TIRUNELVELI	N8 35.019 E77 46.483	208.58	V
30	S04030	A/M GANDHIMATHIAMMAN THIRUKOIL	TIRUNELVELI	N8 33.578 E77 47.465	82.60	V
31	S04029	A/M GANDHIMATHIAMMAN THIRUKOIL	TIRUNELVELI	N8 34.012 E77 46.734	155.25	V
32	S04024	A/M MASIMAGA SOMASUNDARA MUDALIYAR ARAKKATTALAI	TIRUVANNAMALAI	N12 41.092 E79 34.246	17.12	
33	T00316	GOVT.WASTE LAND	TRICHY	N10 39.975 E78 45.924	15.19	$$
34	T00316	GOVT.WASTE LAND	TRICHY	N10 39.287 E78 47.206	10.55	√
35	T00316	GOVT.WASTE LAND, SOORIYUR (HAPP)	TRICHY	N10 42.247 E78 47.162	9.75	V
36	T00316	GOVT.WASTE LAND, SOORIYUR (VAARIKADU)	TRICHY	N10 40.512 E78 46.182	9.67	V
37	T00317	GOVT.WASTE LAND	TRICHY	N10 20.032 E78 20.834	25.00	
38	T00318	GOVT.WASTE LAND BLOCK-I	TRICHY	N11 06.847 E78 24.182	10.00	V
39	T00318	GOVT.WASTE LAND BLOCK-II	TRICHY	N11 06.400 E78 24.324	10.00	√
40	T00318	GOVT.WASTE LAND BLOCK-III	TRICHY	N11 06.210 E78 24.103	6.00	√
41	T02506	TNPL UNIT II OWN LAND	TRICHY	N10 41.372 E78 29.318	195.77	V
42	O01423	ORS,TINDIVANAM	VILUPPURAM	N12 13.126 E79 40.293	6.88	V
43	S04038	A/M MEENAKSHI SUNDARESWARAR THIRUKOIL	VIRUDHUNAGAR	N9 36.048 E77 54.033	26.86	V
44	C03434	CHATHIRAM LAND (CH)	THANJAVUR	10.30475 79.35513	19.03	
45	C03434	CHATHIRAM LAND (EH)	THANJAVUR	10.29103 79.32526	20.24	
		All Farm Forestry Plantations	FMUs - 11380		18799.34	
			1	i	1	l

Table 3. Globally, Regionally or Nationally significant large Landscape Level Forests

S.L NO	FARMER CODE	NAME OF THE SITE	DISTRICT	LOCATION	EXTENT (HA)	PRESENT	ABSENT
1	A02477	ARS, BHAVANISAGAR	ERODE	N11 29.121 E77 07.844	12.96		$\sqrt{}$
2	S04017	A/M NITHIYAKALYANAPERUMAL THIRUKOIL	KANCHIPURAM	N12.73396 E80.16943	22.69		V
3	T00315	GOVT.WASTE LAND BLOCK-3	KARUR	N10 33.788 E78 14.125	8.00		$\sqrt{}$
4	T00315	GOVT.WASTE LAND,BLOCK-1	KARUR	N10 36.417 E78 13.347	8.10		$\sqrt{}$
5	T00315	GOVT.WASTE LAND,BLOCK-4	KARUR	N10 33.981 E78 14.293	8.11		$\sqrt{}$
6	T00315	GOVT.WASTE LAND,BLOCK-5	KARUR	N10 33.573 E78 12.944	8.70		$\sqrt{}$
7	T00315	GOVT.WASTE LAND,BLOCK-6	KARUR	N10 34.029 E78 12.601	11.19		$\sqrt{}$
8	T00315	GOVT.WASTE LAND,BLOCK-7	KARUR	N10 34.952 E78 09.800	10.00		$\sqrt{}$
9	T00315	GOVT.WASTE LAND,BLOCK-8	KARUR	N10 36.675 E78 12.424	15.00		
10	T02505	TNPL UNIT I OWN LAND	KARUR	N11 03.733 E77 59.443	21.12		
11	V01825	VILLAGE RECONSTRUCTION ORGANIZATION	KARUR	N10 46.908 E78 28.714	30.36		V
12	S04039	A/M KALLALAGAR THIRUKOIL,ALAGARKOIL	MADURAI	N9 46.171 E77 58.202	14.70		$\sqrt{}$
13	M01749	MARIYA ANTONY PRAKASI.S	SIVAGANGAI	N9 46.559 E78 29.027	41.53		$\sqrt{}$
14	R03834	RAVEENDAR.V	SIVAGANGAI	N9 47.007 E78 30.057	24.21		$\sqrt{}$
15	C03351	CHAIRMAN BS BIOFUEL COMPANY PVT LTD	SIVAGANGAI	N9 43.160 E78 32.976, N9 43.675 E78 33.088	58.30		√
16	U00126	UDAIYAPPAN & CO	SIVAGANGAI	N9 50.560 E78 41.785	26.82		$\sqrt{}$
17	G03204	K.P.GANESAN & CO	SIVAGANGAI	N9 49.923 E78 48.546	27.18		$\sqrt{}$
18	D02784	DRYLAND AGRICULTURAL RESEARCH STATION	SIVAGANGAI	N10 10.838 E78 48.109	21.78		$\sqrt{}$
19	T00311	GOVT.WASTE LAND	THANJAVUR	N10 42.482 E78 53.381	19.49		$\sqrt{}$
20	A02494	ARS, VAIGAIDAM	THENI	N10 01.065 E77 33.795	8.10		$\sqrt{}$
21	S04045	A/M EKANTHALINGASAMY THIRUKOIL	THOOTHUKUDI	N8 27.649 E77 48.871	46.15		$\sqrt{}$
22	S04629	SCAD KRISHI VIGYAN KENDRA	THOOTHUKUDI	N8 44.532 E78 00.724	10.93		$\sqrt{}$
23	A02476	ACRI, KILLIKULAM	THOOTHUKUDI	N8 41.662 E77 52.176	90.69		$\sqrt{}$

24	C00388	TNPL-WIND FARM	TIRUNELVELI	N8 56.897 E77 39.193, N8 56.537 E77 39.027	100.00	V
25	S04040	A/M NARUMBUTHASAMY THIRUKOIL	TIRUNELVELI	N8 45.278 E77 28.696	108.10	V
26	S04046	A/M BOOMINATHASAMY THIRUKOIL	TIRUNELVELI	N8 40.635 E77 29.415	78.54	V
27	S04042	A/M SUBRAMANIYASWAMY THIRUKOIL	TIRUNELVELI	N8 39.540 E77 38.671	136.44	V
28	S04041	A/M SUBRAMANIYASWAMY THIRUKOIL	TIRUNELVELI	N8 39.833 E77 38.846	41.34	V
29	S04031	A/M GANDHIMATHIAMMAN THIRUKOIL	TIRUNELVELI	N8 35.019 E77 46.483	208.58	V
30	S04030	A/M GANDHIMATHIAMMAN THIRUKOIL	TIRUNELVELI	N8 33.578 E77 47.465	82.60	V
31	S04029	A/M GANDHIMATHIAMMAN THIRUKOIL	TIRUNELVELI	N8 34.012 E77 46.734	155.25	
32	S04024	A/M MASIMAGA SOMASUNDARA MUDALIYAR ARAKKATTALAI	TIRUVANNAMALAI	N12 41.092 E79 34.246	17.12	
33	T00316	GOVT.WASTE LAND	TRICHY	N10 39.975 E78 45.924	15.19	V
34	T00316	GOVT.WASTE LAND	TRICHY	N10 39.287 E78 47.206	10.55	V
35	T00316	GOVT.WASTE LAND, SOORIYUR (HAPP)	TRICHY	N10 42.247 E78 47.162	9.75	V
36	T00316	GOVT.WASTE LAND, SOORIYUR (VAARIKADU)	TRICHY	N10 40.512 E78 46.182	9.67	V
37	T00317	GOVT.WASTE LAND	TRICHY	N10 20.032 E78 20.834	25.00	
38	T00318	GOVT.WASTE LAND BLOCK-I	TRICHY	N11 06.847 E78 24.182	10.00	V
39	T00318	GOVT.WASTE LAND BLOCK-II	TRICHY	N11 06.400 E78 24.324	10.00	V
40	T00318	GOVT.WASTE LAND BLOCK-III	TRICHY	N11 06.210 E78 24.103	6.00	V
41	T02506	TNPL UNIT II OWN LAND	TRICHY	N10 41.372 E78 29.318	195.77	V
42	O01423	ORS,TINDIVANAM	VILUPPURAM	N12 13.126 E79 40.293	6.88	V
43	S04038	A/M MEENAKSHI SUNDARESWARAR THIRUKOIL	VIRUDHUNAGAR	N9 36.048 E77 54.033	26.86	V
44	C03434	CHATHIRAM LAND (CH)	THANJAVUR	10.30475 79.35513	19.03	
45	C03434	CHATHIRAM LAND (EH)	THANJAVUR	10.29103 79.32526	20.24	V
		All Farm Forestry Plantations	FMUs - 11380		18799.34	
				•		•

Table 4. Rare, Threatened or Endangered Ecosystems

S.L	FMU				EXTENT	Ra	are	Threat	tened	Endar	gered
NO	CODE	NAME OF THE SITE	DISTRICT	LOCATION	(HA)	Present	Absent	Present	Absent	Present	Absent
1	A02477	ARS, BHAVANISAGAR	ERODE	N11 29.121 E77 07.844	12.96		V		V		V
2	S04017	A/M NITHIYAKALYANAPERUMAL THIRUKOIL	KANCHIPURAM	N12.73396 E80.16943	22.69		V		V		V
3	T00315	GOVT.WASTE LAND BLOCK-3	KARUR	N10 33.788 E78 14.125	8.00				$\sqrt{}$		\checkmark
4	T00315	GOVT.WASTE LAND,BLOCK-1	KARUR	N10 36.417 E78 13.347	8.10				$\sqrt{}$		\checkmark
5	T00315	GOVT.WASTE LAND,BLOCK-4	KARUR	N10 33.981 E78 14.293	8.11				$\sqrt{}$		\checkmark
6	T00315	GOVT.WASTE LAND,BLOCK-5	KARUR	N10 33.573 E78 12.944	8.70		V		V		
7	T00315	GOVT.WASTE LAND,BLOCK-6	KARUR	N10 34.029 E78 12.601	11.19		V		V		
8	T00315	GOVT.WASTE LAND,BLOCK-7	KARUR	N10 34.952 E78 09.800	10.00		V		√		√
9	T00315	GOVT.WASTE LAND,BLOCK-8	KARUR	N10 36.675 E78 12.424	15.00		V		√		√
10	T02505	TNPL UNIT I OWN LAND	KARUR	N11 03.733 E77 59.443	21.12		V		V		V
11	V01825	VILLAGE RECONSTRUCTION ORGANIZATION	KARUR	N10 46.908 E78 28.714	30.36		√		√		V
12	S04039	A/M KALLALAGAR THIRUKOIL,ALAGARKOIL	MADURAI	N9 46.171 E77 58.202	14.70		√		√		V
13	M01749	MARIYA ANTONY PRAKASI.S	SIVAGANGAI	N9 46.559 E78 29.027	41.53		V		V		V
14	R03834	RAVEENDAR.V	SIVAGANGAI	N9 47.007 E78 30.057	24.21		V		V		V
15	C03351	CHAIRMAN BS BIOFUEL COMPANY PVT LTD	SIVAGANGAI	N9 43.160 E78 32.976, N9 43.675 E78 33.088	58.30		√		V		V
16	U00126	UDAIYAPPAN & CO	SIVAGANGAI	N9 50.560 E78 41.785	26.82		V		V		V
17	G03204	K.P.GANESAN & CO	SIVAGANGAI	N9 49.923 E78 48.546	27.18		V		V		√
18	D02784	DRYLAND AGRICULTURAL RESEARCH STATION	SIVAGANGAI	N10 10.838 E78 48.109	21.78		√		V		V
19	T00311	GOVT.WASTE LAND	THANJAVUR	N10 42.482 E78 53.381	19.49		V		V		√
20	A02494	ARS, VAIGAIDAM	THENI	N10 01.065 E77 33.795	8.10		V		V		V
21	S04045	A/M EKANTHALINGASAMY THIRUKOIL	THOOTHUKUDI	N8 27.649 E77 48.871	46.15		√		V		V
22	S04629	SCAD KRISHI VIGYAN KENDRA	THOOTHUKUDI	N8 44.532 E78 00.724	10.93		√		√		V
23	A02476	ACRI, KILLIKULAM	THOOTHUKUDI	N8 41.662 E77 52.176	90.69		V		V		$\sqrt{}$
24	C00388	TNPL-WIND FARM	TIRUNELVELI	N8 56.897 E77 39.193, N8 56.537 E77 39.027	100.00		√		√		V
25	S04040	A/M NARUMBUTHASAMY THIRUKOIL	TIRUNELVELI	N8 45.278 E77 28.696	108.10		√		√		V
26	S04046	A/M BOOMINATHASAMY THIRUKOIL	TIRUNELVELI	N8 40.635 E77 29.415	78.54		√		√		V

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27	S04042	A/M SUBRAMANIYASWAMY THIRUKOIL	TIRUNELVELI	N8 39.540 E77 38.671	136.44	√	√	√
28	S04041	A/M SUBRAMANIYASWAMY THIRUKOIL	TIRUNELVELI	N8 39.833 E77 38.846	41.34	√	√	√
29	S04031	A/M GANDHIMATHIAMMAN THIRUKOIL	TIRUNELVELI	N8 35.019 E77 46.483	208.58	V	√	√
30	S04030	A/M GANDHIMATHIAMMAN THIRUKOIL	TIRUNELVELI	N8 33.578 E77 47.465	82.60	√	√	√
31	S04029	A/M GANDHIMATHIAMMAN THIRUKOIL	TIRUNELVELI	N8 34.012 E77 46.734	155.25	√	√	√
32	S04024	A/M MASIMAGA SOMASUNDARA MUDALIYAR ARAKKATTALAI	TIRUVANNAMALAI	N12 41.092 E79 34.246	17.12	√	√	√
33	T00316	GOVT.WASTE LAND	TRICHY	N10 39.975 E78 45.924	15.19	V		√
34	T00316	GOVT.WASTE LAND	TRICHY	N10 39.287 E78 47.206	10.55	V	√	√
35	T00316	GOVT.WASTE LAND, SOORIYUR (HAPP)	TRICHY	N10 42.247 E78 47.162	9.75	√	√	√
36	T00316	GOVT.WASTE LAND, SOORIYUR (VAARIKADU)	TRICHY	N10 40.512 E78 46.182	9.67	√	√	√
37	T00317	GOVT.WASTE LAND	TRICHY	N10 20.032 E78 20.834	25.00	√	√	√
38	T00318	GOVT.WASTE LAND BLOCK-I	TRICHY	N11 06.847 E78 24.182	10.00	√	√	√
39	T00318	GOVT.WASTE LAND BLOCK-II	TRICHY	N11 06.400 E78 24.324	10.00	√	√	√
40	T00318	GOVT.WASTE LAND BLOCK-III	TRICHY	N11 06.210 E78 24.103	6.00	√	√	√
41	T02506	TNPL UNIT II OWN LAND	TRICHY	N10 41.372 E78 29.318; N10° 41.317' E78° 28.367'; N10° 41.433'	195.77	√	√	V
				E78° 28.250'; N10° 41.367' E78° 28.233'		·		,
42	O01423	ORS,TINDIVANAM	VILUPPURAM	N12 13.126 E79 40.293	6.88		V	√
43	S04038	A/M MEENAKSHI SUNDARESWARAR THIRUKOIL	VIRUDHUNAGAR	N9 36.048 E77 54.033	26.86	V	V	√
44	C03434	CHATHIRAM LAND (CH)	THANJAVUR	10.30475 79.35513	19.03	V	√	√
45	C03434	CHATHIRAM LAND (EH)	THANJAVUR	10.29103 79.32526	20.24	$\sqrt{}$	√	√
		All Farm Forestry Plantations	FMUs - 11380		18799.34	√	√	√
		a.m. oroday i lamationo	100					i '

Table.5 Forest Areas That Provide Basic Services on Nature in Critical Situations

F					F ()	Water Ca	atchment	Soil eros	ion Control	Bees in	Pollination
Farmer Code	Name of the Captive Site	District	Location	Within / Outside	Extent (ha)	Presenc e	Absence	Presenc e	Absence	Presenc e	Absence
T00316	GOVT.WASTE LAND	Trichy	10°40'01.6"N 78°46'05.1"E	Outside	0.3	V			V		V
T00316	GOVT.WASTE LAND, SOORIYUR (VAARIKADU)	Trichy	10°40'38.2"N 78°46'11.4"E	Outside	0.4	V			√		V
M01749	MARIYA ANTHONY PRAKASHI	Sivagangai	9°46'37.5"N 78°28'35.1"E	Within	0.1	V			V		V
M01749	MARIYA ANTHONY PRAKASHI	Sivagangai	9°46'39.1"N 78°28'40.3"E	Outside	0.1	1			$\sqrt{}$		V
M01749	MARIYA ANTHONY PRAKASHI	Sivagangai	9°46'28.9"N 78°29'34.2"E	Outside	0.2	1			$\sqrt{}$		V
S04039	A/M KALLALAGAR THIRUKOIL,ALAGARKOIL	Madurai	9°46'3.46"N 77°58'17.07"E	Within	0.2	V			$\sqrt{}$		V
S04045	A/M EKANTHALINGASAMY THIRUKOIL	Tuticorin	8°27'59.4"N 77°49'05.6"E	Outside	0.3	V			V		V
S04045	A/M EKANTHALINGASAMY THIRUKOIL	Tuticorin	8°28'05.9"N 77°49'00.6"E	Outside	0.3	V			$\sqrt{}$		V
S04040	A/M NARUMBUTHASAMY THIRUKOIL	Tirunelveli	8°45'59.75"N, 77°28'54.26"E	Outside	0.4	V			V		V
S04040	A/M NARUMBUTHASAMY THIRUKOIL	Tirunelveli	8°45'21.41"N, 77°28'53.51"E	Outside	0.3	V			V		V
S04046	A/M BOOMINATHASAMY THIRUKOIL	Tirunelveli	8°40'16.1"N 77°29'16.4"E	Outside	0.2	V			V		V
S04046	A/M BOOMINATHASAMY THIRUKOIL	Tirunelveli	8°40'03.8"N 77°29'41.1"E	Outside	0.2	V			V		V
S04029	A/M GANDHIMATHIAMMAN THIRUKOIL	Tirunelveli	8°34'08.3"N 77°46'45.4"E	Outside	0.3	V			V		V
S04031	A/M GANDHIMATHIAMMAN THIRUKOIL	Tirunelveli	8°34'28.5"N 77°46'39.2"E	Outside	0.3	V			√		V
S04030	A/M GANDHIMATHIAMMAN THIRUKOIL	Tirunelveli	8°35'04.2"N 77°46'27.8"E	Within	0.3	V			√		V
S04024	A/M MASIMAGA SOMASUNDARA MUDALIYAR ARAKKATTALAI	Tiruvanna malai	12°40'58.8"N 79°34'18.1"E	Within	0.2	V			V		V

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S04017	A/M NITHIYAKALYANAPERUMA L THIRUKOIL	Kanchipura m	12°44'02.2"N 80°10'22.8"E	Within	0.3	√		√ 		V
S04017	A/M NITHIYAKALYANAPERUMA L THIRUKOIL	Kanchipura m	12°43'53.9"N 80°10'25.7"E	Within	0.3	V		V		V
S04042	A/M SUBRAMANIYASWAMY THIRUKOIL	Tirunelveli	8°39'14.0"N 77°38'39.6"E	Outside	0.1	√		V		V
S04042	A/M SUBRAMANIYASWAMY THIRUKOIL	Tirunelveli	8°38'31.75"N, 77°38'57.76"E	Outside	0.1	√		√		\checkmark
S04041	A/M SUBRAMANIYASWAMY THIRUKOIL	Tirunelveli	8°38'53.4"N 77°39'26.0"E	Outside	0.2	√		V		$\sqrt{}$
T00315	GOVT.WASTE LAND BLOCK3	Karur	N10 33.792 E78 14.116	Outside	0.1	V		V		$\sqrt{}$
T00315	GOVT.WASTE LAND,BLOCK-1	Karur	N10 36.420 E78 13.294	Outside	0.1	√		√		\checkmark
T00315	GOVT.WASTE LAND,BLOCK-4	Karur	N10 33.964 E78 14.418	Within	0.1	√	V			V
T00315	GOVT.WASTE LAND,BLOCK-4	Karur	N10 33.853 E78 14.441	Within	0.1	√	$\sqrt{}$			\checkmark
T00315	GOVT.WASTE LAND,BLOCK-5	Karur	N10 33.500 E78 12.920	Within	0.1	√ 	V			V
T00315	GOVT.WASTE LAND,BLOCK-6	Karur	N10 34.009 E78 12.595	Within	0.1	√	V			V
T00315	GOVT.WASTE LAND,BLOCK-6	Karur	N10 33.892 E78 12.538	Within	0.1	√	V			V
T00315	GOVT.WASTE LAND,BLOCK-7	Karur	N10 34.880 E78 09.938	Within	0.1	1		√		√
T00315	GOVT.WASTE LAND,BLOCK-8	Karur	N10 36.641 E78 12.190	Within	0.1	√		√		V
T00315	GOVT.WASTE LAND,BLOCK-8	Karur	N10 36.689 E78 12.283	Within	0.1	V	√			V
T00317	GOVT.WASTE LAND	Trichy	10 20.032N 78 20.832E	Outside	0.1	V		√		$\sqrt{}$
T00317	GOVT.WASTE LAND	Trichy	11 06.847N 78 24.180 E	Outside	0.1	√		√		V
T02505	TNPL UNIT I OWN LAND	Karur	N 11° 03.936 E077°59.569	Within	1.21	√		√	√	

T02506	TNPL UNIT II OWN LAND	Trichy	N10°41'34.16 E78°28'52.97"	Within	3.24	V		√	√	
C03434	CHATHIRAM LAND (CH)	Thanjavur	10°18'11.19"N 79°21'3.37"E	Outside	0.1	V		V		$\sqrt{}$
C03434	CHATHIRAM LAND (EH)	Thanjavur	10°18'19.64"N 79°20'52.75"E	Outside	0.1	V		V		V
S05271	SENTHIL KUMAR	Ariyalur	11.187248, 79.44457	within	0.1	$\sqrt{}$		√		$\sqrt{}$
R04194	Radhakrishnan	Viluppura m	12.2839998, 79.77462074	within	0.1	$\sqrt{}$		$\sqrt{}$		$\sqrt{}$
S05908	Subramani	Karur	11.07899N, 78.02568E	within	0.1	$\sqrt{}$		$\sqrt{}$		$\sqrt{}$
R04213	Ravi	Viluppura m	12.17074431, 79.69908242	within	0.1	V		V		V
R04250	Ravi	Viluppura m	12.17052426, 79.67801277	within	0.1	V		V		V
K04195	Kuppusamy	Viluppura m	11.90075, 79.32282	within	0.1	V		V		V
K03878	KALYANASUNDARAM.T	Pudukkott ai	10.574255, 79.013404	within	0.1	V		√		$\sqrt{}$
K03948	KAMESH.C	Sivaganga	9.9189, 78.6221	within	0.1	V		√		$\sqrt{}$
R04589	Rajendran	Viluppura m	11.88674, 79.48919	within	0.01	V		√		V
R04596	Rajendran	Viluppura m	11.86838, 79.50366	within	0.01	V		√		$\sqrt{}$
J00243	JAYARAMAN.E	Viluppura m	12.14508514, 79.68593031	within	0.1	V		√		$\sqrt{}$
R04023	RAJAGOPAL S	Sivaganga	9.8376, 78.4975	within	0.1	V		V		$\sqrt{}$
A01904	ARUMUGAM.S	Sivaganga	9.8287, 78.5812	within	0.1	V		V		$\sqrt{}$
				TOTAL	12.07				_	-

Table 6. Forest areas fundamental to meeting basic needs of local communities

FARMER				EXTENT	F	ood / Me	edicine	Fuel		el
CODE	NAME OF THE LAND OWNER	DISTRICT	LOCATION	(HA)	Р	Α	Species name	Р	Α	Species Name
A02477	ARS, BHAVANISAGAR	ERODE	N11 29.121 E77 07.844	12.96		V			√	
S04017	A/M NITHIYAKALYANAPERUMAL THIRUKOIL	KANCHIPURAM	N12.73396 E80.16943	22.69		√			V	
T00315	GOVT.WASTE LAND BLOCK-3	KARUR	N10 33.788 E78 14.125	8.00		$\sqrt{}$			$\sqrt{}$	
T00315	GOVT.WASTE LAND,BLOCK-1	KARUR	N10 36.417 E78 13.347	8.10		√			√	
T00315	GOVT.WASTE LAND,BLOCK-4	KARUR	N10 33.981 E78 14.293	8.11		V			√	
T00315	GOVT.WASTE LAND,BLOCK-5	KARUR	N10 33.573 E78 12.944	8.70		V			√	
T00315	GOVT.WASTE LAND,BLOCK-6	KARUR	N10 34.029 E78 12.601	11.19		V			√	
T00315	GOVT.WASTE LAND,BLOCK-7	KARUR	N10 34.952 E78 09.800	10.00		V			√	
T00315	GOVT.WASTE LAND,BLOCK-8	KARUR	N10 36.675 E78 12.424	15.00		V			√	
T02505	TNPL UNIT I OWN LAND	KARUR	N11 03.733 E77 59.443	21.12		V			V	
V01825	VILLAGE RECONSTRUCTION ORGANIZATION	KARUR	N10 46.908 E78 28.714	30.36		√			V	
S04039	A/M KALLALAGAR THIRUKOIL,ALAGARKOIL	MADURAI	N9 46.171 E77 58.202	14.70		√			$\sqrt{}$	
M01749	MARIYA ANTONY PRAKASI.S	SIVAGANGAI	N9 46.559 E78 29.027	41.53		$\sqrt{}$			$\sqrt{}$	
R03834	RAVEENDAR.V	SIVAGANGAI	N9 47.007 E78 30.057	24.21		V			√	
C03351	CHAIRMAN BS BIOFUEL COMPANY PVT LTD	SIVAGANGAI	N9 43.160 E78 32.976, N9 43.675 E78 33.088	58.30		√			$\sqrt{}$	
U00126	UDAIYAPPAN & CO	SIVAGANGAI	N9 50.560 E78 41.785	26.82		$\sqrt{}$			$\sqrt{}$	
G03204	K.P.GANESAN & CO	SIVAGANGAI	N9 49.923 E78 48.546	27.18		$\sqrt{}$			$\sqrt{}$	
D02784	DRYLAND AGRICULTURAL RESEARCH STATION	SIVAGANGAI	N10 10.838 E78 48.109	21.78		√			$\sqrt{}$	
T00311	GOVT.WASTE LAND	THANJAVUR	N10 42.482 E78 53.381	19.49		√			√	
A02494	ARS, VAIGAIDAM	THENI	N10 01.065 E77 33.795	8.10		V			V	
S04045	A/M EKANTHALINGASAMY THIRUKOIL	THOOTHUKUDI	N8 27.649 E77 48.871	46.15		V			√	
S04629	SCAD KRISHI VIGYAN KENDRA	THOOTHUKUDI	N8 44.532 E78 00.724	10.93		V			√	

A02476	ACRI, KILLIKULAM	тноотникирі	N8 41.662 E77 52.176	90.69	√	V	
A02470	ACKI, KILLIKOLAWI	INOOTHUKUDI	N8 56.897 E77 39.193,	90.09			
C00388	TNPL-WIND FARM	TIRUNELVELI	N8 56.537 E77 39.193, N8 56.537 E77 39.027	100.00	V	V	
S04040	A/M NARUMBUTHASAMY THIRUKOIL	TIRUNELVELI	N8 45.278 E77 28.696	108.10		\checkmark	
S04046	A/M BOOMINATHASAMY THIRUKOIL	TIRUNELVELI	N8 40.635 E77 29.415	78.54	√	√	
S04042	A/M SUBRAMANIYASWAMY THIRUKOIL	TIRUNELVELI	N8 39.540 E77 38.671	136.44	√	V	
S04041	A/M SUBRAMANIYASWAMY THIRUKOIL	TIRUNELVELI	N8 39.833 E77 38.846	41.34	$\sqrt{}$	V	
S04031	A/M GANDHIMATHIAMMAN THIRUKOIL	TIRUNELVELI	N8 35.019 E77 46.483	208.58	√	V	
S04030	A/M GANDHIMATHIAMMAN THIRUKOIL	TIRUNELVELI	N8 33.578 E77 47.465	82.60	√	√	
S04029	A/M GANDHIMATHIAMMAN THIRUKOIL	TIRUNELVELI	N8 34.012 E77 46.734	155.25		$\sqrt{}$	
S04024	A/M MASIMAGA SOMASUNDARA MUDALIYAR ARAKKATTALAI	TIRUVANNAMALAI	N12 41.092 E79 34.246	17.12	√	√	
T00316	GOVT.WASTE LAND	TRICHY	N10 39.975 E78 45.924	15.19	$\sqrt{}$	$\sqrt{}$	
T00316	GOVT.WASTE LAND	TRICHY	N10 39.287 E78 47.206	10.55	√	√	
T00316	GOVT.WASTE LAND, SOORIYUR (HAPP)	TRICHY	N10 42.247 E78 47.162	9.75	√	√	
T00316	GOVT.WASTE LAND, SOORIYUR (VAARIKADU)	TRICHY	N10 40.512 E78 46.182	9.67	√	V	
T00317	GOVT.WASTE LAND	TRICHY	N10 20.032 E78 20.834	25.00	$\sqrt{}$	$\sqrt{}$	
T00318	GOVT.WASTE LAND BLOCK-I	TRICHY	N11 06.847 E78 24.182	10.00	√	√	
T00318	GOVT.WASTE LAND BLOCK-II	TRICHY	N11 06.400 E78 24.324	10.00	√	V	
T00318	GOVT.WASTE LAND BLOCK-III	TRICHY	N11 06.210 E78 24.103	6.00		V	
T02506	TNPL UNIT II OWN LAND	TRICHY	N10 41.372 E78 29.318	195.77	√	√	
O01423	ORS,TINDIVANAM	VILUPPURAM	N12 13.126 E79 40.293	6.88	√	√	
S04038	A/M MEENAKSHI SUNDARESWARAR THIRUKOIL	VIRUDHUNAGAR	N9 36.048 E77 54.033	26.86	√	√	
C03434	CHATHIRAM LAND (CH)	THANJAVUR	10.30475 79.35513	19.03	√	V	
C03434	CHATHIRAM LAND (EH)	THANJAVUR	10.29103 79.32526	20.24	√	√	
	All Farm Forestry Plantations	FMUs - 11380		18799.34	√	√	

Table 7a. Forest areas critical to local communities' traditional cultural identity

S N	Name of the Temple	Farmer Code	Protected tree species	Age of the Tree (years)	Village	Taluk	Location	Within / Outside	Extent (Ha)	Name of the Captive Site
1	-	S04024	Azadirachta indica	10	Perungalathur	Cheyyar	12°40'58.8"N 79°34'18.1"E	Within	0.1	A/M MASIMAGA SOMASUNDARA MUDALIYAR ARAKKATTALAI
2	Karupannas amy	S04017	Ficus religiosa	30	Thiruvidanthai & Illalur	Thiruporur	12°43'56.6"N 80°10'14.6"E	Within	0.1	A/M NITHIYAKALYANAPERU MAL THIRUKOIL
3	Mosque	S04042	Udayam Tree	30	Omanallur	Ambasamuthiram	8°38'53.4"N 77°39'26.0"E	outside	0.1	A/M SUBRAMANIYASWAMY THIRUKOIL
4	Amman Temple	S04031	-	-	Nanguneri	Tirunelveli	8°34'28.4"N 77°46'39.0"E	Outside	20.0	AM/ GANDHIMATHIAMMAN TEMPLE
5	Kattu Koil	S04039	Focus religiosa	10	Melakottai	Tirumangalam	N9 46.171 E77 58.200	Within	0.1	A/M KALLALAGAR TEMPLETHIRUKOIL
6	-	D02784	-	30	Kanadukathan	Karaikudi	N10° 10.644' E78° 48.175'	Within	0.1	DRYLAND AGRICULTURAL RESEARCH STATION
7		C03434	Borassus flabellifer	10	Rajamadam	Pattukottai	10°18'20.30"N 79°21'6.07"E	Within	1	CHATHIRAM LAND
8		C03434	Borassus flabellifer	10	Rajamadam	Pattukottai	10°18'28.47"N 79°21'0.54"E	Within	1	CHATHIRAM LAND
9		A02885	Borassus flabellifer	10	Perunkondanv iduthi	Pudukkottai	10.45324, 78.88707	Within	0.1	ALPHONSMARY
10	Muni Temple	K03899			Vettiyur	Karaikudi	9.9006, 78.6741	Within	0.1	KALAISELVAN.S
11		M03776	Azadirachta indica	12	Nallathur	Tindivanam	12.29269837, 79.72807339	Within	0.1	MOHANDASS
12	Amman Temple	K04259			Vethiyarvettu	Udayarpalayam	11.25295, 79.42663	Within	0.1	KRISHNAVENI

13		D02790	Borassus flabellifer	15	Panappakkam	Thiruvennainallur	11.88747, 79.32578	Within	0.1	DHANDAPANI
14		A02636	Azadirachta indica	15	Saram	Tindivanam	12.27158794, 79.70843122	Within	0.1	ATHIKESAVAN
15		S06533	Azadirachta indica	9	Koovathur (North)	Andimadam	11.32174, 79.37959	Within	0.1	SUSEENDIRAN
16	Amman Temple	M01868	Ficus benghalensis	10	Anikuthichan (South)	Andimadam	11.28669, 79.40105	Within	0.1	MUTHUKUMARASAMY
17	Sivan Temple	U00164			Vanathirayanp attanam	Udayarpalayam	11.15652, 79.34531	Within	0.1	UTHIRAPATHI
18		K03218	Azadirachta indica	10	Kundaveli (West)	Udayarpalayam	11.25562, 79.47635	Within	0.1	KALAIVANAN.A
19		A01948	Borassus flabellifer	12	Mullur	Pudukkottai	10.45299, 78.88781	Within	0.1	ARULMANI.S
20		D02812	Borassus flabellifer	10	Anikuthichan (South)	Andimadam	11.28901, 79.40697	Within	0.1	DURAIRAJ
								23.7		

Table 7b. List of Forest areas critical to local communities' traditional cultural identity in TNPL Unit I

SI.No	Name of the Temple	Farmer Code	Protected tree species	Age of the Tree (years)	Village	Taluk	Location	Within / Outside	Extent (Ha)	Name of the Captive Site
1		T02505	Ficus religiosa	5	Kagithapuram	Manmangalam	N 11° 03.640′ E077°59.589 ′	Within	0.1	TNPL Unit I
2		T02505	Azardirachta indica	6	Kagithapuram	Manmangalam	N 11° 03.640′ E077°59.589 ′	Within	0.1	TNPL Unit I
3		T02505	Aegle marmelos	4	Kagithapuram	Manmangalam	N 11° 03.659' E077°59.560'	Within	0.1	TNPL Unit I
4		T02505	Mimosa ferruginea	8	Kagithapuram	Manmangalam	N 11° 03.659' E077°59.560'	Within	0.1	TNPL Unit I
5		T02505	Phyllanthus Emblica	9	Kagithapuram	Manmangalam	N 11° 03.658' E077°59.555'	Within	0.1	TNPL Unit I
6		T02505	Ficus bengaliancis	10	Kagithapuram	Manmangalam	N 11°03.599' E077°59.521'	Within	0.1	TNPL Unit I
7		T02505	Ficus bengaliancis	2	Kagithapuram	Manmangalam	N 11° 03.517' E077°59.384'	Within	0.1	TNPL Unit I
8		T02505	Borassus flabellifer	3	Kagithapuram	Manmangalam	N 11° 03.566' E077°59.437'	Within	0.1	TNPL Unit I
9		T02505	Borassus flabellifer	11	Kagithapuram	Manmangalam	N 11° 03.587' E077°59.449'	Within	0.1	TNPL Unit I
10		T02505	Borassus flabellifer	2	Kagithapuram	Manmangalam	N 11° 03.583' E077°59.453'	Within	0.1	TNPL Unit I
11		T02505	Borassus flabellifer	3	Kagithapuram	Manmangalam	N 11° 03.614' E077°59.466'	Within	0.1	TNPL Unit I
12		T02505	Borassus flabellifer	5	Kagithapuram	Manmangalam	N 11° 03.633' E077°59.478'	Within	0.1	TNPL Unit I
13		T02505	Borassus flabellifer	6	Kagithapuram	Manmangalam	N 11° 03.636' E077°59.475'	Within	0.1	TNPL Unit I
14		T02505	Borassus flabellifer	8	Kagithapuram	Manmangalam	N 11° 03.641' E077°59.473'	Within	0.1	TNPL Unit I
15		T02505	Borassus flabellifer	9	Kagithapuram	Manmangalam	N 11° 03.733' E077°59.451'	Within	0.1	TNPL Unit I
16		T02505	Borassus flabellifer	3	Kagithapuram	Manmangalam	N 11° 03.764' E077°59.443'	Within	0.1	TNPL Unit I
17		T02505	Borassus flabellifer	4	Kagithapuram	Manmangalam	N 11° 03.819' E077°59.458'	Within	0.1	TNPL Unit I

	1	Darrassus				N 11° 03.819'			
18	T02505	Borassus flabellifer	3	Kagithapuram	Manmangalam	E077°59.458'	Within	0.1	TNPL Unit I
19	T02505	Borassus flabellifer	3	Kagithapuram	Manmangalam	N 11° 03.813' E077°59.456'	Within	0.1	TNPL Unit I
20	T02505	Borassus flabellifer	2	Kagithapuram	Manmangalam	N 11° 03.802' E077°59.484'	Within	0.1	TNPL Unit I
21	T02505	Borassus flabellifer	3	Kagithapuram	Manmangalam	N 11° 03.808' E077°59.433'	Within	0.1	TNPL Unit I
22	T02505	Pithecellobium dulce	4	Kagithapuram	Manmangalam	N 11° 03.808' E077°59.435'	Within	0.1	TNPL Unit I
23	T02505	Borassus flabellifer	5	Kagithapuram	Manmangalam	N 11° 03.838' E077°59.431'	Within	0.1	TNPL Unit I
24	T02505	Phycus bengaliancis	6	Kagithapuram	Manmangalam	N 11°03.819' E077°59.386'	Within	0.1	TNPL Unit I
25	T02505	Borassus flabellifer	3	Kagithapuram	Manmangalam	N 11°03.781' E077°59.3822'	Within	0.1	TNPL Unit I
26	T02505	Ficus bengaliancis	2	Kagithapuram	Manmangalam	N 11°03.688' E077°59.350'	Within	0.1	TNPL Unit I
27	T02505	Borassus flabellifer	3	Kagithapuram	Manmangalam	N 11° 03.785' E077°59.321'	Within	0.1	TNPL Unit I
28	T02505	Borassus flabellifer	4	Kagithapuram	Manmangalam	N 11° 03.794' E077°59.320'	Within	0.1	TNPL Unit I
29	T02505	Borassus flabellifer	3	Kagithapuram	Manmangalam	N 11° 03.720' E077°59.336'	Within	0.1	TNPL Unit I
30	T02505	Borassus flabellifer	5	Kagithapuram	Manmangalam	N 11° 03.785' E077°59.371'	Within	0.1	TNPL Unit I
31	T02505	Borassus flabellifer	2	Kagithapuram	Manmangalam	N 11° 03.838' E077°59.278'	Within	0.1	TNPL Unit I
32	T02505	Borassus flabellifer	3	Kagithapuram	Manmangalam	N 11° 03.920' E077°59.266'	Within	0.1	TNPL Unit I
33	T02505	Borassus flabellifer	4	Kagithapuram	Manmangalam	N 11° 03.923' E077°59.604'	Within	0.1	TNPL Unit I
34	T02505	Ficus religiosa	4	Kagithapuram	Manmangalam	N 11° 03.896' E077°59.650'	Within	0.1	TNPL Unit I
35	T02505	Ficus religiosa	6	Kagithapuram	Manmangalam	N 11° 03.893' E077°59.636'	Within	0.1	TNPL Unit I
36	T02505	Ficus religiosa	5	Kagithapuram	Manmangalam	N 11° 03.806' E077°59.557'	Within	0.1	TNPL Unit I
37	T02505	Picus religiosa	3	Kagithapuram	Manmangalam	N 11° 03.781'	Within	0.1	TNPL Unit I

							E077°59.461'			
38		T02505	Borassus flabellifer	8	Kagithapuram	Manmangalam	N 11° 03.791' E077°59.471'	Within	0.1	TNPL Unit I
39		T02505	Ficus religiosa	7	Kagithapuram	Manmangalam	N 11° 03.811' E077°59.499'	Within	0.1	TNPL Unit I
40		T02505	Pithecellobium dulce	9	Kagithapuram	Manmangalam	N 11° 03.534' E077°59.540'	Within	0.1	TNPL Unit I
41		T02505	Phycus bengaliancis	2	Kagithapuram	Manmangalam	N 11° 03.591' E077°59.556'	Within	0.1	TNPL Unit I
42		T02505	Ficus religiosa	3	Kagithapuram	Manmangalam	N 11° 03.605' E077°59.545'	Within	0.1	TNPL Unit I
43		T02505	Ficus religiosa	4	Kagithapuram	Manmangalam	N 11° 03.621' E077°59.566'	Within	0.1	TNPL Unit I
44		T02505	Ficus religiosa	6	Kagithapuram	Manmangalam	N 11° 03.693' E077°59.514'	Within	0.1	TNPL Unit I
45		T02505	Ficus religiosa	8	Kagithapuram	Manmangalam	N 11° 03.787' E077°59.596'	Within	0.1	TNPL Unit I
46		T02505	Ficus religiosa	3	Kagithapuram	Manmangalam	N 11° 03.764' E077°59.596'	Within	0.1	TNPL Unit I
47		T02505	Borassus flabellifer	2	Kagithapuram	Manmangalam	N 11° 03.866' E077°59.667'	Within	0.1	TNPL Unit I
48		T02505	Borassus flabellifer	4	Kagithapuram	Manmangalam	N 11° 03.872' E077°59.645'	Within	0.1	TNPL Unit I
49		T02505	Borassus flabellifer	4	Kagithapuram	Manmangalam	N 11° 03.893' E077°59.624'	Within	0.1	TNPL Unit I
50		T02505	Borassus flabellifer	6	Kagithapuram	Manmangalam	N 11° 03.872' E077°59.616'	Within	0.1	TNPL Unit I
51		T02505	Borassus flabellifer	5	Kagithapuram	Manmangalam	N 11° 03.707' E077°59.542'	Within	0.1	TNPL Unit I
52		T02505	Borassus flabellifer	2	Kagithapuram	Manmangalam	N 11° 03.722' E077°59.534'	Within	0.1	TNPL Unit I
53	TNPL Ganapathi Temple	T02505			Kagithapuram	Manmangalam	N11° 03.641' E77° 59.566'	Within	0.4	TNPL Unit I
54	TNPL Church	T02505			Kagithapuram	Manmangalam	N11° 03.557' E77° 59.483'	Within	0.2	TNPL Unit I
55	TNPL Mosque	T02505			Kagithapuram	Manmangalam	N11° 03.508' E77° 59.498'	Within	0.2	TNPL Unit I
								TOTAL	6.00	

Table 7c. List of Forest areas critical to local communities' traditional cultural identity in TNPL Unit II

Name of the Temple	Farmer Code	Protected tree species	Age of the Tree (years)	Village	Taluk	Loc	ation	Within / Outside	Extent (Ha)	Name of the Captive Site
	T02506	Abutilon theophrasti	2	Mondipatty	Manaparai	N10.68652	E078.45435	Within	0.1	TNPL Unit II
	T02506	Acalypha indica	3	Mondipatty	Manaparai	N10.69555	E07848486	Within	0.1	TNPL Unit II
	T02506	Acanthospermum hispidum	5	Mondipatty	Manaparai	N10.69665	E078.48862	Within	0.1	TNPL Unit II
	T02506	Achyranthes aspera	6	Mondipatty	Manaparai	N10.68674	E078.45766	Within	0.1	TNPL Unit II
	T02506	Aerva lanata	2	Mondipatty	Manaparai	N10.69186	E078.48158	Within	0.1	TNPL Unit II
	T02506	Allmania nodiflora	3	Mondipatty	Manaparai	N10.69664	E078.48875	Within	0.1	TNPL Unit II
	T02506	Aloe vera	5	Mondipatty	Manaparai	N10.69185	E078.47729	Within	0.1	TNPL Unit II
	T02506	Alternanthera pungens	5	Mondipatty	Manaparai	N10.68592	E078.45908	Within	0.1	TNPL Unit II
	T02506	Alternanthera sessilis	4	Mondipatty	Manaparai	N10.68646	E078.45442	Within	0.1	TNPL Unit II
	T02506	Alysicarpus monilifer	6	Mondipatty	Manaparai	N10.68684	E078.45926	Within	0.1	TNPL Unit II
	T02506	Amaranthus spinosus	7	Mondipatty	Manaparai	N10.68711	E078.45421	Within	0.1	TNPL Unit II
	T02506	Amaranthus viridis	2	Mondipatty	Manaparai	N10.68714	E078.45431	Within	0.1	TNPL Unit II
	T02506	Ammannia baccifera	3	Mondipatty	Manaparai	N10.69082	E078.48211	Within	0.1	TNPL Unit II
	T02506	Andrographis paniculata	4	Mondipatty	Manaparai	N10.68599	E078.45911	Within	0.1	TNPL Unit II
	T02506	Anisomeles malabarica	5	Mondipatty	Manaparai	N10.68677	E078.45418	Within	0.1	TNPL Unit II
	T02506	Asparagus recemosus	2	Mondipatty	Manaparai	N10.68677	E078.45432	Within	0.1	TNPL Unit II
	T02506	Boerhavia diffusa	2	Mondipatty	Manaparai	N10.69691	E078.48903	Within	0.1	TNPL Unit II
	T02506	Calotropis gigantea	2	Mondipatty	Manaparai	N10.69646	E078.48847	Within	0.1	TNPL Unit II

T02506	Cardiospermum halicacabum	2	Mondipatty	Manaparai	N10.68656	E078.45459	Within	0.1	TNPL Unit II
T02506	Cassia auriculata	5	Mondipatty	Manaparai	N10.69076	E078.48211	Within	0.1	TNPL Unit II
T02506	Catharanthus pusillus	7	Mondipatty	Manaparai	N10.69693	E078.48901	Within	0.1	TNPL Unit II
T02506	Celosia argentea	4	Mondipatty	Manaparai	N10.68688	E078.45757	Within	0.1	TNPL Unit II
T02506	Cissus quadrangularis	2	Mondipatty	Manaparai	N10.68609	E078.45384	Within	0.1	TNPL Unit II
T02506	Citrullus colocynthis	6	Mondipatty	Manaparai	N10.68676	E078.45379	Within	0.1	TNPL Unit II
T02506	Cleome viscosa	5	Mondipatty	Manaparai	N10.69684	E078.48904	Within	0.1	TNPL Unit II
T02506	Clitoria ternatea	3	Mondipatty	Manaparai	N10.68611	E078.45392	Within	0.1	TNPL Unit II
T02506	Coccinia grandis	3	Mondipatty	Manaparai	N10.69088	E078.48203	Within	0.1	TNPL Unit II
T02506	Cocculus hirsutus	3	Mondipatty	Manaparai	N10.69099	E078.48202	Within	0.1	TNPL Unit II
T02506	Corchorus aestuans	4	Mondipatty	Manaparai	N10.68645	E078.45445	Within	0.1	TNPL Unit II
T02506	Corchorus tridens	4	Mondipatty	Manaparai	N10.68573	E078.45383	Within	0.1	TNPL Unit II
T02506	Crotalaria verrucosa	4	Mondipatty	Manaparai	N10.69179	E078.48181	Within	0.1	TNPL Unit II
T02506	Croton sparsiflorus	2	Mondipatty	Manaparai	N10.68675	E078.45391	Within	0.1	TNPL Unit II
T02506	Cyanthillium cinereum	5	Mondipatty	Manaparai	N10.68672	E078.45737	Within	0.1	TNPL Unit II
T02506	Datura metal	4	Mondipatty	Manaparai	N10.68676	E078.45386	Within	0.1	TNPL Unit II
T02506	Desmodium triflorum	4	Mondipatty	Manaparai	N10.69183	E078.45151	Within	0.1	TNPL Unit II
T02506	Digera muricata	3	Mondipatty	Manaparai	N10.68675	E078.45379	Within	0.1	TNPL Unit II
T02506	Diplocyclos palmatus	2	Mondipatty	Manaparai	N10.68679	E078.45457	Within	0.1	TNPL Unit II
 T02506	Eclipta prostrata	1	Mondipatty	Manaparai	N10.68636	E078.45429	Within	0.1	TNPL Unit II
T02506	Elephantopus scaber	6	Mondipatty	Manaparai	N10.68679	E078.45446	Within	0.1	TNPL Unit II
T02506	Enicostema axillare	6	Mondipatty	Manaparai	N10.69189	E078.47696	Within	0.1	TNPL Unit II
T02506	Euphorbia	6	Mondipatty	Manaparai	N10.69179	E078.48176	Within	0.1	TNPL Unit II

	heterophylla								
T02506	Euphorbia hirta	6	Mondipatty	Manaparai	N10.68640	E078.45444	Within	0.1	TNPL Unit II
T02506	Euphorbia prostrata	2	Mondipatty	Manaparai	N10.69684	E078.48905	Within	0.1	TNPL Unit II
T02506	Evolvulus alsinoides	2	Mondipatty	Manaparai	N10.69627	E078.48904	Within	0.1	TNPL Unit II
T02506	Hemidesmus indicus	3	Mondipatty	Manaparai	N10.68544	E078.45383	Within	0.1	TNPL Unit II
T02506	Hybanthus enneaspermus	3	Mondipatty	Manaparai	N10.68711	E078.45422	Within	0.1	TNPL Unit II
T02506	Hyptis suaveolens	3	Mondipatty	Manaparai	N10.69139	E078.47615	Within	0.1	TNPL Unit II
T02506	Indigofera linnaei	2	Mondipatty	Manaparai	N10.68543	E078.45383	Within	0.1	TNPL Unit II
T02506	Indigofera tinctoria	2	Mondipatty	Manaparai	N10.69202	E078.47699	Within	0.1	TNPL Unit II
T02506	Jatropha gossypiifolia	2	Mondipatty	Manaparai	N10.68674	E078.45396	Within	0.1	TNPL Unit II
T02506	Justicia tranquebariensis	2	Mondipatty	Manaparai	N10.68661	E078.45925	Within	0.1	TNPL Unit II
T02506	Kleinia grandiflora	2	Mondipatty	Manaparai	N10.68537	E078.45403	Within	0.1	TNPL Unit II
T02506	Leucas aspera	5	Mondipatty	Manaparai	N10.68671	E078.45741	Within	0.1	TNPL Unit II
T02506	Martynia annua	4	Mondipatty	Manaparai	N10.68539	E078.45426	Within	0.1	TNPL Unit II
T02506	Merremia tridentata	4	Mondipatty	Manaparai	N10.68731	E078.45448	Within	0.1	TNPL Unit II
T02506	Microstachys chamaelea	3	Mondipatty	Manaparai	N10.69665	E078.48874	Within	0.1	TNPL Unit II
T02506	Mimosa pudica	2	Mondipatty	Manaparai	N10.69088	E078.48221	Within	0.1	TNPL Unit II
T02506	Mollugo nudicaulis	5	Mondipatty	Manaparai	N10.69672	E078.48905	Within	0.1	TNPL Unit II
T02506	Mukia maderaspatana	3	Mondipatty	Manaparai	N10.69184	E078.48174	Within	0.1	TNPL Unit II
T02506	Ocimum americanum	2	Mondipatty	Manaparai	N10.68688	E078.45752	Within	0.1	TNPL Unit II
T02506	Ocimum tenuiflorum	2	Mondipatty	Manaparai	N10.68655	E078.45457	Within	0.1	TNPL Unit II
T02506	Opuntia stricta	3	Mondipatty	Manaparai	N10.68534	E078.45434	Within	0.1	TNPL Unit II

T02506	Passiflora foetida	2	Mondipatty	Manaparai	N10.69184	E078.48187	Within	0.1	TNPL Unit II
T02506	Pavonia zeylanica	3	Mondipatty	Manaparai	N10.68673	E078.45770	Within	0.1	TNPL Unit II
T02506	Pedalium murex	1	Mondipatty	Manaparai	N10.68726	E078.45484	Within	0.1	TNPL Unit II
T02506	Pergularia daemia	4	Mondipatty	Manaparai	N10.69178	E078.48194	Within	0.1	TNPL Unit II
T02506	Phyllanthus amarus	5	Mondipatty	Manaparai	N10.69088	E078.48206	Within	0.1	TNPL Unit II
T02506	Phyllanthus madrapatensis	3	Mondipatty	Manaparai	N10.68638	E078.45448	Within	0.1	TNPL Unit II
T02506	Physalis minima	2	Mondipatty	Manaparai	N10.68543	E078.45454	Within	0.1	TNPL Unit II
T02506	Pupalia lappacea	4	Mondipatty	Manaparai	N10.68576	E078.45907	Within	0.1	TNPL Unit II
T02506	Rhynchosia aurea	2	Mondipatty	Manaparai	N10.68656	E078.45924	Within	0.1	TNPL Unit II
T02506	Sansevieria cylindrica	2	Mondipatty	Manaparai	N10.68691	E078.46025	Within	0.1	TNPL Unit II
T02506	Sesamum laciniatum	2	Mondipatty	Manaparai	N10.69126	E078.47619	Within	0.1	TNPL Unit II
T02506	Solanum surattense	2	Mondipatty	Manaparai	N10.68746	E078.45457	Within	0.1	TNPL Unit II
T02506	Sopubia delphinifolia	4	Mondipatty	Manaparai	N10.68583	E078.45912	Within	0.1	TNPL Unit II
T02506	Striga angustifolia	3	Mondipatty	Manaparai	N10.69657	E078.48898	Within	0.1	TNPL Unit II
T02506	Trianthema portulacastrum	1	Mondipatty	Manaparai	N10.69201	E078.47697	Within	0.1	TNPL Unit II
T02506	Tribulus terrestris	2	Mondipatty	Manaparai	N10.68601	E078.45917	Within	0.1	TNPL Unit II
T02506	Trichodesma indicum	5	Mondipatty	Manaparai	N10.68730	E078.45482	Within	0.1	TNPL Unit II
T02506	Tridax procumbens	2	Mondipatty	Manaparai	N10.69639	E078.48903	Within	0.1	TNPL Unit II
T02506	Triumfetta rhomboidea	2	Mondipatty	Manaparai	N10.68648	E078.45432	Within	0.1	TNPL Unit II
T02506	Vigna trilobata	2	Mondipatty	Manaparai	N10.68671	E078.45749	Within	0.1	TNPL Unit II
T02506	Vinca rosea	2	Mondipatty	Manaparai	N10.68747	E078.45472	Within	0.1	TNPL Unit II
T02506	Waltheria indica	2	Mondipatty	Manaparai	N10.68675	E078.45734	Within	0.1	TNPL Unit II
T02506	Xanthium	3	Mondipatty	Manaparai	N10.69179	E078.47719	Within	0.1	TNPL Unit II

		strumarium								
	T02506	Borassus flabellifer	4	Mondipatty	Manaparai	N 10.68626	E 78.48786	Within	0.1	TNPL Unit II
	T02506	Borassus flabellifer	4	Mondipatty	Manaparai	N 10.68623	E 78.48795	Within	0.1	TNPL Unit II
	T02506	Borassus flabellifer	3	Mondipatty	Manaparai	N 10.68294	E 78.48799	Within	0.1	TNPL Unit II
	T02506	Borassus flabellifer	3	Mondipatty	Manaparai	N 10.69366	E 78.49216	Within	0.1	TNPL Unit II
	T02506	Borassus flabellifer	2	Mondipatty	Manaparai	N 10.69293	E 78.49259	Within	0.1	TNPL Unit II
	T02506	Borassus flabellifer	2	Mondipatty	Manaparai	N 10.69329	E 78.49139	Within	0.1	TNPL Unit II
	T02506	Borassus flabellifer	2	Mondipatty	Manaparai	N 10.69364	E 78.49334	Within	0.1	TNPL Unit II
	T02506	Borassus flabellifer	4	Mondipatty	Manaparai	N 10.69387	E 78.48482	Within	0.1	TNPL Unit II
	T02506	Borassus flabellifer	5	Mondipatty	Manaparai	N 10.69389	E 78.48479	Within	0.1	TNPL Unit II
TNPL Ganapathi Temple	T02506		3	Mondipatty	Manaparai	N 10.69683	E 78.49145	Within	0.4	TNPL Unit II
								TOTAL	9.8	

ANNEXURE

Annexure -I
List of some Rare, Endangered and Threatened Taxa in Tamil Nadu

En : Endangered, Ex : Extinct, I : Indeterminate, R : Rare, Th : Threatened, V : Vulnera									
S. No	Species	Family	Legend						
1	Abutilon ramosum (Cav.) Guill. et Perr	Malvaceae	R						
2	Acacia campbellii Arn	Mimosaceae	R						
3	Acacia hohenackeri Craib	Mimosaceae	R						
4	Acacia wightii Baker	Mimosaceae	R						
5	Acranthera grandiflora Bedd	Rubiaceae	En						
6	Acrocephalus palniensis Mukerjee	Lamiaceae							
7	Actinodaphne bourneae Gamble	Lauraceae	En						
8	Actinodaphne lanata Meissn	Lauraceae	En						
9	Actinodaphne lawsonii Gamble	Lauraceae	R						
10	Aerva wightii Hook f.	Amaranthaceae							
11	Albizia thompsonii Brandis	Mimosaceae	R						
10	Allopteropsis semialata (R.Br.)Hitchc.var. viatica (Griff.)	Doocooo							
12	Ellis et Karthikeyan ex Karthikeyan	Poaceae	En						
13	Alphonsea zeylanica Hook.f. et Thoms.	Annonaceae	En						
14	Alphonsea zeylanica Hook.f. et Thoms.	Annonaceae	En						
15	Alysicarpus beddomei Schindl.	Papilionaceae	R						
16	Amomum microstephanum Baker	Zingiberaceae	R						
17	Anisochilus argenteus Gamble	Lamiaceae	V						
18	Anisochilus wightii Hook.f.	Lamiaceae	R						
19	Antistrophe serratifolia (Bedd.) Hook.f.	Myrsinaceae	R						
20	Aponogeton appendiculatus van Bruggen	Aponogetonaceae							
21	Ardisia blatteri Gamble	Myrsinaceae							
22	Atuna travancorica (Bedd.) Kosterm.	Chrysobalanaceae							
23	Begonia cordifolia (Wight) Thw.	Begoniaceae	R						
24	Begonia subpeltata Wight	Begoniaceae	R						
25	Belosynapsis kewensis Hassk.	Commelinaceae	En						
26	Bentinckia condapanna Berry ex Roxburgh	Arecaceae	R						
27	Bombax insigne Wall.	Bombacaceae	R						
28	Bulbophyllum acutiflorum A.Rich	Orchidaceae	R						
29	Bulbophyllum albidum (Wight) Hook.f	Orchidaceae	R						
30	Bulbophyllum aureum (Hook.f.) Smith	Orchidaceae	R						
31	Bulbophyllum elegantulum (Rolfe) Smith	Orchidaceae	٧						
32	Bulbophyllum Reichb.f.	Orchidaceae	V						
33	Calophyllum austroindicum Kosterm. ex P.F.Stevens	Clusiaceae	R						
34	Campanula alphonsii Wall. ex DC	Campanulaceae	R						
35	Capparis diversifolia Wight et Arn	Capparaceae	V						
36	Capparis fusifera Dunn	Capparaceae	R						
37	Capparis rheedii DC	Capparaceae	R						
38	Capparis shevaroyensis Sundararaghavan	Capparaceae	V						
39	Carex pseudo-aperta Bockeler ex Kukenthal	Cyperaceae							
40	Carex vicinalis Boott.	Cyperaceae							
41	Cayratia pedata (Lam.) Juss. ex Gagnep. var. glabra Gamble	Vitaceae	R						

42	Cayratia roxburghii Gagnep.	Vitaceae	V
43	Ceropegia barnesii Bruce et Chatterjee	Asclepiadaceae	En
44	Ceropegia decaisneana Wight	Asclepiadaceae	R
45	Ceropegia fimbriifera Bedd.	Asclepiadaceae	V
46	Ceropegia metziana Miq	Asclepiadaceae	R
47	Ceropegia omissa Huber	Asclepiadaceae	En
48	Ceropegia pusilla Wight et Arn	Asclepiadaceae	R
49	Ceropegia spiralis Wight	Asclepiadaceae	V
50	Ceropegia thwaitesii Hook.	Asclepiadaceae	V
51	Chrysoglossum hallbergii Blatt.	Orchidaceae	1
52	Clematis theobromina Dunn	Ranunculaceae	R
53	Cleome burmanni Wight et Arn.	Capparaceae	1
54	Commelina hirsuta (Wight) Clarke	Commelinaceae	R
55	Commelina indehiscens Barnes	Commelinaceae	R
56	Commelina tricolor Barnes	Commelinaceae	V
57	Commelina wightii R.Rao	Commelinaceae	V
58	Corymborkis veratrifolia (Reinw.) Blume	Orchidaceae	R
59	Cotoneaster buxifolia Wall. ex Wight	Rosaceae	V
60	Crotalaria bidiei Gamble	Papilionaceae	R
61	Crotalaria bourneae Fyson	Papilionaceae	R
62	Crotalaria clarkei Gamble	Papilionaceae	R
63	Crotalaria clavata Wight et Arn.	Papilionaceae	En
64	Crotalaria conferta Fyson	Papilionaceae	R
65	Crotalaria digitata Hook.	Papilionaceae	R
66	Crotalaria formosa R.Grah. ex Wight et Arn.	Papilionaceae	R
67	Crotalaria fysonii Dunn. var. fysonii	Papilionaceae	R
68	Crotalaria fysonii Dunn var. glabra Gamble	Papilionaceae	En
69	Crotalaria globosa Wight et Arn	Papilionaceae	R
70	Crotalaria grahamiana Wight et Arn	Papilionaceae	R
71	Crotalaria kodaiensis Debbarm. et Biswas	Papilionaceae	En
72	Crotalaria longipes Wight et Arn.	Papilionaceae	En
73	Crotalaria obtecta R.Grah.	Papilionaceae	R
74	Crotalaria peduncularis R.Grah. ex Wight et Arn.	Papilionaceae	R
75	Crotalaria priestleyoides Benth ex Baker	Papilionaceae	R
76	Crotalaria rigida Heyne ex Roth	Papilionaceae	R
77	Crotalaria scabra Gamble	Papilionaceae	R
78	Cyanotis cerifolia R.Rao et Kammathy	Commelinaceae	
79	Cynometra travancorica Bedd.	Papilionaceae	R
80	Dalbergia congesta R.Grah. ex Wight et Arn.	Papilionaceae	R
81	Dalbergia gardneriana Benth.	Papilionaceae	R
82	Dalbergia tinnevelliensis Thoth.	Papilionaceae	R
83	Decaschistia rufa Craib.	Malvaceae	En
84	Derris benthamii (Thw.) Thw. var. wightii (Baker) Thoth.	Papilionaceae	R
85	Derris thotharii Bennet	Papilionaceae	R
86	Desmodium barbatum (L.) Benth. subsp. saulierei (Schind.) Ohashi	Papilionaceae	R
87	Desmodium dolabriforme Benth.	Papilionaceae	R
88	Desmodium ferrugineum Wall. ex Thw. ssp. wynaadense (Bedd. ex Gamble) Ohashi	Papilionaceae	R

89	Desmodium ritchiei Sanjappa	Papilionaceae	R
90	Desmos viridiflorus (Bedd.) Safford.	Annonaceae	R
91	Dictyospermum ovalifolium Wight	Commelinaceae	R
92	Didymocarpus missionis Wall.	Gesneriaceae	R
93	Dillenia retusa Thunb.	Dilleniaceae	En
94	Elaeocarpus blascoi Weibel	Elaeocarpaceae	R
95	Elaeocarpus munronii (Wight) Mast.	Elaeocarpaceae	R
96	Elaeocarpus recurvatus Corner	Elaeocarpaceae	R
97	Elaeocarpus venustus Bedd.	Elaeocarpaceae	V
98	Eria albiflora Rolfe	Orchidaceae	R
99	Eriolaena lushingtonii Dunn	Sterculiaceae	V
100	Eugenia discifera Gamble	Myrtaceae	En
101	Euonymus angulatus Wight	Celastraceae	En
102	Garcinia talbotii Raiz	Clusiaceae	R
103	Glycosmis macrocarpa Wight	Rutaceae	R
104	Goniothalamus rhynchantherus Dunn	Annonaceae	R
105	Goniothalamus thwaitesii Hook.f. et Thoms	Annonaceae	R
106	Goniothalamus wynaadensis (Bedd.)Bedd	Annonaceae	En
107	Helichrysum perlanigerum Gamble	Asteraceae	R
108	Hildegardia populifolia (Roxb.) Schoff. ex Endl.	Sterculiaceae	En
109	Hopea erosa (Bedd.) van Slooten.	Dipterocarpaceae	En
110	Humboldtia bourdillonii Prain	Caesalpiniaceae	En
111	Humboldtia decurrense Bedd. ex Oliver	Caesalpiniaceae	R
112	Humboldtia unijuga Bedd. var. unijuga	Caesalpiniaceae	R & En
113	Hybanthus travancoricus (Bedd.) Melch.	Violaceae	R
114	Hydnocarpus macrocarpa Warh.	Flacourtiaceae	R
115	Hydrocotyle conferta Wight	Apiaceae	R
116	Hypericum humifusum L	Hypericaceae	R
117	Hypericum japonicum Thunb. ex Murr.	Hypericaceae	En
118	Impatiens neo-barnesii C.E.C.Fisch.	Balsaminaceae	En
119	Impatiens nilagirica C.E.C.Fisch.	Balsaminaceae	En
120	Indigofera barberi Gamble	Papilionaceae	R
121	Indigofera tirunelvelica Sanjappa	Papilionaceae	R
122	Indotristichia tirunelveliana Sharma, Karthikeyan, Shetty	Podostemaceae	R&V
123	Isonandra stocksii Clarke	Sapotaceae	V
124	Isonandra villosa Wight	Sapotaceae	ı
125	Kalanchoe olivacea Dalz. et Gibbs	Crassulaceae	R
126	Kendrikia walkeri (Wight)Hook.f. ex Triana	Melastomataceae	En
127	Kingiodendron pinnatum Harms.	Caesalpiniaceae	R
128	Lepidagathis barberi Gamble	Acanthaceae	R
129	Lepidagathis diffusa Clarke	Acanthaceae	ı
130	Leptodesmia congesta (Wight) Benth. ex Baker	Papilionaceae	R
131	Liparis biloba Wight	Orchidaceae	V
132	Liparis platyphylla Ridl.	Orchidaceae	En
133	Melicope indica Wight	Rutaceae	V
134	Memecyclon flavescens Gamble	Melastomataceae	En
135	Memecyclon sisparense Gamble	Melastomataceae	1
136	Meteoromyrtus wynaadensis Gamble	Myrtaceae	En
137	Miliusa nilagirica Bedd.	Annonaceae	En

138	Millettia splendens Wight et Arn.	Papilionaceae	R
139	Murdannia juncoides (Wight) R.Rao et Kammathy	Commelinaceae	V
140	Nothopegia aureo-fulva Bedd. ex Hook.f.	Anacardiaceae	En
141	Oberonia bicornis Lindl. Orchidaceae		R
142	Ochreinauclea missionis (Wall. ex G.Don) Ridsdale	Rubiaceae	V
143	Orophea thomsonii Bedd.	Annonaceae	E
144	Orophea uniflora Hook.f. et Thoms.	Annonaceae	R
145	Palaquium bourdilloni Brandis	Sapotaceae	I
146	Paphipedilum druryi Pfitz.	Orchidaceae	En
147	Pavetta hohenackeri Bremek.	Rubiaceae	V
148	Pavetta wightii Hook.f.	Rubiaceae	P-Ex
149	Peucedanum anamallayense Clarke	Apiaceae	I
150	Piper barberi Gamble	Piperaceae	R
151	Plectranthus bourneae Gamble	Lamiaceae	I
152	Poeciloneuron pauciflorum Bedd.	Clusiaceae	En
153	Pogostemon atropurpureus Benth.	Lamiaceae	R
154	Pogostemon nilagiricus Gamble	Lamiaceae	En
155	Pogostemon paludosus Benth.	Lamiaceae	En
156	Polyalthia rufescens Hook.f. et Thoms.	Annonaceae	R
157	Polycarpaea diffusa Wight et Arn.	Caryophyllaceae	V
158	Popowia beddomeana Hook.f. et Thoms.	Annonaceae	R
159	Pseudoglochidion anamalayanum Gamble	Euphorbiaceae	I
160	Psychotria globicephala Gamble	Rubiaceae	En
161	Pterospermum reticulatum Wight et Arn.	Sterculiaceae	R
162	Rhynchosia jacobii Chandrabose et Shetty	Papilionaceae	R
163	Rhynchosia velutina Wight et Arn.	Papilionaceae	V
164	Salacia beddomei Gamble	Hippocrateaceae	R
165	Santapaua madurensis Balakr. et Subram.	Acanthaceae	En
166	Senecio kundaicus C.E.C.Fisch.	Asteraceae	En
167	Smilax wightii A.DC.	Smilacaceae	R
168	Strobilanthes dupeni Bedd. ex Clarke	Acanthaceae	1
169	Syzygium courtallense (Gamble) Alston	Myrtaceae	En
170	Syzygium gambleanum Rathakr. et Chithra	Myrtaceae	En
171	Tephrosia barberi Drumm.	Papilionaceae	R
172	Tephrosia calophylla Bedd.	Papilionaceae	R
173	Teucrium plectranthoides Gamble	Lamiaceae	V
174	Thottea barberi (Gamble) Ding Hou	Aristolochiaceae	V
175	Toxocarpus beddomei Gamble	Asclepiadaceae	R
176	Tylophora rotundifolia BuchHam. ex Wight	Asclepiadaceae	R
177	Utleria salicifolia Bedd.ex Hook.f.	Periplocaceae	En
178	Vanasushava pedata (Wight) P.K.Mukh. et Constance	Apiaceae	R
179	Vanilla wightiana Lindl.	Orchidaceae	R
180	Vernonia pulneyensis Gamble	Asteraceae	En
181	Willisia selaginoides Warming ex J.C.Willis	Podostemaceae	R
182	Youngia nilgiriensis Babcock	Asteraceae	En

Annexure -II

List of Some Rare, Endangered, Threatened & Endemic Wetland Plants in

Tamil Nadu

E : Endemic, En : Endangered, I : Indeterminate, R : Rare			
S No	Species Plants	Family	Legend
1	Acorus calamus L.	Araceae	En
2	Aponogeton appendiculatus Bruggen	Aponogetonacea e	I
3	Coelachne perpusilla (Arn. ex Steud.) Thw.	Poaceae	E to peninsular India
4	Cryptocoryne consobrina Schott.	Araceae	R
5	Dimeria acutipes Bor	Poaceae	Е
6	Eriocaulon nairii Chandrabose et Chandrasekaran	Eriocaulaceae	E
7	Halophila ovalis (R.Br.) Hook.f. ssp. ramamurthiana Ravikumar et Ganesan	Hydrocharitaceae	Е
8	Hydrocera triflora (L.) Wight et Arn.	Balsaminaceae	En
9	Indotristicha tirunelveliana Sharma. Karthikeyan et Shetty	Podostemaceae	En
10	Isachne bourneorum C.E.C.Fisch.	Poaceae	E
11	Isachne oreades (Domin.) Bor	Poaceae	E to peninsular India
12	Ischaemum flumineum Bor	Poaceae	E to peninsular India
13	Juncus bufonius L.	Juncaceae	R
14	Plectranthus bourneae Gamble	Lamiaceae	I
15	Podostemon barberi Willis	Podostemaceae	E
16	Pogostemon paludosus Benth.	Lamiaceae	En
17	Salacia beddomei Gamble	Hippocrateaceae	R
18	Willisia selaginoides (Bedd.) Warming ex Willis	Podostemaceae	R

Annexure -III

IDENTIFICATION OF HCVF

NAME OF THE FARMER :
VILLAGE :
TALUK :
DISTRICT :
REGION :
EXTENT :

IDENTIFICATION OF HCVF :

S.NO	HCVF CODE	CATEGORY	PRESENT	ABSENT
1	HCV 1	Globally, regionally or nationally significant concentrations of biodiversity values like Protected areas, Threatened and endangered species, Endemic species, Critical temporal use		
2	HCV 2	Globally, regionally or nationally significant large landscape level forests		
3	HCV 3	Forest areas that are in or contain rare, threatened or endangered ecosystems		
4	HCV 4	Forest areas that provide basic services of nature in critical situations like Forests critical to water catchments, Forests critical to erosion control, Forests providing barriers to destructive fire		
5	HCV 5	Forest areas fundamental to meeting basic needs of local communities		
6	HCV 6	Forest areas critical to local communities' traditional cultural identity		

DATE:	SIGNATURE OF THE OFFICER
DATE:	SIGNATURE OF THE OFFICER

Annexure -IV

DOCUMENTATION OF HCVF

NAME OF THE FARMER	:
FARMER CODE	:
VILLAGE	:
TALUK	:
DISTRICT	:
REGION	:
EXTENT	:

DETAILS REGARDING HCVF

HCVF CODE	
HCVF CATEGORY	
CATEGORY NAME	
HISTORY OF HCVF	
HCVF LOCATION	
EXTENT OF HCVF AREA	

DATE: SIGNATURE OF THE OFFICER