



INSTITUTION OF FORESTERS KERALA



A COMPREHENSIVE STUDY ON SACRED GROVES IN KERALA

Report No. : 14



Wayanad District



***Submitted to
CHAIRMAN***



***Kerala Forest Development Fund
Kerala Forest & Wildlife Department***



November 2022

INSTITUTION OF
FORESTERS KERALA

**A COMPREHENSIVE STUDY
ON
SACRED GROVES
IN KERALA**

Report No. 14

Wayanad District

Submitted to

CHAIRMAN

Kerala Forest Development Fund

Kerala Forests & Wildlife Department

November 2022

PREFACE

Institution of Foresters Kerala (IFK) is a society registered in the year 1987 under the Travancore Literary, Scientific and Charitable Societies Act 1955 with its Central office at Thiruvananthapuram. Later it has established two Regional Chapters one at Thrissur and another at Kozhikode. One of the objectives of IFK is to undertake studies on topics useful in Forest Management and Biodiversity conservation. Accordingly, a Project-proposal on “Comprehensive study on the socio-economic and cultural aspects of sacred groves in the whole of Kerala” was prepared and submitted to Kerala Forest Department in June 2012. This project was examined and discussed by the Kerala Forest Development Fund Research Committee in its meeting held on 18th August 2012 and it was approved for implementation. The project envisages a detailed study of Sacred Groves (SGs) in all the 14 districts of Kerala one by one.

To start with Thiruvananthapuram District was allotted and IFK completed the study and submitted the report in November 2013. It was followed by similar studies in another five districts by 2018. By this time we have covered more than 60 % of the sacred groves in Kerala. As the remaining districts have comparatively lesser number of SGs, on our request KFD was pleased to give a blanket sanction for carrying out the work in the remaining eight districts continuously without waiting for specific sanctions for the districts one by one. This approach has enabled us to go fast in the project work for which we record our appreciation and gratitude to Sri Rajan Sehgal the then Additional Principal Chief Conservator of Forests who was the Chairman of KFDF Research Committee. After executing the agreement with KFD on 26-02-18, study was commenced in five districts such as Kottayam, Palakkad, Malappuram, Kasaragod .and later in Idukki. The unprecedented floods of 2018 which was followed by the floods of 2019 adversely affected the progress of our work also. The subsequent virus pandemic took its share in still harder way. However, before end of August 2020, we could submit the reports on Kottayam, Idukki and Palakkad Districts. Report on Kasaragod district was submitted during October 2021 and that of Pathanamthitta, Malappuram and Ernakulam during March 2022, August 2022 and September 2022 respectively. And now we are submitting the report on Wayanad District as the fourteenth & last one. Two field teams headed by retired Section Forest Officers with one local helper each carried out the work under the local supervision of a Retd. ACF and the work was randomly checked by the Senior team from IFK Headquarters. The reason for the low progress is obvious-Covid restrictions followed by adverse climatic factors.

IFK record its immense gratitude to Kerala Forest Department in entrusting this glorious task with it. We also thank Sri. S. Gopalakrishnan IFS, Addl. PCCF in the earlier stages for his guidance and also that of Mr. Devendra Kumar Verma Principal Chief Conservator of Forests (Planning and Development) for his promptness in removal of impediments in the most appropriate manner to complete the study in the best possible way. We are also thankful to the successor Sri D. Jayaprasad, Principal Chief Conservator of Forests (Planning & Development) for his co-operation in our efforts to carry out our work in the most possible manner sidelining Covid Pandemic. Our thanks are due to the experts who co-opted with us and members of the KFDF Research Committee for their positive attitude in IFK's activities. Finally, we express our thanks in no small measure to other officers and staff at Forest Headquarters, in extending fair approach to IFK to make this activity hassle free.

This study report may serve as the valid document on the status and distribution of Sacred Groves in the district. It is our modest expectation that it forms the basis for future planning on the conservation of this precious eco system

It will be our pleasure to clarify any of the details included in this report to all those concerned. It may please be noted that ownership details and similar matters are recorded based on information supplied by the custodian or his representative present at the sacred grove at the time of visit by enumerators and not by perusing legal documents which is not practicable always. Rectifications will be made by corrections on receiving convincing reasons.

23-11-2022

M.S. Nair (President)
Institution of Foresters Kerala

ACKNOWLEDGEMENT FOR SERVICES RENDERED

This project report is the result of the sincere and hard work contributed by a number of members of IFK and Botany experts. On behalf of IFK, I take immense pleasure in extending deep gratitude to them. The nature of work contributed by them is acknowledged as below:

Field Enumeration & Data Collection	Sri. T.V. Rajan SFO (Rtd) Sri. P. V. Vijayan SFO (Rtd)
Field supervision & Field coordination	Sri. A. Sathyanathan (ACF Rtd)
Flora identification	Dr. N. Sasidharan. (Ex. KFRI Peechi)
Field checking	Sri. M.S. Nair Sri. Patric Gomez
Data entry	M/s. Vignesh Graphics
Verification of data entry & Compilation	S/Sri. Patric Gomez and E.B. Chandra Babu
REPORT PREPARATION	
Review of literature	Sri. M.S. Nair
Result of Study	Sri. Patric Gomez
List of Plants in selected groves	Dr. N. Sasidharan
Ecological status	Sri. Patric Gomez

Socio-Cultural aspects	Sri. Patric Gomez
All other chapters	Sri. M.S. Nair
Photographs contributed	Sri. M.S. Nair, Dr. N. Sasidharan, Dr.Jomy Augustin & Patric Gomez
Editing & Finalization of the Report	Sri. M.S. Nair (Principal Investigator of the project) Sri. Patric Gomez (Chief Coordinator of the project)

Also, I take this opportunity to sincerely acknowledge the cooperation, and valuable suggestions contributed by the Executive Committee members of IFK from time to time to accomplish this task at the best of our ability.

23-11-2022

M.S. Nair (President)
Institution of Foresters Kerala

EXECUTIVE SUMMARY

Name of Project: **A COMPREHENSIVE STUDY ON THE
SOCIO-ECONOMIC & CULTURAL ASPECTS OF
SACRED GROVES IN KERALA**

Report No.14 - Wayanad District

General

Sanctioning Authority - Addl. Principal Chief Conservator and
Chairman, KFDF Research Committee.
Implementing Agency - Institution of Foresters Kerala
Principal Investigator - M. S. NAIR
Date of Agreement - 26-02-2018
Area of Study - Wayanad District
Geographical extent - 2132 sq.km
Forest area - 886 sq.km
No. of Taluks - Three

PART I

Chapter I

INTRODUCTION

Objectives

- Arrive at an exhaustive list of Sacred Groves in the District.
- Detailed study of flora and fauna
- Documentation of geographical and legal details.
- Study on Socio-economic and cultural aspects
- Recording ecological status as observed & reported.

Uniqueness

- Exhaustive inventory of Sacred Groves.
- Creation of a databank on geographical and legal status of sacred groves.
- Detailed study on flora.
- Documentation of Socio-economic and Cultural aspects.
- Mapping SGs providing Id numbers.

Methodology

Described steps followed in data collection (through publicity, word of mouth etc.) and documentation including mapping.

Chapter II Review of Literature.

Definition, past history, World scenario, Numerical, Floral status, faunal and ecological status etc are given as available in the literature published earlier.

Chapter III Results of Inventory

Total number of SGs district wise, Taluk wise, distribution under different size categories, management details.

WAYANAD DISTRICT

Sl. No.	Name of Taluk	No. of Sacred Groves	Extent (Ha.)
1	Mananthavady	55	13.69
2	SulthanBathery	16	5.00
3	Vaithiri	66	6.31
	Total	137	25.00 Ha

Management

Three main categories identified-

- i. Devaswam Board.
- ii. Public Trust/Janakeeya Committee
- iii. Private/Family/Family Trust

Id Numbers to Sacred Groves. (SG)

Id numbers have been provided taluk wise-

The list of all the SGs have been given serial numbers coming in each taluk and details from name, ownership up to North and East co-ordinates.

A Statement giving all other information including management category has been attached.

Mapping

Separate map for each taluk has been prepared showing the location and Id numbers of SGs.

Chapter IV : Composition of Vegetation

Occurrence of important species have been described and rare species seen in the SGs have been listed out- Trees, Shrubs, Climbers & Herbs

Chapter V: List of flora in Selected Sacred Groves

In all nine selected SGs falling in the typical zones have been inspected and list of plants prepared by an expert on Botany and important species identified are tabulated SG wise. In addition, in all the SGs all predominant plant species have been identified and recorded during carrying out the inventory.

Chapter VI: Ecological Status

- | | |
|----------------------------|---|
| <i>Vegetation</i> | - Plant diversity with rare species, Natural regeneration, nature of occurrence of species region wise, |
| <i>Soil condition</i> | - Nature of soil and water conservation discussed. |
| <i>Faunal significance</i> | - Useful and harmful role of bats, termites, etc.as could be collected with their habitats. |

Chapter VII : Socio-Cultural Aspects of Sacred Groves

This study has covered the belief entertained by devotees on various deities, the rituals performed during worship, and different cultural programmes being organized in festivals

Chapter VIII : Social Dimensions of Sacred Groves

Sacred Groves falling in different regions were selected and the social conditions in relation to the Sacred Groves have been studied. Mainly three stake holders have been identified such as, i-Local people, ii. Custodians, iii, Priest hood. Representatives belonging to all the above categories have been contacted and analyzed their views.

Study revealed that there is a strong network of social system centered around sacred groves built with faith on God, observance of customs, social harmony and flow of income. It is estimated that the following is the minimum effect on socio-economic condition.

Development of strong trend in protection of vegetation due to fear of God/environmental benefits.

Employment-Man days - 9395

Total amount generated in a year through various sources-Rs .450 lakhs.

Other shop vendors depending on SGs for their livelihood – very negligible.

Chapter IX : Myth & Legends-

Described. different cases.

Chapter X : Threats & Recommendations

Regarding threats, only very few-- discussed.

Main recommendations

- i. Awareness programmes including suggestions to prevent dumping solid waste
- ii. Arrangement for fair distribution of grant to deserving custodians,
- iii. Production of quality seedlings of selected species,
- iv. Interference by government to be done only cautiously .
- v. Conducting research on ecology and carbon sequestration in Sacred Groves
Pictures on various sites, activities and plants-
- vi. Sanction carbon credit to custodians of sacred groves in deserving cases.

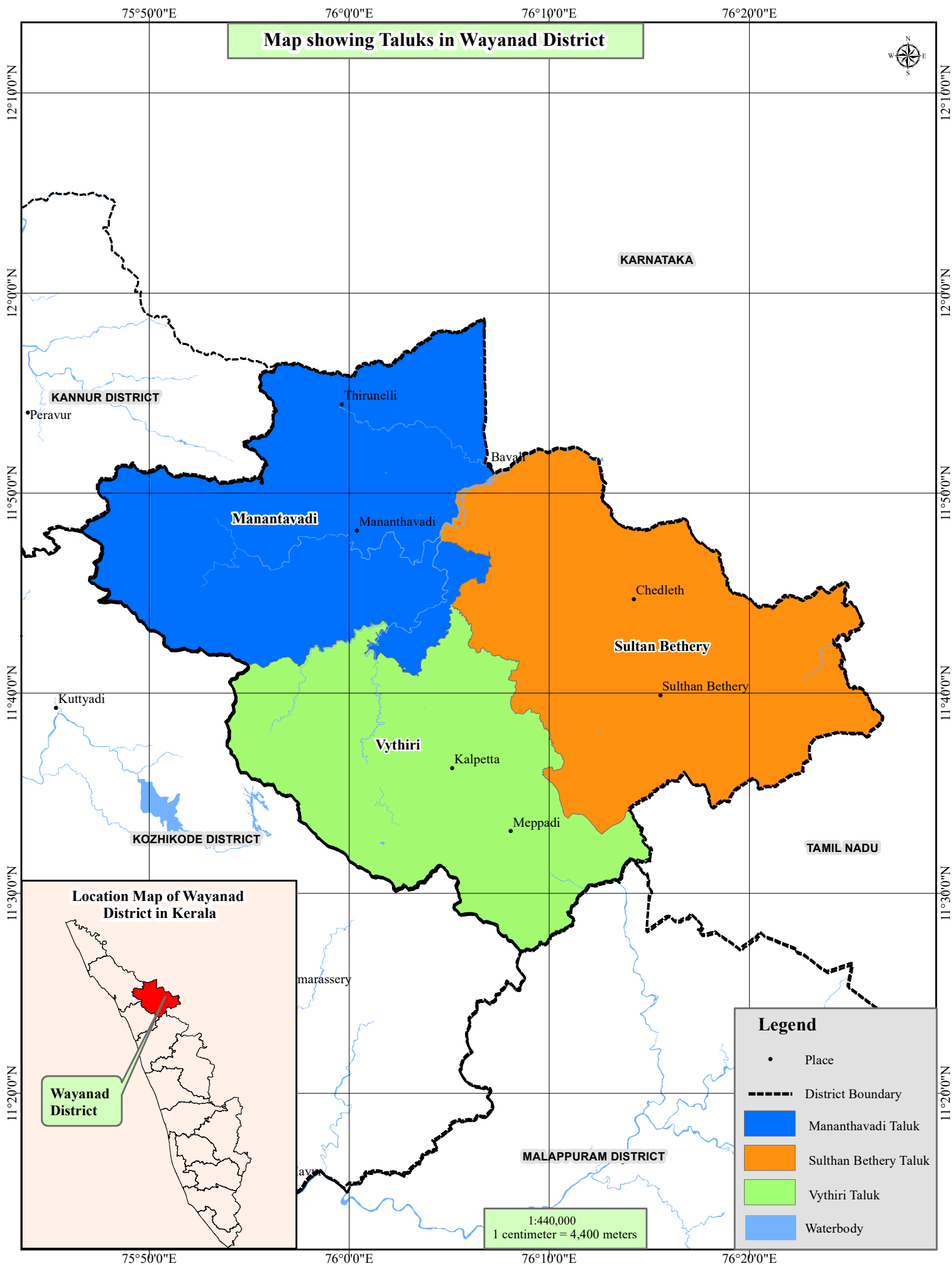
PART II

Maps of SGs with Id numbers- taluk wise

Detailed statements on Management & Geographical details of SGs - talukwise.

CONTENTS

Chapters	Subject	Page nos.
PART I		
	Preface	1-4
	Executive summary	5-8
	Contents	9
Chapter I	Introduction	11-14
Chapter II	Review of literature	15-22
Chapter III	Result of Study <i>with pictures of SGs</i>	23-26
Chapter IV	Composition of vegetation.	27-28
Chapter V	List of species SG wise for -- 9 Nos.	29-48
Chapter VI	Ecological status	49-54
Chapter VII	Socio-cultural Status	55-64
Chapter VIII	Socio –economic Dimension	65-68
Chapter IX	Myths and Legends	69-72
Chapter X	Threats & Recommendations	73-78
	Bibliography	79
	<i>Pictures of SGs & Plants</i>	<i>Inserted at appropriate pages.</i>
PART II		
Maps showing SGs	Three taluks	
Statement of Geo/management details	All the SGs	



CHAPTER I

INTRODUCTION

The existence of sacred groves in India dates back to ancient pre-agrarian hunter gathering era and their presence has been documented since early 1800's. Believing that trees are the abode of deities and ancestral spirits, many communities set aside sanctified areas of forest and established rules and customs to ensure their protection prohibiting felling trees, killing animals etc. The prevailing belief among devotees is that the presiding deities administer punishment to individuals or entire community in the form of diseases or crop failure if in case they violate the established customs. As a result of such restrictions and strict adherence to the accepted customs by the devotees, several endemic and endangered plant and animal species have survived in the sacred groves for so many years since. Sacred groves attain religious and holy significance all over.

The Earth Summit of 1992 emphasized the immediate need for protection and conservation of biodiversity. Following that, the approach to biodiversity conservation gained revamping image all over the world. Protection with veneration provided to these patches of forest as Sacred Groves from generations to generations all over the world is significant in the sense that the principles of bio-diversity conservation had been inbuilt in their management. In India the Biological Diversity Act enacted in 2002, stressed the need for implementing various measures for bio-diversity conservation. In the meanwhile, the Kerala Forestry Project (1998-2003) stressed the need for biodiversity conservation and constituted a Biodiversity Cell in Forest Department. The Kerala Forestry Project (1998) proposed the need for long term conservation of sacred groves by taking up ecological survey and inventory of sacred groves. In addition the project provided for lump sum allocation of grants to local communities and religious groups to improve awareness, demarcation, protection and enhancement of local practices in Sacred Groves. But even after 17 years on completion of the project implementation a clear picture as to the spread of area under vegetation and the related inventory about the sacred groves was lacking.

In the project report got prepared by Govt. of Kerala, on MODERNIZATION of FOREST MANAGEMENT, by an Expert Committee in 2010, there is strong recommendation for preparation of an inventory of sacred groves and for documenting their importance from ecological and biodiversity point of view. (Para. 3.27)

However, the present trend of Kerala Forest Department (KFD) in complying with the objectives in imbibing the above suggestions by promoting IFK's project is worthy of appreciation.

Protection and Conservation of Sacred Groves is one among the schemes and KFD is providing grant to various selected sacred groves under this scheme. For implementing such a scheme, a database covering inventory with all relevant details is very essential in order to obtain financial assistance in the full measure from Central Government. Though studies have been undertaken and reports published on sacred groves of Kerala by various individuals and organizations, such reports do not cover all the relevant details and they cover only part of some aspects, that too in incomplete form. It is in this context this project receives warm acceptance at all levels concerned.

This study is aimed at building a database on the existence of sacred groves in Kerala and all the accessible information about them. Already nine districts have been completed. Besides taking an inventory on the number of SGS available, information on the extent of land under vegetation, ownership, legal status, geographical location including GPS data, assigning Id number and such other important information find a place in this report. The impact of such information on these patches of vegetation which have been surviving since long and its socio-ecological scenario would amply help policy makers establish guidelines and launch schemes for conservation without interfering with the freedom of the custodians in management. **The absence of such information in the earlier available database in the state qualifies this study a unique venture.**

This report is presented in two parts. Part 1 contains inventory details, study on vegetation, ecological aspects and Socio-cultural studies, along with photographs of important sacred groves and plants. Part II comprises statements consisting location, ownership, extent, management details and Id numbers computed for each sacred grove taluk wise. Maps showing the location of all the SGs Taluk wise are also included.

As already explained, this report is unique in its objectives.

Objectives

- A comprehensive inventory of sacred groves inKasaragodDistrict with location
- List of flora with analysis on distribution of plant species,
- Identification of important and rare plant species in detail by an expert with regard to selected sacred groves.
- Ecological status based on field observations and reported facts.
- Assigning ID numbers to all the SGs.
- Preparation of a database on folklore and folk arts.
- Assess impact of the sacred groves in socio-economic scenario.
- Providing photographs of all important species existing in the SGs

- Mapping SGs taluk wise showing the location of SGs based on GPS readings.
- Narration of Myths and legends as could be gathered from various sources relating to the sacred groves visited.
- Locate the threats being confronted in conservation of sacred groves.
- Recommendations

METHODOLOGY

Area of Study

This report covers Sacred Grooves (SGs) of Wayanad district. There are three taluks such as Mananthavady, SulthanBathery and Vaithiri. Annual rainfall around 3000 mm and Temperature 10 to 25⁰ during winter and 20 to 30⁰ during summer. This area lies between Latitudes N11⁰ 45' and 11⁰ 97' & Longitudes E 76⁰ 44' and 75⁰ 77'. Geographical area is 2132 sq.km. As regards soil is concerned, in most of the area soil is fertile with lot of humous. Majority of the area supports Loamy sand soil and, in some parts, sandy loam and a few area laterite protrusions seen.

Collection of available data

The probable list of sacred groves has been collected through records available with offices such as panchayat and social forestry, publicity in the press and word of mouth as was done in earlier cases. In this district two teams were engaged each headed by a Retired Section Forest Officer. Recording details also was done in the same format as in previous cases along with GPS Readings. Supervision was done by one Retired ACF and random checking, by senior members from Head Office. Taxonomist Cum Botany Expert covered selected sacred groves to prepare the detailed list and frequency of plant species. The legal status, address of custodian and extent are gathered from persons holding possession of the SGs based on available records and the information passed on by them. The extent of each SG is assessed by the field team who have experience in judging the area and utmost care has been taken to see that the extent is not exaggerated at any cost. Ownership and Sy. No are recorded as provided by the custodian or the representative available in the grove and not always based on documents. Wherever documents are made available that is also considered.

Format for recording data: - A format was designed for the collection of data while visiting a sacred grove which proposed to collect information on name of SG, location, name and address of custodian, extent, Sy. No, Village and similar geographical details. Further, details on inspection would carry the vegetation, fauna, legal status, information of presiding

deity, temples attached, a brief note on the route to reach the SG from a known place and similar essential facts.

Legal status was looked into to classify the sacred groves into the following categories as could be verified from reliable records or information. (i) Managed by Devaswam Board (ii) Under Public Trust, and Under Local Committee (iii) Private (includes family trust or Family (Kudumbam) ownership). More details about these will appear in the chapter on Sociological Dimensions.

Documentation of Flora and Fauna--. Generally, the field team is conversant with the identification of the species and common shrubs. But they have also taken the help of persons conversant with the identification of uncommon shrubs and herbs including medicinal plants. In addition, services of an expert in Botany and Taxonomy also has been utilized to arrive at the wealth of flora in selected sacred groves.

CHAPTER II

REVIEW OF LITERATURE

There are plenty of literature authored by various scholars such as Gaikward, Oliver Kind, Dr.Raviprasad Rao, MuhamedJafer Pilot & Radhakrishnan, Mohan C.N & Ganga Prasad, Unnikrishnan,U. M. Unnikrishna and others on the character and status of sacred groves in general which constitute the basis of this chapter partly. In addition, there are various articles on SGs in other countries available by surfing internet. Part of those is also included in this.

The sacred Groves came into existence thousands of years ago and in general they are dedicated by local communities to their ancestral spirits or deities. They have been defined by many authors like those above and all the definitions carry more or less the same meaning. The following are the views that emerge out of their contributions.

According to them Sacred Groves (SG) are a patch of vegetation or group of trees protected by the local people through religious and cultural practices evolved to minimize destruction. Sacred groves, the community-based repositories of biological diversity, are segments of landscapes typically covering a patch of vegetation with perennial water resources. They are patches of wilderness conserved owing to their perceived importance attached to a village deity. Sacred grove is an age-old tradition where a patch of forest is dedicated to local deities and none is allowed to cut plants or to harm animals or do harm to any form of life. Sacred groves are community-based monuments of biological diversity.

Global Scenario

Sacred Groves (SG) are distributed across the globe and diverse cultures recognize them in different ways encoding various rules for their protection. Sacred groves associated with religious beliefs were there in many countries from time immemorial. Sacred groves have been reported from many countries like Mexico, Ghana, Nigeria, China, Syria, Europe and America.

The Greek and Roman landscapes were dotted with many sacred places which contain groves of trees and water springs. Groves were in existence in Greece and Rome long back. The most famous sacred grove in Greece was Oak Grove at **Dodona**. Outside the walls of Athens the site of the Academy was a sacred grove of olive trees.

Resources from the groves were used for religious purposes. Animals like goats and deer were offered to appease the deity. Trees in the groves could be used for building temple. Wood from sacred trees was believed to have magical powers when fashioned into statues of

Gods. This kind of multiple use relaxing strict measures on conservation caused decline of SGs in some parts of Europe. One great **Druidic groves in south Gaul (Rome) was cleared by Caesar's troops** in an attempt to remove spiritual powers inherent in the grove. There was a grove in front of the **church in Weissenbach an der Triesting. (picture Plate I)** In Europe sacred groves survived in the Baltic states longer than in other parts. The sacred grove island **Estonia** is the one. (See picture Plate-I)

In the **Caucasus Mountains** (Russia) each community had its own sacred grove. They worshipped these as sanctuaries built among age old trees which were never to be cut (see picture plate II)

In Tuna a southern province in **China**, the inhabitants did not dare to touch the native mountain forest because of their fear on wrath of God.

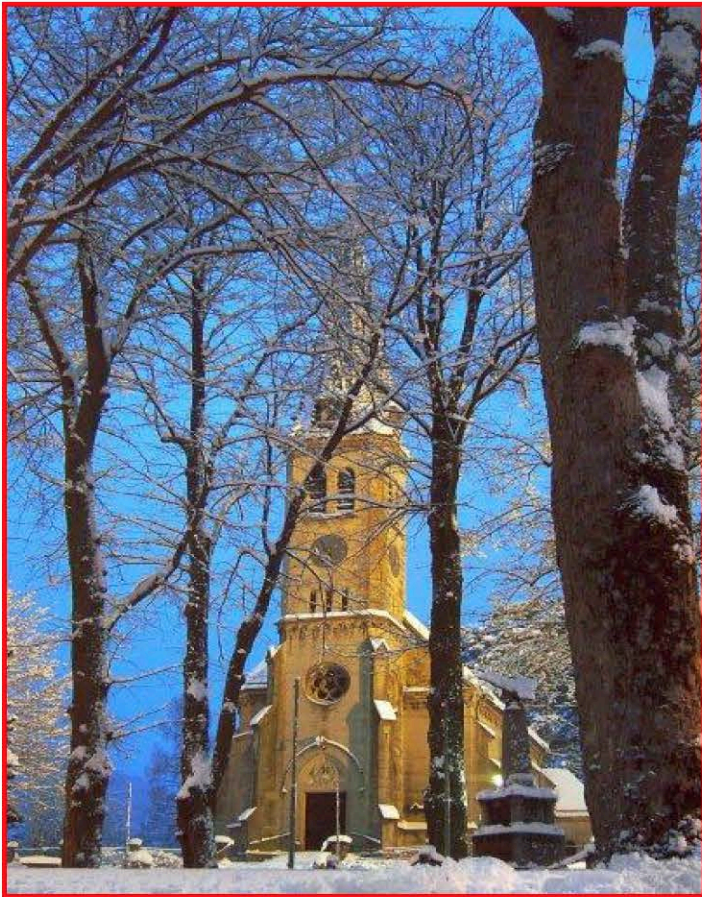
In Africa, among the Kikuyu, groves of *Migumu* trees are considered sacred and those trees were not to be cut. In these sacred groves, sheep and goats were sacrificed and prayers offered for rain or fine weather or for curing diseases among people. In Kenya, *Kaya* a sacred forest considered to be an intrinsic source of ritual power and origin of cultural identity. It is also a place of prayer for members of a particular ethnic group-Mijikenda people. The flora was used solely for collection of medicinal plants. Cutting and clearing trees were not permitted. In **Nigeria the Osum-Osobgo sacred grove** containing dense forests is dedicated to fertility God in Yoruba mythology and is dotted with shrines and sculptures. This grove was designated as a **UNESO World Heritage Site** in 2005. (see picture- plate-II)

In **Japan** the Seifa- Utaki contains a sacred grove, with rare indigenous trees like *Kubanoki* (a kind of Palm) and *Yubunikkei* (*Cinnamomum japonicum*) This is UNESCO World Heritage Site of 2003.

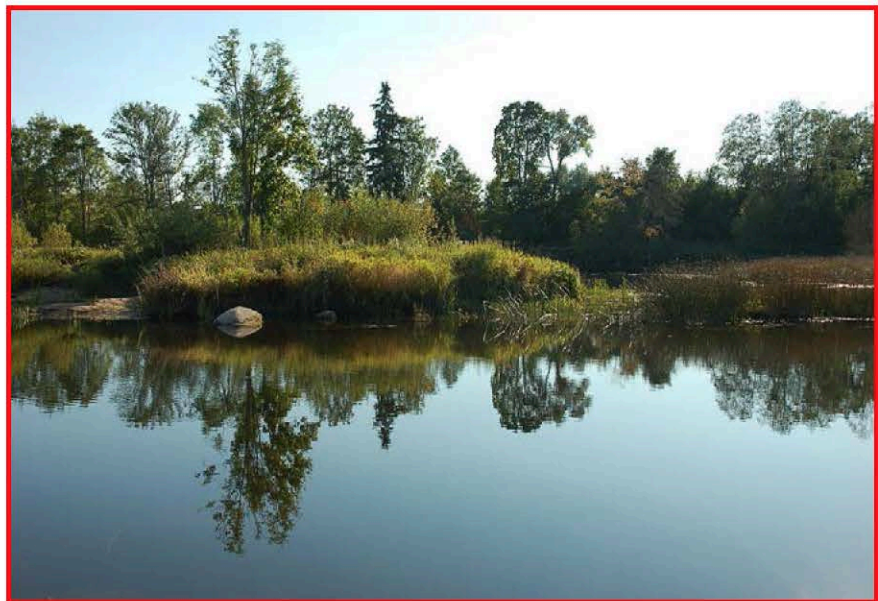
A grove near **Leona** all the way down a mountain side up to sea was dedicated to the goddess Artemis at the instance of Alexander the Great. Artemis was considered to be the protector of animals and plants.

In **America-The Bohemian Grove located in California** is a privately owned sacred grove and in mid July each year they perform symbolic rituals such as Cremation of Care.

(see picture- plate-II)



1. Grove in front of the church in weissenbach an der Triesting.



2. Sacred Grove Island Estonia. Baltic states-Europe



*4.Osun-Osogbo Sacred
Grove-Nigeria-*

*UNESCO-World Heritage
Site 2005*



*5.Bohemain Grove-a
Sacred Grove in
California..*

Attitude by different Religions in the world

Due to the rise in dogmatic religions like Christianity and Islam, which advocated faith in one God, the tradition of maintaining sacred groves and sacred trees did not get an unconditional flow of support though sacred groves exist in many countries in some form or other among those religions. We can still get lot of instances to show that this attachment to trees coupled with spiritual beliefs exist among different religions also other than Hinduism.

In the kingdom of Sumer in Arabia, tree worship was prevalent in 1860 for getting rain. Muslim Persians invoke the spirits supposed to dwell in certain trees by hanging on the branches, pieces of garments during some ceremonial occasions.

In Indonesia *Ficus benghalensis* is considered sacred. They believed the existence of holy spirits in the tree which would ensure availability of clean water.

In Parish Church of WeissenbachTreisting in Lower Austria, Europe, a grove exists in front of the church. In Syria there is a grove sacred dedicated to Adonis at Afqa.

Buddha himself gained realization and enlightenment under a Pipal tree. Buddha is reported to have been born in a sacred grove-Lumbini full of Sal trees. (Gadgil 1985)

In all parts of Africa, various tribes consider different types of groves as sacred. In West Asia, Babylonians and Assyrians had planted sacred groves. Palm forest with altar has been reported from Arabia. Sacred Oak grove was present in Asia Minor. Sacred mountains and lakes are present in Madagascar. Many Siberian people honored sacred groves. Village groves are present in Korea. In Japan, Shinto shrines, as a rule, are surrounded by trees. Buddhist temples in Japan and China have tree gardens. Buddhist monasteries and temples of Thailand have sacred groves. Sacred groves are present in Nepal and Sri Lanka. In America both pre-Columbian people and the settlers maintained sacred groves. In San Francisco AIDS National Memorial Grove (1996) was started in memory of those who died by Aids. (CDS)

Indian scenario

In India sacred groves are existing in a wide range of ecological situations from estuaries to mountain localities. Gadgil and Vartak (1976) record that the important regions with sacred groves are the North Eastern Himalayas (Khasi – Garo hills), Western Ghats, Aravalli Hills of Rajasthan, Chhatisgarh and Bastar area in Central India. In addition the coastal and mid-land areas of Kerala are also important where the sacred groves are abundant.

Of course in India the major religion that holds and protects sacred groves is Hinduism, having several living and non-living elements of nature as objects of worship. The general belief that sacred groves are maintained by Hindu community only is not fully correct. Other communities also have shown faith in the sacred trees.

A little Sal forest in Gorakhpur is maintained by a Muslim saint “Main Sahib” . Nothing was allowed to be cut except for lighting sacred fire.

In Kolhapur district there exists a small sacred grove on the land of a Muslim peasant. This land was purchased by him from a Brahmin priest in 1962. The Muslim peasant observes “agrosaat” and “diwalsaat” (pre-sowing and post sowing ceremonies) at this sacred grove along with adjoining Hindu peasants.

In Murshidabad district (Raghnathgunj town in West Bengal), in a Mazar-a pir- is located amidst a grove . On the top of the grave three trees –neem, mahakal, and bel are there which are worshiped by Hindus.

In the heart of Midnapur city, a sacred grove is dedicated to a pir called Hazrat Balak Shahid Rehmatullah Elachi, who died a few centuries back. There is a sacred well inside known as “Sheikh Kuia”. People irrespective of cast or religion fetch water from this well as it is believed to have powers to cure diseases.

In Midnapur itself there is another big sacred grove dedicated to a pir called Baro Huzur and the SG is known as “Tapovan”. This is located at Istreegunj on the western fringe extending over three acres. Entry is restricted here. Wearing shoes is not allowed. Here also there is a sacred pond from where water is considered to have power to cure diseases.

In north Kerala, particularly in Kannur and Kasaragod districts Muslim community is seen associating in the affairs of some sacred groves mainly for performing Teyyam art.

If we take the case of Sabarimala Poonkavanam a typical and extensive sacred grove of Lord Ayyappa, holds the legendary association of “Vaver Swamy” a Muslim, at Erumely which is still in vogue. The facts narrated above stands to reason that sacred grove is not alien to communities other than Hindu.

Global Faith on Sacred Plants & Animals

Protection of plants

Ancient religions all over the world never differentiated soul of human beings fashioning statues and soul of animal. During those days itself plants were also considered as living beings. It is generally felt that India is the typical country where this approach to plants

and animals relating to sacred sites is keenly felt and practiced. When the global position is examined in more details, the revelation throws light on many similarities in this aspect.

Safeguarding the plant wealth in sacred sites is the motto everywhere by attaching spiritual powers or benefits that may accrue or utility of timber for carving and the like. How the trees in mountains and heritage sites in Greece, Russia, Africa, America etc. are being revered has already been explained in the above paragraphs. In all these cases invariably destroying trees is considered as taboo.

Sacrifice of animals in rituals

In some parts of the world sacrificing animals as a ritual to appease God do exist. This is being differently adopted in India also. In India in view of the various legislations on animal protection, the very old practice of making animal sacrifice is usually replaced by resorting to cutting some vegetable- symbolically.

But in some Muslim dominated countries this is not a taboo during Bakrid. Some of the other countries are, France, Germany, Greece, Spain etc. Among these countries the only option for changes is regarding stunning the animal. Probably by taking the queue from the above cases, in India also there are judgements supporting animal sacrifice as has appeared in the press in accordance with religious requirements. Provision 28 Of the Prevention of Cruelty to Animal Act -1960, - “Nothing contained in this Act shall render it an offence to kill an animal in the manner ritual slaughter. required by religion of any community, theoretically leaving open the question of unstunned ritual slaughter. There was a Supreme Court ruling in 2017 as appeared in the press to the effect that – “No ban on animal sacrifice for religious purposes-Telangana”. It is seen that animal sacrifice, mainly goat or poultry is now being performed in a sacred grove Ekalavyamkavu in Chitturtauk of Palakkad District.

In Kerala a Division Bench of High Court have upheld the ban on animal sacrifice in their judgement on 16-06-2020 as per Kerala Animals and Bird sacrifices prohibition Act-1968. An appeal against tis order is now pending before the Supreme Court.

Offering Alcohol in rituals as oblation

In some sacred groves the God or Goddesses of Sakteya nature (non-virtuous) like Bhadrakali, Kuruman, or Duryadhanan or Karnnan are being worshipped. In such cases, non-Brahmins such as SC community, Mala Arayans etc are maintaining the sacred grove or temple out of their ardent belief that such deities are more powerful like warriors in helping and protected the less privileged folk.. Here they serve Toddy, or hard liquor as the offering

during the festival. Such cases are seen in Duryodhana Kavu (Muthappan) in kollam, Dussasanakavu in Kanjirappally and Valliamkavu in Peermade taluk.

Number of Sacred Groves

The total number of sacred groves in any state or region estimated and reported is not based on any authentic study. All the reports on the number of SGs go by rough estimation as can be seen below. The rough estimate of the number of sacred groves in India is around 14000 with an extent of about 55000 hectares . (Nalinakshan P.K – 2004). And more than one lakh (Malhotra-198). These reports do not state the basis of these figures and exact source. However coming to the case of Kerala, reports on estimation is varying. Though many authors have given the total number or list of sacred groves district wise none of them claim that they are exhaustive. Some of the estimations for the state of Kerala-are as below.

1. Only less than 1000 . (Mohan CN and Ganga Prasad.)
2. 15000-(T-C Area) -(Ward and Conner -1927)
3. 2000- (Rajendra Prasad -1995).
4. 299 – (ENVIS CENTRE) and
5. 364 with district wise estimation. -(Dr. N.C.Induchoodan)

(Source-NATIONAL WORKSHOP ON SACRED GROVES 2004-KERALA)-Now it is becoming evident that these figures are not reliable.

Flora

The vegetation in sacred groves is generally immensely rich in diversity of species depending on the conditions of habitat prevailing in various regions.. Studies made so far made till 2004 listed out 805 species of flowering and non-flowering plants belonging to 121 families, comprising 673 di-cotyledons belonging to 95 families and 126 monocotyledons belonging to 20families (Unni P.N. & Anupama -2004). Unnikrishnan (1990,1995) has documented more than 32 species of plants that are endemic to Western Ghats in the sacred groves.

Majority of the species belong to families such as Annonaceae, Menispermaceae, Capparidaceae, Malvaceae, Meliaceae, Vitaceae, Fabaceae, Anacardiaceae, Rubiaceae etc.

Unni. P.N and Anupama have also provided a table listing the above 805 species in their paper ‘Conservation of sacred groves of Kerala: Need and strategies’ presented at the National Workshop on Sacred Groves held in September 2004 at Kozhikode. According to Gadgil (1976) , sacred groves are the treasure of rare and endemic species. Many workers

supported this view. For example, analysis of phytogeographical elements of sacred groves of Kerala indicates that 721 species recorded from the sacred groves 154 are endemic to Western Ghats and 33% of them are trees (Induchoodam 1998)-{ Chandrasekhara u.m.2004} .In certain regions with the prevailing micro climate and edaphic features plant formations assume different composition from mangroves to rain forests. Mangroves are found along estuaries and fringes of back waters.

Fauna

Similarly, fauna in the sacred groves have been listed out. which contain Amphibians-3, reptiles 10, and birds 164. This includes 25 species of birds that breed in sacred groves. But according to another survey (Unnikrishnan) among 90 species of birds documented in certain sacred groves 34 were found breeding in sacred groves. Among these 90 species, 40 are typical forest species and 20 are migrants. The Sacred groves are the last shelter of the common fauna including a variety of insects, reptiles, mammals, birds and micro-organisms. Among the animals, a few are enlisted as threatened in India such as the fresh water and terrestrial tortoises, python, monitor lizard, mongoose, palm civet, Nilgiri Languor, Slender Loris, several amphibians, reptiles, and insects. The Malabar large spotted civet presumed to be extinct is reported last from some of the groves in Malabar. Birds, including a few migratory ones, select groves for nesting and breeding. A phenomenon known as overwintering (staying without going back) among winter visitors of birds is also noticed in some of these groves of Kerala. (Mohanan C.N. to Ganga Prasas A-2004).

The major fauna of the groves comprises of snakes (cobra, viper and rat snake) water hen, toddy cat and mongoose. The pond contains various fishes, tortoise, frog and water snake. (Kannan C.S. Warriar, Kunhi Kannan C and Gunasekaran T-2004).

The birds and bats find their natural nesting places in the sacred groves. They, in addition to their scavenger role check the insect and pest population. The bird droppings rich in phosphorous replenish the phosphorus deficient soil of the region. Snake and mongoose find their home in sacred groves. The snake controls the rodent population, which if left unchecked will destroy the crops of the locality. The snake population is kept under check by the mongoose. Insect fauna, particularly the bees make their hives in sacred groves and facilitate the cross pollination of many plants species of the locality. (U.M.Chandrashekara-2004)

Ecological functions

According to Rajendraprasad (1995), sacred groves show high porosity and low bulk density compared to the soils of nearby areas. He also observed the thick litter covers and

channels created by soil micro-fauna together enhanced the water retention, root system development, gaseous exchange and heat conductance. The role of sacred groves as micro-watershed in local area has been recognized by many workers. (Chandrashekara U.M.- 2004)

As an ecosystem, they help in soil, water and nutrient conservation and the ponds and streams adjacent to these groves are perennial water sources, which adequately explain their hydrological significance, though not evidenced through results of scientific investigation. (Unni P.N.& Anupama C-2004)

CHAPTER III

RESULT OF STUDY

The study reveals that there are in all 137 sacred groves in this district. The peculiarity in this district is that very small sacred groves are almost absent. Out of the 137, those between 5 to 10 cents are about 54% and about 14% are large in extent. The remaining are medium size having area 10 to 50 cents. One sacred grove in Mananthavady taluk has an extent of 6 acres which is the largest in the district.

AREA WISE DISTRIBUTION OF SACRED GROVES INWAYANAD DISTRICT

Sl. No.	Area class	No. of Sacred Groves	Extent (Cents)
1	5 Cents to 10 Cents	74	652
2	11 Cents to 25 Cents	28	476
3	26 Cents to 50 Cents	16	732
4	51 Cents to 100 Cents	8	715
5	Above 100 Cents	11	3620
	Total	137	6195 (25 Ha)

AREA WISE DISTRIBUTION (TALUK WISE)

MANANTHAVADI TALUK

Sl. No.	Area class	No. of Sacred Groves	Extent (Cents)
1	Less than 5 Cents	--	==
2	5 Cents to 10 Cents	28	244
3	11 Cents to 25 Cents	9	147
4	26 Cents to 50 Cents	7	330
5	51 Cents to 100 Cents	4	380
6	Above 100 Cents	7	2320
	Total	55	3421

SULTHAN BATHERY TALUK

Sl. No.	Area class	No. of Sacred Groves	Extent (Cents)
1	Less than 5 Cents	--	--
2	5 to 10 Cents	7	64
3	11 to 25 Cents	4	80
4	26 to 50 Cents	2	80
5	51 to 100 Cents	1	100
6	Above 100 Cents	2	900
	Total	16	1224

VAITHIRI TALUK

Sl. No.	Area class	No. of Sacred Groves	Extent (Cents)
1	Less than 5 Cents	--	--
2	5 Cents to 10 Cents	39	344
3	11 Cents to 25 Cents	15	259
4	26 Cents to 50 Cents	7	322
5	51 Cents to 100 Cents	3	235
6	Above 100 Cents	2	400
	Total	66	1560

**ABSTRACT SHOWING
CUSTODIAN/OWNERSHIP/MANAGEMENT OF SACRED GROVES
WAYANAD DISTRICT**

Sl. No.	Ownership/Custodian/Management	No. of Sacred Groves
1	Sacred Grove Owned/Managed by Government	--
2	Sacred Groves Managed by Devaswam Board/ Local Temple Devaswams	17
3	Sacred Groves Managed by Public Trust/ Public Committees/Janakeeya Committees	18
5	Sacred Groves Managed by Individuals/ Family/Family Trust	102
	Total	137

TALUK WISE MANAGEMENT DETAILS

MANANTHAVADY TALUK

Sl. No.	Ownership/Custodian/ Management	No. of Sacred Groves
1	Sacred Grove Owned by Government	--
2	Sacred Groves Managed by Devaswam Board/ Local Devaswams	9
3	Sacred Groves Managed by Public Trust/ Public Committees/Janakeeya Committees	4
5	Sacred Groves Managed by Individuals/ Family/Family Trust/ <i>Tharavad</i>	42
	Total	55

SULTHAN BATHERY TALUK

Sl. No.	Ownership/Custodian/ Management	No. of Sacred Groves
1	Sacred Grove Owned by Government	--
2	Sacred Groves Managed by Devaswam Board/ Local Devaswams	5
3	Sacred Groves Managed by Public Trust/ Public Committees/Janakeeya Committees	2
5	Sacred Groves Managed by Individuals/ Family/Family Trust/ <i>Tharavad</i>	9
	Total	16

VAITHIRI TALUK

Sl. No.	Ownership/Custodian/ Management	No. of Sacred Groves
1	Sacred Grove Owned by Government	--
2	Sacred Groves Managed by Devaswam Board/ Local Devaswams	3
3	Sacred Groves Managed by Public Trust/ Public Committees/Janakeeya Committees	12
5	Sacred Groves Managed by Individuals/ Family/Family Trust/ <i>Tharavad</i>	51
	Total	66

Photos of Kavu



**ChedatinKavu –
S Batherytaluktaluk**



**Sreeputhuramkeezhuparadeva
thakavu-Vaithiri Taluk**



Sree Mani kavu- SulthanBathery



Rarothkavu- Mananthavady taluk

CHAPTER IV

COMPOSITION OF VEGETATION

The vegetation consists of both evergreen and semi-evergreen types. There are many large groves with thick vegetation such as Achurankavu of one Acre in Vythiri taluk, Manikavu of four Acres in SulthanBathery taluk and Valliyoorkavu-five Acres in Mananthavadi taluk. Luxuriant vegetations is seen in some of the less disturbed groves. As regards diversity, these larger sacred groves exhibit high diversity- in trees (36 to 77), Shrubs (20 to 39), climbers (22 to 45), and herbs (21 to 33).

Endemic species such as *Hopea parviflora*, *Hopea ponga*, *Myristicamalabarica*, *Knema attenuate*, *Diospyros malabarica*, *Perciamalabarica* etc are seen in plenty. Rarely seen are *Madhukaneriifolia*, *Strombosiaceylanica*

Except in some SGs in Thrissur district, dense growth of bamboos are rarely seen in sacred groves. But here in two grove such as KarmalKunnu Tribal Kavu in Vaithyri taluk and Sree Mani Kavu, in Meenangadi village of SulthanBathery taluk promising growth of Bamboos are noted. As can be in the picture the density of Bamboo is very unusual which calls for a study.



Similarly orchid diversity is also prominent. *Nerviliapraineana*, *Zeuinelongilabri*, *Malaxisrheedii* are some of them.

In general, most of the groves have very dense vegetation and at the same time the regeneration is very good. One of the reasons is that there are many important trees which are either shade demanding or shade tolerant. Some of them are the following.

- i. *Strychnosnux-vomica*,
- ii. *Mimuopselangi*,
- iii. *Madukaneerifolia*,
- iv. *Hydnocarpuswaghitiana*, v. *Vateriaidica*, vi. *Carallia brachiate*,
- vii. *Syzygiumcaryophyllatum*, viii. *Syzygiumtravancoricum*



Some of the dominant plants are *Arenga whitii*, *Bridelia retusa*, *Cinnamomum malabaricum*, *Greveliarobusta*, *Litsea bourdillonii*, *Pterospermum rubiginosum* and *Vitex ultissima*.

The following are the rare and important plants seen in these SGs. Under this most of them have medicinal value.

	TREES	Remarks
1	<i>Antiaristoxicaria</i>	Tree
2	<i>Abrusprectotiuos</i>	Herb –Pulp and root oil medicinal
3	<i>Antidesmamenasu</i> .	Tree
4	<i>Aphanamixispolystachya</i>	Tree
5	<i>Aporusalindelyana</i>	Vetti
6	<i>Artocarpus hirsute</i>	Anjiy
7	<i>Barringtonia racemose</i>	
8	<i>Evodia Lnuankenda</i>	Kambii
9	<i>Gmelina arborea</i>	Kumbil
10	<i>Hydnocarpuslurifolius</i>	
11	<i>Syzygiumcayophyllatum</i>	
12	<i>Vitex alltissima</i>	Myla
	SHRUBS	
1	<i>Abrusprecatorius</i>	Pulp and root oil medicinal
2	<i>Chasaliacurviflora</i>	Medicinal
3	<i>Glycosmis pentaphylla</i>	Antipyretic
4	<i>Mussanda glabrata</i>	Asthma & roots-leprosy
	HERB	
1	<i>Vernonia cinerae</i>	Seeds/ roots medicinal
2	<i>Angeratumconyzoides</i>	Root juice medicinal
3	<i>Ageratum menasu</i>	Roots Prevent tetanus

CHAPTER V

LIST OF PLANTS IN SELECTED SACRED GROVES

1. RarothVettakaranKavu, Valode Village, Mananthavady Taluk

Sl. No.	Scientific name	Family	Local name
	TREES		
1	<i>Aglaia lawii</i>	Meliaceae	Vellacheeralam
2	<i>Aphananthespidata</i>	Ulmaceae	Thodupoliyan, Bhuthyunarathi
3	<i>Archidendronbigeminum</i>	Leguminosae	Muthakolappan, Pannivaka
4	<i>Areca catechu</i>	Arecaceae	Kamuku, Adakka
5	<i>Arenga wightii</i>	Arecaceae	Malanthengu
6	<i>Artocarpus heterophyllus</i>	Moraceae	Plavu
7	<i>Canarium strictum</i>	Burseraceae	Thellippayin
8	<i>Caryotaurens</i>	Arecaceae	Choondappana, Olattippana
9	<i>Celtis timorensis</i>	Ulmaceae	Poochakkurumaram
10	<i>Chionanthus mala-elengi</i>	Oleaceae	Malaelengi
11	<i>Cinnamomum malabattrum</i>	Lauraceae	Vayana
12	<i>Citrus maxima</i>	Rutaceae	Babloosnarakam
13	<i>Cocos nucifera</i>	Arecaceae	Thengu
14	<i>Dimocarpus longan</i>	Sapindaceae	Cholapoovam
15	<i>Dipterocarpus indicus</i>	Dipterocarpaceae	Kalppayin
16	<i>Elaeocarpus serratus</i>	Elaeocarpaceae	Kaara
17	<i>Erythrina stricta</i>	Leguminosae	Mullumurkku
18	<i>Ficus amplissima</i>	Moraceae	Koli
19	<i>Ficus beddomei</i>	Moraceae	
20	<i>Ficus hispida</i>	Moraceae	Parakam
21	<i>Ficus tsjahela</i>	Moraceae	Chela
22	<i>Garcinia gummi-gutta</i>	Clusiaceae	Kodampuli
23	<i>Glochidionellipticum</i>	Euphorbiaceae	
24	<i>Grewia tiliifolia</i>	Tiliaceae	Chadachi
25	<i>Holigarnagrahamii</i>	Anacardiaceae	Charu, Cheru
26	<i>Knemaattenuata</i>	Myristicaceae	Chorappayin
27	<i>Litsea bourdillonii</i>	Lauraceae	
28	<i>Mallotus philippensis</i>	Euphorbiaceae	Sindooramaram, Kurangumanjal
29	<i>Mallotus tetracoccus</i>	Euphorbiaceae	Vattakumbil
30	<i>Mangifera indica</i>	Anacardiaceae	Mavu
31	<i>Melicope lunu-ankenda</i> (<i>Euodia lunu-ankenda</i>)	Rutaceae	Kambili, Kanala
32	<i>Myristica beddomei</i>	Myristicaceae	Pathiripoovu
33	<i>Olea dioica</i>	Oleaceae	Idala
34	<i>Plumeria rubra</i>	Apocynaceae	Chempakappala
35	<i>Psidium guajava</i>	Myrtaceae	Pera
36	<i>Pterospermum rubiginosum</i>	Sterculiaceae	Ellooti
37	<i>Sterculia guttata</i>	Sterculiaceae	Kavalam, Pottakkavalam
38	<i>Tabernaemontana heyneana</i>	Apocynaceae	Kundalappala
39	<i>Tectona grandis</i>	Verbenaceae	Thekku

40	Vateria indica	Dipterocarpaceae	Vellappine
41	Vitex altissima	Verbenaceae	Myla, Mylellu
42	Walsuratrifolia	Meliaceae	Kanchimaram
43	Xanthophyllumarnottianum	Xanthophyllaceae	Madakka, Mottal
CLIMBERS			
1	Acacia torta	Leguminosae	Peincha, Kakkincha
2	Adeniahondala	Passifloraceae	Karimuthakku
3	Alangiumsalviifolium subsp. hexapetalum	Alangiaceae	Valli-ankolam
4	Argyrea hirsuta	Convolvulaceae	
5	Caesalpinia mimosoides	Leguminosae	
6	Calamus sp.	Arecaceae	
7	Calamus travancoricus	Arecaceae	Kannichooral
8	Cissus discolor	Vitaceae	Aaronpuli
9	Cissus trilobata	Vitaceae	Neelachunnambuvali
10	Clematis gouriana	Ranunculaceae	
11	Combretum latifolium	Combretaceae	
12	Cyclea peltata	Menispermaceae	Padakizhangu
13	Dioscorea sp.	Dioscoreaceae	Pandikkachil
14	Dioscorea pentaphylla	Dioscoreaceae	Chavalikizhangu
15	Gloriosa superba	Liliaceae	Menthonni
16	Gnetum edule	Gnetaceae	Thoovakai
17	Gouania microcarpa	Rhamnaceae	Palkkarrati
18	Grewia umbellifera	Tiliaceae	Bhasmavalli
19	Ipomoea hederifolia	Convolvulaceae	Theepporimulla
20	Jasminum coarctatum (Jasminum rottlerianum)	Oleaceae	Kattumulla
21	Kamettia caryophyllata	Apocynaceae	Kammattivalli
22	Mikania micrantha	Asteraceae	Dhristrapacha
23	Mimosa invisa	Leguminosae	Aanathottavadi
24	Mukiamaderaspatana	Cucurbitaceae	Mukkapeeram
25	Naravelia zeylanica	Ranunculaceae	Vathamkodi
26	Piper sp.	Piperaceae	Kaattukurumulaku
27	Pothos scandens	Araceae	Paruvakkodi, Varivalli
28	Tetrastigma leucostaphyllum	Vitaceae	
29	Tinospora sinensis	Menispermaceae	Pothamruthu
30	Tylophora sp.	Asclepiadaceae	
31	Ziziphus oenopia	Rhamnaceae	Cheruthodali
SHRUBS			
1	Callicarpa tomentosa	Verbenaceae	Thiriperivelam
2	Chassalia curviflora var. ophioxylodes	Rubiaceae	Yamari
3	Chromolaena odorata (Eupatorium odoratum)	Asteraceae	Communistpatcha
4	Clausenaaustroindica	Rutaceae	Suganthavepu
5	Clerodendrum infortunatum	Verbenaceae	Peruvelam
6	Coffea arabica	Rubiaceae	Kappi
7	Dendrophthoe falcata	Loranthaceae	Ithilkanni

8	<i>Euphorbia trigona</i>	Euphorbiaceae	Kallippala
9	<i>Glycosmis pentaphylla</i>	Rutaceae	Paanal
10	<i>Gomphandratretrandra</i>	Icacinaceae	Kambilichedi
11	<i>Helicteresisora</i>	Sterculiaceae	Idampiri-valampiri
12	<i>Justicia betonica</i>	Acanthaceae	
13	<i>Lantana camara</i>	Verbenaceae	Arippochedi, Kongini
14	<i>Lobelia nicotianifolia</i>	Lobeliaceae	Kaattupukayila
15	<i>Maesaperrottetiana</i>	Myrsinaceae	Kireethi
16	<i>Mussaendafrondosa</i>	Rubiaceae	Vellila
17	<i>Nothopegiatravancorica</i>	Anacardiaceae	Avukarum
18	<i>Ochlandra scriptoria</i>	Poaceae	Eetta
19	<i>Pandanus sp.</i>	Pandanaceae	Kaitha
20	<i>Polygonum chinense</i>	Polygonaceae	Thiruthanni
21	<i>Schumannianthusvirgatus</i>	Marantaceae	Malamkoova
22	<i>Sida acuta</i>	Malvaceae	Anakurunthotti
23	<i>Solanum torvum</i>	Solanaceae	Pachhachunda
24	<i>Tabernaemontanadivaricata</i>	Apocynaceae	Nandiyar-vattom
HERBS			
1	<i>Acampepraemorsa</i>	Orchidaceae	Maravazha
2	<i>Asystasiacrispata</i>	Acanthaceae	
3	<i>Axonopuscompressus</i>	POaceae	Kaalappullu
4	<i>Bidens pilosa</i>	Asteraceae	
5	<i>Biophytumreinwardtii</i>	Oxalidaceae	Mukkuti
6	<i>Centratherum intermedium</i>	Asteraceae	
7	<i>Colocasia esculentum</i>	Araceae	Kattuchembu
8	<i>Conyza canadensis</i>	Asteraceae	
9	<i>Crassocephalumcrepidioides</i>	Asteraceae	
10	<i>Curculigoorchiodes</i>	Hypoxidaceae	Nilappana
11	<i>Cymbidium aloifolium</i>	Orchidaceae	
12	<i>Cymbopogon sp.</i>	Poaceae	
13	<i>Dendrobium macrostachyum</i>	Orchidaceae	
14	<i>Dendrobium ovatum</i>	Orchidaceae	
15	<i>Drynariaquercifolia</i>	Polypodiaceae	Mathilpanna
16	<i>Impatiens minor</i>	Balsaminaceae	
17	<i>Leucas zeylanica</i>	Lamiaceae	Thumba
18	<i>Luisia tristis</i>	Orchidaceae	
19	<i>Mimosa pudica</i>	Leguminosae	Thottavadi
20	<i>Oldenlandia auriculata</i>	Rubiaceae	
21	<i>Oplismenuscompositus</i>	Poaceae	
22	<i>Paspalum conjugatum</i>	Poaceae	
23	<i>Pholidota imbricata</i>	Orchidaceae	
24	<i>Phyllanthus rheedei</i>	Euphorbiaceae	
25	<i>Pseudanthistiriaumbellata</i>	Poaceae	
26	<i>Scleriaparvula</i>	Cyperacea	
27	<i>Selaginella sp.</i>	Selaginellaceae	
28	<i>Spermacoce latifolia</i>	Rubiaceae	Vellatharavu
29	<i>Spilanthes ciliata</i>	Asteraceae	Akravu

30	<i>Spilanthes radicans</i>	Asteraceae	
31	<i>Stachytarphetaurticifolia</i>	Verbenaceae	Ezhuthanipachha
32	<i>Synedrellanodiflora</i>	Asteraceae	Mudiyanpachha
33	<i>Tectariacoadunata</i>	Polypodiaceae	
34	<i>Vernonia cinerea</i>	Asteraceae	Poovankurunnel
35	<i>Zingiber zerumbet</i>	Zingiberaceae	Malayinchi

2. Muthireri Siva Temple Kavu, Thiruvangad Village, Mananthavady Taluk

Sl. No.	Scientific name	Family	Local name
	TREES		
1	<i>Actinodaphnemalabarica</i>	Lauraceae	Eeyoli
2	<i>Aegle marmelos</i>	Rutaceae	Koovalam
3	<i>Alstoniascholaris</i>	Apocynaceae	Ezhilampala
4	<i>Aporosacardiosperma</i> (<i>Aporosalindleyana</i>)	Euphorbiaceae	Vetti
5	<i>Anacardium occidentale</i>	Anacardiaceae	Kashumavu
6	<i>Archidendronbigeminum</i>	Leguminosae	Muthakolappan, Pannivaka
7	<i>Artocarpus heterophyllus</i>	Moraceae	Plavu
8	<i>Artocarpus hirsutus</i>	Moraceae	Anjily
9	<i>Caryotaurens</i>	Arecaceae	Choondappana, Olattippa
10	<i>Cassia fistula</i>	Leguminosae	Kanikkonna
11	<i>Cinnamomum</i> sp.	Lauraceae	Vayana
12	<i>Delonix regia</i>	Leguminosae	Poomaram
13	<i>Dimocarpus longan</i>	Sapindaceae	Cholapoovam
14	<i>Ficus beddomei</i>	Moraceae	Thavittal
15	<i>Ficus hispida</i>	Moraceae	Parakam
16	<i>Glochidionellipticum</i>	Euphorbiaceae	
17	<i>Grevilliarobusta</i>	Proteaceae	Silver oak
18	<i>Grewia tiliifolia</i>	Tiliaceae	Chadachi
19	<i>Holigarnagrahamii</i>	Anacardiaceae	Charu, Cheru
20	<i>Hydnocarpuspentandrus</i>	Flacourtiaceae	Marotti
21	<i>Lagerstroemia microcarpa</i>	Lythraceae	Venthekku, Vellilavu
22	<i>Litsea coriacea</i>	Lauraceae	Maravettithali
23	<i>Macaranga peltata</i>	Euphorbiaceae	Vatta, Thodukanni
24	<i>Mallotusphilippensis</i>	Euphorbiaceae	Sindooramaram, Kurangumanjal
25	<i>Mangifera indica</i>	Anacardiaceae	Mavu
26	<i>Mesua thwaitesii</i>	Clusiaceae	Nanku, Chruli
27	<i>Nothopegiaracemosa</i>	Anacardiaceae	
28	<i>Saracaasoca</i>	Leguminosae	Ashokam
29	<i>Spondias pinnata</i>	Anacardiaceae	Ambazam
30	<i>Sterculia guttata</i>	Sterculiaceae	Kaavalam
31	<i>Vateria indica</i>	Dipterocarpaceae	Vellappayin

32	Vernonia arborea	Asteraceae	Karana
33	Tectona grandis	Verbenaceae	Thekku
CLIMBERS			
1	Acacia torta	Leguminosae	Peincha, Kakkincha
2	Alangiumsalviifolium subsp. hexapetalum	Alangiaceae	Valli-ankolam
3	Briedeliastipularis	Euphorbiaceae	Cherupanachi, Kanjikottam
4	Cissus latifolia	Vitaceae	Chunnambuvali
5	Cissus trilobata	Vitaceae	Neelachunnambuvali
6	Clematis gouriana	Ranunculaceae	
7	Derris brevipes	Leguminosae	
8	Dioscorea sp.	Dioscoreaceae	Kattukachil
9	Gnetum edule	Gnetaceae	Thuvakkai
10	Jasminum coarctatum (Jasminum rottlerianum)	Oleaceae	Kattumulla
11	Merremia umbellata	Convolvulaceae	
12	Merremia vitifolia	Convolvulaceae	Manjavayaravalli
13	Mikania micrantha	Asteraceae	Dhirastrapacha
14	Naravaliazeylanica	Ranunculaceae	
15	Piper sp.	Piperaceae	Kattukurumulaku
16	Pothos scandens	Araceae	Paruvakkodi, Varivalli
17	Raphidophora pertusa	Araceae	Elathadi
18	Rubia cordifolia	Rubiaceae	Manchatti
19	Tetrastigma leucostaphyllum	Vitaceae	
20	Vigna umbellata	Leguminosae	Kaattuzhunnu
21	Ziziphora tenuifolia	Rhamnaceae	Cheruthodali
SHRUBS			
1	Ananas comosus	Bromeliaceae	Kaithachakka, Pineapple
2	Antidesma montanum	Euphorbiaceae	
3	Asystasia crispatula	Acanthaceae	
4	Bauhinia acuminata	Leguminosae	Vellamandaram
5	Boehmeria glomerulifera	Urticaceae	
6	Breynia retusa	Euphorbiaceae	
7	Canthium coromandelicum	Rubiaceae	Karamullu
8	Chassalia curviflora var. ophioxylodes	Rubiaceae	Yamari
9	Clerodendrum infortunatum	Verbenaceae	Peruvelam
10	Coffea arabica	Rubiaceae	Kappi
11	Colebrookia oppositifolia	Lamiaceae	
12	Dracaena terniflora	Dracaenaceae	Manjakantha
13	Flueggea virosa	Euphorbiaceae	Perinklavu
14	Gomphandra tetrandra	Icacinaceae	
15	Hibiscus hispidissimus	Malvaceae	Panachan
16	Hibiscus rosa-sinensis	Malvaceae	Chembarathi
17	Lantana camara	Verbenaceae	Aripoochedi, Kongini
18	Leea indica	Leeaceae	Njellu
19	Ocimum kilimandscharicum	Lamiaceae	Karpoorathulasi

20	Pandanus sp.	Pandanaceae	Kaitha
21	Solanum torvum	Solanaceae	Pachhachunda
22	Urena sinuata	Malvaceae	Uthiram
	HERBS		
1	Acampepraemorsa	Orchidaceae	Maravazha
2	Alpinia sahyadrica	Zingiberaceae	
3	Alternanthera bettzickiana	Amaranthaceae	Alligator weed
4	Alternanthera brasiliana	Amaranthaceae	Chemcheera
5	Arundinella purpurea	Poaceae	
6	Asystasiacrispata	Acanthaceae	
7	Caladium bicolor	Araceae	Pullichembu
8	Costus pictus	Zingiberaceae	Insulinchedi
9	Dendrobium macrostachyum	Orchidaceae	
10	Dendrobium ovatum	Orchidaceae	
11	Mimosa pudica	Leguminosae	Thottavadi
12	Oplismenuscompositus	Poaceae	
13	Piper sp.	Piperaceae	Kattukurumulaku
14	Synedrellanodiflora	Asteraceae	Mudiyanpacha
15	Tectariacoadunata	Polypodiaceae	
16	Vernonia cinerea	Asteraceae	Poovankurunnel
17	Zingiber wighianum	Zingiberaceae	Malayinchi

3. Sree Mani Kavu, Choothupara, Meenangadi Village, SulthanBathery Taluk

Sl. No.	Scientific name	Family	Local name
	TREES		
1	Aporosacardiosperma (<i>Aporosalindleyana</i>)	Euphorbiaceae	Vetti
2	Artocarpus hirsutus	Moraceae	Anjily
3	Caryotaurens	Arecaceae	Choondappana, Olattippa
4	Cassia fistula	Leguminosae	Kanikkonna
5	Cinnamomum macrocarpum	Lauraceae	Karuppa
6	Chionanthus mala-elengi	Oleaceae	Malaelengi
7	Dalbergia latifolia	Leguminosae	Karimaram
8	Elaeocarpus sphaericus	Elaeocarpaceae	Rudrasham
9	Elaeocarpus tuberculatus	Elaeocarpaceae	Vellathaanni
10	Ficus amplissima	Moraceae	
11	Ficus hispida	Moraceae	Parakam
12	Glochidionellipticum	Euphorbiaceae	
13	Holigarna nigra	Anacardiaceae	Charu, Cheru
14	Mallotusphilippensis	Euphorbiaceae	Sindooramaram, Kurangumanjal
15	Mallotustetracoccus	Euphorbiaceae	Vattakumbil
16	Macaranga peltata	Euphorbiaceae	Vatta, Thodukanni

17	Mangifera indica	Anacardiaceae	Mavu
18	Melicopelunu-ankenda (<i>Euodia lunu-ankenda</i>)	Rutaceae	Kambili, Kanala
19	Olea dioica	Oleaceae	Idala
20	Perseamacrantha	Lauraceae	Kulamavu
21	Santalum album	Santalaceae	Chandanam
22	Schleicheraoleosa	Sapindaceae	Poovam
23	Spathodeacampanulata	Bignoniaceae	Spathodia
24	Syzygium sp.	Myrtaceae	Njaval
25	Syzygiumcaryophyllatum	Myrtaceae	Njara
26	Tectona grandis	Verbenaceae	Thekku
27	Terminalia bellirica	Combretaceae	Thaanni
28	Trema orientalis	Ulmaceae	Pottama, Amathali
29	Walsuratrifolia	Meliaceae	Kanchimaram
CLIMBERS			
1	Alangiumsalvifolium subsp. hexapetalum	Alangiaceae	Valli-ankolam
2	Argyreiahirsa	Convolvulaceae	
3	Asparagus racemosus	Liliaceae	Sathavari
4	Briedeliastipularis	Euphorbiaceae	Cherupanachi, Kanjikottam
5	Calamus hookerianus	Arecaceae	Chooral
6	Cissus discolor	Vitaceae	Aaronpuli
7	Cissus repens	Vitaceae	Njarala
8	Dioscorea sp.	Dioscoreaceae	Kattukachil
9	Diploclesiaglaucescens	Menispermaceae	Vattavalli
10	Gymnemasylvestre	Asclepiadaceae	Chakkarakkolli
11	Jasminum coarctatum (<i>Jasminum rottlerianum</i>)	Oleaceae	Kattumulla
12	Jasminum flexile	Oleaceae	
13	Jasminum malabaricum	Oleaceae	Kattumulla
14	Merremiaumbellata	Convolvulaceae	
15	Merremiavitifolia	Convolvulaceae	Manjavayaravalli
16	Mikania micrantha	Asteraceae	Dhritarashtra-pachha
17	Mimosa invisa	Leguminosae	Aanathottavadi
18	Pothos scandens	Araceae	Paruvakkodi, Varivalli
19	Spatholobusparviflorus	Leguminosae	Adambuvalli
20	Ziziphus oenoplia	Rhamnaceae	Cheruthodali
SHRUBS			
1	Allophylus cobbe	Sapindaceae	Mukkannanpezhu
2	Chassaliacurviflora var. ophioxylodes	Rubiaceae	Yamari
3	Chromolaena odorata (<i>Eupatorium odoratum</i>)	Asteraceae	Communistpatcha
4	Cipadessabaccifera	Meliaceae	Kaipanarachi
5	Clerodendruminfortunatum	Verbenaceae	Peruvelam
6	Lantana camara	Verbenaceae	Aripoochedi
7	Leea asiatica	Leeaceae	Maniperandi

8	<i>Ludwigia peruviana</i>	Onagraceae	
9	<i>Melastomamalabathricum</i>	Melastomataceae	Athirani
10	<i>Mussaendafrondosa</i>	Rubiaceae	Vellila
11	<i>Osbeckiaparvifolia</i>	Melastomataceae	Cheriya-athirani
12	<i>Ocimumbasilicum</i>	Lamiaceae	Ramathulasi
13	<i>Ocimumtenuiflorum</i>	Lamiaceae	Thulasi
14	<i>Sauropus androgynous</i>	Euphorbiaceae	Velicheera
15	<i>Solanum aculeatissimum</i>	Solanaceae	Manjachunda
16	<i>Solanum torvum</i>	Solanaceae	Pachhachunda
17	<i>Urena lobata</i>	Malvaceae	Uthiram
HERBS			
1	<i>Acampepraemorsa</i>	Orchidaceae	Maravazha
2	<i>Ageratum conyzoides</i>	Asteraceae	Aappa
3	<i>Alternanthera bettzickiana</i>	Amaranthaceae	Alligator weed
4	<i>Alternanthera sessilis</i>	Amaranthaceae	Ponnamganicheera
5	<i>Axonopuscompressus</i>	Poaceae	Kalappullu
6	<i>Brachiariaramosa</i>	Poaceae	
7	<i>Brachiariamiliiformis</i>	Poaceae	
8	<i>Bidens pilosa</i>	Asteraceae	
9	<i>Caladium bicolor</i>	Araceae	Pullichembu
10	<i>Colocasia esculentum</i>	Araceae	Madantha, Kattuchembu
11	<i>Cyperus cyperinus</i>	Cyperaceae	
12	<i>Eragrostis nigra</i>	Poaceae	
13	<i>Ischaemum indicum</i>	Poaceae	
14	<i>Kyllingabrevifolia</i>	Cyperaceae	Muthanga
15	<i>Leucas zeylanica</i>	Lamiaceae	Thumba
16	<i>Mimosa pudica</i>	Leguminosae	Thottavadi
17	<i>Oplismenuscompositus</i>	Poaceae	
18	<i>Pennisetum pedicellatum</i>	Poaceae	Poochavalanpullu
19	<i>Pseudanthistiriaumbellata</i>	Poaceae	
20	<i>Solanum americanum</i>	Solanaceae	Manithakkali

4. Perumkoda Shri Koottakavu, Achooranam Village, Vaithiri Taluk

Sl. No.	Scientific name	Family	Local name
TREES			
1	<i>Adenanthrapavonina</i>	Leguminosae	Manchadi
2	<i>Alstoniascholaris</i>	Apocynaceae	Ezhilampala
3	<i>Aporosacardiosperma</i> (<i>Aporosalindleyana</i>)	Euphorbiaceae	Vetti
4	<i>Artocarpus heterophyllus</i>	Moraceae	Plavu
5	<i>Artocarpus hirsutus</i>	Moraceae	Anjily
6	<i>Carallibrachiata</i>	Rhizophoraceae	Varangu, Vallabham
7	<i>Cassia fistula</i>	Leguminosae	Kanikonna
8	<i>Chionanthus mala-elengi</i>	Oleaceae	Malaelengi
9	<i>Cocos nucifera</i>	Arecaceae	Thengu

10	<i>Dalbergia latifolia</i>	Leguminosae	Veeti, Eeti
11	<i>Diospyros candolleana</i>	Ebenaceae	Karimaram
12	<i>Elaeocarpus sphaericus</i>	Elaeocarpaceae	Rudrasham
13	<i>Erythrina subumbrans</i>	Leguminosae	Blathimurukku
14	<i>Ficus auriculata</i>	Moraceae	Seema-atthi
15	<i>Ficus religiosa</i>	Moraceae	Arayal
16	<i>Garcinia indica</i>	Clusiaceae	Kokkum
17	<i>Glochidion ellipticum</i>	Euphorbiaceae	
18	<i>Gmelina arborea</i>	Verbenaceae	Kumizhu
19	<i>Grewia serrulata</i>	Tiliaceae	Kottimaram
20	<i>Lagerstroemia speciosa</i>	Lythraceae	Poomaruth
21	<i>Lanneacoromandelica</i>	Anacardiaceae	Karash, Karayam
22	<i>Ligustrum walkeri</i>	Oleaceae	
23	<i>Madhuca latifolia</i>	Sapotaceae	Ilippa
24	<i>Maesopsis eminii</i>	Rhamnaceae	African maram
25	<i>Mallotus tetracoccus</i>	Euphorbiaceae	Vattakumbil
26	<i>Mangifera indica</i>	Anacardiaceae	Mavu
27	<i>Melia dubia</i>	Meliaceae	Malaveppu
28	<i>Michelia champaca</i>	Magnoliaceae	Chempakam
29	<i>Mimusops elengi</i>	Sapotaceae	Elengi
30	<i>Murraya paniculata</i>	Rutaceae	Maramulla
31	<i>Neolamarckia cadamba</i>	Rubiaceae	Kadambu, Aattutheku
32	<i>Olea dioica</i>	Oleaceae	Idala
33	<i>Persea macrantha</i>	Lauraceae	Kulamavu
34	<i>Phyllanthus emblica</i>	Euphorbiaceae	Nelli
35	<i>Plumeria rubra</i>	Apocynaceae	Chembakappala
36	<i>Pongamia pinnata</i>	Leguminosae	Ungu
37	<i>Psidium guajava</i>	Myrtaceae	Pera
38	<i>Santalum album</i>	Santalaceae	Chandanam
39	<i>Stereospermum colais</i>	Bignoniaceae	Paathiri
40	<i>Syzygium aqueum</i>	Myrtaceae	Chamba
41	<i>Syzygium jambos</i>	Myrtaceae	Seemajamba
42	<i>Syzygium stocksii</i>	Myrtaceae	Vallamanchi
43	<i>Terminalia catappa</i>	Combretaceae	Badam
44	<i>Vateria indica</i>	Dipterocarpaceae	Vellappaine
	CLIMBERS		
1	<i>Asparagus racemosus</i>	Liliaceae	Sathavari
2	<i>Briedelia stipularis</i>	Euphorbiaceae	Cherupanachi, Kanjikottam
3	<i>Cissus latifolia</i>	Vitaceae	Chunnambuvali
4	<i>Dioscorea</i> sp.	Dioscoreaceae	Kattukachil
5	<i>Ipomoea cairica</i>	Convolvulaceae	Kolambipoo
6	<i>Ipomoea obscura</i>	Convolvulaceae	Thiruthali
	<i>Jasminum coarctatum</i>	Oleaceae	Kattumulla
7	(<i>Jasminum rottlerianum</i>)		
8	<i>Merremia vitifolia</i>	Convolvulaceae	Manjavayaravalli
9	<i>Mikania micrantha</i>	Asteraceae	Dhritarashtra-pachha
10	<i>Mimosa invisa</i>	Leguminosae	Anathottavadi
11	<i>Ziziphus oenoplia</i>	Rhamnaceae	Cheruthodali

	SHRUBS		
1	<i>Allophylus serratus</i>	Sapindaceae	Mukkannaperuku
2	<i>Ananas comosus</i>	Bromeliaceae	Kaithachakka, Pinapple
3	<i>Calotropis gigantea</i>	Asclepiadaceae	Erikku
4	<i>Chassalia curviflora</i> var. <i>ophioxylodes</i>	Rubiaceae	Yamari
5	<i>Chromolaena odorata</i> (<i>Eupatorium odoratum</i>)	Asteraceae	Communistpatcha
6	<i>Citrus medica</i>	Rutaceae	Ganapathinarakam
7	<i>Coffea arabica</i>	Rubiaceae	Kappi
8	<i>Glycosmis pentaphylla</i>	Rutaceae	Paanal
9	<i>Malpighia glabra</i>	Malpighiaceae	Barbados cherry
10	<i>Mussaenda frondosa</i>	Rubiaceae	Vellila
11	<i>Ochlandra scriptoria</i>	Poaceae	Eetta
12	<i>Polygonum chinense</i>	Polygonaceae	
13	<i>Sida alnifolia</i>	Malvaceae	Kurumthotti
14	<i>Tabernaemontana heyneana</i>	Apocynaceae	Kundalappala
15	<i>Urena lobata</i>	Malvaceae	Uthiram
	HERBS		
1	<i>Acampe praemorsa</i>	Orchidaceae	Maravazha
2	<i>Asystasia crispatula</i>	Acanthaceae	
3	<i>Curculigo orchioides</i>	Hypoxidaceae	Nilappana
4	<i>Curcuma</i> sp.	Zingiberaceae	Kaattumanjal
5	<i>Cyperus cyperinus</i>	Cyperaceae	
6	<i>Eragrostis nigra</i>	Poaceae	
7	<i>Ischaemum indicum</i>	Poaceae	
8	<i>Kyllingia brevifolia</i>	Cyperaceae	Muthanga
9	<i>Mimosa pudica</i>	Leguminosae	Thottavadi
10	<i>Oplismenus compositus</i>	Poaceae	
11	<i>Pennisetum pedicellatum</i>	Poaceae	Poochavalanpullu
12	<i>Wedelia trilobata</i>	Asteraceae	Singapore daisy

Note: Most of the tree species are planted.

5. Karmal Kunnu Tribal Kavu, Meppady Kottappadi Village, Vaithiri Taluk

Sl. No.	Scientific name	Family	Local name
	TREES		
1	<i>Aporosa cardiosperma</i> (<i>Aporosalindleyana</i>)	Euphorbiaceae	Vetti
2	<i>Artocarpus heterophyllus</i>	Moraceae	Plavu
3	<i>Artocarpus hirsutus</i>	Moraceae	Anjily
4	<i>Citrus maxima</i>	Rutaceae	Babloosnarakam
5	<i>Elaeocarpus tuberculatus</i>	Elaeocarpaceae	Parakam

6	<i>Ficus hispida</i>	Moraceae	Parakam
7	<i>Lagerstroemia microcarpa</i>	Lythraceae	Venthekku, Vellilavu
8	<i>Mallotus philippensis</i>	Euphorbiaceae	Sindooramaram, Kurangumanjal
9	<i>Mangifera indica</i>	Anacardiaceae	Mavu
10	<i>Melicopelunu-ankenda</i> (<i>Euodia lunu-ankenda</i>)	Rutaceae	Kambili, Kanala
11	<i>Melia dubia</i>	Meliaceae	Malaveppu
12	<i>Olea dioica</i>	Oleaceae	Idala
13	<i>Pongamia pinnata</i>	Leguminosae	Ungu
14	<i>Senna spectabilis</i>	Leguminosae	
15	<i>Sterculia guttata</i>	Sterculiaceae	Kaavalam
16	<i>Terminalia bellirica</i>	Combretaceae	Thaanni
17	<i>Trema orientalis</i>	Ulmaceae	Amathali, Pottama
CLIMBERS			
1	<i>Argyrea elliptica</i>	Convolvulaceae	
2	<i>Cayratia pedata</i>	Vitaceae	Chorivalli
3	<i>Cissus latifolia</i>	Vitaceae	Chunnambuvalli
4	<i>Dioscorea</i> sp.	Dioscoreaceae	Kattukachil
5	<i>Gloriosa superba</i>	Liliaceae	Menthonni
6	<i>Jasminum coarctatum</i> (<i>Jasminum rottlerianum</i>)	Oleaceae	Kattumulla
7	<i>Merremia vitifolia</i>	Convolvulaceae	Manjavayaravalli
8	<i>Naravelia zeylanica</i>	Ranunculaceae	Vathamkodi
9	<i>Rubia cordifolia</i>	Rubiaceae	Manchatty
10	<i>Tinospora sinensis</i>	Menispermaceae	Pothamruthu
11	<i>Ziziphus oenopia</i>	Rhamnaceae	Cheruthodali
SHRUBS			
1	<i>Artemisia nilagirica</i>	Asteraceae	Tirunetripachcha
2	<i>Bambusa bambos</i>	Poaceae	Mula, Illi
3	<i>Chassalia curviflora</i> var. <i>ophioxylodes</i>	Rubiaceae	Yamari
4	<i>Chromolaena odorata</i> (<i>Eupatorium odoratum</i>)	Asteraceae	Communistpatcha
5	<i>Glycosmis pentaphylla</i>	Rutaceae	Paanal
6	<i>Justicia betonica</i>	Acanthaceae	
7	<i>Leea asiatica</i>	Leeaceae	Maniperandi
8	<i>Mussaenda frondosa</i>	Rubiaceae	Vellila
9	<i>Pseuderanthemum malabaricum</i>	Acanthaceae	Chuttimulla
10	<i>Senna hirsuta</i>	Leguminosae	Thakara
11	<i>Sida acuta</i>	Malvaceae	Anakurumthotti
12	<i>Solanum torvum</i>	Solanaceae	Pachhachunda
13	<i>Stachytarpheta cayennensis</i>	Verbenaceae	
14	<i>Strobilanthes heyneana</i>	Acanthaceae	Kurinji
15	<i>Triumfetta rhomboidea</i>	Tiliaceae	Oorpam
16	<i>Urena lobata</i>	Malvaceae	Uthiram
HERBS			

1	Acampepraemorsa	Orchidaceae	Maravazha
2	Ageratum conyzoides	Asteraceae	Aappa
3	Axonopuscompressus	Poaceae	
4	Bidens pilosa	Asteraceae	
5	Brachiariaramosa	Poaceae	
6	Brachiariamiliiformis	Poaceae	
7	Caladium bicolor	Araceae	Pullichembu
8	Capillipediumassimile	Poaceae	
9	Chrysopogonaciculatus	Poaceae	Snehapullu
10	Cynodondactylon	Poaceae	Karukapullu
11	Cyperus cyperinus	Cyperaceae	
12	Cyperus distans	Cyperaceae	
13	Dichrocephala integrifolia	Asteraceae	
14	Digitariaciliaris	Poaceae	
15	Hydrocotylejavanica	Apiaceae	Vellavita
16	Ischaemum indicum	Poaceae	
17	Mimosa pudica	Leguminosae	Thottavadi
18	Oplismenuscompositus	Poaceae	
19	Pennisetum pedicellatum	Poaceae	Pochavalanpullu
20	Pseudanthistiriaumbellata	Poaceae	
21	Synedrellanodiflora	Asteraceae	Mudiyanpachha
22	Spilanthesciliata	Asteraceae	Akravu
23	Spilanthes radicans	Asteraceae	
24	Tectariacoadunata	Polypodiaceae	
25	Zingiber sp.	Zingiberaceae	Malayinchi

6. NedumbolaBhadrakali Temple Kavu, Thrikkaippatta Village, Vaithiri Taluk

Sl. No.	Scientific name	Family	Local name
	TREES		
1	Alstoniascholaris	Apocynaceae	Ezhilampala
2	Caryotaurens	Arecaceae	Choondappana, Olattippana
3	Cassia fistula	Leguminosae	Kanikonna
4	Ficus amplissima	Moraceae	Vella-all
5	Grewia disperma	Tiliaceae	Narutha
6	Lagerstroemia microcarpa	Lythraceae	Venthekkku, Vellilavu
7	Ligustrum walkeri	Oleaceae	
8	Mallotustetracoccus	Euphorbiaceae	Vattakumbil
9	Melia dubia	Meliaceae	Malaveppu
10	Manihot glaziovii	Euphorbiaceae	Katturubber
11	Micheliachampaca	Magnoliaceae	Chempakam
12	Naringicrenulata	Rutaceae	Narinarakam

13	<i>Olea dioica</i>	Oleaceae	Idala
14	<i>Samanea saman</i>	Leguminosae	Mazhamaram
15	<i>Syzygiumjambos</i>	Myrtaceae	Pareerchampa
16	<i>Syzygiumcumini</i>	Myrtaceae	Njaval
CLIMBERS			
1	<i>Acacia torta</i>	Leguminosae	Peincha, Kakkincha
2	<i>Anamirta cocculus</i>	Menispermaceae	Pollakai
3	<i>Argyreia elliptica</i>	Convolvulaceae	
4	<i>Cissus trilobata</i>	Vitaceae	Neelachunnabuvalli
5	<i>Cycleapeltata</i>	Menispermaceae	Padakizhangu
6	<i>Dioscorea sp.</i>	Dioscoreaceae	Kattukachil
7	<i>Ichnocarpus frutescens</i>	Apocynaceae	Parvalli
8	<i>Jasminum coarctatum</i> (<i>Jasminum rottlerianum</i>)	Oleaceae	Kattumulla
9	<i>Merremiavitifolia</i>	Convolvulaceae	Manjavayaravalli
10	<i>Mikania micrantha</i>	Asteraceae	Dhritarashtra-pachha
11	<i>Piper argyrophyllum</i>	Piperaceae	Kattukurumulaku
12	<i>Tinospora sinensis</i>	Menispermaceae	Pothamruth
13	<i>Ziziphus oenoplia</i>	Rhamnaceae	Cheruthodali
SHRUBS			
1	<i>Chassaliacurviflora</i> var. <i>ophioxylodes</i>	Rubiaceae	Yamari
2	<i>Cipadessabaccifera</i>	Meliaceae	Kaipanarachi
3	<i>Dendrophthoe falcata</i>	Loranthaceae	Itthilkannnni
4	<i>Digitariaciliaris</i>	Poaceae	
5	<i>Glycosmis pentaphylla</i>	Rutaceae	Panal
6	<i>Lantana camara</i>	Verbenaceae	Aripoochedi
7	<i>Leea indica</i>	Leeaceae	Njellu
8	<i>Mussaendafrondosa</i>	Rubiaceae	Vellila
9	<i>Ocimumtenuiflorum</i>	Lamiaceae	Thulasi
10	<i>Polygonum chinense</i>	Polygonaceae	
11	<i>Schefflera venulosa</i>	Araliaceae	Oongavalli
12	<i>Solanum aculeatissimum</i>	Solanaceae	Manjachunda
13	<i>Solanum torvum</i>	Solanaceae	Pachhachunda
14	<i>Tithonia diversifolia</i>	Asteraceae	Velisuryakanthi
HERBS			
1	<i>Acampepraemorsa</i>	Orchidaceae	Maravazha
2	<i>Ageratum conyzoides</i>	Asteraceae	Aappa
3	<i>Commelinadiffusa</i>	Commelinaceae	
4	<i>Crassocephalumcrepidioides</i>	Asteraceae	
5	<i>Curcuma sp.</i>	Zingiberaceae	Kattumanjal
6	<i>Cyathulaprostrata</i>	Amaranthaceae	Cherukadaladi
7	<i>Cymbidium aloifolium</i>	Orchidaceae	
8	<i>Impatiens minor</i>	Balsaminaceae	
9	<i>Lecanthuspseuduncularis</i>	Urticaceae	
10	<i>Mimosa pudica</i>	Leguminosae	Thottavadi
11	<i>Oplismenuscompositus</i>	Poaceae	

12	Synedrellanodiflora	Asteraceae	Mudiyanpacha
----	---------------------	------------	--------------

7. Bhonmadhankavu, Eriyappally, Pulpally Village, Bathery Taluk

Sl. No.	Scientific name	Family	Local name
	TREES		
1	Acacia catechu	Leguminosae	Karivelam
2	Aegelemarmelos	Rutaceae	Koovalam
3	Albizia odoratissima	Leguminosae	Kunnivaka
4	Alstoniascholaris	Apocynaceae	Ezhilampala
5	Annona reticulata	Annonaceae	Aathakka
6	Aporosacardiosperma (Aporosalindleyana)	Euphorbiaceae	Vetti
7	Artocarpus hirsutus	Moraceae	Anjili
8	Azadirachta indica	Meliaceae	Veppu
9	Briedelia retusa	Euphorbiaceae	Mullenkaini
10	Butea monosperma	Leguminosae	Plash
11	Canarium strictum	Burseraceae	Thellippayin
12	Cassia fistula	Leguminosae	Kanikkonna
13	Delonix regia	Leguminosae	Poomaram
14	Diospyros candolleana	Ebenaceae	Karimaram
15	Elaeocarpus sphaericus	Elaeocarpaceae	Rudrasham
16	Ficus benghalaensis	Moraceae	Peral
17	Ficus exasperata	Moraceae	Therakam
18	Ficus religiosa	Moraceae	Arayal
19	Gliricidiasepium	Leguminosae	Seemakonna
20	Gmelina arborea	Verbenaceae	Kumizhu
21	Grewia disperma	Tiliaceae	Kottimaram
22	Grewia tiliifolia	Tiliaceae	Chadachi
23	Lagerstroemia microcarpa	Lythraceae	Venthekku, Vellilavu
24	Limoniaacidissima	Rutaceae	Vilankai
25	Mallotusphilippensis	Euphorbiaceae	Sindooramaram
26	Mangifera indica	Anacardiaceae	Mavu
27	Micheliachampaca	Magnoliaceae	Chembakam
28	Melia dubia	Meliaceae	Malaveppu
29	Neolamarckiacadamba	Rubiaceae	Kadambu, Aattutheku
30	Phyllanthus acidus	Euphorbiaceae	Arinelli
31	Plumeria rubra	Apocynaceae	Chempakappala
32	Pongamia pinnata	Leguminosae	Ungu
33	Psidium guajava	Myrtaceae	Pera
34	Santalum album	Santalaceae	Chandanam
35	Saracaasoca	Leguminosae	Ashokam
36	Spondia pinnata	Anacardiaceae	Ambazham

37	Syzygiumcumini	Myrtaceae	Njaval
38	Terminalia arjuna	Combretaceae	Nirmaruthu
39	Terminalia elliptica	Combretaceae	Karimaruthu
40	Tespesiapopulnea	Malvaceae	Poovarasu, Cheelanthi
41	Vateria indica	Dipterocarpaceae	Vellappine
CLIMBERS			
1	Acacia torta	Leguminosae	Peincha, Kakkincha
2	Cycleapeltata	Menispermaceae	Padakizhangu
3	Dioscorea pentaphylla	Dioscoreaceae	Chavali-kizhangu
4	Dioscorea sp.	Dioscoreaceae	Kattukachil
5	Hemidesmus indicus	Periplocaceae	Nannari
6	Jasminum coarctatum (<i>Jasminum rottlerianum</i>)	Oleaceae	Kattumulla
7	Merremiaumbellata	Convolvulaceae	Vayaravalli
8	Merremiavitifolia	Convolvulaceae	Manjavayaravalli
9	Mikania micrantha	Asteraceae	Dhritarashtra-pachha
10	Ziziphus oenoplia	Rhamnaceae	Cheruthodali
SHRUBS			
1	Chassaliacurviflora var. ophioxylodes	Rubiaceae	Yamari
2	Chromolaena odorata (<i>Eupatorium odoratum</i>)	Asteraceae	Communistpatcha
3	Clerodendruminfortunatum	Verbenaceae	Peruvelam
4	Flueggeavirosa	Euphorbiaceae	Perinklavu
5	Hibiscus rosa-sinensis	Malvaceae	Chembarathi
6	Justicia betonica	Acanthaceae	
7	Lantana camara	Verbenaceae	Poochedi
8	Sida acuta	Malvaceae	Anakurunthotti
9	Solanum torvum	Solanaceae	Pachhachunda
10	Solanum violaceum	Solanaceae	Puthirichunda
11	Stachytarphetacayennensis	Verbenaceae	Stachytarphetacayennensis
12	Tabernaemontanadivaricata	Apocynaceae	Nandiyar-vattom
HERBS			
1	Axonopuscompressus	Poaceae	Kalapullu
2	Achyranthes aspera	Amaranthaceae	Kadaladi
3	Ageratum conyzoides	Asteraceae	Aappa
4	Bidens pilosa	Asteraceae	
5	Chrysopogonaciculatus	Poaceae	Snehapullu
6	Curculigoorchiodes	Hypoxidaceae	Nilappana
7	Cyrtococcumoxyphyllum	Poaceae	
8	Leucas aspera	Lamiaceae	Thumba
9	Digitariaciliaris	Poaceae	
10	Ischaemum indicum	Poaceae	
11	Kyllingabrevifolia	Cyperaceae	Muthanga
12	Mimosa pudica	Leguminosae	Thottavadi
13	Oplismenuscompositus	Poaceae	
14	Sacciolepis indica	Poaceae	

15	Spermacocephusilla	Rubiaceae	
16	Spermacoce latifolia	Rubiaceae	
17	Synedrellanodoflora	Asteraceae	Mudiyanpachha

Note: Most of the tree species are planted recently

8. ChedattinKavu, Pulpally Village, Bathery Taluk

Sl. No.	Scientific name	Family	Local name
	TREES		
1	Alstoniascholaris	Apocynaceae	Ezhilampala
2	Annona reticulata	Annonaceae	Aathakka
3	Artocarpus heterophyllus	Moraceae	Plavu
4	Artocarpus hirsutus	Moraceae	Aanjili
5	Briedelia retusa	Euphorbiaceae	Mullenkaini
6	Bauhinia variegata	Leguminosae	Chuvannamandaram
7	Caralliabrachiata	Rhizophoraceae	Vallabhavam, Varangu
8	Careya arborea	Lecythidaceae	Pezhu, Aalam
9	Caryotaurens	Arecaceae	Choondappana, Olattippana
10	Cassia fistula	Leguminosae	Kanikkonna
11	Cocos nucifera	Arecaceae	Thengu
12	Dalbergia latifolia	Leguminosae	Veeti, Eeti
13	Diospyros candolleana	Ebenaceae	Karimaram
14	Erythrina orientalis	Leguminosae	Mullumurikku
15	Ficus drupaceavar. pubescens	Moraceae	Manja-aal
16	Ficus religiosa	Moraceae	Arayal
17	Garuga pinnata	Burseraceae	Annakkara
18	Gliricidiasepium	Leguminosae	Seemakonna
19	Glochidionellipticum	Euphorbiaceae	
20	Gmelina arborea	Vebvenaceae	Kumizhu
21	Grewia disperma	Tiliaceae	Kottimaram
22	Grewia tiliifolia	Tiliaceae	Chadachi
23	Haldina cordifolia	Rubiaceae	Manjakadambu
24	Hopea parviflora	Dipterocarpaceae	Kambakam
25	Lagerstroemia microcarpa	Lythraceae	Venthekku, Vellilavu
26	Lagerstroemia speciosa	Lythraceae	Poomaruthu
27	Mangifera indica	Anacardiaceae	Mavu
28	Micheliachampaca	Magnoliaceae	Chempakam
29	Mimusopselengi	Sapotaceae	Elengi
30	Mitragynaparvifolia	Rubiaceae	Rosekadambu
31	Olea dioica	Oleaceae	Idala
32	Pterocarpus marsupium	Leguminosae	Venga
33	Pterocarpus santalinus	Leguminosae	Rakthachandanam

34	<i>Santalum album</i>	Santalaceae	Chandanam
35	<i>Saracaasoca</i>	Leguminosae	Ashokam
36	<i>Schleicheraoleosa</i>	Sapindaceae	Poovam
37	<i>Spathodeacampanulata</i>	Bignoniaceae	Spathodia
38	<i>Sterculia guttata</i>	Sterculiaceae	Kaavalam
39	<i>Stereospermumcolais</i>	Bignoniaceae	Pathiri
40	<i>Syzygiumcumini</i>	Myrtaceae	Njaval
41	<i>Tamarindus indica</i>	Leguminosae	Vaalanpuli
42	<i>Tectona grandis</i>	Verbenaceae	Thekku
43	<i>Terminalia bellirica</i>	Combretaceae	Thaanni
44	<i>Vitex altissima</i>	Verbenaceae	Myla, Mylellu
45	<i>Zanthoxylum rhetsa</i>	Rutaceae	Mullilam
CLIMBERS			
1	<i>Acacia caesia</i>	Leguminosae	Incha
2	<i>Brideliastipularis</i>	Euphorbiaceae	Cherupanachi, Kanjikottam
3	<i>Centrosemamolle</i>	Leguminosae	Kattu-payar
4	<i>Cissus latifolia</i>	Vitaceae	Chunnambuvalli
5	<i>Dioscoreawallichii</i>	Dioscoreaceae	Kattukachil
6	<i>Gnetumedule</i>	Gnetaceae	Thoovakai
7	<i>Hemidesmus indicus</i>	Periplocaceae	Nannari
8	<i>Ipomoea hederifolia</i>	Convolvulaceae	Thepporimulla
9	<i>Jasminum coarctatum</i> (<i>Jasminum rottlerianum</i>)	Oleaceae	Kattumulla
10	<i>Mikania micrantha</i>	Asteraceae	Dhritarashtra-pachha
11	<i>Naraveliazeylanica</i>	Ranunculaceae	Vathamkodi
12	<i>Piper nigrum</i>	Piperaceae	Kurumulaku
13	<i>Ziziphus oenoplia</i>	Rhamnaceae	Cheruthodali
SHRUBS			
1	<i>Bauhinia acuminata</i>	Leguminosae	Vellamandaram
2	<i>Caesalpinia pulcherrima</i>	Leguminosae	Rajamalli
3	<i>Chromolaena odorata</i> (<i>Eupatorium odoratum</i>)	Asteraceae	Communistpatcha
4	<i>Clerodendruminfortunatum</i>	Verbenaceae	Peruvelam
5	<i>Codiaeum variegatum</i>	Euphorbiaceae	Croton
6	<i>Dendrophthoe falcata</i>	Loranthaceae	Ithilkanni
7	<i>Flueggeavirosa</i>	Euphorbiaceae	Perinklavu
8	<i>Gardenia jasminoides</i>	Rubiaceae	Gandharajan
9	<i>Glycosmis pentaphylla</i>	Rutaceae	Paanal
10	<i>Lantana camara</i>	Verbenaceae	Arippochedi, Kongini
11	<i>Leea indica</i>	Leeaceae	Njellu
12	<i>Mussaendafrondosa</i>	Rubiaceae	Vellila
13	<i>Polygonum chinense</i>	Polygonaceae	Pavetta
14	<i>Solanum torvum</i>	Solanaceae	Pachhachunda
15	<i>Tabernaemontanadivaricata</i>	Apocynaceae	Nandiyar-vattom
16	<i>Triumfetta rhomboidea</i>	Tiliaceae	Ottukai
HERBS			
1	<i>Acampepraemorsa</i>	Orchidaceae	Maravazha

2	<i>Achyranthes aspera</i>	Amaranthaceae	Kadaladi
3	<i>Colocasia esculenta</i>	Araceae	Chembu
4	<i>Conyza canadensis</i>	Asteraceae	
5	<i>Curculigoorchiooides</i>	Hypoxidaceae	Nilappana
6	<i>Cymbidium aloifolium</i>	Orchidaceae	
7	<i>Dendrobium macrostachyum</i>	Orchidaceae	
8	<i>Dendrobium ovatum</i>	Orchidaceae	
9	<i>Mimosa pudica</i>	Leguminosae	Thottavadi
10	<i>Oplismenuscompositus</i>	Poaceae	
11	<i>Pseudanthistiriaumbellata</i>	Poaceae	
12	<i>Scleriaparvula</i>	Cyperaceae	
13	<i>Spilanthus radicans</i>	Asteraceae	
14	<i>Spodiopogonrhizophorus</i>	Poaceae	
15	<i>Synedrellanodiflora</i>	Asteraceae	Mudiyanpacha
16	<i>Zingiber zerumbet</i>	Zingiberaceae	Malayinchi

9. SreePuthuramkeezhuParadevadaKavu, Kuppadithara Village, Vaithiri Taluk

Sl. No.	Scientific name	Family	Local name
	TREES		
1	<i>Antiaristoxicaria</i>	Moraceae	Maravuri
2	<i>Aporosacardiosperma</i> (<i>Aporosalindleyana</i>)	Euphorbiaceae	Vetti
3	<i>Artocarpus hirsutus</i>	Moraceae	Aanjili
4	<i>Caryotaurens</i>	Arecaceae	Choondappana, Olattippa
5	<i>Cassia fistula</i>	Leguminosae	Kanikkonna
6	<i>Chionanthus mala-elengi</i>	Oleaceae	Malaelengi
7	<i>Chukrasiatubularis</i>	Meliaceae	
8	<i>Citharexylum spinosum</i>	Verbenaceae	Parijatham
9	<i>Cinnamomum malabattrum</i>	Lauraceae	Vayana
10	<i>Dalbergia latifolia</i>	Leguminosae	Veeti, Eeti
11	<i>Erythrina stricta</i>	Leguminosae	Mullumurikku
12	<i>Grewia disperma</i>	Tiliaceae	Kottimaram
13	<i>Holigarnaarnottiana</i>	Anacardiaceae	Charu, Cheru
14	<i>Holigarnagrahamii</i>	Anacardiaceae	Charu, Cheru
15	<i>Lanneacoromandelic</i>	Anacardiaceae	Karash, Udhi
16	<i>Macaranga peltata</i>	Euphorbiaceae	Vatta, Thodukanni
17	<i>Mallotustetracoccus</i>	Euphorbiaceae	Vattakumbil
18	<i>Mangifera indica</i>	Anacardiaceae	Mavu
19	<i>Melicopelunu-ankenda</i> (<i>Euodia lunu-ankenda</i>)	Rutaceae	Kambili, Kanala
20	<i>Olea dioica</i>	Oleaceae	Idala
21	<i>Phyllanthus emblica</i>	Euphorbiaceae	Nelli

22	<i>Santalum album</i>	Santalaceae	Chandanam
23	<i>Sterculia guttata</i>	Sterculiaceae	Kaavalam
24	<i>Stereospermum colais</i>	Bignoniaceae	Paathiri
25	<i>Tectona grandis</i>	Verbenaceae	Thekku
26	<i>Terminalia bellirica</i>	Combretaceae	Thaanni
27	<i>Wrightia arborea</i>	Apocynaceae	Mylampala
CLIMBERS			
1	<i>Acacia caesia</i>	Leguminosae	Incha
2	<i>Alangium salviifolium</i> subsp. <i>hexapetalum</i>	Alangiaceae	Valli-ankolam
3	<i>Argyria hirsuta</i>	Convolvulaceae	
4	<i>Asparagus racemosus</i>	Liliaceae	Sathavari
5	<i>Bridelia stipularis</i>	Euphorbiaceae	Cherupanachi, Kanjikottam
6	<i>Caesalpinia bonduc</i>	Leguminosae	Kazhanchi
7	<i>Celastrus paniculatus</i>	Celastraceae	Jyothismathi
8	<i>Cissus discolor</i>	Vitaceae	Aaronpuli
9	<i>Cissus latifolia</i>	Vitaceae	Chunnambuvalli
10	<i>Cissus trilobata</i>	Vitaceae	Neelachunnambuvalli
11	<i>Clematis gouriana</i>	Ranunculaceae	
12	<i>Dioscorea</i> sp.	Dioscoreaceae	Kattukachil
13	<i>Gnetum edule</i>	Gnetaceae	Thoovakai
14	<i>Kamettia caryophyllata</i>	Apocynaceae	Kammattivalli
15	<i>Jasminum coarctatum</i> (<i>Jasminum rottlerianum</i>)	Oleaceae	Kattumulla
16	<i>Piper nigrum</i>	Piperaceae	Kurumulaku
17	<i>Rhaphidophora pertusa</i>	Araceae	Elathadi
18	<i>Tetrastigma leucostaphyllum</i>	Vitaceae	
19	<i>Thunbergia fragrans</i>	Acanthaceae	Noorvan-valli
20	<i>Ziziphus oenopia</i>	Rhamnaceae	Cheruthodali
SHRUBS			
1	<i>Ardisia solanacea</i>	Myrsinaceae	Kuzhimundan
2	<i>Bambusa bambos</i>	Poaceae	Mula, Illi
3	<i>Breynia vitis-idaea</i>	Euphorbiaceae	
4	<i>Chassalia curviflora</i> var. <i>ophioxylodes</i>	Rubiaceae	Yamari
5	<i>Clerodendrum infortunatum</i>	Verbenaceae	Peruvelam
6	<i>Codiaeum variegatum</i>	Euphorbiaceae	Croton
7	<i>Ecobolium viride</i>	Acanthaceae	Odiyamadantha
8	<i>Embelia sjeriam-cottam</i>	Myrsinaceae	Ammimuriyan
9	<i>Glycosmis pentaphylla</i>	Rutaceae	Paanal
10	<i>Hibiscus rosa-sinensis</i>	Malvaceae	Chemparathi
11	<i>Justicia betonica</i>	Acanthaceae	
12	<i>Mussaenda frondosa</i>	Rubiaceae	Vellila
13	<i>Mappia foetida</i>	Icacinaceae	Peenari
14	<i>Maesaperrottetiana</i>	Myrsinaceae	Kireethi
15	<i>Murraya paniculata</i>	Rutaceae	Maramulla
16	<i>Ocimum tenuiflorum</i>	Lamiaceae	Thulasi

17	<i>Polygonum chinense</i>	Polygonaceae	Thiruthanni
18	<i>Schefflera venulosa</i>	Araliaceae	Oongavalli
19	<i>Tabernaemontana divaricata</i>	Apocynaceae	Nandhiyarvattom
20	<i>Tabernaemontana heyneana</i>	Apocynaceae	Kundalappala
HERBS			
1	<i>Ageratum conyzoides</i>	Asteraceae	Aappa
2	<i>Alternanthera bettzickiana</i>	Amaranthaceae	Alligator weed
3	<i>Axonopus compressus</i>	Poaceae	
4	<i>Brachiaria ramosa</i>	Poaceae	
5	<i>Bidens pilosa</i>	Asteraceae	
6	<i>Curculigo orchoides</i>	Hypoxidaceae	Nilappana
7	<i>Curcuma aeruginosa</i>	Zingiberaceae	
8	<i>Luisia tristis</i>	Orchidaceae	
9	<i>Impatiens minor</i>	Balsaminaceae	
10	<i>Leucas zeylanica</i>	Lamiaceae	Thumba
11	<i>Mimosa pudica</i>	Leguminosae	Thottavadi
12	<i>Oberonia</i> sp.	Orchidaceae	
13	<i>Oldenlandia auricularia</i>	Rubiaceae	
14	<i>Oplismenus compositus</i>	Poaceae	
15	<i>Pholidota imbricata</i>	Orchidaceae	
16	<i>Phyllanthus rheedei</i>	Euphorbiaceae	
17	<i>Synedrella nodiflora</i>	Asteraceae	Mudiyanpacha
18	<i>Tectaria coadunata</i>	Polypodiaceae	
19	<i>Zingiber zerumbet</i>	Zingiberaceae	Malayinch



1. *Arenga wightii*-RarothKavu

2. *Bridelia retusa* – BonmadhanKavu



**3. *Chionanthes mala-elenji* –
*PuthuramkezhuKavu***

**4. *Cinnamomum malabathrum* -
*Pnthuramkezhu Kavu***





5. *Greveliarobusta* – MuthireriKavu



6. *Grewia tiliifolia*- RarothKavu



7. *Holigarnagrahamei* – MuthireriKavu



***8. Mallotustetracoccus –
SreePuthuramkeezhuKavu***

9. Plumeria rubra- PerumkodeKavu



***10. Pterospermumrubuiginosum –
RarothKavu***

11. Vateria indica- BonmathauKavu





*1. Alangium salvifolium-
MuthireriKavu*



2. Argyreia –RarothKavu



*3. Caesalpinia mimosoides –
RarothKavu*



4. Cissus discolor – Puthuramkezhukavu



5. Clematis gauriana- Puthuramkezhukavu



6. Gnetum edule- PuthuramkezhuKavu



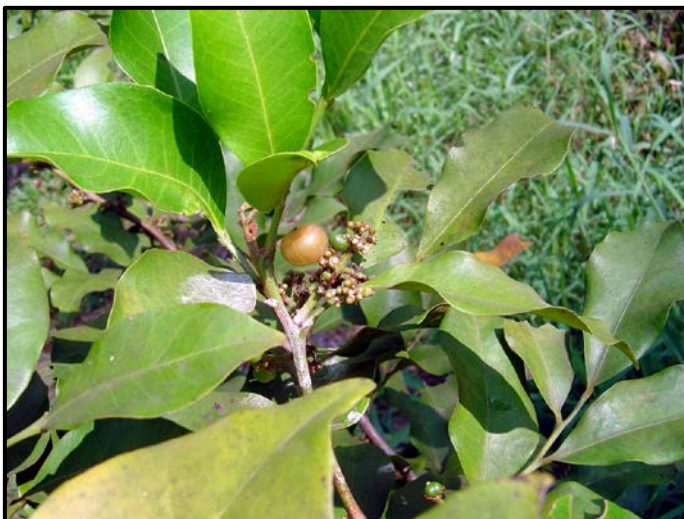
***7. Ziziphus oenoplea-
KarmelkunnuKavu***



**1. *Brideliastipularis* –
*MuthireriKavu***



**2. *Chasaliacurviflora* –
*PuthuramkezhuKavu***



**3. *Glycosmis pentaphylla* –
*RarothKavu***



**4. *Lobelia nicotianifolia* –
RarothKavu**



**5. *Maesaperrrottetiana* –
Puthuramkezhukavu**



**6. *Murrayapaniculata*-
Puthuramkezhukavu**



**7. *Polygonum chinense* -
ChedatinKavu**



8. *Schumannianthus* - RarothKavu



**9. *Solanum torvum*-
BonmadhamKavu**

**10. *Stachytarphetaurticifolia* –
RarothKavu**





**1. *Achyranthes aspera*-
ChedetinKavu**



2. *Bidens pilosa*- RarothKavu



**3. *Brachiaria ramosa* –
Puthurankezhukavu**



**4. *Crassocephalum crepidioides* –
*RarothKavu***



**5. *Curculigo orchioides* –
*RarothKavu***



**6. *Pseudanthestia umbellata* –
*ManikaraKavu***

**7. *Synedrella nodiflora* –
*ChedatinKavu***



CHAPTER VI

ECOLOGICAL STATUS.

Sacred groves with their richness in biodiversity are of immense ecological significance. The sacred groves have well developed forest ecosystems and high degree of species richness and a rich biodiversity in general, depending on extend of preservation of the grove. Sacred groves are a biological heritage and a system that has helped to preserve the representative genetic resources existing in the surrounding regions for generations. The vegetation as well as the biological setup in a sacred grove is normally fully protected from human interference through customary taboos and restrictions with cultural and ecological implications. The degree of sanctity of the sacred forests varies from one grove to another. In some forests even the dry foliage and fallen fruits are not touched. People believe that any kind of disturbance will offend the local deity, causing diseases, natural calamities, and failure of crops. In such a typical condition there can be immense activity among and between all living organisms providing plenty of resources for research on some of the aspects not been studied hitherto. In this chapter with the limited scope to undertake a study on this vast subject, the observations made with the basic principles relating to ecological status have been presented besides studies made earlier by other agencies. This is confined to vegetation, soil conditions, faunal significance and water conservation.

Salient features of vegetation

A considerable extent of the land area in Wayanad district lies in the Deccan plateau in the Western Ghats. Such flat type of areas are mostly paddy fields or other agricultural land. But most of the sacred groves are seen in the hilly tracts of the district. The general floristic composition and physiognomy of vegetation of the sacred groves are typically like the hilly evergreen forests. The vegetation in undisturbed groves is luxuriant and comprises three stories of trees mixed with shrubs, lianas and herbs. The ground is humus laden and covered with litter. The ground layer is usually thickly populated with species which prefer humus and love shade. Along with a few angiosperms, ferns, Selaginellas and many species of macro fungi like *Agaricus* also occur. Dead trunks of fallen trees harbour a variety of Polyporales, especially species of *Fomes* and *Polyporus* as is common.

The composition of vegetation has been already described in chapter IV. In general, the density of vegetation is very thick with a greater number of trees in many groves. But in other groves with dominance of climbers the density is poor. Among trees *Ficus* species are represented by more than eight species, such as *Ficus drupaceae*, *F. amplissima*, *F. beddomi*, *F. exasperate*, *F. racemosa*, *F. tsjahela*, *F. hispida*, *F. auriculata*, *F. religiosa*, *F. indica* etc. *Ficus* provides a safe haven for wasps, bees and other insects. As different species of *Ficus* flower during different periods, birds and insets are largely attracted. But this is not the case everywhere. In groves predominant with climbers the fruit bearing trees are less with the results birds are only very few.

Keystone species Apart from direct benefits of biodiversity conservation, there are indirect benefits which flow from sacred groves through ecosystem functions. Some species, though present in small numbers, play very important role by their unique abilities such as nitrogen fixation and attracting many birds, animals etc. and help maintaining life forms in plenty. They are known as keystone species. These species have disproportionate large effect on other species in a community. Law (2002) tried to identify keystone species in two SGs based on following parameters. Once such species are removed from an ecosystem it may create dramatic changes in the rest of the community. Enough studies have not been made on this aspect in respect of the SGs in Kerala. Ficus species contribute much for the enrichment of the eco system. These species have aggressive growth habit ensuring their regeneration and survival. They bear pulpy small fruits during dry summer when most of the other species do not. Hence, they attract frugivorous birds, a few mammals and reptiles and several species of insects. Many pollinators and seed dispersers are attracted to promote regeneration in the plant community. Another attraction is that the different species of Ficus bear fruits in different seasons also. The strong winding roots of Ficus prevent soil erosion. It is because of these influences on other community these species are called keystone species. There can be more such species if studies are taken up in this direction. Taking into consideration the essential qualities of keystone species the following species seen in these SGs are suggested for consideration and study.

- i. *Vateria indica* (Dipterocarpaceae). This is a shade bearer having no problems in regeneration. This has profuse seeding habit. It occupies the canopy in a spreading manner and flowers during January-March.
- ii. *Alstoniascholaris* This is almost very common in the SGs. It's regeneration status is excellent. Most of the time it is in flowers or fruits. It is attracted by many birds and mammals

Regeneration

The species composition of trees in sacred groves consists of light demanders, shade bearers and shade tolerant. Seedlings of species, for which securing light condition is less pronounced, may come up or compete with the seedlings of top canopy species. As the top canopy trees of varying growth requirements survive well, their regeneration under less favourable conditions particularly when the light condition is restricted, is a matter of study. Regeneration of shade bearing and shade tolerant species do come up, but it persists for long periods in whippy form till favourable light conditions set in. These seedlings survive if soil conditions are favourable and root competition is less provided, they could build up reasonable level of root stock. It is by keeping these basic principles in mind the flora of the sacred groves have been examined. However, in these SGs the existence of number of

various tree species stand to reason that regeneration and subsequent establishment of the seedlings is assured. This may be due to the tolerance level of these species and low soil acidity. Natural regeneration is generally good in the case of Anjily (*Artocarpus hirsutus*), Plavu (*Artocarpus heterophyllus*) Charu (*Holigarnaarnottiana*), Marotty (*Hydnocarpuspentandra*), etc. which are common in almost all the sacred groves. Regeneration in the form of root suckers is also noticed in the case of *Strychnosnux-vomica* and *Caralliabrachiata*. Natural regeneration is good in respect of *Cassis fistula*, *Mangifera indica* and *Mallotusphilipinensis*. *Olea dioica* is good when the soil is less acidic. *Saracaasoca* (Ashokam) is a shade loving tree and is considered to be one of the species in Sacred Groves. Besides regeneration from seeds, it produces coppice shoots. It is understood from literature that there are chances for pods of *Saraca* getting infected by pests before they become ripe to disperse mature seeds. Some of the species though shade tolerant when young need overhead light to grow well after they reach sapling stage. *Artocarpus hirsuta* and *Alstoniascholaris* behave in this manner. There are many medicinal plants noticed. *Curculigoorchiodes*-

(*Nilapana*)-prefers medium to strongly acidic soil. It is a herb with elongated root stock. Root has many medicinal values. *Costus pictus* prefer medium acidic soil. A tall herb with white flowers, rhizome is medicinal. *Solanum indicum*(*Putharichunda*), *Achyranthis aspera* (*Kadaladi*), *Oscimum* species, *Solanum tervum*, *Zingiber whitianum*, *Leucas zeylensis* etc are some of the other medicinal plants seen in the sacred groves.

Soil condition

In Sacred Groves, periodicity of litter fall varies according to seasons. It starts by winter and goes on till March. Fine root production starts in Feb-March and reaches its peak during rains. Studies indicate that litter is the main store house of nitrogen than fine roots and microbial biomass. Litter decay starts by first few showers and reaches its peak in the rainy season. It releases nutrient fast during rainy season when the up take by plants is very high. Litter and fine roots normally add phosphorus to soil, but relatively less. The input of nitrogen is very much higher than that of other nutrients. Mineralization (by which humus is converted into inorganic nutrients) during wet weather and immobilization during the dry season is common as regards nitrogen is concerned. Release of nitrogen from decomposing litter is double that from fine roots.

The soil is generally less acidic to medium in areas it is sandy loam as seen from MAM Aap of Agricultural department. Only in very few areas it is lateritic. As is seen from the above, soil is medium in all the areas including in those outside SG. There is only slight variation among other parameters. Level of organic carbon is naturally more than that outside sites. An overall picture shows that that the soil is generally medium acidic and organic carbon is

medium in SGs. The existence species such as *Archyranthis aspera* *Costus pictus* and the like in plenty shows low acidity. In strongly acidic areas *Curciligoorchioides* (*nilappana*) and *Solanum indicum* are seen. Sandy soil with clayey loam is rare. Almost same is the case with phosphorus and potassium. It can be well taken that acidity in soil in these sacred groves is at medium level and as could be seen most of the common species also exhibit same soil requirements as reported under studies made by scientific community.

Soil conservation Rapid litter decomposition and the root mat development with plenty of fine roots on the surface layer of the soil support large above ground biomass. Many micro-organisms, invertebrates, fungi etc flourish. Root mat prevents the nutrients from leaching out. This is visible in many SGs when visited soon after rainy season. The spreading network of large trees prevents to a great extent soil being washed away.

As part of soil conservation activities in the sacred groves in Wayanad district, the Soil Conservation department has initiated a unique project to plant seedlings in the Sacred Groves.



In BonmadhanDevasamkavu and Chedatinkavu in Vaithiri taluk these activities have been done successfully.

Water conservation The existence of ponds in the sacred groves of Wayanad district is conspicuous by their scarcity. One reason is that majority of the SGs are small in size. The underlying structure of the geological layers may not be impermeable to hold water percolating through the sandy soil. Of course, some of the large SGs having more than an acre do have ponds as could be seen which are dug. Out of the 137 SGs, only 25 Sacred groves do have ponds either natural or dug out.

Faunal significance The sacred groves harbour numerous birds, butter flies and bats apart from primates and small mammals (Chandran, 1993). The situation with less number of ponds affects the existence of amphibian The animals found are those which nested there in like snakes, frogs, tortoise, lizards etc. and those visit the site for food and temporary shelter like bats. A clear study on this fauna would involve long period of periodical observation by experts, not to speak of the cost. In this report the study team noted the animals seen directly

and also gathered information from the custodians or local people and also available literature specific to such cases. Bats, small mammals, civets, monitor lizard, monkeys and Peacock are the animals very frequently visiting these SGs.

Bats The bats visiting the SGs fall under the category of fruit bats. Their presence is not noticed so much as seen in other districts. Even if they are seen, no damage to trees is reported. The availability of fruits being less and concentration of climbers preclude their presence.

Peacock Peacock visits some of the SGs finding favourable conditions of food. It feeds on plant parts, insects, white ants etc. Also, it takes plenty of water. It can devour even snakes. It scratches termite mound in sacred groves and eat the ants coming out. Pea fowl is reported from many of the SGs. But they are mostly on the move. They prefer SGs adjoining paddy fields. Local information is that they suddenly appear in the morning or evenings soon after rain subsides. Sacred groves with light canopy and bushy undergrowth or tall grass are stated to be their favourite. Their way of foraging makes the surroundings healthy. They feed on lizards, rodents, and even small snakes. They avoid flying but do fly to tall trees for roosting. By virtue of their iridescent bluish green plumage and beautiful large tail they are noticed easily by people. They escape from falling victim to the hunters as long as they are in the vicinity of sacred groves.

White breasted water hen - Kulakozhi They are seen at dawn and dusk. They probe with their bill in mud or shallow water to pick up insects / small fish-Both sexes incubate eggs.



Other common animals reported are: -

Asian palm civet-Marapatti This is frequently met with in sites nearby sacred groves where they can get rat, mice, frog, small mammals, fruits like mangos etc.

Jungle Cat This is seen rarely. They have long leg and short tail. They are adapted to sites in the vicinity of human habitation and also dense vegetation. Adequate water availability is its attraction. It is a swift and powerful predator. Used to hunting during day time also.

Monitor lizard.(Udumb) They have the scale for protection. Hair at the back has been converted into large brown overlapping scales. They live in hollow trees or burrows. They are not only nocturnal but seen in day time also.



They have long neck and forked tongues, and food is mainly insects, crabs, small snakes etc. Study reveals that they are particular for daily food. Also, they are not poisonous though they may bite human beings.

Role of termites Termites forms a significant element of soil micro-fauna. The food of termites mainly is plant material. Termites can also feed on animal products such as dung, fresh mammalian carcasses. Studies on termites also reveal that they have no sight and they are deaf also. They recognize their nest mate by their special odour. They leave scent trails to food sources outside the nest. The scent comes from a gland present on the underside of the abdomen. Below ground nests are very common where moisture remains at low levels throughout the year. Here evaporation and desiccation remain low. But it is noticed that many SGs have termite mounds above ground. They break down litter into smaller particles and



expose inner surfaces of litter for early action by bacteria and fungi. Their mounts are seen in some of these SGs where leaf litter is plenty during cold season. They fill their mouth with moist soil and mix it with saliva-it works as cement for building the mound. Some termites feed directly on the wood of living trees while there are others which depend on humus in the soil. The former type possesses an intestinal fauna of flagellate protozoa which initiate the digestion of cellulose. The other one depends on fungi and bacteria acting on food supply before it is eaten. One sub-family of Termitidae collects sound wood and stores it (Macrotermitinae) within the nest to be worked on by specific fungi. Another type depends on the humus present in the soil for nourishment and utilizes large amount of excreta for construction of mounds. They eat their dead to gain protein-a case of cannibalism. In dry conditions termites are the main decomposers of litter due to their ability to avoid dehydration and face prolonged desiccation. The picture above is from Bomman Madhan Devasamkavu.

Carbon sequestration Sacred groves cannot be taken as an isolated system. By its presence amidst a mosaic of landscape such as fringe forests, cultivated areas and human settlements sacred groves enhance the landscape heterogeneity and biodiversity. An assessment on this contribution by sacred groves is a matter of study to be undertaken by bio-diversity organizations.

CHAPTER VII

SOCIO CULTURAL ASPECTS

Worship/ Deities/Folklore/ Folk Arts

Introduction

Wayanad district, the green paradise of the State, is located mostly in the Deccan plateau region in the Western ghats. The entire district is full of plantations, forests and other agricultural lands. The name Wayanad has been said to be derived from the expression- *vayalnadu*- land of paddy fields. Wayanad became part of Kerala in 1956 on State's reorganisation. Even now there is a considerable Kannada speaking population. Agriculture Cultivation started broadly after 1900 A.D onwards. The British authorities opened up the plateau to cultivation of tea and other cash crops by constructing roads across the dangerous slopes of Wayanad to Kozhikode and Thalasseri. Later, they extended these new roads to the cities of Mysore and Ooty through Gudalur. Settlers emigrated from all parts of Kerala and the fecund lands proved a veritable goldmine with incredible yields of cash crops. When the State of Kerala came into being in November 1956, Wayanad was part of Kannur district. Later, south Wayanad was added to Kozhikode district. To fulfil the aspirations of the people of Wayanad for development, North Wayanad and South Wayanad were carved out and joined together to form the present district of Wayanad. This district came into being on 1 November 1980 as one of the twelve districts of Kerala, consisting of three taluks, Vaithiri, Manathavady and SulthanBathery.

Historical background

Historically, it says that name of the district takes its origin from the name '*vetar-naat*' means the land of the *Vetars or Vedaars*, a tribal community who ruled this hilly mountainous area. In course of time this '*vetaarnat*' became Wayanad. Historical documents reveal the fact that this land was ruled by many Rajas in the past. The name of Pazhassi Raja is the foremost who fought against the Mysorean tyranny as well as the British dominion. The important land mark that changed the political as well as social scenario of the district was the attack on Kerala made by Hyder Ali through Thamarasseri pass during 1773. After the death of Hyder Ali in 1782, TipuuSulthan made an attack with a different intention. He enforced his proclamation by issuing orders to his army men that '*every being in the district without distinction should be honoured with Islam, that the houses of such fled to avoid that honour*

should be burnt and that all means of falsehood or truth or force should be employed to effect their universal conversion’. After the fall of Tippu, Wayand became part of British Rule.

Social and Religious background

During the early period, people followed a practice independent of any religious philosophy. They worshipped nature, totem Gods and Goddesses and number of spirits. During the period of third century BC, Jainism and Buddhism entered the land. The mode of worship of Jains was based on peace and tranquility of mind; their tenets attracted large number of people. Jainism had its contributions in the field of temple architecture. Buddhism paved the way for learning and literacy.

The Brahminical influence came in the region during the fifth century and thereby Buddhism and Jainism diminished gradually. Thereafter the mode of worship changed, the great efforts of SreeSankaracharya resulted in the revival of Hinduism. The literary compositions of ThunchatEzhuthachan added to the movement.

Though Christianity reached the country in the first century AD, by fourteenth century a large number of people became ardent believers of Christianity. The arrival of Portuguese during the fifteenth century, then the Dutch and thereafter the British, all accelerated the growth of Christianity drastically in the land. The population of Christianity considerably increased in the district as a result of large-scale migration of Christians from central Travancore area to this fertile land for the purpose of agricultural practices.

The growth of Islam religion got grater momentum during the Mysorian invasion, which grew up gradually to become the second religious group in the district.

In short, the district is a cradle of various philosophies, either Indian or foreign, with great religious tolerance.

According to the 2018 Statistics Report, Wayanad district had a population of 8,46,637. The religious composition being 49.48% Hindus, 28.65% Muslims, 21.34% Christians and balance others. Scheduled casts and Scheduled tribes make up the highest ST/SC percentage in all of Kerala.

Wayanad have the largest tribal population in Kerala with 8 scheduled tribes including Adiyar, Paniyan, Mullukkurman, Kurichyan, Vettakkuruman, Wayanad Kadar, Kattuniakkan and Thachaanadan Mooppan.

The Concept of Sacred Groves

In India, every religion has their own traditions, practices and rituals which are aimed at keeping nature undisturbed. The Hindu religion gives reverence to the five basic elements of nature- Earth (*Prithvi*), Fire (*Agni*), Water (*Jal*), Air (*Wayoo*) and Space (*Akash*). All the five elements are treated as body of God and are worshipped. These five elements are protected for religious, cultural and spiritual reasons. Sacred groves (SGs) are patches of trees on forest land that are protected communally with religious zeal and connotations. These forest areas have been protected since ages by traditional societies and indigenous communities with their socio-cultural and religious practices. Sacred groves as a rule are treated piously. Sacred trees are prohibited from cutting and not axed except when wood is needed for the religious purposes like construction and repair of temple buildings or in cases like worshiping, death ceremonies and temple rituals. Thus, SGs carry direct and everlasting pious status and assist in maintaining social fabric of the society. Sometimes, they are also known as natural museums of giant trees, treasure houses of threatened species, dispensaries of medicinal plants, regulators of water sheds, recreation centers for urban life, veritable gardens for botanists, gene banks of economic species as well as rare and endangered species, paradise for nature-lovers and so on.

Scenario in the district

Categorization of Sacred Groves of Kerala was once a common feature in every village. Time immemorial, the original groves came in to the hands of individual families and remained family-owned property. As the families split into smaller units, many of the members retained the grove with the place of worship. Since many families were unable to follow the 'Kavu' rituals, they were handed over to organizations like the Devasam Boards or local trusts and temple committees.

Till the beginning of this century, sacred groves were an indispensable adjunct of the traditional Hindu families of Kerala. Sacred groves and associated ponds constituted a unique network of ecological system that intervened with the life and culture of the people of Kerala. Regarding the existence of Sacred Groves in the district, it is pertinent to point out that out of

the total land area, more than one third is occupied by natural forests, and the balance area, especially in high plateau area, it is covered by coffee and tea plantations. This results in the smaller number of Sacred Groves in the district. The study conducted in the district reveals that out of the 137 SGs identified, 74% of the SGs are owned by individuals or families or family trusts, 13% by public trusts or Janakeeya Committees and the balance 13% by Devasam Boards. The largest SGs in the district are owned and managed by Devasam boards. Another peculiarity in the district is that out of the total area of 61 Acres, 36 acres are spread over in 11 SGs. The land of *PerumkodeSreeKootakavu* was originally part of Harrisons Malayalam Estate. They donated this land for worship purpose of the workers. Worship in this temple kavu is mostly performed by the workers of the estate.

Worship

The history of worship is closely related to the gradual evolution of mankind from nomads to farmers and from farmers to village dwellers. The worship pattern varies from place to place according to belief, *sankalpas*, myths, deities etc. This is the general picture of worship in temples. Worship of semi divine spirits is considered as a primitive form of worship. Worship of serpent spirit is one of such primitive form of worship. From time immemorial, the general belief of the Hindu community is that worship of the serpent god, naga, is essential for the progeny and prosperity of the family. The devotees treat naga idols with great veneration and a certain amount of fear as the general belief is that if anyone shows disrespect or kills a snake, he will meet with punishment in the form of skin deceases or ophthalmia or lack of progeny. Therefore, most of the temples and *tharavads* used to have a *sarpakavu* (sacred grove) near the premises of the temples or *tharavads*. It is a miniature forest with abundant tree growth of rare species. Though there are certain norms or believes regarding the position of SGs in the premises of temples or *tharavads*, there can be variations according to conveniences.

Generally, at the centre or at the side of each SG is the *chithrakoodam*, a stone basement with granite prathishtas of Naga gods like Nagaraja, Nagakanyaka, Nagayakshi and abundant nagas.

All the idols will be facing the east. Very often distinct male and female motifs are carved on these idols to distinguish the *Nagaraja* from the *Nagayakshi*. Since majority of SGs belong to families, worship patterns, rituals and festivals vary from place to place. Unlike in the case of



PerumkodaSreeKootakavu

SGs attached to major temples, expenses on festivals would be very restricted because they themselves have to find out the resources for the festivals. In the family SGs, daily poojas are not taking place, instead lighting lamp in the SGs by

members of the family is uninterruptedly performed. It represents unity and collective action of the family members. In the district, in many SGs, showing lighted lamp from outside (showing the deities inside SG) is a practice. Poojas are either monthly or seasonal.

Deities

In most of the SGs there will be idols of presiding deity and associated deities. Since majority of the sacred groves in the district are *sarpakavu*, serpent deities are worshiped as the presiding deity. Goddesses such as bhagavathy and chamundi are also worshipped in certain SGs. In this context it will be interesting to examine the different roles of gender in worship, management etc of sacred groves.

The role of gender in sacred groves can be analyzed at four levels:

- (a) The gender of the deity associated with the sacred groves;
- (b) The gender of the priests conducting poojas in the groves;
- (c) The nature and extent of access to men and women in various rituals, festivals and ceremonies in the groves, and harvest of biomass from the groves; and
- (d) The role of gender in the management of the sacred groves.

Regarding gender of deities, the male deities associated with the SGs in the district are:- *Risheeswaran, Thondandeivam, Brahmarakshas, Dharma deivam, Bhairavan, Wynadkulavan, Oorpazhassi, Lavakusan, Kodiveeran, Karanavar, Gulikan, Kuttichathan, Ayyappan, Sivan, , Krishnan, Ganapathy, Narasimhamoorthy, Sasthav, Paramasivan, Mahavishnu, Valyachan, Gurunadhan, Vettakorumakan, Perunthachan, Veluthabhootham, Bali, etc.*

Among the female Dieties *Bhadradevi*, *Durgabhagavathy*, *Bhadrakali*, *Devi*, *Parvathy*, *Bhuvaneswari*, *Vanadurga*, *PuthiyaBhagavathi*, *Rakthachamundeswari*, *Kalleriamma*, *Valiyathamburatti*, *Thai paradevatha*, *Puliyoor kali*, *Seetha Devi* etc are most common.

Nagar, *Nagaraja*, *Nagarprathishtta*, *Naga kanyaka*, etc are the snake deities. In certain cases, there will be only *Chithrakoodam* where deities are only *sankalpam*.

Regarding the gender of the priest, it appears that the priesthood rests with males without exception.

There are strict practices in the nature and extent of access to men and women in various rituals, festivals and ceremonies in the groves. Since majority of the SGs are attached to households, daily lighting of the lamp is done by usually women. In very few SGs women are not permitted to enter the Kavuv.

Management of the SGs normally vests with men. In certain cases, as per records the owner may be a woman, but management is executed generally by men.

Worship

The worship pattern varies from place to place and Kavuv to Kavuv. Except in exceptional cases, daily pooja is not practiced in the SGs.

Except a few, ownership of most of the *Kavus* vests with *Nampoothiry*(Brahmin) community. *Nair* and *Ezhava* communities also own a number of *Kavus*. A few *Kavus* belong to scheduled castes and few with Scheduled Tribes. Regarding poojas in the SGs of the district, though the ownership is as mentioned above, poojas are mainly *brahmana pooja*. *Abrahminapoojas* are performed mostly by *Ooralas*.

Since majority of SGs belong to families, worship patterns, rituals and festivals vary from place to place. Unlike in the case of SGs attached to major temples, expenses on festivals would be very restricted because they themselves have to find out the resources for the festivals. In the family SGs, daily poojas are not taking place, instead lighting lamp in the SGs by members of the family is uninterruptedly carried out. It represents unity and collective action of the family members. Poojas are either monthly or seasonal.



Rituals in these sacred groves constitute a mixture of practices by agrarian society and hunting society. Agrarian society perform *Nira* and *Putheri* which represent harvesting of agricultural produce and cooking of fresh grain respectively. *Sarpabali* and *Noorumpalum* are methods of worshipping snake deity. *Pampumthullal* is a dance

performed by girls and the main priest accompanies them by singing prayer songs. *Kalampattu* is performed to appease not only Goddesses but also the spirits of demons and Lord Ayyappa.

In Kottiyoor Siva temple the temple festival (utsav) begins every year by mid-May and lasts for 28 days. *IlaneerVeppu* or submitting tender coconuts before the deity is an important ritual during the festival. Thousands of tender coconuts brought by hundreds of devotees from different parts of Malabar are submitted on a special day. The very next day is *Ilaneerattam*. On this day, the main priest pours coconut water collected from the tender coconuts on the idol.

Offerings

Offerings for deities in temples are different from that in the SGs. Offerings vary from place to place and also it will be different for different communities in the same sacred grove. It is a traditional practice to offer mats, baskets, earthen pots etc made by the scheduled caste and tribe communities like *pulayar*, *parayar*, *kushava* etc.

Rituals in these sacred groves constitute a mixture of practices by agrarian society and hunting society. Agrarian society performs *Nira* and *Putheri* which represents harvesting of agricultural produce and cooking of fresh grain respectively. Agricultural products like rice, rice powder, *malar*, *unakalari*, tender coconut, coconut, banana, beetle leaf, areca nut, flowers, lamp, oil etc are other types of offerings brought by the devotees.

Sarpabali and *Noorumpalum* are methods of worshipping snake deity. *Pampumthullal* is a dance performed by girls and the main priest accompanies them by singing prayer songs. *Kalampattu* is performed to appease not only Goddesses but also the spirits of demons and Lord Ayyappa.

Folk Arts

This hilly district has all the patterns of art forms which are performed in the adjoining districts of Kozhikode and Kannur. The spectacular pageant of *Theyyam* deities' are performed as part of festivals in temples. Some of the art performances of the Thulunad culture like Yakshagana, poorakali, Kolkali, etc are also performed in some areas as part of festivals.

Folk dances of great originality and color have evolved among the large population of the oppressed classes and the tribal communities. These were possibly manifestations of the tribal need to communicate to the ruling classes their frustrations and social anger. Some folk dances evolved as a result of their ceremonies to propitiate their gods. Among the Adiyans there is a folk play in which an old man plays on a thundi (drum) and the men sing and dance to the beating of the drum. Though the women do not participate in the dance, they join in the community singing. The art forms of the Pulluvar are ritualistic. Most of their songs are related to worship, ritual, custom and exorcism. The pulluva art is expressed in the background of snake-worship.

Theyyam

There are evidences that stand testimony to the fact that this folk religion contains traits that might have originated during the earliest periods of Neolithic, Chalcolithic settlement and expression. Theyyam is representative of a form of Hinduism practiced by the tribal communities since time immemorial. The Sattvic rituals practiced by the Namboodiri Brahmins in temples co-existed with this tribal form of worship which involves liquor and meat as offerings to God. Though Theyyam was sponsored by members of the upper class and ruling class families it was essentially a Dravidian art form. And it has a revolutionary concept behind it since the Theyyam artists are from low-caste communities such as Malayan or Vanaan. Even the high-caste people will have to worship the Gods who come in the form of Theyyam, showing traits of anti-racial activates. As a religious and social institution, it has a significant place in the cultural history of the region. Under the impact of Aryans, the cult of Theyyam had changed substantially incorporating new trends and sub cults along with its tribal character. In short it can be stated that all prominent characteristics of primitive tribal religious worship had widened the stream of Theyyam cult and made it a deep-rooted folk religion of the millions.

Cost of Theyyam:- The cost varies from place to place and from size to size. For a mini Theyyam it may cost around Rs. 3500 to 50,000. In respect of regular Theyyam the cost may run up to a few lakhs. In a normal performance about 14 assistants in ordinary dress accompany the main dancer.

It is reported that there are 456 types of Theyyam and out of this 112 types are important and famous. To mention a few of them-

Poorakkali

Poorakkali is one of the prominent ritual art forms of northern Kerala. It is staged by a group of artists in the Bhagavathy temple premises and in front of sacred BhagavathyKavus (groves) and shrines. This is an integral part of pooram festival celebrated during the month of Meenam (March-April). The festival lasts for 9 days, starting from karthika day to pooram day. Pooram is celebrated to praise and please the god of love named Kamadeva. Though pooram is mainly meant for the women folk and maiden young ladies poorakkali is performed by men folk. It is said that in ancient days poorakkali was performed by women folk. A group leader who is well versed in the art and poorakkali songs leads the other artists in the group, who is known as Panikkar. The song sung by the group leader is repeated by the other artists, in chorus. This is a dance rhythmically around a sacred lamp with elegant steps. While dancing the players clap their hands uniformly to the tune of the song and according to the Thalam by the group leader. Poorakkali has got 18 different forms. Most often stories from the epic Ramayana constitute the subject matter of the ritual songs.

Thidambu dance

Thidambu dance is a ritual temple art form performed only in North Malabar areas of Kerala. It can also be seen very rarely in some parts of Karnataka and Tamil Nadu. Thidambu means the replica of an idol in a temple which could be taken out of the sanctum sanatorium for certain rituals connected with the poojas/festivals of the temples. It represents the idol of the presiding deity in the sanctum sanctorum. Thidambu is made by using bamboo pieces like a half circle, which is known as Chattams. These Chattams are adorned with flowers and gold/silver ornaments. The metal idol which represents the presiding deity in the sanctum sanctorum is joined with the Chattam. This is known as Thidambu. Thidambu dance is performed only in connection with the annual festivals of temples, by the Brahmins.

In India almost all the art forms, in one way or the other, are related to the worship of god. These art forms help to inculcate the religious, cultural and ethical values in the minds of the people. Theyyam is also a manifestation of the Budha worship.

Marathukali : It is a competitive "game art" conducted in temple yards. It has gained ritualistic importance. The game lasts for a long time; at times it may extend to a day or more.

VadakkenPattukal : Ballads sung in praise of the exploits of local heroes form an important source of inspiration for the community.

CHAPTER VIII

SOCIO-ECONOMIC DIMENSION

Socio economic aspects of sacred groves and the social dimensions purely depends on the ownership and management pattern of sacred groves in the district. The custodians of sacred groves fall under different categories depending on the social conditions and legal status of land. Mainly three categories are identified namely, Private management/Family management, Public Management/Public Committee management and management by Government supported Institutions like Devaswam Board. Even among them there are various sub-types according to the ownership.

i.Private Management : - The basic factor here is that the full propriety of the land supporting sacred grove belongs to one family or group of families. There are in all 97 such SGs coming under private category in this district. The sub-groups are:-i. Kudumbakavu, ii. Kudumba Trust/Family Committee.

Kudumbakavu. In this case, as is generally seen in respect of Hindu families, the sacred grove form part of own property of the family being maintained traditionally from generations to generations with the purpose of maintaining general protection of the family and worshipping deity based on their religious belief. The head of family normally is the top authority in the management. Since these sacred groves are hundreds of years old they hold a link to the family partition deed wherein the stipulations are there for the maintenance of sacred grove and allotment of additional area for generating income to maintain them.

Kudumba Trust / Committee. In certain cases, the partition deed stipulates the responsibility of maintaining the sacred grove with a specific family and when the same family expands into a greater number of families later without losing their right and responsibility to preserve the sacred grove; these families work jointly to manage the affairs of the SG. In such cases they have the option to form a committee or register a trust as the case may be without altering the legal status as private. The trust/ committee periodically elect office bearers like President, Secretary and committee members to manage the activities relating to the SG.

II. Public Management. In this case the ownership goes to a public body which governs the management according to generally approved legal formula. It can be registered as public committee or function as a public committee with oral understanding. In either of the cases many or all of the members are from the public having faith in Sacred Groves. In this there are two sub-categories namely Public Committee and Public Trust.

i. Public Committee. Such committees are usually formed when an owner of the SG is financially too poor to manage the affairs of the SG while at the same time the local people consist of devotees having faith in the deity or sacred grove. Another reason is when the SG is on the verge of complete destruction or encroachment by other people inviting resentment from local devotees. All such instances immediately provoke the local people to form committees to maintain and protect the SG. Another instance is when the land under an SG is puramboke under Revenue, Forest or Panchayat like-minded people constitute a public committee for security. Some such committees go in for registration with local Registrar 's Office. They maintain registers of accounts for every monetary transaction and present all matters during the meetings.

ii. Public Trust This is a more solid and strong institution having more legal backing. They adopt a byelaw as stipulated by Registrar of Societies and obtain registration as per rules. They elect president, secretary, treasurer and committee members and follow their activities according to the duties and responsibilities stipulated in the byelaw. The circumstances leading to the constitution of public trust are the same as in the case of Public Committee. There are 18 SGs listed under such committees.

III. Devaswam Board. There are SGs attached to Temples under the management of Devaswam Board. Temples are constructed by the custodians which were subsequently taken over by Devaswam Board for management. The SGs of this category was formed in this manner. Though more attention is given in the affairs of temple equal importance is given to the rituals in the SG also, thereby providing sufficient security to SG. There are 17 SGs under this category.

A statement of SGs under the above categories is given below. It can be seen that majority of the SGs are under private management.

Sl. No.	Ownership/Custodian/Management	No. of Sacred Groves
1	Sacred Grove Owned/Managed by Government	--
2	Sacred Groves Managed by Devaswam Board/ Local Temple Devaswams	17
3	Sacred Groves Managed by Public Trust/ Public Committees/Janakeeya Committees	18
5	Sacred Groves Managed by Individuals/ Family/Family Trust	102
	Total	137

Socio-economic Condition: - The socio-economic condition prevailing among the people around the sacred groves is very important as it influence the stability of these virgin patches of vegetation. The main stake holders are the custodians, the people employed and engaged in the management of SGs, the devotees and the shopkeepers etc. An attempt has been made to gather data on the expenses in managing the affairs of SGs, the income and employment generated. Out of the 137 sacred groves the custodians fall under various categories as described above. Most of them are private owners which we call family as well as community. The socio-economic condition depends on the activities, rather the rituals, which generate flow of funds for expenses and income. Custodians will have to spend money for payment of honorarium or salary to priests, supporting staff and other accompaniments. Income is received from devotees for various rituals they place order as offering and fixed rate are decided by the custodians. The priests and owners get their share of offerings from the devotees. Another is in the form of presenting certain items which was earlier visualized by the devotee and which again add to the wealth of the SG. Agricultural products are also offered. The third type is the special performance desired to be performed at the instance of the devotee. A typical one is Theyyam. Besides the main performer the helpers also get a share of the money. Theyyam performers are professionals and when it is not staged in sacred groves during off-season, they get offers to perform it in individual houses. Their income varies anything from Rs. 1000 per person. In addition to the above a set of people engaged in selling toys, sundry items required by floating population to the sacred groves do get some business. In sacred groves attached to major temples there are permanent shops being run. Such people also form a small set of stakeholders in this aspect. But these are connected to seasonal activities a realistic inventory is not possible in this venture. There was certain amount of reluctance on the part of custodians in revealing the flow of expenditure and income. The following information will give a general idea of the expenditure pattern in Sacred Groves: -

Salary of Priests- For daily poojas- Rs.15000 per month, For pooja once in a week Rs.5000 per month, For pooja once in a month- Rs.2000 per month. Assistant Poojari Rs.6000, 1500, 500, Cleaning staff Rs.2000 per month, Expenses for pooja materials Rs.15000 per month. In addition, the poojari may get a share of the *nercha*, other may get some additional income from sale of pooja materials etc. The main source of income is from donations, sale of materials received as *vazhipad* etc. All these things vary from place to place according to worship pattern, customs, financial condition etc.

Hence a detailed tabulation on the generation of money centered around sacred groves is not possible. But as it could be collected, a rough estimation has been made. In respect of sacred groves attached to temples of Devasams, expenses and income goes to the Devaswam and income and expenditure arising out of the sacred groves cannot be separately estimated. However, in the light of previous experience it is found necessary to year mark only 10 % of the probable total estimate to the credit of sacred grove. There is no need for a priest separately. Similar is the case with kazhakoms, purchase of pooja materials etc.

The data reveal that much variation is not there as regards those under Public Trust, Devaswam Board and Public Committee. But marked variation exists among the privately owned SGs both in the type, frequency and time of rituals and payment to employees. Taking these aspects into consideration the estimation of level of employment, expenditure and income has been made on a very conservative method which would project only the minimum

Category	Man-days	Remuneration	Mtce. Expenditure	Cost on festival	Total expenses	Total income
SGs attached to Temples/Devasams	300	1,50,000	60,000	75,000	2,85,000	3,00,000
Trusts managed by Public Trusts/ Public Committee	50	25,000	40,000	5,00,000	5,65,000	6,00,000
SGs managed by Family/Family trusts	35	17,500	30,000	2,00,000	2,47,500	3,00,000

TOTAL PICTURE TAKING ALL SGS for ONE YEAR (Amount in Rs. Lakhs)

Category	Total number of Man days	Expenditure	Income
Attached to Devasams	5100	48.45	51.00
Managed by Public Trust/ Committee	900	101.70	108.00
Managed by Family/ Family Trusts	3395	240.07	291.00

In nutshell the socio-financial status can be stated as below which is the minimum though approximate.

To the CREDIT of SACRED GROVES

In One Year in Wayanad District -Minimum Money in Circulation

Employment generation - 9395 Man Days.

Money on Circulation - Rs. 390.22 lakhs

Income - Rs. 450.00 lakhs

CHAPTER IX

MYTHS AND LEGENDS

A myth is a story, based on traditional knowledge passed on to generations, which people are inclined to believe depending on their attitude to the subject matter. Although some myths can be accounts of factual events, they have become transformed by symbolic meanings. Myths or stories about sacred groves would be fascinating or even frightening.

A legend is a semi true story, which has been passed on from person to person and has important meaning or symbolism for the culture in which it originates. A legend usually includes an element of truth, or is based on historical facts, but with mythical qualities. The myths & legends which are more or less same in this area have been collected. The myths and legends prevalent in the following sacred groves are explained below.

1-The famous Seetha Devi Temple-

The legends associated with the temples (Kavu also) of this district that most of them were consecrated Lord Bhrama and Lord Parasurama. The famous Seetha-Lava Kusha temple at Thirunelli is associated with Great DageVaalmeeki. The Matha Maharshi is responsible for pointing out the SWAYAMBHOO IDOL at Meenangadi temple. After that they entrusted this to qualified *Thanthris*. Tharanallur family of *Thanthris* at Iringalakuda are famous and unique.

Once upon a time Bhrahma was delighted to see the beautiful plants including an Emplica Tree (NELLI_) on which had the image of Vishnu with four hands, which immediately disappeared. Overwhelmed with grief, Brahma engaged himself in deep contemplation. Then the image made its appearance and gave the voice-“The image thouh has seen is that of VISHNU ,the excellence of this place draws and keep Him here. Convinced by these divine utterances, Brahma made a temple there and consecrated SreeMaha Vishnu there. The Brahma ordained that visits to the temple would remove sins committed by devotees. This is the basis for people visiting salvation by praying forefathers.

It is believed that Sree Rama had offered prayers here during his way in search for Goddess Seetha. It is also believed that the legendary founder of Kerala, feeling guilty who feeling guilty of matricide, came to Thirunelly and did *Pithr-kriya* for getting mental peace.

2. Valliyoorkavu- Mananthavadi panchayat.

This sacred grove is situated 3 km. away from Mananthavadi and is on the south of Kabini river. There are two SGs here. The one at the foot hills with idol facing east at the foot hills Keezhekavu and the other at the top facing west is Melekavu. Once the Komaram(oracle) of Kodungallur temple –Vattakkala Nambiar, reached Kabini river with his associates to collect offerings for Bharani festival. For some time, they kept their belongings like sword anklets etc under a tree there and slept for rest. When they woke up they were surprised to find their sword etc missing. After praying Goddess KodungallurBhagavathy for some time, they found a paniya tribal approaching them. He showed them the sword etc hanging on a climber at the top of a Ficus Tree. While continuing the prayer the things fell down from the top of the tree. The Oracle-(Incorporal voice) came-***“I am present here in three forms-as Vana Durga, as Jaiadurga and as Bhadrakali”***. A Swayambhoo idol appeared there.

These facts were reported to Kottayam raja present nearby. As the devaprasnam revealed the presence of Goddess, the Raja conducted necessary rituals . Thereafter he took the sword and anklets to palliyara of ParangattliriporkaliBhagavathitemple –the tutelary of Kottayam Raja. Even now the sword of the above temple is taken to valliyoor for commencing festival.

The local consider feeding fish in the pool of nearby river as propitious. This valliyoor area was a Centre of bonded labor in those days. Along with this incident such labors gained more freedom and remuneration.

This temple was owned by three hereditaryOoralarfamilie. In 1951 the temple was taken over by HRCE Dept. (A Govt. Organization.)

3-Mani kavu

This is a famous kavu at Meenangadi in Sultan Battery Taluk of Wayanad. The peculiarity is the incessant flow of water touching the idol of Sri Maha Siva day and night. Long ago great Saints stayed and worshiped from this Kavuvu. The name Mamamuni later got transformed into Manikavuvu. The idol of Lord Siva is facing west and is small. It is believed that this is a Swayabhoo.

Here the Idol of Nagaraja is outside the Kavuvu. Only one Pooja is performed for Nagaraja and that too in the morning.

The Legend.

The tribals used to let their cattle out for grazing and get them back by evening for milking. It so happened that one day one of the cows did not release milk one evening. This was repeated by the same cow. While following the cow the tribals found that the same cow was releasing milk over the idol of a SIVA. Realizing the spiritual powers on this a temple of Lord Siva was constructed there. It is here water intermittently flows due to the respect and protection offered by the devotees.

4-Perumchola kavu

This kavu is near Mananthavadi. This is one of the rare SGs managed by Tribal People-the Kurichiars. This kavu idol is installed on the periphery of an extensive paddy field. This has 600 and more years old. There is no sanctum sanctorum here other than a structure to maintain the deity and conduct Pooja. The Kurichiar tribal themselves conduct Pooja. In this small temple two deities are installed. One Devi and one Devan are there. Devi has the look of mother and Devan has the status of son. There is no daily Pooja , but daily lighting lamp is there. They conduct Pooja on 1st and 15th of every Malayalam month in a expensive way adopting tribal customs. Thira and Theyyam are also arranged during such days. Though this SG has only 50 cents, there are plenty of fauna reported to be roosting or visiting the kavu.

5-Kootta kavu

This SG is situated in Vaithyri of Wayanad. This is supposed to have second place in the number of SGs on Kerala. It is due to the large number of idols that this kavu is known as Koottakavu. Important deities are SreeBhagavathi facing east and Mariappan facing west. Other than these two other idols do not have any separate sanctum sanctorum. The main devotees are people of Tamil culture.

The legend says that here earlier there was a temple for Devi. Mariappan had his place at a convenient spot under a bridge. Later a Sreekoil was constructed for Mariappan and both Devi and Mariappan has equal importance. The total area is seven acres. This is heavily wooded and the programmes Theyyam, Vellattam and Thira are staged in this kavu. It is uncommon in other SGs of this district. By virtue of the vegetation, the perennial stream

passing through and the protection provided make this Kavu an abode of Fauna. This is the only SG where wild elephant visit occasionally in Kerala.

CHAPTER X

THREATS & RECOMMENDATIONS

There are various factors that pose a threat to the survival of some of the SGs. This has direct bearing on the attitude of the custodians. During the period when joint families system existed there used to be a sense of feeling to strictly follow the maintenance of the SGs situated in the *tharawad* property. When the system made a change over to partition of family properties, many SGs got destroyed or reduced in extent. But that tendency, though not arrested completely, has become a rarity now on account of popular belief in prayers and role of SGs in social binding of culture.

Following are the observations regarding threat in this district under various issues:-

THREATS

1. Intention to reduce the extent for self-motive

Already most of the SGs have been reduced in size and this appears to be a fait accompli.

2. Finance for maintenance of SGs.

Scarcity of finance is keenly felt by most of the custodians.

3. Grazing

Does not appear to be a menace since other sources are plenty in this extensive paddy fields around.

4. Dumping Solid Waste

The SGs are very distantly located from congested areas or in the vicinity of the residences of the custodians. This reduces the severity of this problem.

5. Damage by invasive species.

Most of the Sacred Groves are covered with the invasion of numerous climbers and isolated small bits heavy weeds do constitute a threat to the conservation of Kavu.

RECOMMENDATIONS

1. Separate project for Central Assistance to Sacred Groves

Financial grant for maintenance of sacred groves received from Government of India is being distributed to the custodians of sacred groves. The present allotment is naturally very low when compared to the actual number of SGs in Kerala. According to the recorded information with Government (refer. website on sacred groves) the total number is 1500. By now with the results coming out of IFK's study in 14 districts the total number exceeds 10000. It is estimated that at least 30 % of them deserve financial and technical assistance from government agency. So far forest department had no authentic data on the total extent of vegetation under SGs in the state. Now on completion of study by IFK, an authentic data on sacred groves is available. It is high time that KFD has to come out with detailed

proposals for central grant to the custodians who have been protecting these natural patches rendering valuable and intangible contribution to bio-diversity.

2. Awareness Campaign

Social Forestry wing or Bio-diversity wing of KFD should consider planning awareness programmes in conservation of sacred groves for the benefit of the public & Custodians of sacred groves particularly regarding hygiene of the grove and premises. Present status and importance of sacred groves should be one in the agenda for extension activities targeted on students.

3. Production of quality seedlings of plants

Social forestry wing may also consider producing quality seedlings of species which are essential trees and other plants as would be emerged from this report. This has to be done after convincing and ascertaining the willingness of the custodians. A few seedlings considered to be typical for sacred groves are noted below for information of social forestry wing of KFD.

Trees-*Vateria indica*, *Aglaia elaeagnoides*, *Holigarnaarnottiana*, *Ficus* species, *Aphanamixis polystachya* (Chemmaram), *Vatica chinensis*, *Cynometra travancorica*, and *Dipterocarpus indicus*. These are producing plenty of fruits most of which are liked by fauna, there by promoting biodiversity status. *Dipterocarpus indicus* (kalpine) is a vulnerable species.

Shrubs-*Clerodendrum serratum* (Cheruthekku), *Anidesmadiandrum*, *Allophyllus serratus*, *Flacourtia indica*, *Glycosmis pentaphylla* etc. These plants have medicinal properties.

Climbers like *Alangium salvifolium*, *Coscinium fenestratum* and herbs like *Scoparia dulcis*, *Crotalaria retusa*, *Geophila repens* having medicinal value also can be promoted in sacred groves.

More details if required can be seen in pages 21-23 under the chapter-IV Composition of Vegetation.

4. Dealing with invasive species

This is posing a major threat to the existence of sacred groves. Removal and preventing further growth of invasive species is very essential. But the methods to bring about this task without affecting the general structure and ritual concepts have to be designed by a team of forest officials and scientists conversant with this issue which may be ideal.

5. Ensure fair distribution of grant

When grants are distributed to SGs, it has to ensure that the process is made as fair as possible by verification by a superior. Details if any required can be gathered from IFK since study in districts has been completed by IFK. Poorly maintained SGs if any may be considered only if improvement is ensured. An effective follow up on utilisation after distributing grant is essential

6. Encourage waterholes or ponds

The necessity of water availability for attracting small fauna and amphibians is very essential for a healthy environment for sacred groves. Hence this may be insisted for SGs above 10 cents in extent while granting financial assistance.

Publicity for data collected.

In order to bring the Id numbers of the sacred groves to the notice of all custodians concerned, department may take action for publicity in the press and social media and ARANYAM Magazine.

7. Research studies

The following studies by a research wing may be considered.

- i. Natural regeneration of various plants in SGs.
- ii. Role of fauna like termites, bats and many frequenting birds.
- iii. Identifying keystone species.
- iv. Detailed study on soils in Sacred Groves.
- v. Methods to quantify role of SGs in Carbon Sequestration.

8. Sharing Data

The knowledge gained in carrying out studies on sacred groves may have to be shared with other related organizations within and outside the forest department including Biodiversity Board, Department of Science and technology and other stake holders since such information is required for the benefit of the people as a whole.

9. Recognition on contribution for Carbon Sequestration

Above all it is necessary to recognize the service of the custodians in the appropriate manner and give them enough encouragement for the valuable amount of carbon sequestration being contributed by them.

10. Intervention by Government

The sacred groves are being well protected and conserved in general by the custodians without any legal enforcement. Therefore, any intervention in the affairs of these sites by Forest Department or Government need to be planned and designed with caution not to disturb the freedom of custodians as it is a sensitive issue.

Norms Suggested for Distribution of Grant under International Bio-diversity Campaign to Sacred Groves by Social Forestry Wing.

1. Necessity

Sacred Groves are now fragmented habitats housing gene pools and have become the last refuge for many threatened, endangered and endemic plant and animal species. Outside the forest limits they constitute isolated vegetative patches in a mosaic form and are protected by the custodians who contribute in Conservation of Bio-diversity and establishment of healthy bondages among local people through faith in God. But they are not free from threats that can cause degradation or disappearance, particularly when there exists rising land value

and greed for land for non-forest purpose. Hence it is only appropriate that all possible assistance for the upkeep of this pristine vegetation is extended by Government for proper maintenance.

3. Identification of activities required for giving grant.

Activities

- Construction of Compound Wall
- Cleaning and maintenance of existing pond
- Digging ponds where ever feasible
- Eliminating invasive species scientifically
- Supplementing regeneration of tree species----site specific.
- Monitoring growth and regeneration of important plants and movements of fauna in selected SGs.
- In general, observe phenology of plant and animal life, by engaging trained students in selected SGs

This is essential for creating awareness among the youth on conservation of Bio-diversity.

4. Eligibility

- SG should have old trees of typical species under reasonable upkeep.
- Should have local acceptance in the neighborhood.
- Low annual income.
- SGs associated with prominent temples and under Public Trust, Devaswom Board etc, to be **excluded**.
- Eliminate SGs having ownership dispute.
- Proper performance in utilization of previous grant if any.
- Contribution in carbon sequestration.
- **Grading-** Based on the above considerations, the SGs in each district may be categorized into three or four categories before fixing the quantum of grant.

5. Allotment of Funds

Total amount received may be apportioned among various districts according to the number of SGs. Since study in all the 14 districts has been completed, the number can be taken in descending order as below.

Alappuzha	-	2242-Nos.
Kozhikode	-	1231 ,,
Malappuram-	-	1120
Kannur	-	1096 ,,
Thrissur	-	970 ,,

Kollam	-	895	„
Pathanamthitta	-	721	„
Ernakulam	-	708	„
Kottayam	-	562	„
Thiruvananthapuram	-	452	„
Kasaragod	-	392	„
Palakkad and	-	184	„
Wayanad	-	137	
Idukki	-	32	„

6. Financial Support

i. Financial assistance

There are quite a number of sacred groves under the ownership of individual families where keen financial stringency is being experienced for maintaining them. Reducing the frequency of Pooja is the one way to bring down cost. It is only the faith in God and feeling of the proud possession of the ancient vegetation that is preventing them from dispossessing these groves. Though Government is extending financial assistance to a few of the sacred groves that does not seem to be sufficient enough to overcome the requirement of the large number of cases that exist.

A grading in the form of giving reward for the best managed sacred grove in a Taluk or District can be considered if funds are available. Irrespective of the quantum of amount, awarding such a grant would go a long way in creating awareness and enhancing bio-diversity conservation.

When land value is high and need for cultivable land is also rising, it needs appreciation of those protecting the sacred groves by providing additional incentives for maintaining *kavus* and maintaining biological diversity. One way of showing appreciation is by exempting these *kavus* from land tax as they maintain small refugia for vanishing biological entities.

ii. Special consideration for abandoned and no Pooja SGs-

There are many SGs in the district where no poojas are taking place or they are in an abandoned stage. At the same time in most of these SGs the vegetation is thick and plants are protected. It is suggested to identify such sacred groves and encourage by Forest Department to revive activities particularly when there is a Legislative Committee to look into such matters.

IFK will be happy to extent its co-operation in such matters through appropriate representatives if called upon.

iii. Carbon credit

Sacred groves represents areas of typical community conserved biodiversity vegetation without any element of pollution. To that extent ecological dimension is very deep there. The contribution of the custodians of Sacred Groves in preserving such areas without any external compulsion and the benefit that is delivered to the society in the form of carbon sequestration deserves ineffable appreciation and reward.

In a similar case, though not so pronounced as in the case of SGs, the owners of Cole Paddy lands have been recognized by Government of Kerala recently and specific grant to them has been sanctioned for such environment friendly practice. Taking the cue from this stand it can be expected that the Govt. of Kerala would show the sagacity to take a policy decision for awarding grant to the custodians of sacred groves in a fair manner.

In this context, it is pertinent to note that the idea of extending carbon credit to farmers, institutions and communities is being considered at international level. It has come out in the press (vide-The Hindu daily dated 25th Aug. 2021) that COP26- which is part of United Nations Convention on Climate Change-has recognized this idea of Net Sink Credit- and this would be discussed in the forthcoming conference on Climate Change in Glasgow this year.

7. Selection of SGs

In selecting SGs from among the applicants, preference can be given to community owned SGs and SGs existing on areas of high land value like those in cities, towns and road sides.

In making selection, the applications may be examined by a committee at district level consisting of officials from Forest and Local Self Government.

In case the committee need further information about the applicants the members of IFK team may be able to provide the required details based on their visits.

.....

Bibliography

1. M.Jayarajan, Sacred Groves of North Malabar-CDS-Thiruvananthapuram.
2. KFRI-Study on Medicinal Plants of Kerala.Research Report No-42
3. Ecological and Socio-cultural Dimensions of Sacred Groves in Northern Kerala-U. M. Chandrasekhara and three others.
4. National Workshop Papers on Sacred Groves, Kozhikode-2004 Organized by G OI & GOK
5. Our Sacred Groves and Biodiversity (Malayalam)-Dr. T.R. Jayakumari and R. Vinodkumar
6. Dr. D.J. Mabberley-Tropical Rain Forest Ecology.
7. INSA, New Delhi-Cultural and Ecological Dimensions of Sacred Groves in India.
8. Sivakumar.K.P. Akhila S. Nair & Jaya-A Review of Sacred Groves in India.
9. M.L. Khan-The Sacred Groves and Their Significance.
10. Wikipedia-Sacred Groves in India and in History.
11. Dr. P.J. Sanjeeva Reddy-Conservation of Keystone species.
12. Wikipedia-Role of termites.
13. B. Arulanathan-Sacred Groves under Threat.
14. IFK-Report No.1 to 9 on Sacred Groves of Kerala.
15. Temples of Wayanad District- by Sri.Jayashankar.
16. IFK-Report No.1 to 13 on Sacred Groves of Kerala.
17. Wikipedia- Kallil temple, Iringolekavu etc
18. Other related topics from internet browsing.

PART II

MAPS SHOWING LOCATIONS

&

ID NUMBERS

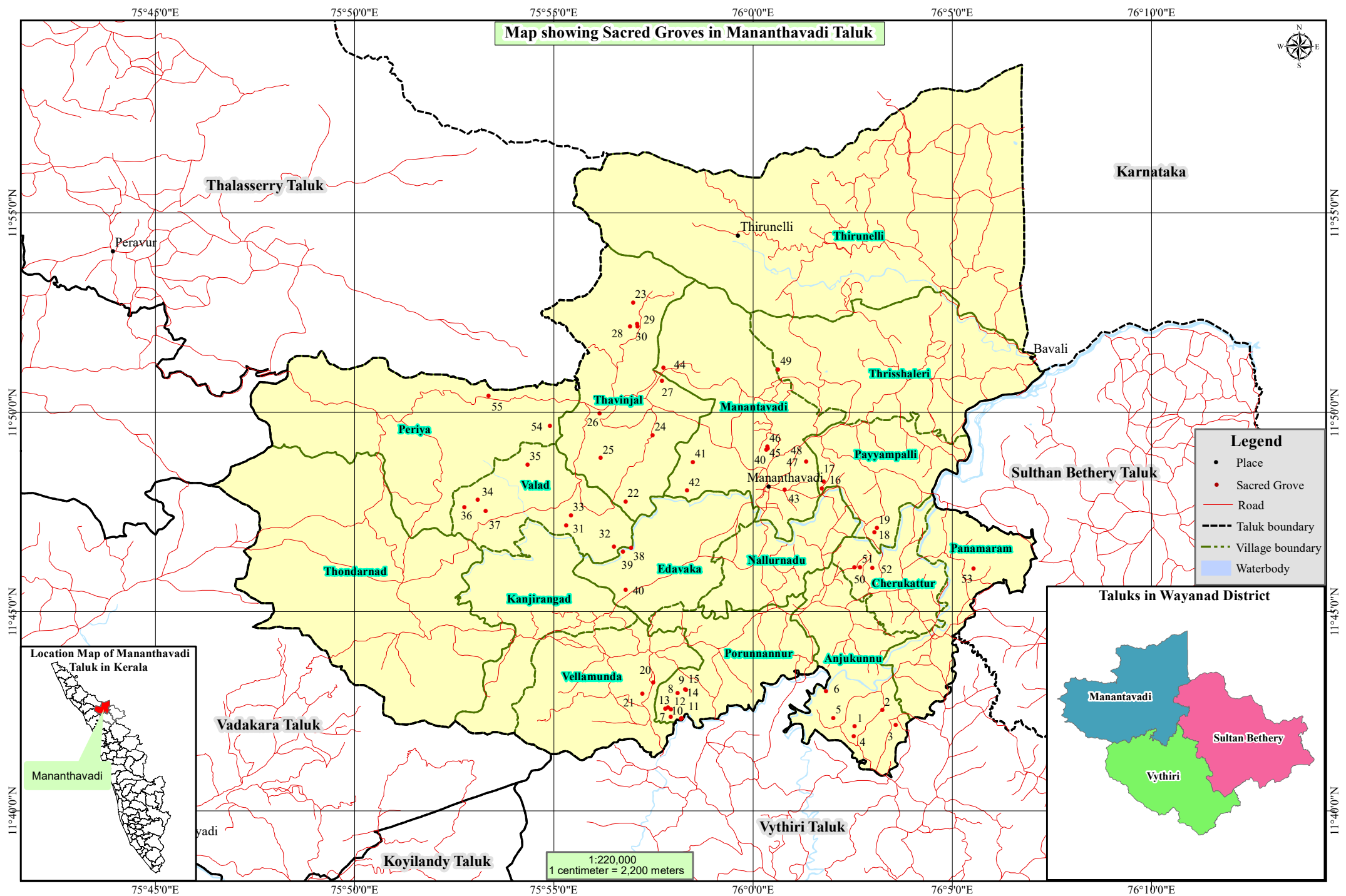
OF SACRED GROVES

TABULAR STATEMENTS SHOWING

GEOGRAPHICAL

&

MANAGEMENT DETAILS



Sacred Groves in Manathavadi Taluk

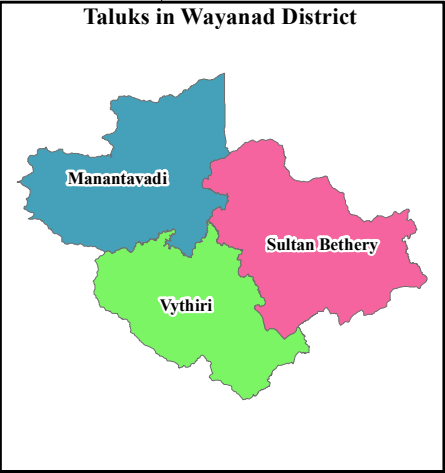
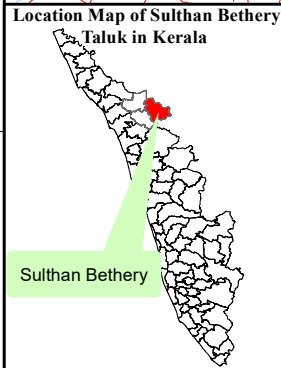
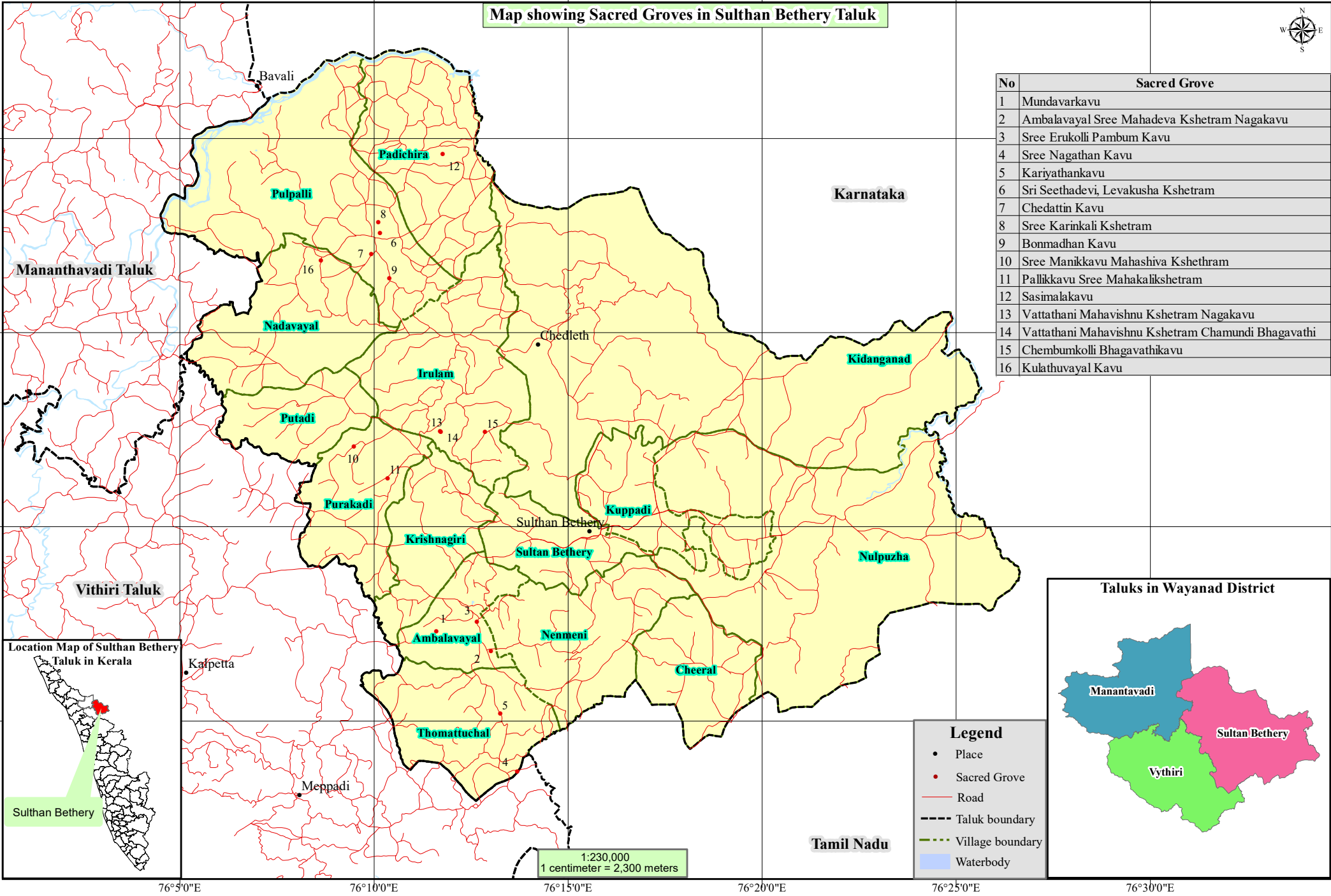
No	Name
1	Akkarkandi Kavu
2	Eachom Siva Kshetram, Gulikan Kavu
3	Thungadi Mahavishnu Kshetram
4	Eachom Siva Kshetram Nagastanam
5	Panjiyodikavu
6	Bathiroor Sree Vettakkorumakan kshetram
7	Kottakavu
8	Kalamvetti Bhagavathi Kavu
9	Thoduvayal Sree Kurikkilla Bhagavathi Malakkarikshetram
10	Kannambatti Colonykavu
11	Mecherikavu
12	Mundiyottu Koodikavu
13	Kunnathunadakavu
14	Chundakandikulikavu
15	Chundakandi Gulikan Kavu
16	Arattutharakavu
17	Valliyoorkavu
18	Cholavayal Kavu
19	Kallumottamman Kavu
20	Poruvancherikavu
21	Alancheri Madhathilkavu
22	Sri Mudireri Sivakshetram
23	Makkimala Sree Durga Bhagavathi Kshetram
24	Sree Aduvathu Mhavishnukshtetram
25	Palakuni Sree Annpoorneswari Kshetram
26	Muneeswaran Kunnu Kovil
27	Kunnamvallikavu
28	Mele Thalapuzha Colony Kavu

No	Name
29	Valappilkandi Kavu
30	Chirakkara Bhadrakali Kavu
31	Reyarothu vettakalan Kavu
32	Uthira Maruthan Kshetram
33	Arolamittam Kuttichathan Kavu
34	Mutuvottil Vettakalan Kavu
35	Edathana Daranpuli kshetram
36	Illathumoola Nagakavu
37	Moolothu Sivakshetram
38	Chowayil Bhagavathi Kavu
39	Edathil Kavu
40	Seetha Iavakusha Kshetram
41	Kulangara Sree Ayyappan Kavu
42	Ozhakodi Sreekrishna Kshetram
43	Sreevaderi Sivakshetram
44	Chirakkara Muneeswaran Chamundeswary
45	Durga Parameswari Kavu
46	Chooriyattil Bhagavathi Kavu
47	MGM HS School Sarppakavu
48	Varattimoola Kuttichathan Kavu
49	Thrissileery Sivaksetram - Sarppakavu
50	Koomivayal Sree Kirathamoorathi Kshetram
51	Sree Palamandalam Devikshetram
52	Sree Malakkari Mandapamkavu
53	Paravayal Malakkari Bhagavathi Nagathan Kavu
54	Edamana Kurikkilal Bhagavathikshetram
55	Sree Kurikkilal Varadayinidevi Nagaraja Nagayakshi Kshetram

Map showing Sacred Groves in Sulthan Bethery Taluk



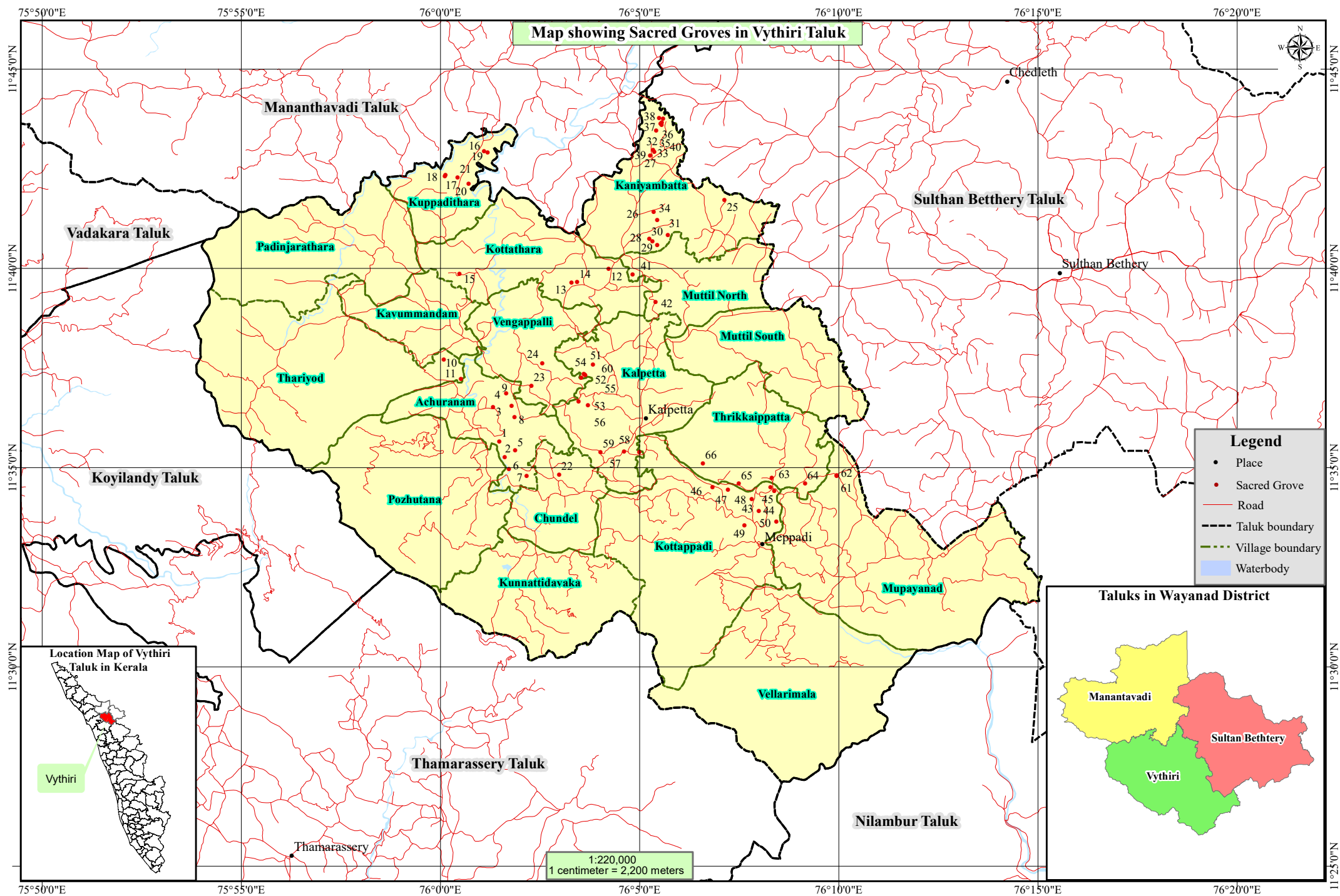
No	Sacred Grove
1	Mundavarkavu
2	Ambalavayal Sree Mahadeva Kshetram Nagakavu
3	Sree Erukolli Pambum Kavu
4	Sree Nagathan Kavu
5	Kariyathankavu
6	Sri Seethadevi, Levakusha Kshetram
7	Chedattin Kavu
8	Sree Karinkali Kshetram
9	Bonmadhan Kavu
10	Sree Manikkavu Mahashiva Kshethram
11	Pallikkavu Sree Mahakalikshetram
12	Sasimalakavu
13	Vattathani Mahavishnu Kshetram Nagakavu
14	Vattathani Mahavishnu Kshetram Chamundi Bhagavathi
15	Chembumkolli Bhagavathikavu
16	Kulathuvayal Kavu



Legend

- Place
- Sacred Grove
- Road
- - - Taluk boundary
- . - . Village boundary
- Waterbody

1:230,000
1 centimeter = 2,300 meters



Sacred Groves in Vythiri Taluk

No	Name
1	Anothu Pozhuthana Idam Kavuvu
2	Perunkoda sree Koottakavuvu
3	Kammattamkunnu Kolanikavuvu
4	Kulikkavuvu
5	Chembakakkavuvu
6	Kallamvettikavuvu
7	Ammara Arayil Bhagavathi Mariyamma Kshetram
8	Olornna Athiralan Kavuvu
9	Puthenveettu Kavuvu
10	Cherikandi Bhagavathikavuvu
11	Edathara Sivashektram
12	Aanerikkavuvu
13	Ayyothukavuvu
14	Karikutti Ayyothukavuvu
15	Srineerur Sivakshetram
16	Sri Kalluttu Kalikshetram
17	Palakkavuvu
18	Kattupaliyanakkunnu Valiyakavuvu
19	Melekavuvu
20	Arivayal Muthappan kshetram
21	Puthurkeezhu pardevatha kavuvu
22	Paramelkavuvu
23	Puthenveettil Kavuvu
24	Vadakkeveethil Kavuvu
25	Ondamvedikavuvu
26	Palliyarakkavuvu
27	Pongini Ambalam Upakshetramkavuvu
28	Parakkal Kavuvu
29	Kokkattu Kavuvu
30	Parakkal Cheruvadi Bhadrakali Kavuvu
31	Sree Kandabhadra Bhagavathikavuvu
32	Pongini Ambalam Kavuvu

No	Name
33	Pongini Ambalam Upadevathakavuvu
34	Palliyarakkavuvu
35	Chikkallur Kariyathan Kavuvu
36	Chikkallur Idam Kuttichathan Kavuvu
37	Chikkallur Thazhe Idamkavuvu
38	Chikkalur Idam kshetram
39	Seethadevikshetram Arudastanam
40	Chikkalur Idam Nagathum Kavuvu
41	Kariyathankavuvu
42	Madakkimala Bhagavathikavuvu
43	Karmalkunnu Colanikavuvu
44	Nedumbala Colony Kavuvu
45	Nedumbala Colony Kavuvu
46	Gurukkal Mandapam Kavuvu
47	Karingammel Kavuvu
48	Kottapadi Athiralan Kavuvu
49	Karivillikavuvu
50	Kairali Colony Kavuvu
51	Kovukuni Nagakavuvu
52	Kovukuni Gulikan Kavuvu
53	Vallipattakavuvu
54	Kovukuni Kariyathan Kavuvu
55	Kovukuni Kalamvetti Bhagavathi Kavuvu
56	Kalamvettikavuvu
57	Maniyoor Melekavuvu
58	Maniyoor Kezhekavuvu
59	Sooryavarannakavuvu
60	Kovukuni Bhagavathikavuvu
61	Sri Koleri palattu Thamburattikavuvu
62	Palattukavuvu
63	Nedumbala Bhadrakali Kshetram
64	Muthappan Madappura
65	Kollivayal Colony Kavuvu
66	Kottayil Bhagavathi Kshetram

MANANTHAVADY TALUK								
Kavu No. WYD/ Mntd	Name of Kavu & Type of Ownership	Name of Owner/Custodian & Contact number	Location & Panchayath	Sy.No.	Extent (Cents)	Diety/Pooja Details	GPS Reading	Remarks Compound Wall/Fence/ Pond
1. ANJUKUNNU VILLAGE								
WYD/ Mntd 1	Akkarkandi Kavu (Family Trust)	Narayanan President Mob: 830405264	Eachom Panamaram		8.00	Gulikan Yearly Pooja	11 ⁰ 42' .116'' 76 ⁰ 2' .553''	
2	Eachom Siva Kshetram, Gulikan Kavu (Malabar Devaswam Board)	Suresh Babu President Mob: 9961736591	Eachom Panamaram		15.00	Gulikan Seasonal Pooja	11 ⁰ 42' .524'' 76 ⁰ 3' .247''	
3	Thungadi Mahavishnu Kshetram (Public Trust)	Rajeevan President Mob: 9526438603	Thoogadi Panamaram		10.00	Mahavishnu, Bhagavathi Weakly Pooja	11 ⁰ 42' .149'' 76 ⁰ 3' .583''	
4	Eachom Siva Kshetram Nagastanam (Malabar Devaswam)	Suresh Babu President Mob: 9961736591	Eachom Panamaram		6.00	Nagam Yearly Pooja	11 ⁰ 41' .866'' 76 ⁰ 2' .530''	
5	Panjyodikavu (Family Trust)	Chandrabos President	Eachom Panamaram		8.00	Gulikan Yearly Pooja	11 ⁰ 42' .322'' 76 ⁰ 2' .014''	
6	Bathiroor Sree Vettakkorumakan kshetram (Private Trust)	Sajeevan E.P President	Vilambukandam Anchukunnu		20.00	Vettakkorumakan Seasonal Pooja	11 ⁰ 42' .999'' 76 ⁰ 1' .835''	
2. PORUNNANNUR VILLAGE								
7	Kottakavu (Family Trust)	Vellan President	Porunnannur Vellamunda		10.00	Bhadrakali No Pooja	11 ⁰ 42' .539'' 75 ⁰ 57' .940''	
8	Kalamvetti Bhagavathi Kavu (Public Trust)	Kunjikannan President Mob: 9961136904	Vellamunda Vellamunda		10.00	Bhagavathi, Nagam Seasonal Pooja	11 ⁰ 42' .599'' 75 ⁰ 57' .867''	

WYD/ Mntd	Thoduvayal Sree Kurickilla Bhagavathi Malakkarikshetram (Public Trust)	Ragavan President Mob: 9061065272	Thoduvayal Vellamunda		10.00	Bhagavathi, Nagam Daily Pooja	11° 42' .956'' 75° 58' .105''	
9								
10	Kannambatti Colonykavu (Family Trust)	Channakkan President Mob:9744630158	Thottolipadi vellamunda		10.00	Devi, Malakkari, Bhagavathi Seasonal Pooja	11° 42' .311'' 75° 58' .189''	
11	Mecherikavu (Public Trust)	Narayanan President	Perunnamur Vellamunda		5.00	Nagam, Bhadrakali No Pooja	11° 42' .318'' 75° 58' .202''	
12	Mundiyottu Koodikavu (Family Trust)	Darappan President Mob: 9744271648	Kottakkunnu Vellamunda		10.00	Bhadrakal Seasonal Pooja	11° 42' .344'' 75° 57' .936''	
13	Kunnathunadakavu (Family Trust)	Ammini President Mob: 9847017372	Kottakkunnu Vellamunda		8.00	No Pooja	11° 42' .558'' 75° 57' .798''	
14	Chundakandikulikavu (Family Trust)	Meenakshi Amma President Mob: 9747178524	Porunannur Vellamunda		8.00	Bhagavathi Seasonal Pooja	11° 43' .049'' 75° 58' .294''	
15	Chundakandi Gulikan Kavu (Family Trust)	Meenakshi Amma President Mob: 9747178524	Porunannur Vellamunda		6.00	Gulikan Seasonal Pooja	11° 43' .034'' 75° 58' .322''	
3. PAYYAMBALLY VILLAGE								
16	Arattutharakavu (Malabar Devaswam Board)	Girish Kumar President	Mananthavadi Mananthavadi Munici.		100.00		11° 47' .951'' 76° 1' .548''	
17	Valliyoorkavu (Malabar Devaswam Board)	Girish Kumar President Mob: 9895204582	Valliyoorkavu Mananthavadi Munici.		500.00	Valliyoorkamma, Devi, Bhagavathi Daily Pooja	11° 48' .257'' 76° 1' .771''	
18	Cholavayal Kavu (Family Trust)	Midhun President	Payyampalli Mananthavadi Munici.		10.00	Gulikan, Karanavar, Nagam Seasonal Pooja	11° 46' .992'' 76° 3' .050''	

WYD/ Mntd 19	Kallumottamman Kavu (Family Trust)	Raman President Mob: 9656713181	Koyileri Mananthavadi Munici.		8.00	Nagam, Gulikan Seasonal Pooja	11 ⁰ 47' .091'' 76 ⁰ 3' .105''	Pond
	4. VELLAMUNDA VILLAGE							
20	Poruvancherikavu (Family Trust)	Madhu President Mob: 9744043170	Vellamunda Vellamunda		10.00	Gulikan, Kuttichathan No Pooja	11 ⁰ 43' .217'' 75 ⁰ 57' .496''	
21	Alancheri Madhathilkavu (Family Trust)	Babu President Mob: 9048217402	Vellamunda Vellamunda		15.00	Bhagavathi, Nagam Seasonal Pooja	11 ⁰ 42' .945'' 75 ⁰ 57' .229''	
	5. THAVINJAL VILLAGE							
22	Sri Mudireri Sivakshetram (Malabar Devaswam)	Chandrasekharan President Mob: 9747367761	Muthissri Thavinjal		200.00	Sivan, Ayyappan, Bhagavathi, Nagam, Brahmarashas Daily Pooja	11 ⁰ 47' .761'' 75 ⁰ 56' .800''	Pond
23	Makkimala Sree Durga Bhagavathi Kshetram (Private Trust)	Krishnankutti T.C President Mob: 7594861779	Thalipuzha Thavinjal		200.00	Bhadrakali, Kuttichathan, Malakkari, Nagam Seasonal Pooja	11 ⁰ 52' .747'' 75 ⁰ 56' .988''	Pond
24	Sree Aduvathu Mhavishnukshtetram (Malabar Devaswam)	Exe. Officer Mob:	Vimalanagar Thavinjal		600.00	Mahavishnu, Nagam Daily Pooja	11 ⁰ 49' .422'' 75 ⁰ 57' .479''	Pond
25	Palakuni Sree Annpoorneeswari Kshetram (Malabar Devaswam)	Suneesh President Mob: 9496076137	Kolangadu Thavinjal		500.00	Annapoorneeswari, Ganapathi, Sasthavu, Nagam, Gulikan Daily Pooja	11 ⁰ 48' .849'' 75 ⁰ 56' .177''	
26	Muneeswaran Kunnu Kovil (Private Trust)	K.M.Mohanan President	Thalapuzha Thavinjal		120.00	Nagastanam Monthly Pooja	11 ⁰ 51' .868'' 76 ⁰ 57' .526''	
27	Kunnam valli kavu (Kudumba kavu)	Gopalakrishnan	Thalappuzha Thavinjal		10.00	Kuttichathan, Karimkutty, Bhadrakali, Gulikan	11 ⁰ 50 .824' 76 ⁰ 57 .693'	
28	Melethalapuzha colony Kavu (Kudumbakavu)	Achappan 7594861779	Makki mala Tavinjal		12.00	Kutiichathan	11 ⁰ 52 .146' 76 ⁰ 56 .137'	

WYD/ Mntd 29	Valappil kandi kavu (Kudumbakavu)	Balakrishnan 9645492559	Chirakkara Thavinjal		10.00	Ganapathi, Subhrmanian	11° 52' .204' 76° 57' .018'	
30	Chirakkara bhadrakali kavu	Babu 7558045188	Chirakkara Thavinjal		07.00	Gulikan, Bhadrakali, Nagam	11° 52' .156' 76° 57' .102'	
	6. VALAD VILLAGE							
31	Reyarothu vettakalan Kavu (Family Trust)	Kelu President Mob: 9562770246	Valad Thavinjal		200.00		11° 47' .158'' 75° 55' .308''	
32	Uthira Maruthan Kshetram (Malabar Devaswam)	Santhosh President Mob: 9778101446	Kattimoola Thavinjal		50.00	Ayyappan, Bhagavathi Yearly Pooja	11° 46' .628'' 75° 56' .507''	Pond
33	Arolamittam Kuttichathan Kavu (Family Trust)	Balan President Mob: 9562943540	Kattimoola Thavinjal		50.00	Kuttichathan Seasonal Pooja	11° 47' .418'' 75° 55' .427''	
34	Mutuvottil Vettakalan Kavu (Family Trust)	Sreedevi President	Valad Thavinjal		50.00	Muthappan, Gulikan, Kuttichathan Seasonal Pooja	11° 47' .799'' 75° 53' .090''	
35	Edathana Daranpuli kshetram (Family Trust)	Chandu President	Valad Valad		20.00	Karunan, Malakkari, Gulikan Monthly Pooja	11° 48' .680'' 75° 54' .342''	
36	Illathumoola Nagakavu (Family Trust)	Gopi President Mob: 8157993526	Valad Thavinjal		10.00	Nagam Yearly Pooja	11° 47' .611'' 75° 52' .755''	
37	Moolothu Sivakshetram (Private Trust)	Sunil President Mob: 9061193949	Ilathumoola Thavinjal		10.00	Sivan, Bhadrakali, Nagam Seasonal Pooja	11° 47' .519'' 75° 53' .292''	
	7. EDAVAKA VILLAGE							
38	Chowayil Bhagavathi Kavu (Private Trust)	Suresh President Mob: 9847924411	Chowa Edavaka		100.00	Bhagavathi, Ayyappan, Nagam Weakly Pooja	11° 46' .595'' 75° 56' .940''	CW

WYD/ Mntd 39	Edathil Kav (Family Trust)	Radhakrishnan President	Chowa Edavaka		10.00	Chowa Bhagavathi Arudastanam Yearly Pooja	11° 46' .501'' 75° 56' .732''	
40	Seetha lavakusha Kshetram (Private Trust)	Vasu President Mob: 9562623712	Molithodu Edavaka		6.00	Seetha, Lavakusanmar, Kiratha Moorthi, Gulikan, Nagam Monthly Pooja	11° 45' .542'' 75° 56' .806''	
8. MANATHAVADI VILLAGE								
41	Kulangara Sree Ayyappan Kav (Private Trust)	Babu President	Kuzhakodi Manathavadi Munici.		100.00	Ayyappan, Sivan, Ganapathi Weakly Pooja	11° 48' .754'' 75° 58' .491''	
42	Ozhakodi Sreekrishna Kshetram (Private Trust)	Santhosh Kumar President Mob: 9847793317	Manathavadi Manathavadi Munici.		15.00	Malakari, Nagam, Ganapathi, Brahmarakshas Daily Pooja	11° 48' .034'' 75° 58' .339''	Pond
43	Sreevaderi Sivakshetram (Private Trust)	V.M.Sreevalsan President	Manathavadi Manathavadi Munici.		7.00	Sivan, Ayyappan, Devi, Ganapathi, Nagam Daily Pooja	11° 48' .048'' 76° 0' .796''	CW
44	Chirakkara Muneeswaran Chamundi kshethram (Public Com)	Sreedharan 7594861779	Chirakkara Mananthavadi Municipality		15.00	Muneeswaran, Chamundeswari, Gulikan	11° 51' .053' 76° 57' .633'	
45	Durga Parameswari Kavu (Family Trust)	T.N.Damodaran President	Manathavadi Manathavadi Munici.		10.00	Durga, Nagam, Gulikan Seasonal Pooja	11° 49' .087'' 76° 0' .370''	
46	Chooriyattil Bhagavathi Kavu (Family Trust)	Arunkumar President	Manathavadi Manathavadi Munici.		7.00	Bhagavathi, Nagam Seasonal Pooja	11° 49' .060'' 76° 0' .332''	
47	MGM HS School Sarppakavu (Private Trust)	Mathew Sacaria President Mob: 9961569714	Manathavadi Manathavadi Munici.		10.00	Nagam Yearly Pooja	11° 49' .139'' 76° 0' .362''	
48	Varattimoola Kuttichathan Kav (Family Trust)	Sanil K.P. President Mob: 9961241226	Manathavadi Manathavadi Munici.		80.00	Malakkari, Kuttichathan, Guru, Nagam Daily Pooja	11° 48' .767'' 76° 1' .337''	Pond

	9. THRISSILEERY VILLAGE							
WYD/ Mntd 49	Thrissileery Sivaksetram - Sarppakavu (Malabar Devaswam)	Surendran President Mob: 9544258559	Thrissilery Therunelly		50.00	Mahadevan, Paradevatha Daily Pooja	Bhadrakali, 11 ⁰ 51' .066' 76 ⁰ 0' .580''	CW Pond
	10. CHERUKATTUR VILLAGE							
50	Koomivayal Sree Kirathamoorthis Kshetram (Family Trust)	Balabhaskaran President Mob: 9995369456	Koolivayal Panamaram		15.00	Kirathamoorthis Monthly Pooja	11 ⁰ 46' .109'' 76 ⁰ 2' .544''	
51	Sree Palamandalam Devikshetram (Family Trust)	Balabhaskaran President Mob: 9995369456	Koolivayal Panamaram		10.00	Malakkari, Vettakkorumakan Monthly Pooja	11 ⁰ 46' .110'' 76 ⁰ 2' .685''	CW
52	Sree Malakkari Mandapamkavu (Family Trust)	Balabhaskaran President Mob: 9995369456	Koolivayal Panamaram		50.00	Malakkari, Subrahmanion Yearly Pooja	11 ⁰ 46' .098'' 76 ⁰ 2' .994''	
	11. PANAMARAM VILLAGE							
53	Paravayal Malakkari Bhagavathi Nagathan Kavu (Family Trust)	Padmaja Vijayakumar President	Neervaram Panamaram		20.00	Malakkari, Bhagavathi, Nagam Seasonal Pooja	11 ⁰ 46' .077'' 76 ⁰ 5' .533''	
	12. PERIYA VILLAGE							
54	Edamana Kurikkilal Bhagavathikshetram (Family Trust)	K. Kelu President Mob:6238966525	Kapatti Thavinjal		30.00	Bhadrakali, Kurukilal Bhagavathi Seasonal Pooja	11 ⁰ 49' .653'' 76 ⁰ 54' .899''	Pond
55	Sree Kurikkilal Varadayinidevi Nagaraja Nagayakshi Kshetram (Private Trust)	Shyju S. President Mob: 9496809071	Thalipuzha Thavinjal		50.00	Devi, Nagam Weekly three day Pooja	11 ⁰ 50' .400'' 75 ⁰ 53' .363''	

SULTHAN BATHERY TALUK								
Kavu No. WYD/ Sbty	Name of Kavu & Type of Ownership	Name of Owner/Custodian & Contact number	Location & Panchayath	Sy.No.	Extent (Cents)	Diety/Pooja Details	GPS Reading	Remarks Compound Wall/Fence/ Pond
1. AMBALAVAYAL VILLAGE								
WYD/ Sbty 1	Mundavarkavu (Family Trust)	Sadanandan President Mob: 9502533853	Ambalavayal Ambalavayal		10.00	Vettakkorumakan, Bhagavathi, Parasuraman Daily Pooja	11° 37' .311'' 76° 11' .607''	Pond
2	Ambalavayal Sree Mahadeva Kshetram Nagakavu (Public Trust)	P.V.Narayanan President Mob: 9447385969	Ambalavayal Ambalavayal		20.00	Bhagavathi, Sivan, Brahmarashas, Nagam, Ayyappan Yearly Pooja, Daily Pooja	11° 36' .792'' 76° 13' .014''	CW Pond
3	Sree Erukolli Pambum Kavu (Family Trust)	Sreedharan President Mob: 8301952597	Ambalavayal Ambalavayal		15.00	Nagam Yearly Pooja	11° 37' .557'' 76° 12' .656''	
2. THOMATTUCHAL VILLAGE								
4	Sree Nagathan Kavu (Public Trust)	Suresh President Mob: 9961736393	Vaduvanchal Ambalavayal		50.00	Nagam Yearly Pooja	11° 33' .696'' 76° 13' .691''	
5	Kariyathankavu (Family Trust)	Arunsekhar K.G President Mob:9961756616	Vaduvanchal Ambalavayal		10.00	Kariyathan (Sivan) Seasonal Pooja	11° 35' .191'' 76° 13' .251''	
3. PULPALLY VILLAGE								
6	Sri Seethadevi, Levakusha Kshetram (Malabar Devaswam)	Rajasekharan President Mob:9400591848	Pulppalli Pulppalli		10.00	Seetha Devi, Vettakkorumakan, Nagam yearly Pooja	11° 47' .572'' 76° 10' .156''	CW Pond
7	Chedattin Kavu (Malabar Devaswam Board)	Rajasekharan President Mob:9400591848	Pulppalli Pulppalli		500.00	Chedattilamma, Seetha Devi, Vettakkorumakan Daily Pooja	11° 47' .019'' 76° 9' .936''	Pond
8	Sree KarinkaliKshetram (Sree Murikanmar Devaswam)	Rajasekharan President Mob:9400591848	Pulppalli Pulppalli		10.00	Karikali Seasonal Pooja	11° 47' .842'' 76° 10' .115''	CW

WYD/ Sbty 9	Bonmadhan Kav (Sree Murikanmar Devaswam)	Rajasekharan President Mob:9400591848	Pulppalli Pulppalli		100.00	Siva Sankalpam Daily Pooja	11° 46' .396'' 76° 10' .394''	
	4. PURAKKADI VILLAGE							
10	Sree Manikkavu Mahashiva Kshethram (Malabar Devaswam)	E. Narayanan President Mob:9496033664	Choottupara Meenagadi		400.00	Sivan, Sri Ayyappan, Nagam, Ganapathi Daily Pooja	11° 42' .067'' 76° 9' .484''	Pond
11	Pallikkavu Sree Mahakalikshetram (Family Trust)	Sajeevan President Mob:	Purakadi Meenagadi		10.00	Mahakali, Gulikan, Nagam Seasonal Pooja	11° 41' .251'' 76° 10' .348''	
	5. PADICHIRA VILLAGE							
12	Sasimalakavu (Private Trust)	Sunil President Mob:9946047320	Sasimala Mullankolli		8.00	Sreraman, Seetha, Kirathamoorthi Monthly Pooja	11° 49' .596'' 76° 11' .767''	
	6. IRULAM VILLAGE							
13	Vattathani Mahavishnu Kshetram Nagakavu (Private Trust)	Gopalan Nair President Mob:9744303161	Irulam Puthadi		25.00	Mahavishnu, Ganapathi, Nagam Daily Pooja	11° 42' .468'' 76° 11' .709''	Pond
14	Vattathani Mahavishnu Kshetram Chamundi Bhagavathi Kav (Private Trust)	Gopalan Nair President Mob:9744303161	Irulam Puthadi		6.00	Chamundi, Bhagavathi Seasonal Pooja	11° 42' .448'' 76° 11' .722''	
15	Chembumkolli Bhagavathikavu (Private Trust)	Karuppan President Mob:9758913126	Chembumkolli Puthadi		20.00	Devi, Mahadevan, Gulikan Monthly Pooja	11° 42' .446'' 76° 12' .860''	
	7. NADAVAYAL VILLAGE							
16	Kulathuvayal Kav (Private Trust)	Suresh Babu President Mob:	Veliyambam Pulpalli		30.00	Kali, Durga, Kirathamoorthi, Nagam, Ayyappan, Brahmarashas Daily Pooja	11° 46' .864'' 76° 8' .629''	

VYTHIRI TALUK								
Kavu No. WYD/ Vitr	Name of Kavu & Type of Ownership	Name of Owner/Custodian & Contact number	Location & Panchayath	Sy.No.	Extent (Cents)	Diety/Pooja Details	GPS Reading	Remarks Compound Wall/Fence/ Pond
	1. ACHOORANAM VILLAGE							
WYD/ Vitr 1	Anothu Pozhuthana Idam Kavu (Family Trust)	Krishnakumar President	Pozhuthana Pozhuthana		100.00	Nagam Yearly Pooja	11° 35' .659'' 76° 1' .480''	
2	Perunkoda sree Koottakavu (Public Trust)	Aji President Mob: 9946494257	Pozhuthana Pozhuthana		200.00	Bhagavathi, Kariyathan, Kuttichathan, Gulikan, Mariyamma Daily Pooja	11° 34' .911'' 76° 0' .830''	
3	Kammattamkunnu Kolanikavu (Family Trust)	Vineesh President Mob: 9744122360	Pozhuthana Pozhuthana		20.00	Malakkari Sivan, Gulikan Seasonal Pooja	11° 36' .516'' 76° 1' .324''	
4	Kulikkavu (Family Trust)	Mani President Mob: 7510113203	Pozhuthana Pozhuthana		15.00	Malakkari Bhagavathi No Pooja	11° 36' .550'' 76° 1' .788''	
5	Chembakakkavu (Family Trust)	Unni Nair President	Pozhuthana Pozhuthana		10.00	Malakkari Bhagavathi Seasonal Pooja	11° 35' .429'' 76° 1' .880''	
6	Kallamvettikavu (Family Trust)	Padmanabhan President Mob: 8606317007	Pozhuthana Pozhuthana		10.00	Guru, Malakkari Sivan Seasonal Pooja	11° 34' .962'' 76° 1' .719''	
7	Ammara Arayil Bhagavathi Mariyamma Kshetram (Family Trust)	Santha President Mob: 9895777878	Pozhuthana Pozhuthana		25.00	Bhagavathi, Mariyamma, Maladivangal Monthly Pooja	11° 34' .796'' 76° 2' .163''	Pond
8	Olornna Athiralan Kavu (Family Trust)	O.S.Sivasankaran President Mob: 9633881923	Pozhuthana Pozhuthana		10.00	Athiralan, Kariyathan, Bhagavathi Monthly Pooja	11° 36' .272'' 76° 1' .863''	
9	Puthenveettu Kavu (Family Trust)	Sulochana President Mob: 9947347019	Pozhuthana Pozhuthana		47.00	Pinagottappan Seasonal Pooja	11° 36' .861'' 76° 1' .656''	

	2. THARIODE VILLAGE							
WYD/ Vitr 10	Cherikandi Bhagavathikavu (Family Trust)	Chandran President	Kavumandam Thariyodu		10.00	Bhagavathi, Gulikan, Malakkari Weakly Friday Pooja	11° 37' .718'' 76° 0' .086''	
11	Edathara Sivashektram (Public Trust)	Gopinathan President Mob: 9447113820	Kavumandam Thariyodu		50.00	Malkkari, Sivan, Nagam, Subrahmanion Daily Pooja	11° 37' .233'' 76° 0' .511''	
	3. KOTTATHARA VILLAGE							
12	Aanerikkavu (Public Trust)	Balan President Mob: 9778104038	Kambalakkadu Kottathara		10.00	Bhagavathi, Gulikan Seasonal Pooja	11° 39' .985'' 76° 4' .225''	
13	Ayyothukavu (Family Trust)	Kunjukrishnan President	Karikutti Kottathara		7.00	Nagam Yearly Pooja	11° 39' .638'' 76° 3' .289''	
14	Karikutti Ayyothukavu (Family Trust)	Kunjukrishnan President	Karikutti Kottathara		15.00	Bhagavathi, Gulikan, Nagam Seasonal Pooja	11° 39' .651'' 76° 3' .436''	
15	Srineerur Sivakshetram (Malabar Devaswam Board)	Ex. Officer Mob: 7034849697	Madakkunnu Kottathara		8.00	Sivan, Nagam Daily Pooja	11° 39' .862'' 76° 0' .478''	CW Pond
	4. KUPPADITHARA VILLAGE							
16	Sri Kalluttu Kalikshetram (Family Trust)	Raveendran President Mob: 9847522492	Kalluttuthazhe Padinjarethara		8.00	Paradevatha Weakly Pooja	11° 42' .932'' 76° 1' .094''	
17	Palakkavu (Family Trust)	Ramankutti President Mob: 8606371875	Kuppadithara Padinjarethara		10.00	Gulikan Yearly Pooja	11° 42' .313'' 76° 0' .113''	
18	Kattupaliyanakkunnu Valiyakavu (Family Trust)	Ramankutti President Mob: 8606371875	Kuppadithara Padinjarethara		8.00	Nagayakshi Yearly Pooja	11° 42' .338'' 76° 0' .131''	
19	Melekavu (Family Trust)	Ramankutti President Mob: 8606371875	Mundakutti Padinjarethara		8.00	Nagam Yearly Pooja	11° 42' .906'' 76° 1' .182''	
20	Arivayal Muthappan kshetram (Public Trust)	Vasu President Mob: 9526649598	Mundakutti Padinjarethara		10.00	Kariyathan Seasonal Pooja	11° 42' .116'' 76° 0' .711''	

WYD/ Vitr 21	Puthurkeezhu pardevatha kavu (Malabar Devaswam Board)	Ex.Officer Mob: 9947715875	Kuppadithara Padinjarethara		75.00	Paradevatha, Nagam Daily Pooja	11° 42' .283'' 76° 0' .430''	Pond
	5. CHUNDEL VILLAGE							
22	Paramelkavu (Public Trust)	Chandrabanu President Mob: 9645370190	Chundel Vaithiri		10.00	Devi, Sivan, Mariamma Monthly Pooja	11° 34' .822'' 76° 2' .982''	
	6. VENGAPPALLY VILLAGE							
23	Puthenveettil Kavu (Family Trust)	Renjith President Mob: 9496341656	Vengappilli Vengappilli		15.00	Kariyathan, Bhagavathi, Monthly Pooja	11° 37' .053'' 76° 2' .290''	
24	Vadakeveethil Kavu (Family Trust)	Somadasan President Mob: 9048834269	Pinagodu Vengappilli		10.00	Kariyathan, Bhagavathi, Gulikan Seasonal Pooja	11° 37' .615'' 76° 2' .555''	
	7. KANIYAMBATTA VILLAGE							
25	Ondamvedikavu (Family Trust)	Babu President Mob: 9847576495	Karani Kaniyambatta		20.00	Sivan, Bhadrakali Seasonal Pooja	11° 41' .720'' 76° 7' .129''	
26	Palliyarakkavu (Family Trust)	Raman President Mob: 8606648357	Kaniyambatta Kaniyambatta		35.00	Gulikan Seasonal Pooja	11° 41' .208'' 76° 5' .446''	Pond
27	Pongini Ambalam Upakshetramkavu (Public Trust)	O.T.Balakrishnan President	Kaniyambatta Kaniyambatta		07.00	Malakkari Gulikan Seasonal Pooja	11° 42' .920'' 76° 5' .373''	
28	Parakkal Kavu (Family Trust)	Kelu President Mob: 8943415855	Kaniyambatta Kaniyambatta		10.00	Malakkari, Gulikan, Bhagavathi Seasonal Pooja	11° 40' .686'' 76° 5' .327''	
29	Kokkattu Kavu (Family Trust)	Suku P.M President Mob: 9048723279	Paralikkunnu Kaniyambatta		8.00	Gulikan, Malakkari Seasonal Pooja	11° 40' .585'' 76° 5' .445''	
30	Parakkal Cheruvadi Bhadrakali Kav (Public Trust)	Rajendran President Mob: 9744621124	Kanbalakkavu Kaniyambatta		40.00	Malakkari, Bhagavathi, Gulikan Weakly Pooja	11° 40' .742'' 76° 5' .246''	CW Pond

WYD/ Vitr 31	Sree Kandabhadra Bhagavathikavu (Public Trust)	Mohanan President Mob: 9947505090	Kanbalakkavu Kaniyambatta		15.00	Kandabhadra, Gulikan, Bhagavathi Seasonal Pooja	11° 40' .848" 76° 5' .708"	
32	Pongini Ambalam Kav (Public Trust)	Gangadharan President Mob: 9947729740	Pallikkunnu Kaniyambatta		10.00	Paradevatha, Bhadrakali, Pullimalamma Daily Pooja	11° 42' .975" 76° 5' .341"	Pond
33	Pongini Ambalam Upadevathakavu (Public Trust)	O.T.Balakrishnan President Mob: 9947729740	Kaniyambatta Kaniyambatta		6.00	Bhadrakali Seasonal Pooja	11° 42' .839" 76° 5' .263"	Pond
34	Palliyarakkavu (Family Trust)	Palliyara Raman President Mob: 8606648357	Kaniyambatta Kaniyambatta		50.00	Kalamveti Bhagavathi, Muthappan, Gulikan, Kuttichathan Seasonal Pooja	11° 41' .412" 76° 5' .353"	Pond
35	Chikkallur Kariyathan Kavu (Family Trust)	Ramdas President Mob: 9847180142	Chikkalur Kaniyambatta		6.00	Kariyathan Seasonal Pooja	11° 43' .770" 76° 5' .489"	
36	Chikkallur Idam Kuttichathan Kav (Family Trust)	C. Rajagopalan President Mob:	Kudothumul Kaniyambatta		13.00	Kuttichathan Seasonal Pooja	11° 43' .756" 76° 5' .586"	Pond
37	Chikkallur Thazhe Idamkavu (Family Trust)	C. Rajagopalan President Mob: 9446436193	Kudothumul Kaniyambatta		8.00	Sivan, Parvathi Monthly Pooja	11° 43' .660" 76° 5' .563"	
38	Chikkalur Idam kshetram (Family Trust)	C. Rajagopalan President Mob: 9446436193	Kudothumul Kaniyambatta		20.00	Durga, Lava-Kusan, Seethadevi Monthly Pooja	11° 43' .638" 76° 5' .527"	Pond
39	Seethadevikshetram Arudastanam (Family Trust)	Ramdas President Mob: 9847180142	Chikkalur Kaniyambatta		7.00	Seethadevi Seasonal Pooja	11° 43' .465" 76° 5' .416"	
40	Chikkalur Idam Nagathum Kav (Family Trust)	C. Rajagopalan President Mob: 9446436193	Kaniyambatta Kaniyambatta		20.00	Nagam Yearly Pooja	11° 43' .605" 76° 5' .549"	Pond
8. MUTTIL NORTH VILLAGE								
41	Kariyathankavu (Family Trust)	P.M.Nandakumar President	Madakkimala Kottathara		10.00	Kariyathan, Nagam Seasonal Pooja	11° 39' .726" 76° 4' .793"	

WYD/ Vitr 42	Madakkimala Bhagavathikavu (Public Trust)	M.K.Padmanabha Goundar President Mob: 9744470274	Madakkimala Muttill		15.00	Sukran, Bhadrakali, Bhagavathim Nagam, Ganapathi Monthly Pooja	11° 39' .070'' 76° 4' .058''	
	9. KOTTAPPADI VILLAGE							
43	Karmalkunnu Colanikavu (Family Trust)	Venu President Mob: 9562355693	Karmalkunnu Meppadi		50.00	Bhadrakali Seasonal Pooja	11° 33' .909'' 76° 7' .994''	
44	Nedumbala Colony Kavu (Family Trust)	Velayudhan President	Nedumbala Meppadi		10.00	Nagam Yealy Pooja	11° 34' .505'' 76° 8' .293''	
45	Nedumbala Colony Kavu (Family Trust)	Velayudhan President	Mookilpeedika Meppadi		10.00	Kariyathan, Gulikan Seasonal Pooja	11° 34' .420'' 76° 8' .383''	
46	Gurukkal Mandapam Kavu (Family Trust)	Santhosh President	Kallumala Paniyacolony Meppadi		8.00	Gurumuthappan Seasonal Pooja	11° 34' .732'' 76° 7' .356''	
47	Karingammel Kavu (Family Trust)	Suresh President Mob:9947025606	Kottapadi Meppadi		10.00	Nagam Yearluy Pooja	11° 34' .447'' 76° 7' .218''	
48	Kottapadi Athiralan Kavu (Family Trust)	Sudhakaran President Mob: 9947197414	Kottapadi Meppadi		14.00	Athiralan, Gulikan Seasonal Pooja	11° 34' .208'' 76° 7' .812''	
49	Karivillikavu (Family Trust)	Kumaran President	Meppadi Meppadi		10.00	Kariyathan Seasonal Pooja	11° 33' .547'' 76° 7' .634''	
50	Kairali Colony Kavu (Family Trust)	Sankaran President	Thrikaipatta Muppainadu		7.00	Kariyathan Seasonal Pooja	11° 33' .964'' 76° 9' .032''	
	10. KALPETTA VILLAGE							
51	Kovukuni Nagakavu (Family Trust)	Devananthan President Mob: 8593886720	Kalppatta Kalpatta Munici.		10.00	Nagam yearly Pooja	11° 37' .595'' 76° 3' .832''	
52	Kovukuni Gulikan Kavu (Family Trust)	Devananthan President Mob: 8593886720	Pambadi Kalpatta Munici.		10.00	Gulikan Seasonal Pooja	11° 37' .339'' 76° 3' .620''	Pond

WYD/ Vitr 53	Vallipattakavu (Family Trust)	Velu V.A President Mob: 9539589755	Puzhamudi Kalpatta Munici.		10.00	Devi, Karunan Seasonal Pooja	11° 36' .663'' 76° 3' .469''	
54	Kovukuni Kariyathan Kavu (Family Trust)	Devadas President	Puzhamudi Kalpatta Munici.		10.00	Kariyathan, Karunan, Ganapathi Monthly Pooja	11° 37' .295'' 76° 3' .483''	
55	Kovukuni Kalamvetti Bhagavathi Kavu (Family Trust)	Devadasan President Mob: 8593886720	Puzhamudi Kalpatta Munici.		8.00	Kalamvetti Bhagavathi yearly Pooja	11° 37' .314'' 76° 3' .637''	
56	Kalamvettikavu (Family Trust)	K.P.Balan Nair President	Puzhamudi Kalpatta Munici.		8.00	Bhagavathi Seasonal Pooja	11° 36' .565'' 76° 3' .707''	
57	Maniyoor Melekavu (Family Trust)	Rajan President	Kalpatta Kalpatta Munici.		50.00	Nagastanam Yearly Pooja	11° 35' .409'' 76° 4' .611''	
58	Maniyoor Kezhekavu (Family Trust)	Rajan President	Maniyoor Kalpatta Munici.		20.00	Nagam yearly Pooja	11° 35' .382'' 76° 4' .997''	
59	Sooryavarnnakavu (Family Trust)	Rajan President	Maniyoor Kalpatta Munici.		6.00	Gulikanstanam Yearly Pooja	11° 85' .386'' 76° 4' .023''	
60	Kovukuni Bhagavathikavu (Family Trust)	Devadasan President Mob: 8593886720	Puzhamudi Kalpatta Munici		10.00	Bhagavathi Seasonal Pooja	11° 37' .350'' 76° 3' .595''	
	11. MUPPAINADU VILLAGE							
61	Sri Koleri palattu Thamburattikavu (Family Trust)	Radhakrishnan President Mob: 9544953023	Nathamkuni Muppainadu		60.00	Bhadrakali, Kariyathan Monthly Pooja	11° 34' .795'' 76° 9' .951''	
62	Palattukavu (Family Trust)	Radhakrishann President Mob: 9544953023	Nathamkuni Muppainadu		6.00	Nagam Yearly Pooja	11° 34' .806'' 76° 9' .946''	
	12. THRIKAIPPETTA VILLAGE							
63	Nedumbala Bhadrakali Kshetram (Family Trust)	Sunil President Mob: 9947337277	Nedumbala Meppadi		200.00	Bhadrakali, Nagam Weakly Pooja	11° 34' .745'' 76° 8' .320''	
64	Muthappan Madappura (Public Trust)	K.K.Suresh President Mob: 9048050205	Thrikaipatta Moopainadu		12.00	Saktheya Bhagavathi, Muthappan, Bhuvaneswari Seasonal Pooja	11° 34' .599'' 76° 9' .157''	

WYD/ Vitr 65	Kollivayal Colony Kavu (Family Trust)	Sivaraman President	Kolluvayal Meppadi		10.00	Kariyathan, Gulikan, Seasonal Yearly Pooja	11 ⁰ 34' .216'' 76 ⁰ 7' .485''	
66	Kottayil Bhagavathi Kshetram (Malabar Devaswam Board)	Sadanandan President	Thrikaipatta Meppadi		20.00	Bhagavathi Daily Pooja	11 ⁰ 35' .113'' 76 ⁰ 6' .595''	