

AGASTHYAMALA BIOSPHERE RESERVE

1. Name of the Biosphere Reserve

Agasthyamala Biosphere Reserve

2.1 Location

The Agasthyamala Biosphere Reserve is located in the South Western Portion of the Western Ghats between 80 25' -130 -0' West latitude and 760 52' -77034' East Longitude.

2.2 Area

The Agasthyamala Biosphere Reserve is having an area of 1701 Sq.Km. as its Kerala part.

Core Zone: 225.00 Sq. Km,

Buffer Zone: 754.00 Sq.Km (out of it 28.7 Sq.Km., in water spread area)

Transition Zone: 722.00. Sq.Km

Total 1701.00 Sq.Km

The Kerala portion include the following wildlife Sanctuaries and Territorial Forest Divisions.

- | | |
|-----------------------------------------|--------------------------------|
| 1. Thiruvananthapuram Wildlife Division | 1. Thiruvananthapuram Division |
| i. Neyyar Wildlife Sanctuary | 2. Thenmala Division |
| ii. Peppara Wildlife Sanctuary | 3. Punalur Division |
| 2. Shendurney Wildlife Sanctuary | 4. Achenkovil Division |
| | 5. Konni |

3. Biological Importance

- Agasthyamala Biosphere Reserve is one of the Biological hot spots with high degree of endemism.
- It encompasses the entire spectrum of life on earth from micro to macro organisms.
- About 150 species of plants endemic to Western Ghats are encountered here.
- The unique habitat with high conservation importance – “The Mystrica swamp” is in this forest tract.
- Wild relatives of many cultivated plants like Atylosia, Cajanus cinnamomum, Dioscorea, Elletiris Oryza, Musa, Myristica etc are abundant in this region.
- The area also harbours Paphiopedilum Doruri, which is the only one representative of this genus in South India.
- This area is also rich in resources of bamboo, reeds, rattons, wild yarn, lesser known edible plants, wild ornamental plants, medicinal herbs and other medicinal plants etc.
- The Tricopus zeylanicus subspecies travancorica is unique to this area.
- The Agasthyamala Biosphere Reserve area is rich in varied faunal wealth also.
- The endangered animals like elephant, gaur, tiger, leopard, Nilgiri Tahr, Lion tailed macaque etc are available in this tract.

4. Demographic Socio-Economic Features.

The demographic status and Socio-Economic feature of 1701 Sq. Km of Agasthyamala Biosphere Reserve is yet to be finalized. As the co-coordinating agency

of Biosphere reserves in South, the TBGRI has initiated this task recently and may be finalized in the course.

Out of the 1701 Sq. Km area of Agasthyamala Biosphere Reserve 225 Sq. Km is core area covering 3 Wildlife Sanctuaries namely Neyyar, Peppara and Shendurney. Here the tribal community residing is Kani tribe. Their main sustenance mode is collection of NWFP from the forests and harvesting medicinal plants, reeds etc. There is no pastoral system among these peoples like in other places

The department is giving eco-development facilities for their wellbeing, giving employment opportunities like fire protection, anti poaching activities. In Kottoor, a society is functioning in the control of Kerala Forest Department where the people will get reasonable prize for their products through public auction.

5. Global Importance of the Areas

- This Agasthyamala Biosphere Reserve is a part of Western Ghat, one of the Biological hot spots of the world.
- This area covers under the Indo Malayan regime
- Having more than 2000 species of flowering plants with 186 endemics, 56 RET species and about 20% of the flowering plants having relatives with Srilankan species, the area gains global importance in Biodiversity.
- Moreover the genetic diversity as well as eco-system diversity is also very rich.

6. Name Address with Pin Code, Phone / Fax of Director, Biological Reserve

Sri. B. Muraleedharan

Conservator of Forests (Agasthyavanam Biological Park)

Forest Headquarters

Thiruvananthapuram-695 011

Phone: 0471- 2328347, 2529219

Fax : 0471- 2328347

7. Critical Issues Regarding Management Interventions with Justification.

- Proximity of fringe area dwellers around Agasthyamala Biosphere Reserve with varying degree of dependency.
- Presence of Private settlements along with tribal communities within the Agasthyamala Biosphere Reserve (estate holders) with varying degree of dependency.
- Preserve from cattle grazing, fire wood collection, illicit felling and removal of forest products.
- Forest Fires
- Poaching, Smuggling, Gunja Cultivation, Fishing
- Illicit brewing of country liquor.
- Mass Tourism influx.
- Pilgrimage, etc.

8. Cumulative Physical / Financial Achievements since designation of the Site as Biosphere Reserve

8.1. Physical Achievements

- 17,500 numbers of seedlings and 8058 seed beds.
- 811 numbers of bee-hives and training in bee keeping.
- 21 Medical Camps.
- 3 Antipoaching Camp Sheds.
- 4222 man days for tribals in protection activities.
- 34 Nature Education Camps.

- 8 training programmers on EDC to Eco-Tourism.
- Training to tribal youth for bee keeping and Eco-tourism.
- 5229m³ Soil and Moisture Conservation Structures.
- 2 water retention structure.
- Infrastructure for Eco-tourism like Sleeping Bags, Tents, Wind Cheater etc.
- TV and Reading Rooms for tribals.
- Education facility for Children and Women like Desks & Benches Bookshelves, Bags etc.

8. Cumulative Physical / Financial Achievements since designation of the Site as Biosphere Reserve

8.2. Financial Achievements

Sl No	Year	Allotment (Rs.in lakhs)	Revalidated Amount of Unspent Balance of Previous Year.	Total (Rs.in lakhs)	Expenditure (Rs.in lakhs)
1	2002-2003	12.00		12.00	12.00
2	2003-2004	38.00		38.00	27.33
3	2004-2005 till date	31.90	10.67	42.57	01.53
	Total	81.90	10.67	92.57	40.86

9. PHYSICAL / FINANCIAL TARGETS AND ACHIEVEMENTS DURING PREVIOUS YEAR INDICATING SPECIFIC LOCATIONS

1. ECO-DEVELOPMENT ACTIVITIES

1.1 Income Generating Activities

1.1.1. Distribution of Seedling of valuable species like teak, Gluta travancorica.

Physical Target : 80,000 seedlings

Financial Target : 1.6 lakhs

Financial Achievement : 1.04 lakhs

Physical Achievement

Name of Division/ Protected Areas	Physical Achievement	Location	Financial Achievement (Rs in Lakhs)
Neyyar	1,500 basketed seedlings	Neyyar	0.04
Agasthyavanam Biological Park Special Division	6,000 basketed seedlings distributed	Kotoor	0.12
Achenkovil	8,000 seedlings of Gluta travancorica nursery	Aligmon	0.50
Konni	30 nursery bed of teak	Mannira	0.16
Shendurney	18 bed teak nursery	Kattilla Para	0.18
Thiruvananthapuram	10 bed teak nursery preliminary works	Kuttichal	0.04

1.1.2. Supply of Bee- Hives and training is bee keeping**Physical Target : 400 Nos.****Financial Target : 6.00 lakhs****Financial Achievement : 5.07 lakhs****Physical Achievement**

Name of Division/ Protected Areas	Physical Achievement	Location	Financial Achievement (Rs in Lakhs)
Achenkovil	372 nos for 80 families	Achenkovil Tribal Colony	1.50
Pulanur	37 nos	Kadamankodu Tribal Colony, Kalaman Kunnu, Madathavalliode	0.57
Konni	300 bee hives and accessories	Naduvathumuzhi, Appupanthodu, Nellikkapara, BSS Nalavanam	1.50
Shendurney	75 nos	Rosemala, Thenmala	1.50

1.1.3.Supporting Eco-Tourism Activities by local Groups by providing Sleeping Bags Tents etc.**Physical Target : L.S****Financial Target : 1.99 lakhs****Financial Achievement : 0.97 lakhs****Physical Achievement**

Name of Division/ Protected Areas	Physical Achievement	Location	Financial Achievement (Rs in Lakhs)
Konni	20 sleeping bags, 3 tents	Nadavathumuzhi and Mannira	0.47
Thiruvananthapuram	5 sleeping bags, 12 rucksack, 15 wind cheater, 4 2 men tents		0.50

1.2 Social Welfare Activities

1.2.2. Conducting Medical Camp

Physical Target : 18 Nos.

Financial Target : 2.81 lakhs

Financial Achievement : 2.29 lakhs

Physical Achievement

Name of Division/ Protected Areas	Physical Achievement	Location	Financial Achievement (Rs in Lakhs)
Neyyar	4 camps	Kottoor and Neyyar	0.53
Peppara	2 camps	Peppara and Bonnacaud	0.30
Punaloor	1 camp	Adaikkamon Ambedkar colony	0.15
Konni	3 camps	Naduvathumuzhi, Mullumala	0.56
Thiruvananthapuram	6 camps	Adiparambu, Peringamala, Kombadappupara, Dali, Nalakathumkala, Pattankulichapara	0.75

1.2.3. Providing Reading Rooms/TV facilities in Tribal Colony.

Physical Target : 2 Nos.

Financial Target : 2.70 lakhs

Financial Achievement : 0.72 lakhs

Physical Achievement

Name of Division/ Protected Areas	Physical Achievement	Location	Financial Achievement (Rs in Lakhs)
Neyyar	1 no.	Clamala	0.72

1.2.4. Providing Education facility to Children and Women

Physical Target : LS.

Financial Target : 1.31 lakhs

Financial Achievement : 0.75 lakhs

Physical Achievement

Name of Division/ Protected Areas	Physical Achievement	Location	Financial Achievement (Rs in Lakhs)
Achenkovil	17 benches and desks	Achenkovil Government High School	0.29
Konni	Book shelves and Bags	VSS Thavalapara and Eliyarkkal	0.46

2. INFRASTRUCTURE DEVELOPMENT & PROTECTION

2.1. Construction of Antipoaching Camp Sheds

Physical Target : 4 Nos.

Financial Target : 6.76 lakhs

Financial Achievement : 5.13 lakhs

Physical Achievement

Name of Division/ Protected Areas	Physical Achievement	Location	Financial Achievement (Rs in Lakhs)
Neyyar	1 no.	Neyyar	2.88
Agasthyavanam Biological Park- Special Division	1 no.	Anchunazhikathode	1.19
Achenkovil	1 no. installation of pipeline at Forestry Colony	Achenkovil	1.06

2.2. Engaging Tribals for protection Activities.

Physical Target : 1616 days.

Financial Target : 1.94 lakhs

Financial Achievement : 2.35 lakhs

Physical Achievement

Name of Division/ Protected Areas	Physical Achievement	Location	Financial Achievement (Rs in Lakhs)
Peppara	880 mandays	Peppara	1.00
Achenkovil	300 mandays	Achenkovil	0.39
Punaloor	41 mandays	Kadamankode	0.05
Konni	120 mandays	Kumaramparur, Naduvathumuzhi, Madanthamon	0.41
Thiruvananthapuram	381 mandays	Kallar, Ponmudi	0.50

3. EDUCATION, TRAINING AND AWARENESS

3.1. Imparting Training to Eco-tourism Concepts to the EDC Members

Physical Target : LS.

Financial Target : 1.35 lakhs

Financial Achievement : 0.66 lakhs

Physical Achievement

Name of Division/ Protected Areas	Physical Achievement	Location	Financial Achievement (Rs in Lakhs)
Neyyar	4 nos	Kottoor, Neyyar, Klamala, Puravimala	0.29
Peppara	2 nos	Peppara	0.13
Thenmala	1 no.	Palaruvi	0.08
Thiruvananthapuram	1 no.	Kallar	0.16

3.2 Conducting Nature Camps

Physical Target : 24 Nos.

Financial Target : 1.23 lakhs

Financial Achievement : 0.77 lakhs

Physical Achievement

Name of Division/ Protected Areas	Physical Achievement	Location	Financial Achievement (Rs in Lakhs)
Peppara	5 nos.	Peppara	0.22
Achenkovil	1 no.	Manakayam Eco- tourism centre	0.04
Thenmala	5 nos.	Rajacoupe, Villumala, Kodumanpara, Kotavasal, Karyilathottam	0.26
Thiruvananthapuram	3 nos.	Kallar, Ponmudi, Arippa	0.25

4. HABITAT IMPROVEMENT

4.1. Construction Water Retention Structures

Physical Target : 2 Nos.

Financial Target : 3.69 lakhs

Financial Achievement :1.33 lakhs

Physical Achievement

Name of Division/ Protected Areas	Physical Achievement	Location	Financial Achievement (Rs in Lakhs)
Neyyar	2 nos.	Karikuzhi, Klamala	1.33

4.2. Soil and Moisture Conservation (Gully plugging, Check Dams etc.

Physical Target : 3050.

Financial Target : 6.62 lakhs

Financial Achievement :6.25 lakhs

Physical Achievement

Name of Division/ Protected Areas	Physical Achievement	Location	Financial Achievement (Rs in Lakhs)
Neyyar	144m ³	Klamala	0.28
Achenkovil	1013m ³	Kanayar, Alinjaman, Kallar Achenkovil	1.94
Thenmala	469m ³	Ariyankavu 1981 tea plantation	0.57
Punaloor	725m ³	Cheripittakavu, Cheenikala, Kadamankala	1.38
Konni	276.49m ³	Kumaeramperur, Naduvathumuzhi, Madanthaman	0.58
Thiruvananthapuram	902m ³	Bonacaud,	1.50

10. Details of gap areas requiring Management Interventions with Suggestions to overcome the Gap.

The Tropical Botanical Garden and Research Institute is the coordinating agency of Agasthamalai Biosphere Reserve, preparing the status report of the same involving the status of Flora, Fauna, Management, Environment impact etc. The institute has initiated the work very recently. Only after finalizing the same, the gaps can be identified. However some of the following gaps are identified and listed.

Identified Gaps

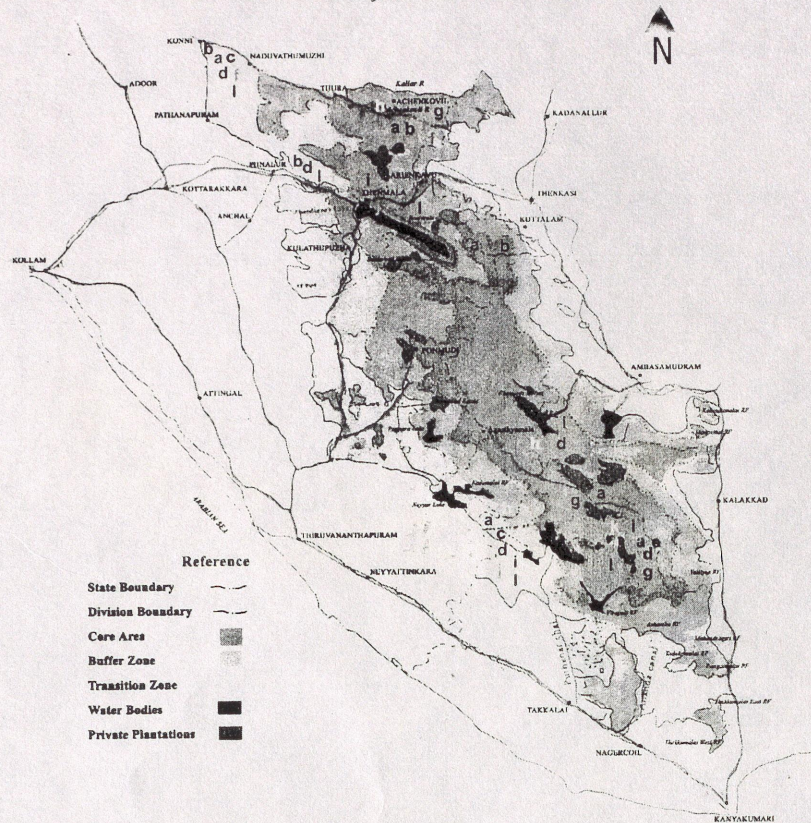
- Lack of status of Demographic details of the area including Socio Economic Features.
- Lack of current census figures of the wild animals in the area including all the Zones.
- Lack of fool proof data of Flora and Fauna of the area.
- Lack of data regarding the critical factors causing the down falling population of wild animals and degradation of Forests.
- Lack of details regarding soil movement, drainage pattern etc.
- Lack of quantification of NWFP harvested and its impact upon the area.
- Lack formulating a proper administrative mechanism.

11. Map showing progressively the activities implemented so far

AGASTHYAMALA BIOSPHERE RESERVE

Scale 1:7,50,000

N - Latitude - 8°25' - 13°00'
E - Longitude - 76°52' - 77°34'



- a: Distribution of Seedling of valuable species.
- b: Supply of Bee- Hives and training in bee keeping.
- c: Supporting Eco-Tourism Activities.
- d: Conducting Medical Camp
- e: Providing Reading Rooms/TV.
- f: Providing Education facility.
- g: Antipoaching Camp Sheds.
- h: Engaging Tribals for protection Activities.
- i: Training to Eco-tourism Concepts to the EDC Members.
- j: Conducting Nature Camps.
- l: Soil and Moisture Conservation .

12. Assessment of Assistance by lead institution.

The lead institution for assisting the Kerala Forest Department in the Agasthyamala Biosphere Reserve is Tropical Botanical Garden and Research Institute, Palode, Thiruvananthapuram.

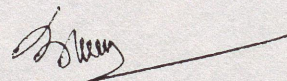
- This institute is the coordinating institute for the Biosphere reserves in the South which shall finalise a full fledged status report of the area in UNESCO format for recognition to be included in the MAB net.
- This institute is having liaison with the Research and Development institutions and in encouraging the research projects which can help the Kerala Forest Department for managing the Biosphere Reserve.
- This institute has done the study on the structure and function of Myristica Swamp which is a unique eco-system of this biosphere reserve.
- This institute has already completed the floral study of Agasthyamalai area.
- This institute has completed the study on assessing quantum of available NWFP in the Agasthyamalai Biosphere Reserve area.
- Also this institute assists in Gene pool conservation along with Kerala Forest Department.

13. Particular Success Stories.

Since Agasthyamalai Biosphere Reserve is at its infant stage, it is very difficult to establish the success stories of the project within this short period of time

14. Suggestions for improvement.

1. Eviction of all the private enclosures from within this Biosphere Reserve and rehabilitation.
2. Habitat Improvement activities for establishment of water sources and fodder availability during the summer.
3. Special protection and preservation of special habitat of the Biosphere Reserve area. The proposal for rationalization of protected areas to be implemented.
4. Develop interpretation centre with interpretation package for the Biosphere Reserve may be developed and implemented.
5. Formulate a separate administrative unit for the area.
6. Insitu conservation of NWFPS and medicinal plants.
7. Identify the areas where corridors can be established and chart out a plan and implement to establish the same.



Director Agasthyamala Biosphere Reserve &
Conservator of Forests (ABP)