PROFILE OF THE STUDY AREA
Tamil Nadu is the southernmost State in the Indian sub-continent. Tamil Nadu covers a little over 1,30,000 sq. kms, representing nearly four per cent of Indian geographical area. The topography of Tamil Nadu consists broadly of the coastal plains of the east, with uplands and hills as one proceeds westwards, with the plains accounting for a little more than half the area of the state. Hills in the Western and Northern portions of the state are constituted respectively by the Western and Eastern Ghats. The famous ranges of the Western Ghats (Sahyadri Hills) run southwards along the whole length of the western border of Tamil Nadu until these terminate at the Cape of Comerin which is the southernmost tip of the state. The Eastern Ghats originate in Orissa passing through Andhra Pradesh State, enter Tamil Nadu and run across the districts of North Arcot, Salem and Coimbatore and finally join the Western Ghats to form the world famous Nilgiris Hills Plateau.

4.1. History

The subject matter of the present work becomes more intelligible only after the historical sketch of the Plateau is reviewed. The British acquired the Nilgiris in 1799 A.D. as a result of their success in the prolonged Mysore wars. This led to the discovery of salubrious climate, patches of evergreen forests, rolling downs, pastures and perennial sources of clear water flowing through the innumerable streams of the Nilgiri hills. The Europeans colonised the hills for nearly one and a half century. The Nilgiris of the twentieth century is quite different from that of the eighteenth century and before, as ocean of changes and quick developments in various fields in the hills took place. The Nilgiris was one of the Europeans’ best choices to stay for rest, recreation and recuperation. They discovered to their surprise a small ‘Patch of England’ within the tropical region of South Asia. During their long sojourn in the Nilgiris from 1820 to 1947, the hills came under their direct influence.
The historians are of the opinion that the Plateau had no place in the ancient period of South Indian history. Their conclusion is that the first reference of the name 'Nilgiri' occurred in the record of Vishnuvardhana (1104-1141 A.D.), a Hoysala king. The name Neelagiri was mentioned in "Silappathigaram" which is a well known Tamil Epic of 3rd century A.D. Its author Elango describes that Chenkuttuvan, a Chera king of post-Sangam period, led an expedition through the Neelagiris and the tribes presented gifts to him at his camp.

Etymologically, the word 'Nilgiris' means Blue Mountains. The name 'Neelagiri' was doubtless suggested by those living in the plains below the Plateau by the blue haze which envelopes the range as is common with most distant hills of considerable evergreen vegetation. Attributing the violent blossom of Strobian-thoses to the blue haze leading to the name 'Neelagiri' may be discounted on the fact that the plants are not so prevalent now-a-days and they blossom at long intervals, i.e., once in 12 years. But the mountains are still looking bluish from the plains.

4.2. Location

The Nilgiris is situated in the north-western corner of Tamil Nadu in Southern India. They are bounded in the North by the State of Karnataka and in the West and South-west by Kerala.

The present administrative district, the Nilgiris, is a plateau of lofty mountains, roughly 55 kms long, 32 kms in width (exactly 2549.38 sq.kms) and 6,500 ft above sea level. On the globe, the hills lie between 11°8' and 11°37' north latitudes, and 76°27' and 77°4' east longitudes. The district has a geographical area of 2,543 sq. kms, constituting above 1.95 per cent of the area of the State of Tamil Nadu.
The abrupt rise of the Nilgiris from the surrounding areas is very striking. Doddabetta (2637 m) is the second highest peak in India, South of Himalayas. Udhagamandalam (Ootacamund), the most popular hill station in Southern India, is situated in a broad undulating valley at the foot of Doddabetta.

4.2.1. Topography

The Nilgiris can be divided into four distinct regions. They are:

1. the Nilgiri plateau situated in the central part,
2. the Sigur plateau lying at the foothills on the northern side,
3. the Nilgiri-Wynad lying on the western side of the above two plateaux, and
4. the outer slopes facing the plains.

4.3. Administrative Set Up

For the purpose of administration, the district has been divided into six taluks namely, Udhagamandalam, Coonoor, Manjur, Kotagiri, Gudalur and Pandalur with the district headquarters at Udhagamandalam. For local administration, the district has two municipalities, four panchayat unions and fifty two revenue villages.5

4.4. Temperature

During the north-east monsoon period, the average temperature ranges between 20° and 28° on the plain and plateau surrounding the Nilgiris. During winter, i.e., November to middle of February, the steep fall will bring the temperature to between 0°C and 7°C, and seldom it falls below 0° and may run to −3°C or −4°C. Hence, there is a vast fluctuation and variation in temperature due to extra tropical thermic season.
The Nilgiris District Map

Karnataka

Wild Life Sanctuary

Mudumalai

Kodai

Coimbatore

India

11.30

11.15

11.30

76.45

77.00

76.45

76.30

World

Tribal Belt

Kerala

Manjur

Ooty

Gudalur

Pandalur
4.5. Geology, Rock and Soil

Geologically, the Nilgiris belongs to the archaean continental land mass of the Indian Peninsula, composed of pre-cambian, mainly metamorphic rocks (gneissies, charnockites and crystalline schists). The soil types commonly found in these hills can roughly be classified into four categories:

i. The black soil which is rich loam,

ii. The brown soil which is clayey loam,

iii. The yellow soil which is a stiff clay, and

iv. The red soil.

The All India Soil and Land Use Survey, carried out by the Central Soil Conservation Board, includes the Nilgiri District in the red and laterite soil regions II and classifies the soil of the plateau as Ootacamund soil series.6

4.6. Climate

The higher regions of the Nilgiris have a tropical montane climate (warm temperature), the low temperature being mainly due to the high altitude. The effect of the monsoonic weather by both South-West and North-East monsoon is very heavy. The Nilgiri-Wynad plateau is warmer than the Nilgiri plateau.7

4.7. Rainfall

From the meteorological point of view, considering upper-aid dynamics and surface winds, weather patterns including rainfall from seasons can be distinguished as follows:

i. the North-East monsoon (from December to March),

ii. the first inter-monsoon (April and May),

iii. the South-West monsoon (from June to September), and

iv. the second inter-monsoon period (October and November).
4.8. Rivers

The Nilgiri plateau is divided by several small perennial streams which join to form six major river systems, viz., Pykara river, Kundha river, Billithada halla, Coonoor river, Sigur river and Kedar halla. The Sigur Plateau is drained by the Sigur halla, Kedar halla and Moyar river. The Nilgiri Wynad Plateau is drained by the Moyar river, Benna halla, Bidar halla and Kukkam halla.\(^8\)

4.9. General Pattern of Vegetation

The vegetation can be broadly divided into four principal groups corresponding to the topographic features. They are:

i. the shola-grassland vegetation of the high plateau of the Nilgiris,

ii. the moist deciduous and dry deciduous and dry tract forests of the Nilgiri-Wynad regions,

iii. the open sandal bearing scrub of Sigur Plateau, and

iv. the forests of the outer slopes showing marked altitudinal zonation from thorny scrub to evergreen forests.

4.10. Forests

The Nilgiri tract was the first choice of the constitution of a biosphere reserve in India in 1956. The total area of the biosphere reserve is around 5,670 sq. kms of which 2,020 sq. kms is the core zone, 2290 sq.kms the manipulation zone (Forestry), 1,330 sq. km manipulation zone (Agriculture) and 30 sq. kms restoration zone which include substantial undisturbed areas of natural vegetation types, viz., dry scrub, dry and moist deciduous, semi-evergreen and wet evergreen forests, evergreen sholas, grassy downs and swamps. The original climate formation of this hill tract known as 'Sholas' are some of the non-renewable natural resources that occur in this area. These have been developed in course of millions of years of evolution.\(^9\)
4.11. Land Utilisation Pattern

In the Nilgiris District, there was a sweeping change in the cropping pattern after the Hill Area Development Programme was introduced. The main emphasis of this programme was to increase the perennial crops to reduce the soil erosion problem and to increase the vegetation cover for the economic development. The Department of Horticulture is preparing viable schemes to introduce and encourage floriculture, fruit bearing perennial crops, mushroom cultivation, etc. Nearly 64.33 per cent and 35.72 per cent area were cultivated for food and non-food crops respectively.

4.11.1. Tea

Tea was grown extensively throughout the district. Of the total cultivated area, tea was grown in nearly 68.56 per cent of the area. As per the recent data available, tea was grown in over 47,923 hectares and the production was around 66,000 tonnes during the year 1996-97. The survey conducted during 1997 by the UPASI revealed that though the small tea growers number more than 20,000, their holdings was less than 40 per cent and the big estates accounted for the balance.

4.11.2. Coffee

Of the total area, coffee was grown in nearly 7,452 hectares and occupied the second position next only to tea in the total area cultivated. 50 per cent of the coffee was grown in Gudalur block. Coffee Board is the sole pooling centre and marketing agency for coffee. The climatic condition of the Gudalur area is ideally suited for coffee cultivation. The Coffee Board was encouraging replanting and new planting to replace the unyielding old plantations. NABARD is actively engaged in developing coffee plantation. It introduced Water Augmentation Scheme in coffee plantation areas in 1999, which is very beneficial to registered small coffee growers.
4.11.3. Paddy

In Gudalur Taluk, paddy was grown in a modest scale. The total area covered by paddy was around 2,000 hectares. In the Nilgiris District, paddy was grown only in Gudalur block. Other than this, ginger, cardamum, garlic, rubber, chinchona and pepper were also grown in a limited scale in Gudalur block. Eucalyptus and geranium were grown substantially in Udhagamandalam block.

4.11.4. Other Vegetable Crops

Potato occupies the third position next to tea and coffee in respect of the total area cultivated. Nearly three-fourths of the total production of potato was from Udhagamandalam Taluk. Though potato occupied the primary position among vegetable crops, the area cultivated was declining steadily due to various factors. Cabbage, carrot, beans, beetroot, radish, and cauliflower are the other vegetables grown largely in this district. Farmers cultivated these vegetables as alternative crops to potato. Fruits are also grown in this district on a limited scale. The area under fruit crops was 1499.4 acres\(^\text{10}\) as per the recent survey. Oranges, jackfruit, plums, peeches, bananas, pear, apples and mangoes were the fruits grown in a limited scale in Nilgiris district.

4.11.5. Mushroom Cultivation

Mushroom cultivation as an activity has been picking up in the Nilgiris in recent years. The climatic conditions of the Nilgiris were most congenial for cultivation of button mushrooms. Ponds India Ltd., has its export oriented mushroom unit in Yellannahalli. There are many small growers also, cultivating button mushroom in the Nilgiris.
4.12. Dairying

Dairy development gained much importance after the introduction of operation flood. Dairying was the main subsidiary activity to most of the small farmers to earn additional income. The activity also assumed great importance in view of the fact that about 87 per cent of the farmers belong to the category of small and marginal farmers with a land holding of less than two hectares. The Nilgiris is suitable for maintaining high quality cow due to its cool climate.

4.13. Fisheries

The cold climate of the Nilgiris district resulted in emergence of an entirely different fisheries when compared to plains. The sources of water are mainly streams and lakes. The temperature of water ranges between 6°C and 20°C and is considered as cold. The present attraction of the Nilgiris district in fisheries sector is 'Trout fishing'. The hatchery at Avalanche which was constructed during 1907 is used for hatching eyed ova of trout every year to replace the stock of trout in the streams. The production of fish per annum was 1,644 tonnes during 1997-98.

4.14. Demography

According to 1991 census, the total population of the Nilgiris district was 7,04,827 - forming about 1.5 per cent of the total population of Tamil Nadu. Thirty- three per cent of the population consisted of Scheduled Castes and Scheduled Tribes. Average annual growth rate of population of this district was 1.89 per cent as against 2.01 per cent in India and 1.62 per cent in Tamil Nadu. Density of population of this district was 272, whereas it was 206 in India and 389 in Tamil Nadu. The number of females per thousand males in this district was 986 while it was 933 in India and 997 in Tamil Nadu.
4.14.1. People

The Nilgiri hills are shared mainly by Badugas, Todas, Kotas, Kurumbas, Paniyas and Irulas. Among the natives, Badugas are the leading singular non-tribal community in number, contributing about 50 per cent to the existing population. They have quickly transformed themselves from semi-pastoral status into producers of commercial crops such as tea, potato and other vegetables introduced by the English. They are classified as backward class community by the Government of Tamil Nadu. The Todas are believed to have enjoyed undisputed rights of the plateau from time immemorial. The Kotas are known as artisans and musicians who until recently were making wood and clay utensils and silver jewels. The Kurumbas were sorcerers and jungle dwellers who lived here in good number at one time. Now they are progressive tribes. They have joined the mainstream and are leading a civilised life. The Paniyas, who are very meagre in number, have never shown interest in civilised life. The Irulas (or the dark ones) from the Tamil word Irul meaning 'darkness' live on the lowest slopes and forests extending from the base of the hills. They await recognition by the other tribes of the Nilgiris.

4.14.2. Education

The Europeans who settled in this district gave the natives the educational facilities. In the course of European interaction with the native communities, the Europeans made them literate communities. Hence, the level of literacy is 69 per cent, which is quiet higher than the Tamil Nadu's average of 40 per cent and India's 48 per cent. There are 412 schools in this district. It includes group tribal residential schools, elementary schools, secondary and higher secondary schools. About 833 teachers are working in this district. The teacher-student ratio in this district comes to 1:49. Nearly three-fourth of the primary and secondary school students are covered by the nutritious meal scheme. There are eight libraries functioning in this district. Under the mass communication programme nearly 328 hamlets are provided with radios and televisions.
4.15. Occupational Pattern

The total workforce of this district was 2.88 lakhs of which a majority are engaged in plantation sector, forestry and other agriculture sectors. The main workforce engaged in trading and commerce was from Coonoor and Udhagamandalam with Coonoor having a lion’s share with 60 per cent of the activities. The Tamil Nadu Tea Plantation Corporation not only helped increase production, but also gave employment to locals, on a large scale. Hence, both male and female work force were employed in the chain of co-operative tea factories situated throughout the district. The workforce was engaged both in agriculture and industry. During the monsoon season the labourers were engaged in tea industry and the same labourers were engaged in tea plantations also during other seasons.

4.16. Industry

The main industry of the Nilgiri district was processing of tea. There are about 122 tea factories spread throughout the district. The coffee produced in the district was cured either at Mettupalayam or Coimbatore. As a vast area was under eucalyptus plantation, the manufacturing of the oil was pursued as a cottage industry. The important factory in the public sector was Hindustan Photo Films Manufacturing Company Ltd., located at Indunagar. Others are Food Specialities Ltd., Protein Products of India Ltd., Needle Industries (India) Pvt. Ltd., etc.\textsuperscript{15}

4.17. Transport

The Nilgiris district has a good network of roads running in all directions connecting various centres of the district. Numerous ghat roads were opened for traffic. The Coonoor ghat road which connected Coonoor and Mettupalayam formed the main communication line from the plains to Udhagamandalam. The Siriyur Ghat road started from northern crest of the plateau and passed through Masinagudi, Theppakadu and joined the
Gudalur-Mysore road. Access to Kerala State on the west was from Gudalur by a State highway passing through Cherambadi. As per the data available, the total length of roads is 1,625 kms. out of which 1,071 kms are surfaced and 554 kms are unsurfaced.\textsuperscript{16}

4.18. Trade, Commerce and Marketing

The chief articles of trade in the district are tea, coffee, potato, vegetables, fruits, timber, eucalyptus oil, garlic and pepper. The products grown here are marketed both at Udhagamandalam and Mettupalayam. Under the governance of Municipalities and Panchayat Unions, a daily vegetable market is functioning to cater to the requirements of the people. Recently, an 'Uzhavar Sandhai' (farmer's market) was started by the Government of Tamil Nadu in Udhagamandalam during the month of April 2000. In this market, the farmers themselves sell their agricultural produce to consumers directly. Because of this market facility, the farmers are getting a reasonable price for their product.

The tribals sold the minor forest products in the village LAMP (Large Agricultural Multi-purpose Society) and if the tribals have a heavy quantity of products, they have to go to the district marketing agency and the regulated market at Ooty and Gudalur, through regular bus services or other vehicles.

4.19. Electrification

It was gratifying to note that all village panchayats are electrified. People are critical about the maintenance of street lights even though a sum of Rs.1,42,458 was billed for this purpose during the year 2000.\textsuperscript{17}

4.20. Hospital

There are seven Government hospitals in this district and eighteen primary health centres located in various Panchayat Unions. Besides, there are eleven maternity centres and thirteen rural dispensaries under the direct control of the Department of Health and
Family Planning, Government of Tamil Nadu. The birth rate was 1.8 per cent in this district whereas the death rate was 1.7 per cent in 1997. The health centre formulated an effective propaganda regarding family planning. Besides, their performance in the public health administration, especially preventive and protection care against major epidemic, was quite satisfactory.  

The first veterinary medical centre was inaugurated in 1961 and covered the entire district. The annual expenditure came to Rs.2,22,443. All the health centres are adequately staffed but there is a need for further improvement in the quality of services rendered to the villages.

The description of the features of the Nilgiris district shows that this district has unique features. By virtue of it being the residence of the Europeans, Indian princess and learned natives and previously the seat of the Madras Presidency Administration set up, the Nilgiris possesses valuable research materials. These research materials helped for the multi-disciplinary research work in this district.
Table 4.1: Land Use Pattern

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Category</th>
<th>Area (in acres)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Total geographical area</td>
<td>623231.00</td>
</tr>
<tr>
<td>2.</td>
<td>Forest</td>
<td>351209.95</td>
</tr>
<tr>
<td>3.</td>
<td>Barren and uncultivable land</td>
<td>7141.75</td>
</tr>
<tr>
<td>4.</td>
<td>Land put to non-agriculture use</td>
<td>20506.50</td>
</tr>
<tr>
<td>5.</td>
<td>Cultivable waste</td>
<td>7482.30</td>
</tr>
<tr>
<td>6.</td>
<td>Permanent pastures and other grazing land</td>
<td>10946.60</td>
</tr>
<tr>
<td>7.</td>
<td>Land under miscellaneous (trees, crops and groves)</td>
<td>5448.80</td>
</tr>
<tr>
<td>8.</td>
<td>Current fallow lands</td>
<td>28599.25</td>
</tr>
<tr>
<td>9.</td>
<td>Other fallow lands</td>
<td>16234.30</td>
</tr>
<tr>
<td>10.</td>
<td>Net area sown</td>
<td>175236.25</td>
</tr>
<tr>
<td>11.</td>
<td>Area sown</td>
<td>4238.50</td>
</tr>
<tr>
<td>12.</td>
<td>Total cropped area</td>
<td>175236.25</td>
</tr>
<tr>
<td>13.</td>
<td>Cropping efficiency</td>
<td>100 per cent</td>
</tr>
</tbody>
</table>

Source: Office of the Assistant Director, Agricultural Department, The Nilgiris District.

*Note: 2.45 acres are equal to one hectare.
Table 4.2: Occupational Pattern (1991)

<table>
<thead>
<tr>
<th>SI. No.</th>
<th>Occupations</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cultivators</td>
<td>95,489</td>
<td>15,310</td>
</tr>
<tr>
<td>2</td>
<td>Agriculture</td>
<td>38,657</td>
<td>34,488</td>
</tr>
<tr>
<td>3</td>
<td>Livestock and other allied activities</td>
<td>1,21,325</td>
<td>42,488</td>
</tr>
<tr>
<td>4</td>
<td>Household industries</td>
<td>48,418</td>
<td>32,126</td>
</tr>
<tr>
<td>5</td>
<td>Other than household industry</td>
<td>30,128</td>
<td>40,218</td>
</tr>
<tr>
<td>6</td>
<td>Construction</td>
<td>50,428</td>
<td>26,175</td>
</tr>
<tr>
<td>7</td>
<td>Transport and storage</td>
<td>9,428</td>
<td>3,728</td>
</tr>
<tr>
<td>8</td>
<td>Trade and commerce</td>
<td>38,268</td>
<td>48,218</td>
</tr>
<tr>
<td>9</td>
<td>Other services</td>
<td>68,428</td>
<td>28,262</td>
</tr>
</tbody>
</table>

NOTES


4. "Neelamalai utchiyile" (in the summit of Nilgiris) Ilango, Silappathigaram, one of the five Tamil Epics belonging to 3rd century A.D., Line 85 Kalkotkathai, Vanji Kandam.


11. Ibid., p.208.


15. Gazetteers of India, op. cit.
