CHAPTER IV

PROFILE OF THE STUDY AREA: OOTY TOWN
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Tamil Nadu is the southern most 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 westward and with the plains accounting for a little more than half of area of the state. Hills in the Western and Northern portions of the state consisted respectively by the Western and Eastern Ghats. The famous ranges of the Western Ghats 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 originates 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.

History of Ooty

The British acquired the Nilgiris in 1799 A.D. as a result of their success in the prolonged Mysore wars.¹ 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 nearly one and a half century ago. 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 European's 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.

Etymologically, the word 'Nilgiris' means Blue Mountains. The name 'Neelagiri' was doubtlessly suggested by those living in the plains below the Plateau by the blue haze which envelops the range as is common with most distance hills of considerable evergreen vegetation. Attributing the violet blossom of strobilanthus (Kurinji) to blue and leading to the name 'Neelagiri' may be discorded 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.

There are different views on the origin of the name Ooty. Price (1908) in his monumental work 'Ootacamund – A History' offers a possible explanation. The first European house 'Stonehouse' was built upon a level site occupied by a single Todahut. In the Toda language, 'Patak' is a level

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spot and 'Mud' is home – the spot was called 'Pathkhmund'. This was mispronounced by the Badaga community as 'Whotaku Mund', 'Mund' being the 'Mud' equivalent in the Badaga language.

Others like Mulley (1993)\(^3\) opine that 'Pathkamund' is a Toda place name for the location of erected funerary stone. This was corrupted to 'Hothegemandu' by the Badagas, and eventually anglicized and corrupted to Ootacamund and finally shortened to Ooty. By a government order in 1979, the name was further changed to 'Udhagamandalam' and locally shortened to Udhagai. But the hill station continues to be referred to as Ooty by the vast majority of people and tourists. Hence the name Ooty is being retained in this study.

**Location**

The Nilgiris is situated in the north-western corner of Tamil Nadu in Southern India. It is bounded in the North by the state of Karnataka and in the west and south-west by Kerala (Fig.4.1). The study area, Ooty town (Udhagamandalam town), is located in the Nilgiri District (11.24'N & 76.44'E) in the state of Tamil Nadu. The present administrative district, the Nilgiris, is a plateau of lofty mountains, roughly 55 Kms long, 32 Kms in width and 6500 ft above sea level. The district has a geographical area of 2,549.38 sq.kms, constituting above 1.95 per cent of the state of Tamil

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Nadu. The district is divided into four taluks – Udhagamandalam, Gudalur, Coonoor and Kotagiri (Fig. 4.2). Ooty town (Udhagamandalam town) is the headquarters of the taluk and of the district.

The abrupt rise of the Nilgiris from the surrounding areas is very striking. Doddabetta (2637m) is the second highest peak in India, south of Himalayas. Udhagamandalam (Ootacamund) is situated in a broad undulating valley at the foot of Doddabetta.

Population

The population of Ooty was 93,921 as per the 2001 census. Population growth of Ooty town for a decade was 14.93%, while for the entire district the growth was 11.85%. The growth of population of Ooty town since 1971 is as follows.

Table 4.1 Population Growth of Ooty Town

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Percent Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>63,310</td>
<td>26.27%</td>
</tr>
<tr>
<td>1981</td>
<td>78,277</td>
<td>23.64%</td>
</tr>
<tr>
<td>1991</td>
<td>81,720</td>
<td>04. 40%</td>
</tr>
<tr>
<td>2001</td>
<td>93,921</td>
<td>14.93%</td>
</tr>
</tbody>
</table>

Source: Census of India.
FIG. 4.1.

LOCATION OF OOTY TOWN

0 0.5 1.0 1.5
KM

REFERENCE
—- Town boundary
—- RAILWAY LINE
—- STATE HIGHWAYS

INDIA
TAMIL NADU
NILGIRIS DISTRICT
 obedient
TAMIL NADU
NILGIRIS DISTRICT

KARNATAKA
KOTAQRI
OOTY TOWN
OUTHAMANAHALAM

THANAL
Kerala
COIMBATORE DISTRICT

DEMAT
DURGA
GUDALUR
THANAL
KUMAR

NILGIRIS DISTRICT
FIG. 4.2

Nilgiris District

Gudalur

Kotagiri

Coonoor

Udhagamandalam
(ooty)
Water Supply

The town has a well established water supply scheme. In 1865 the first systematic water supply was established and water from the southern slopes of the Doddabetta range was brought by aqueduct over the Coonoor road. Table 4.2 shows the reservoirs of Ooty town. All these reservoirs were built between 1870 to 1905. With growing population water supply was improved by providing additional reservoirs at Gorishola, Glenrock and Old Ooty.

Since the water was still insufficient, the Parson’s valley scheme was completed in 1975. Presently 70% of the town’s water supply comes from Parson’s Valley and the rest from other reservoirs.

Table 4.2 Ooty town – Water Supply Sources

<table>
<thead>
<tr>
<th>Name of Reservoir</th>
<th>Capacity in Million Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doddabetta – upper</td>
<td>04.500</td>
</tr>
<tr>
<td>Doddabetta – lower</td>
<td>00.500</td>
</tr>
<tr>
<td>Marlimud</td>
<td>54.500</td>
</tr>
<tr>
<td>Tiger Hill</td>
<td>30.500</td>
</tr>
<tr>
<td>Kodapmund – upper</td>
<td>01.500</td>
</tr>
<tr>
<td>Kodapmund – lower</td>
<td>00.117</td>
</tr>
<tr>
<td>Gorishola</td>
<td>15.000</td>
</tr>
<tr>
<td>Glen Rock</td>
<td>00.012</td>
</tr>
<tr>
<td>Old Ooty</td>
<td>00.096</td>
</tr>
</tbody>
</table>

Source: U.M.C
Environmental set up of Ooty Town

Ooty town area exhibits two landforms – Dodabetta landform and Ooty landform. The Dodabetta landform has many peaks, rocky escarpments, with or without soil cover around which radial drainage pattern is noticed. Dodabetta landforms are found in the Northeastern part of the town. The Ooty landform occurs over the remaining area. Ooty landform shows gentle mounts with thick soil, meandering streams and gentle smoothing of hills.

Ooty is situated in an extensive open valley, almost in the exact centre of the hills. The valley is open to the west, but bounded by four hills in the north, east and south. These hills stretch over a distance of about 3 kms, in a northwestern direction, with the botanical gardens at one end and Ooty Lake at the other.

In the east is Doddabetta (2,637 m), the highest point in the Nilgiris. In the North is Snowdon (2514m), an almost perfect cone, named after the Welsh Peak, which it resembles. Another hill in the north is Club hill (2409 m) and in the south is Elk hill. The basin altogether loses its mountainous rim to the west, where the country is open. Here on the west is Wenlock downs, a wide expanse of undulating grass with wooded streams.
Drainage

At the bottom of the valley, enclosed by the natural theatre of these hills, flows a stream in a wide bog fed by numerous swamps. This stream originates from the Sholas in the Snowdon hill in the North. Numerous rivulets originate in Snowdon and run in a southwestern direction. Numerous rivulets originating in the Doddabetta hills in the East join this stream. These two main streams join near Kelso Bridge, and flow south westward as Ooty Stream. The stream has been divided into 6 reaches by 7 bridges spanning across the stream. The Ooty stream flows through the heart of the town. Tiny streams join it along its course. This stream has now been enclosed by a masonary channel-the kodapmund channel.

Ooty Lake

The waters of the Ooty stream were dammed to form a serpentine Lake. In 1823, John Sullivan, the then collector of the Nilgiris created the Lake by uniting the converging extremities of two hill ranges with a dam. A 40 yard embankment of mud and earth was built to form a long Lake at an elevation of 2168 mts. The surplus water is drawn off by a sluice gate in the western end of the Lake. The stream then continues its course to the north and drains into the Kamaraj Sagar constructed across the Sandynallah river. The Lake is about 3 kms long and 630 mts broad (Fig. 4.3).
The catchment area of this Lake (12.18 sq. kms) forms the core of Ooty town (more than 60% of the municipal area). The original Lake was serpentine Lake. Repeated breaching and silting resulted in a reduction of its size. Originally the Lake extended almost to the fringe of Charring Cross. Now it is limited to the west of the bus stand.

The watershed area of this Lake is the focal point of tourism-related activity.

Soil

The soils are lateritic in origin, derived from charnockites known as Nilgiri gneiss. Climatic conditions favour intense chemical weathering of minerals. The soil is yellowish brown or reddish brown. Sesachalam et al. (1982)\(^4\) note that the Nilgiri soils are non-erodable owing to their lateritic origin, low erosion rate and high percentage of water stable aggregates. Notwithstanding equitable rainfall distribution and non-erodability of soils, the erosion hazards are alarming due to poor agricultural practices and land uses. Land conversions for vegetable cultivation, cultivation on steep slopes, construction activity etc have caused landslides.

Climate

The higher regions of the Nilgiris have a tropical montance 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.

Ooty has a temperate equitable climate Fig 4.4 shows the climatic conditions occurring in Ooty town.

The average summer temperature is 21° c and winter 10 ° c. The prevailing winds are South-West and North-East.

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 (form December to March)

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

iii) the south-west monsoon (from June to September)

iv) the second inter-monsoon period (October and November)
FIG 4.4

Ooty Town Climate 2005

Rainfall in mm

Temperature in °C

January to December

Months

Rainfall

Min

Max
Owing to the open aspect of the country to the west and southwest, the southwest monsoon breaks with greater fury over Ooty than any other station on the plateau.

**Rivers**

The Nilgiri plateau is divided by several small perennial streams which join to form six major river systems, viz., Pykara river, Kunda 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.\(^5\)

**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), 1330 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 sholas, grassy downs and swamps. The original climate formations 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.6

**Land Utilisation Pattern and Crops**

In the Nilgiris District, there is 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 crop respectively.

Tea is grown extensively throughout the district. Of the total cultivated area, tea is grown in nearly 68.56 per cent of the area. As per the recent data available, tea is grown in over 47,923 hectares and the production is around 92,000 tonnes during the year 2000-2001. The survey conducted during 2001 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.

Of the total area, coffee is grown in nearly 7,452 hectares and occupies the second position next only to tea in the total area cultivated.

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Fifty per cent of the coffee is 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 is 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.

In Gudalur Taluk, paddy is grown in a modest scale. The total area covered by paddy is around 2000 hectares. In the Nilgiris District, paddy is grown only in Gudalur block. Other than this, ginger, cardamom, garlic, rubber, chinchona, and pepper are also grown in a limited scale in Gudalur block. Eucalyptus and geranium are grown substantially in Udhagamandalam block.

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 is from Udhagamandalam Taluk. Though potato occupies the primary position among vegetable crops, the area cultivated is declining steadily due to various factors. Cabbage, Carrot, beans, beetroot, radish and cauliflower are the other vegetables grown largely in this district. Farmers cultivate these vegetables as alternative crops to potato. Fruits are also grown in this district.
on a limited scale. The area under fruit crops is 1499.4 acres\(^7\) as per the recent survey. Oranges, jackfruit, plums, peaches, bananas, pear, apples and mangoes are the fruits grown in a limited scale in Nilgiris district.

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

**Dairying**

Dairy development gained much importance after the introduction of operation food. Dairying is the main subsidiary activity to most of the small farmers to earn additional income. The activity also assumes 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 cold climate.

**Road Network**

Ooty is the centre of the road system in the Nilgiris and from it transport lines run to the various ghats leading off the plateau. Of these the

most important is that from Mettupalayam to Coonoor, which was built in 1833 and realigned in 1871. Mettupalayam is a foot hill town to the south east of Ooty. Ooty can be comfortably approached by road from Coimbatore, the nearest city in the plains (90 kms) through Mettupalayam and Coonoor. The ghat road from Kallar near the foothills ascends forested ravines and graceful slopes and passes through Burliar, the toll point. After Burliar, the road follows the deep gorges of the Coonoor and Kateri rivers. Beyond Coonoor the road passes through Ketty Valley and at valley view, the road dips into the amphitheatre of Ooty

From the north of Ooty, the Mysore Ooty road (160 kms) passes through the Mudhumalai wildlife sanctuary. This road reaches Theppakadu at the junction of two roads to Ooty – one a short cut via the steep Sigur Ghats passes through Masinagudi and reaches Ooty. The other road takes an hour longer to reach Ooty via the foothill town of Gudalur. The Kotagiri ghat road from Mettupalayam (30 kms to Kotagiri) is an alternative route in the east.

Within Ooty town, the municipality has 141.59 kms of roads and there is an additional 28.28 kms of state highways within the municipal limits of Ooty. The town is well linked to the plains by a large number of government operated transport buses, though transport within the town is woefully poor. Local transport within town is provided mainly by autos and taxis.
Nilgiri Railway

The Nilgiri railway is a feat of engineering unique in the East. It was in 1876 M. Wriggen Baur, a Swiss Engineer, designed the Nilgiri Mountain Railway. In the beginning his plans were rejected. It was reconsidered in 1882. At last, in 1891, the Governor of Madras Lord Venlock sanctioned the project. It took eight years to complete the line between Mettupalayam and Coonoor. The line was of metre gauge on the ABT system which was an improved rack rails on rigid principles. A special mechanism of rack and pinion system was used to radiant steep gradients. The total distance from Mettupalayam to Ooty was 46 km, of which 19 km was of rack rail. It was commenced on June 15, 1899. The total cost of the project was 75 lakhs.\(^8\)

In January 1903, Indian Government purchased the line and took over the construction of extension from Coonoor to Ooty. The South Indian Railway opened the line from Coonoor to Fernhill on 15th September 1908 and a month later to Ooty.

The fantasy of childhood to venture into a thick and dense forest for the sake of thrill comes true with the Nilgiris Mountain Railway (NMR), the "toy train" of the tourists. It takes people from Mettupalayam in the foothills of the beautiful Nilgiris Mountain to the queen of hill stations, Ooty, atop the mountain by traversing a distance of 45.88 km in around 5 hours. One

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\(^8\) The Hindu. (2000). Madras. 9 December.
tends to get bored at the journey's snail's pace, but the travellers of the NMR like it to be a bit more slow so as to fully enjoy the scenic beauty along the journey that negotiates 208 challenging curves, penetrates into 16 long and eerie tunnels and crosses many bridges over deep ravines and gushing mountain streams moving up and down the hills.

The first stop after Mettupalayam for the train is Kallar from where the mountain range starts. In Kallar, the distinct passage of the plains gives way to mountainous features with dry deciduous forests. Broad-leaved trees are the trade mark of this region upto an area near Ketty. It is about 5,900 ft above mean sea level from where the transition imperceptibly occurs in favour of moist evergreen forests. On the other side of Kallar lies a State-run horticultural farm and a nursery, producing various kinds of fruits and vegetables along with plantation crops, spices and condiments. Temperature falls gradually as the level of the terrain rises. The high-pitched voices of the youngsters while passing into long and dark tunnels get mellowed down to pin drop silence when the train crosses bridges over deep ravines and gorges. Gushing wild waters beneath the bridges make rhythmic sound waves giving a pleasant treat to the ears and eyes. In the Nilgiris, rains frequent the ranges even during the summer keeping the flow of water constant almost the whole year. The South West Monsoon lashes the terrain with torrential rains from June through September and during October and November the inter-monsoon brings significant rainfall. Many seasonal
waterfalls also tempt the travellers. As the train approaches Ketty, tea plantations with their soothing green cover appear beneath the blue haze formed by the mist. The area appears as a conglomeration of different successive towers wearing greenish caps. An optimal distribution of rain enables the enterprising farmers of the district to produce tea throughout the year.

After another half-an-hour journey, the famous shola system of forests that is a combination of shrubs and herbs and low-lying plants along with taller trees creeps in. It is a cool, dark temperate zone. It lies between 5,900 ft and 6,600 ft. Coonoor, a major station in this stretch, is located here. Nearby Coonoor are the well renowned Defense Services Staff College and the headquarters of the Madras Regimental Centre, Wellington. A little way up, the savanna type grasslands begin where carrot, beans, cabbage, beetroot and similar other varieties of vegetables are cultivated. The final destination of the train is Ooty.

The marvellous features of this 103 years old railway that brings people up to 7,500 ft above mean sea level to the junction of the Eastern and the Western Ghats have motivated the Ministry of Railways to get the world heritage status for it from UNESCO. It has the distinction of having the only rack and pinion system of rail tracks in the entire Asia. It prevents the 'toy train' from slipping down while moving up against the downward pull of the
gravitational force. It may amuse the tourists to notice a railman in each of
the wagons and coaches of the NMR independently operating hand brakes
and rack brakes by following the whistle codes of the driver of the train.
Travellers compare the NMR to the Alps Mountain Railway system in
Switzerland.