Chapter - III

Geographical Features of Tamil Nadu

*India is a country with too many people, too many animals, too many customs, too many gods and too much of everything.*

- African scholar

The attractions of tourism are geographical in their character to a very large extent. Location and accessibility are important for tourism. A site may be of coastal or inland, physical features holds a significance as the place may be beautiful hillocks, waterfalls, forest or grassy land. Scenery or water or the vegetal cover, produce an aesthetic and recreative effect. Climatic conditions as related to sunshine, temperature and precipitation are of special significance. Animal life including bird-watching, viewing game in their habitat, fishing and hunting may be an important attraction for the tourists. Further, the cultural landscape on the earth like settlement, historical monuments and archaeological remains is also a major attraction. Besides, a variety of social and cultural characteristics like, ways of life, folklore, artistic expressions etc may also be a valuable attraction to many visitors. India is gifted with all geographical components of tourism.

India is one of the oldest civilizations with a kaleidoscopic variety and rich cultural heritage. It has achieved multifaceted socio-economic progress since independence. India is a land of lofty mountains and mighty rivers in the world, rich in scenic grandeur and the panorama of contrasting landscapes at different stages of evolution. The location of India in the southern peninsula of the Asian continent and the triangular shape tapering southwards to the Indian Ocean gives it a distinctive character both physical and cultural. ¹

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India is a vast country with an average area of 3,287,263 sq.km. It is the seventh largest country in the world. It is situated in the Northern hemisphere and the mainland extends between latitudes 8°4’ and 37°6’ N, longitudes 68°7’ and 97°25’ E. It measures about 3214 km from north to south and 2933 km from east to west. It has a land frontier of 15,200 km². The total coastline of the mainland, Lakshadweep Islands, Andaman and Nicobar Islands is 7,516.6 km.³

The countries having a common border with India are Afghanistan and Pakistan to north-west, China, Bhutan and Nepal to north, Myanmar to east and Bangladesh to east of West Bengal. Sri Lanka is separated from India by a narrow channel of sea formed by the Palk Strait and the Gulf of Mannar.

The mainland of India comprises of four regions, namely, the great mountain zone, plains of the Ganga and the Indus, the desert region and the southern peninsula. The Himalayas comprise three parallel ranges interspersed with large plateaus and valleys, some of which, like Kashmir and Kullu Valleys are fertile, extensive and of great scenic beauty. Some of the highest peaks in the world are found in these ranges.⁴

The Himalayas, the highest mountain system of the world, contain most of the world’s ‘eight thousand’ peaks, they are the world’s youngest and longest east-west mountain system extending almost uninterruptedly for a distance of 2,500 km and covering about 500,000 sq.km.⁵

The plains of the Ganga and the Indus, about 2,400 km long and 240 to 320 km broad, are formed by basins of three distinct river systems - the Indus, the Ganga and the

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² Asaf Iqbal Fazili and S.Husain Ashraf, *Tourism in India, Planning and Development*, New Delhi, 2006, p.34.
⁴ Ibid.,
⁵ *The Gazetteer of India – Country and People*, op.cit., p.3.
Brahmaputra. They are one of the world’s greatest stretchers of flat alluvium and also one of the most densely populated areas on the earth. The desert region can be divided into two parts; the great desert and the little desert. The great desert extends from the edge of the Rann of Katch beyond the Luni river north-wards. The little desert extends from the Luni between Jaisalmer and Jodhpur.

The peninsula plateau is marked-off from the plains, Ganga and the Indus by the mass of mountain and hill ranges varying from 460 to 1,220 metres in height. The peninsula is flanked on the one side by the Eastern Ghats where average elevation is about 610 metres and on the other by the Western Ghats where it is generally from 915 to 1,220 metres, rising in places to over 2,440 metres. Between the Western Ghats and the Arabian sea lies a narrow coastal strip, while between the Eastern Ghats and to Bay of Bengal there is a broader coastal area. The southern point of the plateau is formed by the Nilgiri Hills where the Eastern and the Western Ghats meet.6

India is a rich country, in terms of natural resources and manpower. The oldest civilization has a rich cultural and historical part. It is gifted with rich and varied flora and their faunal associates. It has everything that is known to attract tourists around the world. All the major landforms, hills, mountains, plateaus and plains are well represented in India. Its resource potential in terms of tourism is so rich that it attracts all kinds of tourists with varying degrees of motivations. The geographical location and the big size of the country make it round the tourist destination.

**The Ghats:**

(Etymologically, a pass through a mountain or landing stairs from a river).

The triangular table - land of Southern India is flanked and upheld by two ranges of mountains, which run roughly parallel to its eastern and western seaboard and eventually meet in the high plateau of the Nilgiris. These are known by the generic names of the Eastern and Western Ghats.

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The Eastern Ghats:

The Eastern Ghats are a disjointed line of small confused ranges which begin in Orissa, pass into Ganjam and run through a greater or less extent of all districts which lie between Ganjam and the Nilgiri plateau. The Eastern Ghats of India constitute one of the richest, but least explored biotic regions of the country. It occupies an area of 131,706 km², of which 31,430 km² is forested. They are about 2000 feet in elevation on an average and their highest peaks are less than 6000 feet. In Ganjam and Vizagapatnam, they run close to the shore of the Bay of Bengal. To the west of them, lies a level upland plain, averaging 1000 to 2000 feet in height, one section of which is known as the Deccan. The rivers which drain to interior of the peninsula enter the Bay of Bengal, cutting through the discontinuous structure of the Eastern Ghats from the great deltas along the east coast.

The Western Ghats: (The Hills of the West)

The Western Ghats, also known in Sanskrit as Sahyadris, extend about 1600 km starting in the north from Tapti river and going down to Kanyakumari in the south. These ranges run parallel to the west coast hardly 40 kms away on the average from the shore line. The Sahyadri or the Western Ghats has been called, ‘the girdle of the earth’. In terms of geological age, they are much older than the Himalayas. They were formed about 125 million years age. The range is next to the Himalayas on the Indian sub-continent and represents the tropical humid area rich in biodiversity.

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The Western Ghats are a home to number of tribal groups. The hills are covered with tropical and temperate evergreen forest and mixed deciduous forest and are the source of all major rivers in South India, including Kaveri and Krishna. They also form a diverse biological and ecological haven with 27% of all India’s flowering plants, 60% of all medicinal plants and an incredible array of endemic wildlife.\textsuperscript{14}

The gigantic Western Ghats of peninsular India are one among the 18 hot spots of the world selected for biodiversity conservation. This speaks amply about the richness and importance of Western Ghats which lost the phenomenal extent of faunal and floral species. These envious, enchanting hill ranges is 1500 meters from above sea level. They are the main watersheds in peninsular India from where all the principal rivers namely Godavari, Krishna and Cauvery originate and flow east and then join Bay of Bengal. A large number of short perennial torrential west flowing rivers also originate from them and join Arabian Sea. Garlanded by the Arabian Sea in the west, delimited by Vindhya and Satpura ranges in the north and protected by Deccan plateau in the east, the Western Ghats are thus isolated and insulated. The average temperature in summer is about 30°C. The difference between the average summer and winter temperature in the Ghat ranges is around 10°C. The hot and humid tropical climate complimented by heavy precipitation from south west monsoon, coupled with favourable edaphic factors, create an ideal condition for the luxuriant growth of plant life which can be seen only in few parts of the world. If undisturbed, the rich plant life reaches the climatic climax like the tropical wet evergreen forests of local, national and global importance.\textsuperscript{15}

The Western Ghats is an extensive region spanning over five states, (Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu) 44 districts and 142 taluks.\textsuperscript{16} It stretches from

\begin{itemize}
\item \textsuperscript{14} Sarina Singh \textit{etc.}, \textit{India}, Melbourne, Oakland, London & Paris, p.1019.
\item \textsuperscript{15} D.N.Tewari, \textit{Western Ghats Eco System}, India Council of Forestry Research, Dehra Dun, 1995, p.1.
\item \textsuperscript{16} \textit{The Hindu}, 26th December 2011.
\end{itemize}
north of Mumbai, across Maharashtra, Goa, Karnataka and Kerala to the southern most tip of Tamil Nadu.\textsuperscript{17} It has 8 natural parks and 39 wildlife sanctuaries.\textsuperscript{18} It has been declared as World Heritage Site by UNESCO and it happens to be one of the eight hottest hotspots of biological diversity in the world.\textsuperscript{19} The Western Ghats is a precious gift of nature-priceless, because the well being of the centre southern peninsula hinges on the ecological stability of these mountains.

**Geographical Features of Tamil Nadu:**

In the extreme south of India, is situated one of the country’s important state, namely Tamil Nadu, which is steeped in antiquity and history. The visual legacy of the culture of Tamil Nadu is among the most satisfying spectacles in India. The physical features of Tamil Nadu are astoundingly varied and diverse.

Tamil Nadu is no less rich in natural beauty, the three seas meet at Kanyakumari, (Cape Comorin) where gorgeous sun rises and sun sets are a daily spectacles placed in the thickly wooded vicinity of the Periyar Sanctuary. The spray-filled ravine of the Kuttralam waterfalls near Tenkasi, the famed Nilgiris (Blue Mountain) and Palani Hills all have a charm that is entirely their own.\textsuperscript{20}

Tamil Nadu extends between $8^\circ 04'$ N latitude and $78^\circ 0$ E longitude. Geographically, it is situated on the eastern side of the Indian peninsula between the northern latitude of $8^\circ 5'$ and $13^\circ 35'$ and the eastern longitude of $76^\circ 15'$ and $80^\circ 20'$.\textsuperscript{21}

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17. Sarina Singh, op.cit., p.1019. \\
19. *The Times of India*, 2\textsuperscript{nd} July 2012. \\
20. Samuel Israel and Bikram Grewal (ed.), *India*, Singapore, 1989, p.239. \\
\end{flushright}
It is bordered on the north by Andhra Pradesh and Karnataka and on the west by Kerala. It has the Bay of Bengal, the Coromandal Coast on its east and the Indian Ocean on its south. The Palk Strait and the Gulf of Mannar which separate India from Sri Lanka are the southern boundaries of Tamil Nadu.22

Tamil Nadu ranks eleventh among the states of India in size with an area of 1,30,058 sq.km, thus constituting 4% of the land area of the country. It has a long coastline of about 1000 km, which accounts for about 12% of the entire coastline of India. The state is broadly divided into two broad natural regions the coastal plains and hilly western area.23

Tamil Nadu is bounded on the north by the southern limb of the Eastern Ghats, on the west by the lofty backbone of the Sahyadri chain. The land grades steadily from west to east. Two hill stations, Ootacmund (Ooty) and Kodaikanal, rising to over 8,200 ft (2500 metres) in the Nilgiri and Palani Hills respectively, have a salubrious climate in contrast to the sub-tropical humid summer in the plains.24

Climate:

Tamil Nadu has an equatorial tropical climate in the inland and an equatorial maritime climate in its coastal regions. By and large, the average temperature for most parts of the state ranges between 28°C to 40°C in summer and between 18°C to 26°C in the short lived winter season.25


24. Samuel Israel and Bikram Grewal, op.cit., p.239.

The state is dependent heavily on monsoon rains and thereby, it is prone to droughts when the monsoon fails. The state has 3 distinct periods of rainfall.

- advancing monsoon period, south – west monsoons (from June to September) with strong south west winds.
- north east monsoon (from October to December) with dominant north – east winds
- dry season (from January to May).

The normal rainfall of the state is about 945mm (37.2m) of which 48% is through the north east monsoon and 32% through the south west monsoon.26

**Rivers:**

The state has a number of rivers all flowing from the west to east towards the Bay of Bengal. The perennial river of the state is the Cauveri which originates in Coorg in Karnataka. The fertile Coromandal plains are irrigated by the Cauveri and its delta in Thanjavur. The Cauveri, Pennar and Tamraparani rivers change Tamil Nadu’s agrarian prosperity.27

**Forests:**

Forest has been a source of life on the planet since early times. Most human needs were inconsistently met out by forest. It is the forest that taught human the resource management for sustained productivity and consumption.28 Foresting is over 150 years in the country. Forest in India has witnessed phases of development under the Muhammadan, British rule and after independence.29

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Forests are renewable source and contribute substantially to economic development. They play a major role in enhancing the quality of environment. India has an area of 752.3 lakh hectare notified as forests. Of this, 406.1 lakh hectare area is classified as reserves and 215.1 lakh hectare as protected. Unclassified forest area is spread over 131.1 lakh hectare. About 19.47% of the total geographical area is under actual forest cover.30

Tamil Nadu has a total extent of 22,520 sq km of forests.31 The state has got various forest types and is characterised by diverse flora and associated fauna. The new millennium witnessed addition of more areas to protected area network and introduction of landscape based approach for wildlife conservation, particularly for elephant and tigers, 20% of the total extent of forest area is under Protection Area Management.32

Tamil Nadu ranks first among the states in the country with 5640 plant species. The Western Ghats is one of 25 global hotspots and one of the 3 mega centers of biodiversity in India. The forests of Kanyakumari, Kalakadu Mundanthurai Tiger Reserve. Kodaikanal, Anamalais, Mudumalais, Mukkurthi, Srivilliputhur owe their richness in flora and fauna due to their position in the Western Ghats.33 It ranks first in angiosperm diversity among all the states in the country with 5640 species (32%) of the total of 17,672 species.34 It has 2 Biosphere Reserves namely Gulf of Mannar and Nilgiris.35

33. Policy Note 2008-2009, Demand Note:15, Environment and Forest Department, Tamil Nadu, p.2.
34. B.C. Bhatt (ed.) op.cit., p.31.
The Ghats:

The Eastern and the Western Ghats meet in Tamil Nadu and run along the state’s eastern and western borders. In recent times, the Western Ghats is under tremendous biotic pressure due to increased urbanization and industrialization all along the periphery. Hence, the need was felt by Forest Department in restoring the ecology and environment of Western Ghats during the last decade and the Planning Commission introduced a special scheme called the Western Ghats Development Programme (WGDP) for the development of the hill region during the five year plan with main objectives of Eco-development, Eco-restoration, Eco-awareness, Tribal Welfare and Eco-stabilization. The following activities are carried out by Tamil Nadu Forest Department in the Western region of Tamil Nadu.

Eco-development:

In this component, degraded forest areas in the districts are to be planted with suitable species under life support scheme. Rivulets supplying water to villages, settlements are to be identified and their catchments are planted to improve the vegetal cover and sustain the life support system.

Eco – restoration:

Under this scheme, the degraded and denuded hills of Western Ghats are being afforested and protected. The main works being undertaken are the provision of chainlink fencing and closing the area for grazing, construction of percolation ponds and other water harvesting structures.

Eco-stabilization:

To relieve the grazing pressure on reserve forest, fodder plots are being raised and cattle management centres are being established to supply free fodder, water and medicines for common ailments. Planting in urban areas are being carried to improve the landscapes of the cities and town.
Eco – awareness:

Under this scheme, the awareness among common masses regarding importance of ecology is sought to be generated. The Department plans to have street plays, audio – visual shows, formation of nature traits and provide facilities to trekkers to promote the spirit of adventure among young people.

Nilgiri Biosphere Reserve:

The Nilgiri Biosphere Reserve was the first Biosphere Reserve set up in India, in the year 1986 and it covers a total area of 5520 sq. km straddling the Western Ghats in Kerala, Karnataka and Tamil Nadu, mostly around the Nilgiris. Some of the valuable benchmark areas in the Southern Western Ghats in particular in the area adjacent to the Palghat gap and Nilgiris Western slope are incorporated in the Biosphere Reserve. The Palamala – Siruvani hills forests, the New Amarambalam Reserve and forests of the Camel’s Hump Mountains are among these. In Tamil Nadu about 6767 sq. kms forest areas falls in Tamil Nadu Western Ghats region.36

Hill stations:

Majority of the hill stations in India were created by the British during the 19th century. The important hill stations of the Western Ghats are Ponmudi, Munnar, Nelliampathis, Udhagamandalam, Kodaikanal, Coorg, Kudremukh, Mahabaleshwar, Matheran and few other places of local importance.37

Tamil Nadu is famous for having the most beautiful hill stations of the country. Udhagamandalam, the chief hill station of Tamil Nadu is popularly called ‘Ooty’ is described as the ‘Queen of the Hill Stations’. Kodaikanal, a popular hill station referred as the ‘Princess of Hill Stations’ is located amidst the folds of the verdant Palani

Hills. Yercaud also called as ‘Ooty of the Poor’ is known for coffee plantation and orange groves.\textsuperscript{38}

The hill stations of western Tamil Nadu are the Kodaikanal hills, Nilgiris, Anaimalai Hills, Palani Hills and Thirumoorthy hills. Kodaikanal and Udhagamandalam also known as Ootacamund are higher than almost any other hill stations save a few in the Himalayas and have a climate almost European in coolness and damp.\textsuperscript{39}

From Western Tamil Nadu with Coimbatore as a base, there are many hill stations, like Ooty in the Nilgiris district is 89 km and Coonoor is 75 km from Coimbatore. Valparai, one of the popular hill station, is 100 km from Coimbatore, located on the Western Ghats. The Kodaikanal hill station is 250 km from Coimbatore. It is also located on the Western Ghats in Dindugal district, known for less pollution. From north Tamil Nadu with Chennai as the base, Yelagiri hill is one of popular hill stations known for salubrious climate. It is located at a distance of 200 km in Vellore district. In central Tamil Nadu, the Kolli hills with Kollimalai town is located on the Eastern Ghats in the Namakkal district, at a distance of 150 km from Trichy and 100 km from Salem. It is a developing hill station famous for spices, nuts and herbs. Yercaud is located on the Eastern Ghats in Salem district at a distance of 28 km from Salem.\textsuperscript{40}

Western Tamil Nadu is a region that extends from Hosur and borders Karnataka to Coimbatore which neighbours Kerala.\textsuperscript{41} Tamil Nadu comprises of 32 districts, among these, Coimbatore, Nilgiris, Erode and Tiruppur are located in the Western part of Tamil Nadu. The study focuses on eco-tourism development in Western Tamil Nadu with special reference to Coimbatore and Nilgiris districts.

\textsuperscript{38} M. Sudhakar Rao, V. Raghavendra Reddy, op.cit., p.84.
\textsuperscript{39} Mohan Pai, op.cit., p.4.
\textsuperscript{40} Tamil Nadu Tourism, \textit{Enchanting Tamil Nadu, Brand India 2007}, Department of Tourism, Government of Tamil Nadu, Chennai.
\textsuperscript{41} \textit{The Hindu}, 23\textsuperscript{rd} April 2011.
Thus, Tamil Nadu possesses some nature’s air conditioners in all directions which are prime attraction for tourists. The rich cultural heritage, wildlife sanctuaries, forests to semi-landscapes invite tourists every year to enjoy and experience the holistic feeling of having been in Tamil Nadu.