COCHIN CITY PROFILE

1. Location and Regional Setting

Cochin City is in the Ernakulam District of Kerala, the state formed by the merger of the former kingdoms of Travancore, Cochin and Malabar (which was a part of the Madras Presidency under the British). This is the second most important port city in the western coast of India and is the commercial capital of the State. The city is located in Ernakulam District, between 76° 14’ and 76° 21’ East longitude and 9° 52’ and 10° 1’ North Latitude. The District is bounded on the north by Thrissur District, on the east by Idukki District and on the south by Kottayam and Alappuzha (Aleppey) districts. The Arabian Sea envelops the city all along the western boundary. It lies barely 2 meters above sea level.

Accessibility

The city is accessible by the National Highway 47 which links the city to Thrissur in the North and Alleppey in the South. National Highway 17 also links the city.

Regional Setting

The Cochin Corporation falls within the Greater Cochin Region which comprises 6 municipalities of Kalamasseri, Angamaly, Aluva, Paravoor, Perumbavoor and Thripunithura and 33 panchayats (Ref annexure for list of panchayat) spread over an area of 732 sqkm. (Insert Regional Plan) The municipalities within the region are mostly Class II towns having populations of less than a lakh, Cochin is the only Class I town in the entire region which explains the regional dynamics by itself.
Geographical Features

Contours
The geography of the region mainly consists of lowland along the seaboard and the city lies barely 2 meters above the sea level. Much of the area is ‘plain’ land having natural facilities of drainage via backwaters, canals and rivers. Cochin Taluk is divided into two blocks by the Cochin Azhi (backwaters), viz. Vypeen Kara on the Northern side and Fort Cochin to Chellnam on the southern sides.

Sea Coast
Cochin has about 48 km of seacoast making the Cochin Harbour, a major natural harbour. The backwaters in the Cochin and Kanayannur Taluks are dotted with small islands, the main ones being Willingdon, Vypeen Ramanthuruth, Ponjikkara (Bolgatty Island), Vallarpadam, Kumbalam, and Cheranelur etc. Most of these islands are very small, varying in extent from 10 sq km to less than 3 sq km and are favorably fertile for the luxuriant growth of coconut palms.

Rivers and Lakes
The main rivers in this area are the Periyar and Muvattupuzha. The Periyar Rivers serves Cochin Corporation and a number of nearby municipalities. In the rainy season the water level in the Muvattupuzha River rises 25 – 30 feet in certain areas, but in the summer season there is barely a foot of water on some places.

The Chithrapuzha and the Vembanad Lake mainly drain Kochi Corporation. The Chithrapuzha originates from the eastern hills and joins Vembanad lake.

Flora
The flora is characteristically tropical. The heavy rainfall combined with moderate temperature and fertile soil support luxuriant vegetation.

The common plants found in the lowland coastal area that forms a somewhat narrow belt are Launaea, Portulaca, Hydrocotyle, Spinifex, Lippia, Moniera, Cynodon, Digitari, Cyperus etc. Coconut is extensively cultivated.
Geomorphology

The corporation of Kochi is located on the coastal plain of the Kerala state, on the west coast of India. The corporation area is underlain by unconsolidated alluvium of recent age, consisting of clays and sands. It includes sediments of backwaters and lagoon deposits consisting of black clay of fine to medium grained, poorly sorted quartz sands and silts. Recent alluvium deposits lie below the tertiary formation.

2. Brief History of Development of Town

Cochin Corporation- History and Background

The Corporation of Cochin is the largest municipal corporation in Kerala both in area and population. The Corporation has a harbor, railway junction, international airport, the Naval Base and various industries in its command area and its peripheries.

The History of the Corporation dates back to the second half of the 19th century. Fort Cochin, Mattancherry and Ernakulam were the three Municipalities, which were in existence then in Cochin area. Fort Cochin became a Municipality on the 1st of November 1866.

In 1896 the Maharaja of Cochin formed sanitary boards separately for Mattancherry and Ernakulam and thus local administration came into existence in these places for the first time. The Government provided funds for the functioning of the boards. The town councils of Mattancherry and Ernakulam were formed as per the above regulation. In 1956 the Elamkulam panchayat and a portion of Cheranelloor panchayat (Pachalam – Vaduthala) were amalgamated to the Ernakulam Municipality. In 1962 a portion of Palluruthy panchayat (Mundamveli area) was amalgamated to the then Mattancherry municipality.
Edappally panchyat was formed in 1946 and Palluruthy and Vyttiila in 1953. In 1952 the then Edappally panchayat was bifurcated and a new panchayat, Vennala was formed.

On the 1st July 1967, the Kerala Assembly approved the formation of Cochin Corporation. Subsequently, Govt. of Kerala notified the formation of the Corporation of Cochin by amalgamating the three ancient Municipalities of the state, viz. Ernakulam, Mattancherry and Fort Cochin, the Willingdon Island and four panchayats viz. Palluruthy, Vennala, Vytiila and Edappally and the small islands of Gundu deepu and Ramanthuruth. The new entity was to have an area of 83.524 sq.km. Newborn Corporation came into existence on 1.11.1967.

According to the 2001 census, Cochin Corporation has 600,000 residents. The city’s estimated density in 1996 was 6250 persons per square kilometer. The total area of the main part of the city is 94.88 sq.km.
Chart 2.1- Milestones in the Evolution of Cochin Corporation

- 1866 - Fort Kochi becomes a Municipality
- 1896 - Maharaja of Cochin formed sanitary boards for Mattancherry and Ernakulam
- Town Councils of Mattancherry and Ernakulam formed
- The provisions of Madras Town Planning Act 1920 Were applicable to Fort Cochin and the Travancore Town Planning Regulations 1108 (M.E) i.e., 1932 were made applicable to Mattanchery and Ernakulam.
- 1st July 1967, Kerala Assembly approved the formation of Cochin municipality.
- 1.11.1967 - Corporation of Cochin was formed.
**Evolution of the Region and Earlier Planning Efforts**

Consequent to the establishment of the Cochin Corporation, The Dept of Planning brought out an Interim Development Plan for the urban hinter land of Cochin Port, delineating Cochin region.

The Region was initially delineated based on the study of the urban core of the city which comprised of Ernakulam, Mattanchery and Fort Cochin the Cochin Region to comprise the Central City (Ernakulam, Mattanchery, Fort Kochi, Portions of Maradu, Mulavukad and Cheranellur) 3 Municipal Towns (Aluva, Paravoor and Perumbavoor) and 51 panchayats.

**Fig Cochin Region as Delineated in The Interim Development Plan**

An outline development plan for this region was worked out, which included an outline communication pattern with the requirement of water and power for this region also worked out.

An outline Development Plan for the Central City was also prepared. This central city covered the present Cochin corporation area, a portion of Maradu...
panchayat, Cheranallur panchayat and Mulavukad panchayat. Considering the importance of Thrakkakara and Kalamassery areas, separate plan for township was also evolved.

Similarly outline development plans for townships at Ambalamugal and Eloor were prepared and an indication for development of the rural areas of the region was given.

Cochin Town Planning Trust set up in 1968 to implement proposals in the Interim Plan and to take up area development schemes in the priority areas. The Trust notified detailed Town Planning Schemes in different sectors of development along with zoning regulations. This was the first organized effort in guiding the planned growth of the city by enforcing zoning regulations.

The Interim Development Plan was also updated in the light of further analysis and growth trends delineating the Greater Cochin region in a scientific manner.

The regional development plan for the designated greater Cochin region was a policy document indicating the concept of growth of the region with a central city, secondary urban centres and peripheral belt of planned panchayats.

The regional development plan necessitated preparation of a master plan for the central city and separate plans for other urban centers. The Greater Cochin Development Authority was constituted at the same period with jurisdiction over the entire region to evolve long term programs, to identify strategic areas of development and to evolve short-term action plans.

About 30 DTP schemes are at various stages of implementation by GCDA. Based on the concept in the development plan, GCDA also evolved a Structural Plan for the central city in consultation with the Town Planning Department.
As part of the Structure Plan a Central City was delineated after detailed analysis in 1980’s considering the growth trends, potential for concentrated development and contiguity to the Corporation.

The concept was that the corporation limit would be extended up to the central city boundary to ensure development as envisaged. The central city thus covered Cochin city, Municipal areas of Thripunithara and Kalamassery and panchayats of Varapuzha, Eloor, Thrikkakara, Thiruvankulam, Maradu, Mulavukadu, Cheraanallur, Kadamakudy, Elamkunnapuzha and Njarakkal.

*Fig. Central City as delineated in The Interim Development Plan*

The Structure Plan exercise involved

- Division of the entire city fabric into different density zones.
- Working out zoning regulations for different density classes.
- Working out Space standards for community facilities, roads, work centres and commercial sub centres for the projected population.
- Earmarking land for these facilities in the plan.
Working out detailed traffic network and accessibility patterns

The plan for traffic network envisaged direct connection between the city and the major growth centres through 8 radial roads and three ring roads. To achieve interconnection between these and to ensure accessibility, a system of secondary road network was envisaged linking radial and ring roads. The transport terminal facilities in all modes of transport were also indicated. A proposed land use map indicating the above was prepared.

A set of zoning regulations and planning parameters were brought out as part of this plan and the plan was sanctioned by government.

Once the implementation was started after obtaining Government sanctions in 1991, lots of objections began to be raised.

The plan could be enforced only in 70% of the area covered in the plan as there was no machinery for scrutinizing applications with reference to the plans in other local bodies.

3. Climate

The region has a tropical humid climate, with summer season from March to May followed by the South-West Monsoon season from June to September and the North-East Monsoon from October to November/mid December. The period from December to February is generally dry.

Rainfall

The average annual rainfall is 3431.8mm. The rainfall increases from the coast towards the interior. The South-West Monsoon generally sets in during the last week of May or first week of June. The rainfall in the South West Monsoon months of June to September constitutes about 68% of the annual rainfall. June and July are the rainiest months when 45% of the annual rainfall is received. The rainfall gradually decreases after July and picks up again by the end of September/early October, when the North – East Monsoon sets in.
**Temperature, Winds and Humidity**

Temperatures begin increasing after February. March and April are generally the hottest months. In the interiors the day temperature may be a little higher than the coastal region. The relative humidity is generally over 90%.

In the South-West Monsoon season the winds are mainly Westerly or North-Easterly. During the rest of the year winds is North-Easterly in the morning and from between South-West and North-West in the afternoon.