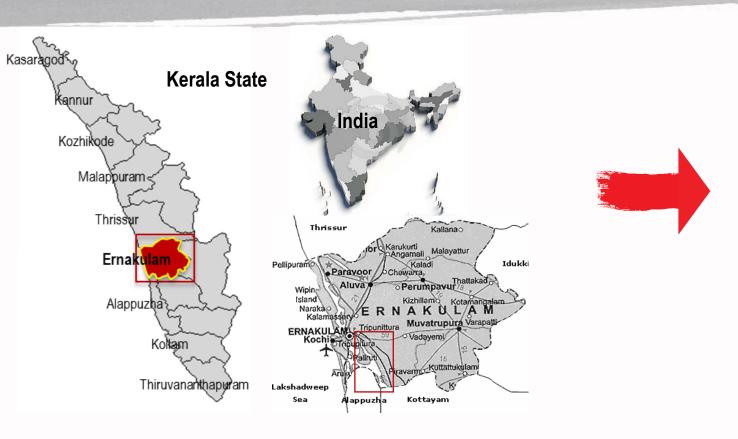
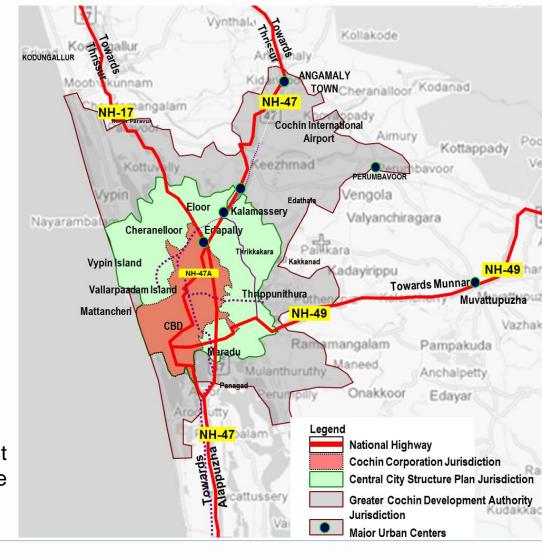
Location Context



Kochi, also known an Cochin is the major port city on the south-west coast of India. Kochi is a part of Ernakulam district in the state of Kerala and is the most densely populated city in Kerala.





Regional Context- Good Governance, Law & Order

Parameters	Details	Growth Rate
Kerala State - Gross State Domestic Product (GSDP)- at constant prices (2011-12)	INR 55,941,196 Lakhs - 2018- 19 (Q)	*7.5%
Kerala State - Per Capita Income - at constant prices (2011-12)	INR 148,078 - 2018-19 (Q)	**7.0%
Kochi - Gross State Value Added at Basic Price- at constant prices (2011-12)	INR 6,269,955 Lakhs	7.72%
Kochi - Per Capita Income - at constant prices (2011-12)	*INR 183,258	***7.9%

^{*}National growth rate is 6.6%

Source: Volume-1, Government of Kerala Economic Review- 2019, Kerala State Planning Board



*Kerala, tops in good governance registering growth index of 1.308

Source: Index for the country released by Public Affairs Centre, an NGO in Bangalore.



Kochi City sectoral share is just 3.2% (**5050 No.-IPC & SLL Cases) of Kerala state, with decreasing crime rate of (-) 3.3 % (CAGR- from 2016-2019).

Source: Crime Records bureau- 2019. Kerala



Kochi City average is literacy rate 96.29%, more than the Kerala State urban literacy rate (95.11%)

Kerala as a whole is multi linguistic in nature and speak English, Malayalam, Hindi and Tamil etc. of which English is widely instructed in most of the schools.



^{**} National average (for 2018-19) is INR 93,655

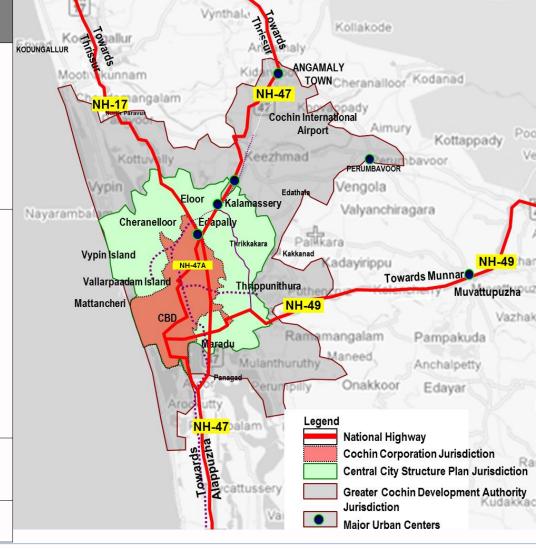
^{***} Ranks 1th with respect to District-wise per capita Gross State Value and more than the state growth rate

^{*}http://pai.pacindia.org/#/2019/about

^{**} https://kochicity.keralapolice.gov.in/public-information/crime-statistics/ipc-ca2es

Jurisdiction Classification

Jurisdiction Area	Major Localities	Area (sq.km.)	Vynthal Thursday
* Greater Cochin Development Authority (GCDA) Kochi UA/Metropolitan region	Consists of the Kochi Municipal Corporation (Excluding Fort Vypeen, Gundu Island and Thanthonni thuruthu Island etc.) 9 municipalities- Aluva, North Parur, Angamali, Perumbavoor, Tripunithura, Kalamassery, Maradu, Thrikkakara & Eloor and 21 Panchayaths- Chellanam, Kumbalanghi, Mulanthuruthi, Cheranelloor, Kumbalam, Udayamperoor, Vadavucode-Puthencruz, Vazhakulam, Choornikara, Edathala, Keezhmadu, Chengamanad, Sreemoolanagaram, Alangad, Kadungalloor. Ezhikkara, Kottuvally, Nedumbassery, Kanjoor, Varapuzha & Chottanikkara etc. Includes Alangad, Aluva, Amballur, Angamaly, Chelamattom, Chendamangalam, Chengamanad, Cheranallur, Cheriyakadavu (Part), Choornikkara, Chowwara, Edathala, Elamkunnapuzha, Eloor, Kadamakkudy, Kadungalloor, Kakkanad, Kalady, Kalamassery, Kanayannur, Karumalloor, Kedamangalam (Part), Kizhakkumbhagom, Kochi,	632.0 440.0	NH-17 NH-17 Cochir Cheranelloor Edapally Vypin Island Vallarpaadam Island Mattancheri
	Karumanioor, Redamangalam (Part), Rizhakkumbhagom, Rochi, Koovappady, Kottuvally, Kumbalam, Kumbalangy, Kunnathunad, Kureekkad, Manakunnam, Maradu, Marampilly, Mattoor, Moothakunnam, Mulamthuruthy, Mulavukad, Nedumbassery, Njarackal, Paravur, Perumbavoor, Perumbavoor, Puthencruz, Puthenvelikkara, Puthuvype, Thekkumbhagom, Thiruvankulam, Thrippunithura, Vadakkekara, Vadakkumbhagom, Varappuzha, Vazhakkala, Vazhakulam, and Vengola		CBD Panagad
Central City Structure Plan	Cochin city, Municipal areas of Thripunithara and Kalamassery and panchayats of Varapuzha, Eloor, Thrikkakara, Thiruvankulam, Maradu, Mulavukadu, Cheranallur, Kadamakudy, Elamkunnapuzha and Njarakkal.	275.87	Towards. Alappuzha
Cochin Corporation Jurisdiction	Consists of the Kochi Municipal Corporation, and two municipalities-Fort Cochin, Mattancherry etc.	94.88	Vai





^{*} The jurisdiction of GCDA covers an area of 732 km2 consisting of Kochi Corporation, 9Municipalities and 21 Panchayaths. Subsequently Goshree Islands Development Authority(GIDA) was constituted vide G.O.(MS) No.114/94/LAD dated 18-05-1994 comprising 8 Island Panchayaths and two wards of Cochin Corporation viz. Thanthonnithuruthu and Fort Vyppin having an area of 100 km2 and thus delimiting the jurisdictional area of GCDA to 632 km2.

Jurisdiction Classification as per Master Plan

Development Plan for Kochi City Region 2031

- The Development Plan for Kochi City Region covers a planning area, identified from a wider region, comprising of Kochi City, two Municipalities and fourteen Panchayats.
- The assessment was carried out by State Department of Town and Country Planning in association with NATPAC, RITES and CED.
- Kochi City Region (KCR) considered as the Planning Area in the Development Plan comprises of Kochi City and the immediate surrounding area which is within the influence of the development in the city and vice versa. The planning region covers an area of 369.72 sq.km and the projection in term of population to 2.27 million in the year 2031 This also includes migration and floating population component.

Planning Divisions	Area Classification
Planning Division- 1	Fort Kochi & Mattancherry
Planning Division- 2	Wellington Island
Planning Division- 3 (3A to	Includes Ernakulam Main land. This planning division is further divided into 13 sub
3M)	divisions. A detail description of the same is presented in the below slides.
Planning Division- 4	Panchayats of Chellanam and Kumbalangi
Planning Division- 5	Panchayats of Maradu and Kumbalam
Planning Division- 6	Thrippunithura Municipality and Thiruvankulam Fansleayobur text
Planning Division- 7	Vadavukode- Puthenkurisu Panchayat
Planning Division- 8	Kalamassery Municipality and Thrikkakara Panchayat
Planning Division- 9	Eloor Panchayat
Planning Division- 10	Panchayats of Cheranellur and Varappuzha
Planning Division- 11	Panchayats of Elamkunnappuzha, Mulavukadu, Njarakkal and Kadamkkudy



Please refer to Annexure - 1 for more details about each Planning Division



City Snapshot

Population (Census 2011)	Kochi Municipal Corporation (KMC): 602,046 Kochi Metropolitan/ Urban Agglomeration: 2,119,724	
Total Area	Kochi Municipal Corporation (KMC): 94.88 sq.km Kochi Metropolitan/ Urban Agglomeration: 440 sq.km Greater Cochin Development Authority (GCDA): 632 sq.km	
Economic Base	IT/ITES, Financial, Industrial and Transportation.	
Connectivity	Kochi is only Tier-II City in India which has excellent connectivity to all mode of transport including the Metro Rail. Air: The city has a domestic as well as an international airport, with direct flights connecting all metro cities and international destinations. However, since the international airport plays a vital role for expats, a detailed description of the airport is presented in the separate slide. International Destinations: Has direct flights to Dubai, Abu Dhabi, Muscat, Kuwait, Singapore etc. and also has connecting flights to European cities such as Paris, Toronto, New York, Miami, Orlando, Spain, Frankfurt, London, Dublin, Chicago, Houston, Washington, Vienna (Austria), Zürich (Switzerland), Tokyo, Denver (Colorado), Helsinki (Finland), Vancouver (Canada) etc. Domestic Destinations: Bangalore, Mumbai, Kolkata, Goa, Ahmedabad, Pune, Jaipur, New Delhi, Chennai, Trivandrum, Hyderabad, etc. Railway: There are four major railway stations - Ernakulam Junction, Ernakulam Town, Aluva and Tripunithura. Connects major cities like Bangalore, Goa, Goa, Amritsar, Mumbai, Trivandrum, New Delhi, etc. Roads: Kochi is an important node of the North - South Corridor and is served by NH 66, NH 544, NH 966A and NH 966B. Sea: Kochi is one of the major ports in South West India and offers bunkering, cargo handling and passenger.	





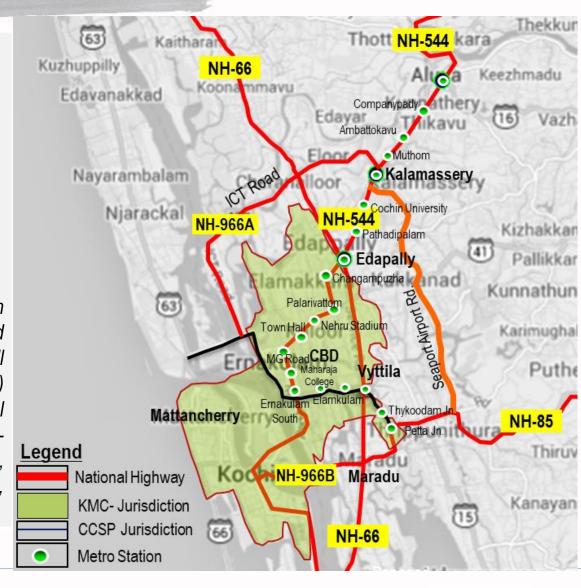
Connectivity (1/2)

Connectivity

Metro Rail: Kochi Metro is a rapid transit system serving the city. Its 25 km elevated route spanning from Aluva - Pettah- SN Junction with 23 Stations. The Project is still under augmentation and proposed to be executed under different phase:

- Phase-I: Aluva to Petta
- Phase-IA: Petta to SN Junction
- Phase-II: JLN Stadium to Infopark(Detail Project Report submitted to Central Government).
- Phase-III: Aluva to Angamaly (planned)

Note: For Phase-II stretch, land acquisition is in process for an extension of the metro up to Infopark. In this regard, Kochi Metro Rail Limited (KMRL) has initiated the widening of part of Seaport Airport Road till Cochin International Airport. Phase II comprises an 11.2 km (7.0 mi) extension of the existing metro line from Jawaharlal Nehru International Stadium to Infopark via Kakkanad. There will be 11 stations on the line - Palarivattom Junction, Palarivattom Signal, Chembumukku, Vazhakkala, Kunnumpuram, Kakkanad Junction, Kochi Special Economic Zone, Chittethukara, Rajagiri, InfoPark-I & Infopark -II.





Connectivity (2/2)

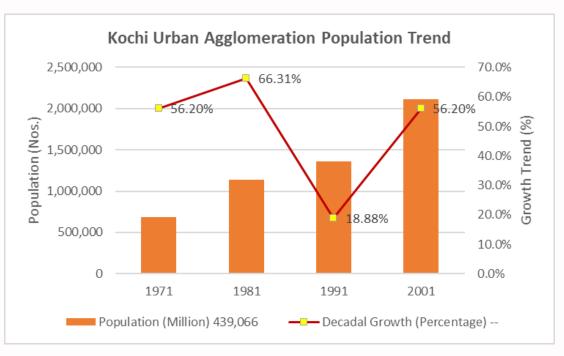
- Cochin (also called as Kochi) International Airport is the largest airport in the Kerala State and fourth busiest airport in India in terms of international traffic and eighth busiest in overall.
- This airport is the first airport in India developed under a public-private partnership (PPP) model. This project was funded by nearly 10,000 NRIs from 30 different countries.
- As per Cochin International Airport Authority, the airport presently handles 10.2 million passengers of the sectoral share of Domestic tourist is almost 51.6%. The overall Compound annual growth rate (CAGR) from 2014-15 till 2018-19 12.2 %.
- International Destinations: Has direct flights to Dubai, Abu Dhabi, Muscat, Kuwait, Singapore etc. and also has connecting flights to European cities such as Paris, Toronto, New York, Miami, Orlando, Spain, Frankfurt, London, Dublin, Chicago, Houston, Washington, Vienna (Austria), Zürich (Switzerland), Tokyo, Denver (Colorado), Helsinki (Finland), Vancouver (Canada) etc.
- Domestic major destinations: Bangalore, Mumbai, Kolkata, Goa, Ahmedabad, Pune, Jaipur, New Delhi, Chennai, Trivandrum, Hyderabad, etc.
- Cochin International Airport has three main terminals: two domestic and one international. Also includes Cargo Terminal.
 - Terminal 1: This terminal was international terminal, presently being renovated to Domestic Terminal with total handling capacity to 4,000 passengers per hour which is 5 times the previous capacity. This terminal is operational from 4th Q 2017
 - Friends 2: It's a executive terminal with BUA of 110,000 sq. ft. to handle 400 passengers at peak hours. This terminal is operational from 4th Q 2017
 - ➤ <u>Terminal 3</u>: Its a new International Terminal with 2.3 million sq.ft BUA and its 4th largest airport after Delhi, Mumbai, and Kolkata. This terminal is operational from 1st Q 2017

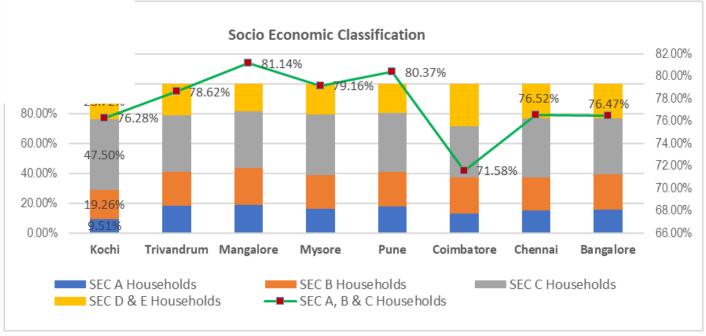






Demographic and Socio-Economic Profile





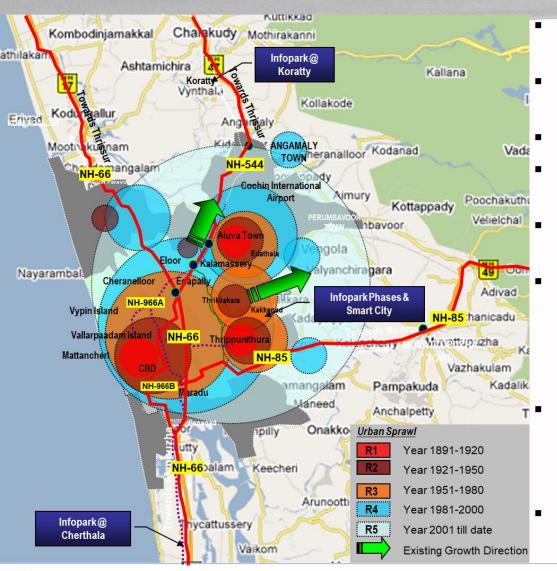
As per 2011 Census, Kochi Metropolitan Region has witnessed a population of 2.12 million persons, registering a decadal growth rate of 56.2% (2001-2011). This is mainly due to IT&ITES growth in the city as well as addition of urban centres to the existing jurisdiction.

Almost 76.28 % of the households are classified under SEC A, B & C which is par with prominent southern Tier-I Metro Cities such as Chennai and Bangalore

Source: City Skyline 2017-18, Neilsen. Please refer Annexure - 2 for more details



Growth Zone and City Expansion Trends



- Physical development of the city is along major transportation corridors (NH-66 and NH-544, state highways and other district roads towards the northern and eastern quadrant of Kochi City)
- Kochi is one of the fastest growing 'Tier II' cities in India with *robust infrastructure development. The city has emerged as one of the important commercial and industrial centers of Kerala.
- The city has good presence of healthcare and educational facilities.
- Kochi is a prominent tourism destination in India known for its heritage, culture and nature related activities.
- Kochi Infopark and Smart City at Kakkanad has aided to transform the city into an IT hub in Kerala after Trivandrum.
- Urban growth in Kochi can be seen to be growing towards the east, owing to the IT & ITES (Includes SEZs) development. Similar expansion can also been seen in the fourth coming years along the northern peripheral quadrant of Kochi City, since various larges scale integrated projects which are planned there. Few among them are Parsvnath IT Park (Proposed-100 acres) and Emaar MGF (160.83 acres) etc.
- As part of Infopark initiative, Infopark at Koratty & Cherthala are being developed as a spoke to support the IT Hubs namely Infopark (all phases) at Kochi and Techno park in Trivandrum. It is expected that in the fourth coming year, the growth direction will be towards northern & southern peripheral region of Kochi City.
- Kochi Bangalore Industrial Corridor is being developed as an manufacturing hub to cater to domestic and international markets.



Key Infrastructure Initiatives (1/4)



	Transport Infrastructure Initiatives							
SI.	Infrastructure Initiatives	Executing Agency	Description	Status				
1	Kochi Metro	Kochi Metro Rail Limited	 Phase 1A - Petta to SN Junction Phase 2 - JLN Stadium to Infopark Note: The second phase will cover a total length of 11.17 km along 11 stations, including Palarivattom Junction, Palarivattom Signal, Chembumukku, Vazhakkala, Kunnumpuram, Kakkanad Junction, Kochi Special Economic Zone, Chittethukara, Rajagiri, InfoPark-I and Infopark. 	Government				
2	Kochi Water Metro	Kochi Metro Rail Ltd (KMRL)	 Phase 3 - Aluva to Angamaly Kochi water metro will have 38 terminals across 10 islands with 16 identified routes. 18 out of 38 terminals will be developed as main boat hubs. As of now, *DPR,** EIA and Environmental & CRZ clearance from is in place. 	completed by				
3	Vytilla Mobility Hub	Vytilla Mobility Hub Society (VMHS)	metro rail and inland water transport converge.	Operational Approved, to be completed in 2 years				
4	Vallapadam Terminal	Dubai Ports World	 Vallarpadam Terminal is the fist transshipment terminal India is a part of Cochin Port can handle cargo up to one million TEUs per annum 	Operational				

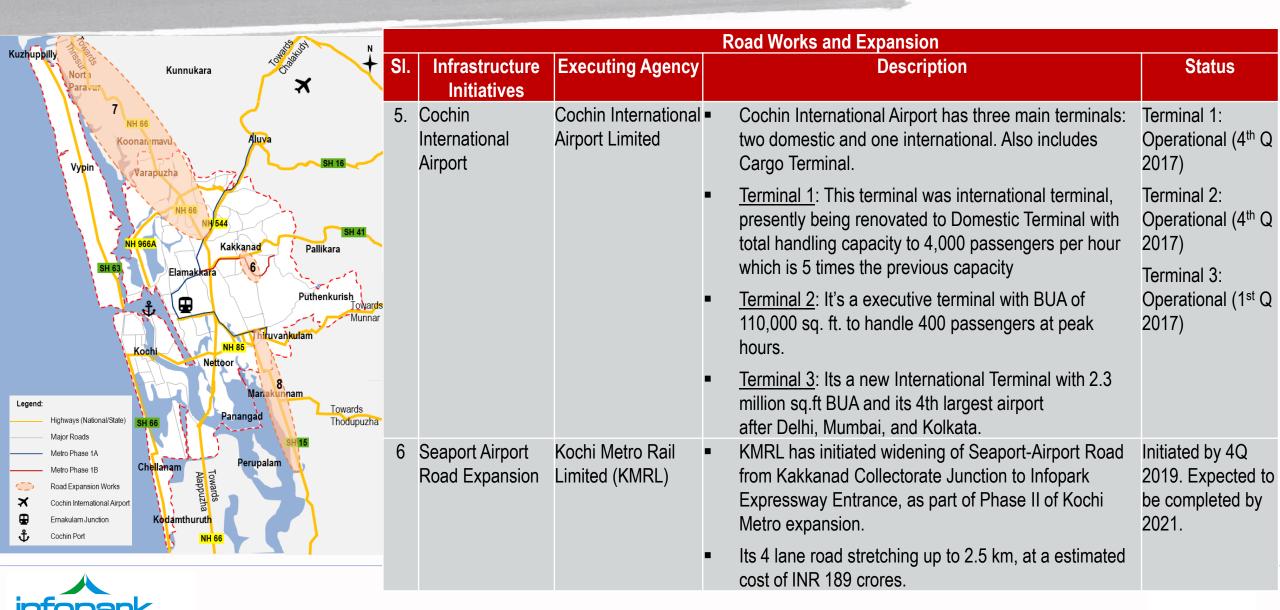


• DPR: Detail Project Report

** EIA: Environmental Impact Assessment

Source: ernakulam.nic.in

Key Infrastructure Initiatives (2/4)



Key Infrastructure Initiatives (3/4)

SI.	•	Executing Agency	Industrial Parks including SEZs Description	Status
	Initiatives Seaport Airport		Description	Status
7 9	•			
R ti	till International	Roads and Bridges Development Corporation of Kerala (RBDCK)	 Long awaited extension of the Seaport-Airport Road to the international airport has got approval to execute the project on fast track mode. Land acquisition with HMT and Naval Armament Depot (NAD) is in process, which has resulted in delayed of the project. 	Under various stage of augmentation
8 N	·	National Highways Authority of India (NHAI)	23.31 km NH 66 stretch from Edappally to Moothakunnam will be widened to 45m. There are four flyovers, four minor bridges, 12 underpasses, 1 railway over-bridge, 1 vehicular overpass and 32 box culverts to be constructed.	Project Initiated. However, in certain stretch Land acquisition is pending
		Kerala Public Works Department	 Vaikom Road from S.N. Junction in Tripunithura to Poothota to be widened to 22 meter four lane arterial road. 	Under construction
	Cochin Special Economic Zone	Government of India	 Cochin SEZ is a multi - product zone developed on 103 acres of land in Kakkanad. Electronics hardware, Engineering, Gem & Jewellery, IT & ITeS, Agro & Food Processing, Textile & garments, Plastics & Rubber etc. 	Operational
11A K 11B 11C		Kerala Industrial Development Corporation	 KINFRA Hi Tech Park KINFRA Export Promotion Industrial Park KINFRA Petrochemical Park 	Operational Operational Land Acquisition



Key Infrastructure Initiatives (4/4)

	Industrial Parks including SEZs							
SI.	Infrastructure Initiatives	Executing Agency	Description	Status				
12	Kochi Infopark	Government of India	■ Phase 2 - Consists of SEZ and Non SEZ clusters over 160 acres. Infopark has taken possession of 125	Completed Under Construction				
13	,	Joint Venture - Kerala government and Dubai Holding		Completed				
			, , , , , , , , , , , , , , , , , , ,	Under Construction				
14	Aster Med City	Aster DM Healthcare	■ Phase 2 - 500 beds with a 4 star hotel and service apartments	Operational Under Construction				



Aster Med City Aster Medcity

Development Overview of Aster Med City

- Aster Med City is a flagship project by Aster DM Healthcare.
- Its one of largest healthcare institute in South Asia and has **foot print across Middle East** (UAE, Oman, Qatar, Bahrain, Saudi Arabia), **India** (Kochi, Bangalore, Kozhikode, Hyderbad, Kolhapur & Wayanad) and **Philippines** etc.
- Aster Med City at Cheranallur, Kochi spreads over an area of **40 acres with BUA of 674,769 sq.ft**, making it one of the largest medical facilities in India.
- 40 acres land extent under the Aster Medicity Campus is owned by three companies, viz.
 DM Healthcare, DM Medicity Hospital India Private Limited and Ambady Infrastructure Private Limited, all are under the management of the Holding Company (Aster DM Healthcare Private Limited) and are 100 % Subsidiaries of the Holding Company.
- As of now only **5 acres is utilized for healthcare**. Rest of the land area is planned for expansion of the healthcare facility with accommodation facilities' for doctors and students.
- The hospital has 670 bedded facility with internal medicine, general surgery, Cilinical imaging, Anesthesia and critical & emergency care, Pulmonology, Otorhinolaryngology, Dermatology, Craniomaxillofacial surgery, dental sciences, Infectious diseases and infection control, Psychiatry and Nuclear medicine. It also has eight centres of excellence such as Cardiac Sciences, Orthopedics, Neurosciences, Nephrology and Urology, Oncology, Gastroenterology and Hepatology, Women's Health and Child & Adolescent Health etc.







Apollo Hospitals



Development Overview of Apollo Hospitals

- Apollo Hospitals Group has expanded his foot print in Kerala state in association with Adlux Group.
- Apollo Hospitals would be responsible for all operations and management of the hospital.
- This super-speciality hospital got operationalised on 4Q 2020 with capacity of 250 beds.
- The project Apollo Adlux- Super Speciality Hospital is located near Cochin International Airport, Angamaly with state-of-the-art facility, offering world-class healthcare services to people of all socio-economic strata in the region.
- The hospital is part of the complex which currently hosts the Adlux Group's International Convention and Exhibition Centre, which is the largest in South India.
- This hospital offers the services in the area of cardiology, cardiothoracic, orthopaedics and joint replacement, spine surgery, oncology, etc.







Kochi Smart City (1/3)

- The Smart Cities Mission (SCM) aims to rejuvenate the prevailing urban ecosystem through Area Based Development (ABD) strategies. The objective of the SCM is "to promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of 'Smart' Solutions".
- Smart City Mission is a major infrastructure development programme launched by the MoHUA in 2015 to promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of smart solutions.
- Kochi city was selected under the Mission in the first phase and subsequently Trivandrum in the third phase.
- The Smart city proposal of Kochi aims at a planned and integrated development of Fort Kochi-Mattancherry area by improving the civic infrastructure.
- Under Smart city Kochi, 42 projects are envisaged, out of this, 18 projects works started, 22 projects are in tendering stage and two are housing projects

KEY INITIATIVES

- Area based Proposal: The city aims to transform 1,729.74 acres (6.5% of city area) of wards 1,2,3,4 & 5 into an inclusive, vibrant city of opportunities with efficient urban services, sustainable growth and ease of living.
- Pan City Initiative: Proposed pan city initiatives include:
 - ➤ Intelligent Water Management Solutions for city-wide 24X7 Water Supply.
 - Kochi One Smart Card.



Kochi tops among the 10 new cities added to the Centre's Smart Cities Mission announced in 2016



Kochi Smart City (2/3)

Area Based Development Themes

Theme 1

CONNECTED AND ACCESSIBLE CITY

Goal 1: Increase in Public transport share to at least 60% within 10 years. To implement integrated and intelligent multi-modal transport with focus on faster access and improved commuter experience; Regulate traffic and implement Smart parking solution.

Goal 2: Promote public transport; Enforcing Emission standards; Create NMT corridors for Efficient / Eco-friendly last mile connectivity.

Theme 2

A CITY WITH A VIBRANT IDENTITY

Goal 1: Strengthen art and cultural festivals; Scale reach and branding of Kochi Biennale; Implement Tourism master plan for Fort Kochi and Mattancherry; Boost medical tourism.

Goal 2: Revitalization of Broadway and Ernakulam market in central Kochi; Compact development across metro corridors and NMT corridors.

Goal 3: Community owned preservation of green spaces; Tree planting in public places, and institutions

Theme 3

A CLEAN, GREEN, SAFE AND HEALTHY CITY

Goal 1: 100% compliance of Solid Waste Management Rules 2000

Goal 2: Rejuvenated canals and waterways.

Goal 3: open defecation free city.

Goal 4: Affordable housing for all.

Goal 5: Energy efficient city.

Goal 6: Climate change resilience.

Goal 7: 24X7 water supply and sewerage access to all.

Goal 8: Best in class and affordable social infrastructure.

Goal 9:24 X 7 electricity, digital access and inclusion.

Theme 4

AN INCLUSIVE AND SMARTLY GOVERNED CITY

Goal 1: Community driven Rehabilitation plan for Vulnerable sections of society including senior citizens, women and children, destitute etc; Formal framework for engaging with NGOs

Goal 2: Scale up the Multi-year Capital Investment plan and Annual Plans under the Peoples plan scheme; Include Social media and e-governance tools for greater citizen outreach; Intelligent Government services; Improved disclosure standards related to administrative efficiency.



Source: Smart Cities Mission

Kochi Smart City (3/3)

Summary of Smart City Projects in Kochi 19-03-2020

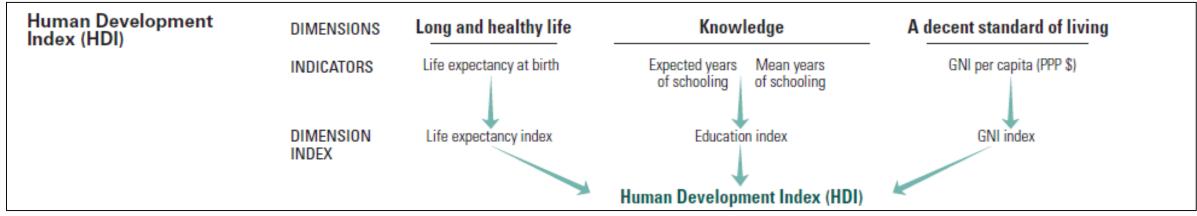
		*ABD Area Project	Pan City Project	Total
Overall	Total Number of Projects	42	1	43
	Project Cost (in Cr)	INR 934.40	INR 25.00	INR 959.40
Administrative Sanction	Nos	29	1	30
	AS (in Cr)	INR 869.86	INR 25.00	INR 894.86
Technical Sanction	TS issued (in number)	28	1	29
	TS issued (in Cr)	INR 711.56	INR 25.00	INR 736.56
Tendered	Tendered (in Number)	26	1	27
	Tendered (in Cr)	INR 671.78	INR 25.00	INR 696.82
Work Awarded	Work Awarded (in Number)	20	1	21
	Work Awarded (in Cr)	INR 601.78	INR 25.00	INR 626.78
Projects Completed/Project in	Work Completed (in Number)	0	1	1
Progress	Expenditure (in Cr)	INR 47.20	INR 25.00	INR 72.20
Cumulative Expenditure %	Based on Project Cost	7.84%	100%	12%
	Based on AS	5.43%	100%	8%

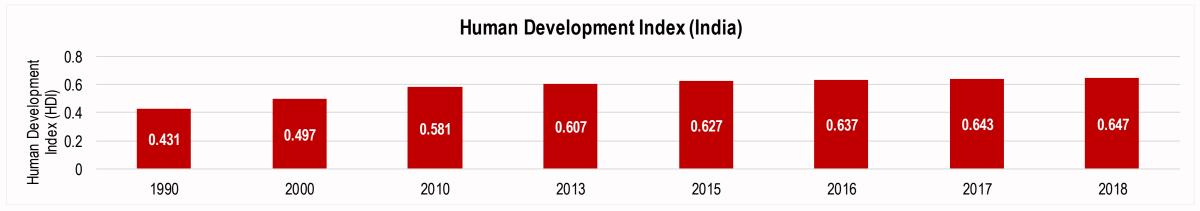


Note: *ABD Area: Area Based Development

Human Development Index (HDI) - Overview (1/8)

Human Development Index (HDI) is rating matrix used by United Nations which emphasize that people and their capabilities should be the ultimate criteria for assessing the development of a country, not economic growth alone. It is based on parameters including life expectancy, education & gross national income. Following flow chart shows the key components of HDI

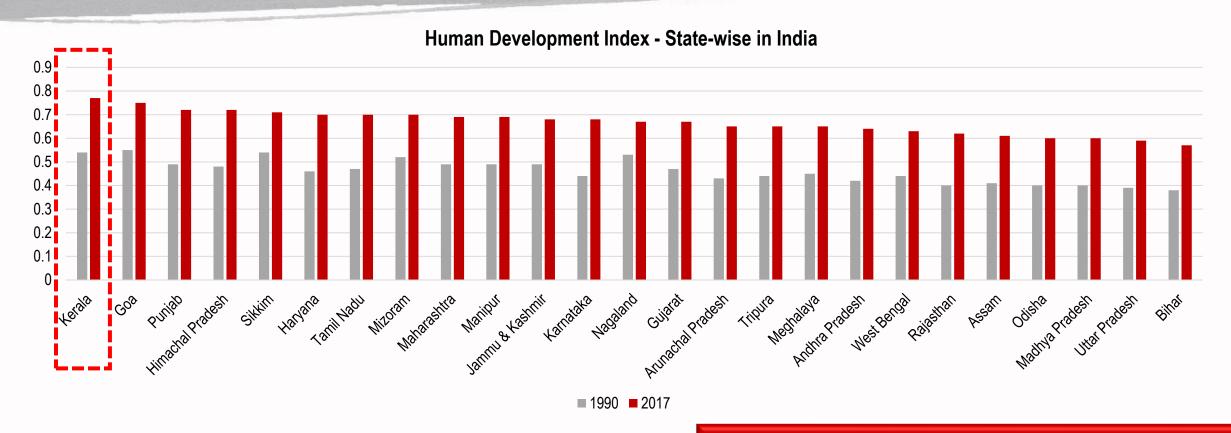






Source: UNDP, 2019 Statistical Update

HDI - State-Wise Comparative Analysis (2/8)



The chart above shows HDI of various states in India. The HDI computation by UNDP and SBI for states was done in 2017. As published in a report by SBI in March 2019, Kerala is ranked 1st in terms of HDI in 2017 among all the states in India.

Kerala has highest rating for Human Development Index among all the States in India and is also 20% above national average (for the Year 2017)



HDI - Factors Considered for Evaluation (3/8)

Since HDI at the city level has not been carried out, hence factors affecting HDI as well as growth and development of IT talent pool in the city have been considered for understanding Human resource development. Kochi city has been compared with the top performing cities in the country, based on these parameters.

Following graphic shows the key broad parameters and sub-parameters selected for analysis

- Literacy Rate
- Gender Ratio
- Per Capita Household Income
- Per Capita Household Expenditure
- Quality of Education- Gross Enrollment ratio, Pupil Teacher Ratio
- Access to laptop and internet

Socio- Economic Factors



- Municipal Election Turnout
- Per capita expenditure by government bodies
- Transparency Accountability & Participation in urban Bodies
- Overall Rating Annual Survey of Indian Cities

*Institutional Ecosystem (City)



- Startup Eco-system
- Tech- Infrastructure
- Innovation
- Livability
- Growth
- Overall Rating of the city- Tech Cities

**City's responsiveness towards technology



HDI - Socio-Economic Factors (4/8)

Cities	¹Literacy Rate	² Gender Ratio	¹ Annual Expenditure Per Household (INR)	¹ Annual Income Per Household (INR)	³GER - Primary	³ GER Upper Primary	³Pupil Teacher Ratio- Primary	³ Pupil Teacher Ratio- Upper Primary	³ Households With Laptop And Internet Connection %
Kochi	96%	1030	705,882	870,558	93.0	84.0	18	14	20.87%
Chennai	92%	989	1,000,000	809,160	102.5	103.2	19	28	19.64%
Mumbai	91%	863	1,946,309	1,577,181	99.4	326.5	21	17	19.03%
Hyderabad	85%	954	1,330,189	1,075,472	118.9	95.6	32	10	16.91%
Bhopal	86%	921	760,593	616,525	131.5	106	25	35	10.12%
Kanpur	85%	857	640,678	520,339	124.6	83.9	39	37	6.19%
Bengaluru	90%	923	1,814,103	1,467,949	-	-	-	-	19.57%
Pune	91%	904	1,433,297	1,157,663	109.3	100.6	24	36	16.5%
Delhi	89%	868	1,041,872	844,828	119.9	99.88			
Kolkata	88%	935	1,027,273	835,455	74.5	68.4	16	16	14.17%
Bhubaneshwar	94%	890	820,313	664,063	-	-	-	-	-
Ludhiana	88%	850	1,121,891	907,960	117.7	97.4	26	16	11.1%
Chandigarh	88%	818	1,396,000	1,132,000	107.7	112.9	20	-	19.29%
Jaipur	86%	900	808,901	654,450	104	87.1	18	16	-
Ahmedabad	90%	899	800,000	648,667	102.3	86.7	35	35	9.9%
Lucknow	85%	928	743,243	602,102	175	110.1	64	40	12.06%

- Kochi has the highest literacy rate and gender ratio among top cities in the country
- The city also has very good pupil teacher ratio as compared to other cities
- Gross enrollment ratio is also close to 100 (that indicates the % of population enrolled in school of that age group

City has a strong socio-economic base promoting growth and well-being of citizens

Definition:

High

- **Literacy Rate:** Ability to read and write in any selected language.
- Gender Ratio: No of females per 1,000 males.
- **Expenditure Per Household:** Level and pattern of monthly per capita consumer expenditure.
- Annual Income per Household: Combined gross income of a household.
- **GER:** Gross enrollment ratio- Enrollment percentage of a specific age group of the population.

Low 22

Pupil Teacher Ratio: The average number of pupils per teacher.

Indicative scale for favorability of factors



1 Source: Metro, Town and Rural Skyline of India, 2017-18; Nielsen MME

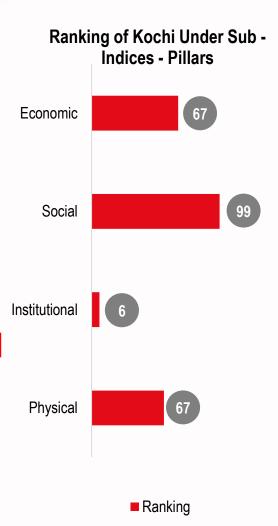
2 Source: Census 2011

3 Source: MHRD

4. Source: Smart City

HDI - Ease of Living Index (5/8)

The second second			
Cities Population		Ease of Living Index - Overall Ranking	Economy and Employment
Pune	3,124,458	1.0	7
Mumbai	12,442,373	3.0	63
Chandigarh	970,602	5.0	1
Raipur	1,027,264	7.0	29
3hopal	1,798,218	10.0	38
Chennai	4,646,732	14.0	23
√isakhapatnam	1,728,128	17.0	74
3hubaneswar	885,363	18.0	18
Surat	4,501,610	19.0	69
Ahmedabad	5,633,927	23.0	45
	6,993,262	27.0	59
Jaipur	3,046,163	30.0	12
_udhian <u>a</u>	1,618,879	35.0	8
Kochi	633.553	45.0	67
Bengaluru	8,495,492	58.0	71
Delhi	11,292,358	65.0	109
Ranchi	1,073,427	68.0	50
_ucknow	2,817,105	73.0	58
Kanpur	2,768,057	75.0	13
Dehradun	574,840	80.0	53
Guwahati	962,334	85.0	72
Patna	1,684,297	109.0	108



- Kochi ranks 45th in the Ease of Living Index 2018, all India.
- Livability Index is prepared by assessing 79 indicators which have been grouped under 15 thematic categories which include 4 pillars - economic, institutional, social and physical.
- 111 identified under smart cities mission and others with over 1 million population

Kochi looking to be the next IT destination in India. The IT hub in Kakkanad - Info Park, SmartCity etc, there is high pressure on existing physical and social infrastructure.



Indicative scale for favorability of factors

High

Low

HDI - Ease of Living (6/8)

Framework - Ease of Living Inditex 2018



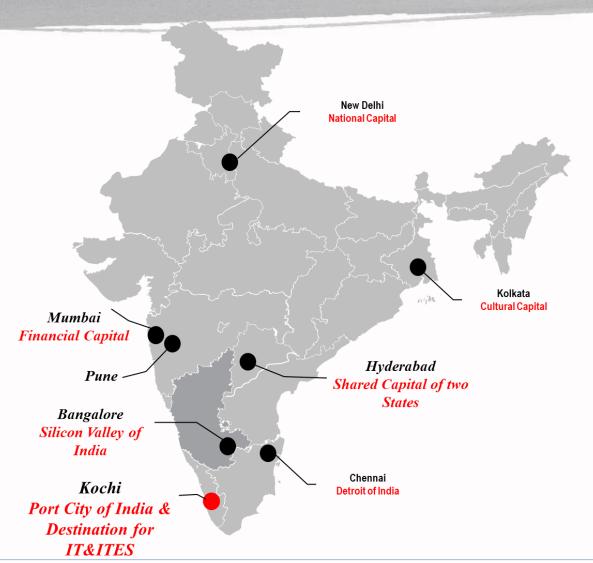
Ranking Process

Each city is given a **score between 0 and 100**. The Index construction follows the **Dimensional Index Methodology**. This method computes the scores for each indicator with reference to 'maximum within the comparison group' or 'absolute benchmarks'. These absolute benchmarks were derived from national or international standards. Where neither international nor national benchmarks exist, the city with the best performance in its group (relevant population range) is treated as a benchmark and the marks awarded to other cities (within the relevant population group) are calculated proportionately.

The score that a city receives is based on its performance on each indicator under that pillar, and the level of importance i.e., the weight assigned to each pillar and indicator. The pillar weights, are as follows: Institutional (25 points), Social (25 points), Economy and Employment (5 points), and Physical (45 points). A core indicator carries 70% weightage while a supporting indicator carries 30% weightage. For more information on the index methodology, please refer to the Methodology for Collection and Computation of Ease of Living Standards published on smartcities.gov.in.



HDI - Kochi City Advantage (7/8)



Economic Drivers

2nd IT/ITES destination of Kerala after Trivandrum.

Tourism- major contributors of the local economy-20% share to GDP.

Leading port city of the country

<u>Infrastructure</u>

Highest telephone density
Excellent Connectivity from all
mode of Transport.
Kochi has 'SEA-ME-WE-3' and
'SAFE' submarine cable land making the city the primary
internet gateway to India.
First Tier-II city to have Metro
Connectivity

HIGH TALENT POOL

High density of Science & Technology personnel in India Lowest employee attrition rate in the country - less than 10%.

More than 75 Engineering Colleges to support the IT&ITES Companies

Real Estate

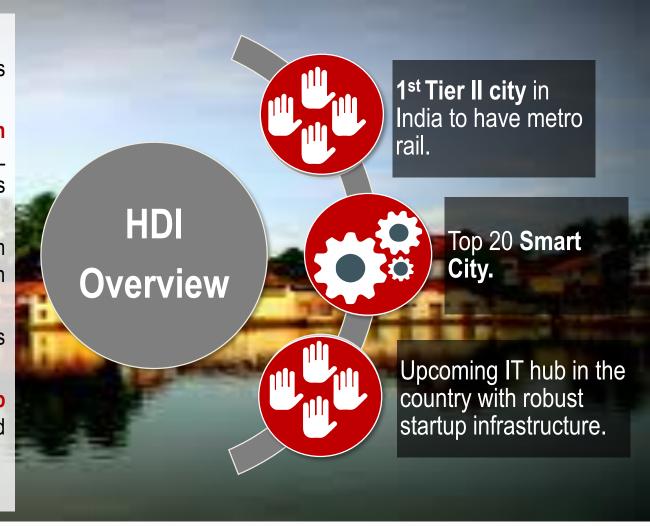
Active real estate market with opportunities across all major sectors.

Remittance by NRI's is a major source of income as well as driving factor for real estate.



HDI - Kochi City Advantage (8/8)

- Kochi is a major port city with an integrated transport hub and is the commercial capital of Kerala.
- Cochin International airport (CIAL) is the fourth largest airport in India, in terms of passenger traffic. In the year 2018 2019, CIAL witnessed passenger volume of over 10.2 million passengers (International: 4.9 million & Domestic: 5.2 million).
- **Telephone Density** (Kerala Economic Review- 2019): Ernakulam district 560 No. of Telephone per 1000 population which is more than the state density (Kerala State: 378 per 1000 population)
- Kochi is recognized as an emerging IT hub with various incentives for the growth of the sector by the government.
- Under Kerala startup mission, Kochi houses Integrated Startup Complex and Maker Village. This is an addition to Infopark and Smartcity Kochi.
- Lowest employee attrition rate in the country i.e. less than 10%.





Source: Info Park, Kochi

Diversity in Kochi

Business

Kerala, Rajasthan, Gujrat, NRIs and *Expatriate Community

Service Industry

Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Bengal, Odisha, Marathi, NRIs, etc.

Government Services

All India - As Kochi is a major port and a prominent Naval Base.



Survey - Expat Friendliness of Kochi (1/2)

- A survey was conducted among a few of the Expats living in Kochi*. On interaction, it can be estimated that there are 350 - 400 expats residing in Kochi City. This does not account for other migrant population such as North Indian and NRIs.
- The main objective of the survey was to understand from the expats that how the facilities in Kochi cater to their needs and what improvement / addition they would like to see in the city so as to make their life even more easier.

General Characteristics



*Majority of the expatriate population in Kochi belong to Europe. As per the survey majority of the samples are from Germany and United Kingdom.



Maximum number of expats have settled down in Kochi along with their families or have partners of Indian origin.



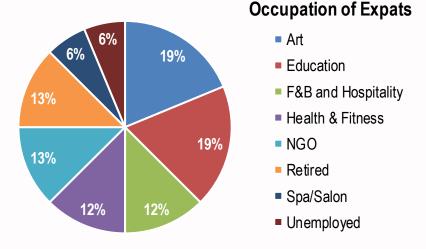
Expats are engaged in non technical industries such as **Art**, **Education**, **Social Services** and Health & Fitness.



The most common issue among the expats was the pedestrian footpaths, free public amenities such as gyms, parks, museums, etc.

Armenia France Germany Italy Spain Ukraine 25% United Kingdom 13% USA Switzerland

Country of Origin





*: Majority of Expats residing in Kochi come from Eastern Europe (mainly from Russia) and are homemakers. They were not interviewed for the purpose of this study as they are unemployed. **Note**: Survey done with a sample size of 16 expats (The data can be updated as few more responses are awaited via email) - Refer Annexure - 3 for Questionnaire Source: Market Research & Analysis; JLL; February 2020

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Survey - Expat Friendliness of Kochi (2/2)

Facilities Used by Expats in Kochi



Retail:

Kochi has 6 existing of malls and accounts for 4.9 million sq. ft. These malls cater to Kochi region and other neighbouring urban centres including Coimbatore (Tamil Nadu). From the above stated malls **Lulu International Shopping Mall** is the most preferred mall by expats as it offers variety of international brands at a affordable cost. **MG Road** which is the prominent high street of Kochi city, is the second preferred destination amongst expats owing to exclusive brand outlets present here.



Hospitals and Health Care:

Aster Medcity and **Renai Medicity** are the preferred hospitals for expats to receive the required medical attention. Expats rely of hospitals for medical needs and avoid clinics in India.



Entertainment and Leisure:

- Parks and Open Spaces: All major parks and open spaces are concentrated near Fort Kochi and MG Road. Subhash Park and Marine Drive are the two popular destinations.
- PVR Cinemas at Lulu International Shopping Mall is preferred by expats as international movies are played here as an addition to the good quality of the cinema halls.
- Resorts: Grand Hyatt and Cherai Beach Resort have a good quality of leisure space and good amenities. Similar expat population visits both the resorts on a regular basis for Sunday Brunch and other organized parties.
- Café & Restobars: Kashi Art Café and Pepper House Café are known for their food and ambiance. Swirl at Taj Gateway and Seagull
 are few of the reputed pubs in Kochi.
- Cultural Centres: Cochin Cultural Centre, David Hall Gallery & Café and Vancasso Art Gallery are frequently visited by expats to experience performing and installation artworks.



Tourism - Kochi

- Ernakulam District is considered as the gateway to Kerala for travellers and tourists coming to Kerala.
- Majority of the tourist prefer Ernakulam region as destination especially for international tourist as its well connected to other tourist destination in the neighboring districts (Alappuzha, Kollam, Munnar & Kumarakom etc.). The regional connectivity, availability of transport system, excellent access to healthcare facilities and cosmopolitan culture are added advantage.
- Kochi has ranked in the top 10 places to visit in 2020 by Lonely Planet.
- The city is well connected to other tourist destinations in the states such as Munnar, Thekkady, Gavi, Varkala, Kovalam, etc.
- Over 3 million tourists visited Kochi in 2017.
- The city is popularly known for its giant Chinese fishing nets, synagogue, mosques, Portuguese Dutch Colonial architecture.
- Willingdon is the largest island which offers tourists with scenic views and landscape. Vypeen island is famous for clean beaches with amenities for tourists to enjoy.
- Many tourists visit the city for Medical Tourism Ayurveda treatments and SPAs.



St. Francis Church at Fort Kochi



Bolgatty Palace



Chinese Fishing Nets



Backwaters of Kochi

 Kochi - Muziris Biennale is an international exhibition of contemporary art held in Kochi every year which is attended by many domestic and international guests and dignitaries.



Tourism in Ernakulam District

- Ernakulam district ranks #1 in the state of Kerala, based on tourist arrivals.
- The **Domestic Tourist Arrival** in Ernakulam district in the year 2017 is **3,285,088** and the **Foreign Tourist Arrival** in Ernakulam district in 2017 is **453,973**
- Nearly 40% (196,616) of the foreign tourists visiting Ernakulam are from UK, USA, France, Germany and Saudi Arabia.

	Toui	rist Arri	vals in	Ernak	ulam D	istrict f	rom 20	08 - 20	17	
4,000,000 -					CAGR	8%				
3,000,000 -					CAGN					
2,000,000 -										
1,000,000 -										
0 -										
, and the second	2009	2010	2011	2012	2013	2014	2015	2016	2017	
		■ Tour	ist arriva	Domes	stic =	Tourist a	rrival Fo	reign		

Country of Origin	Foreign Tourist Arrivals					
	Percentage Share	Total				
UK	16.57%	75,223				
USA	8.51%	38,633				
France	6.93%	31,460				
Germany	5.71%	25,922				
Saudi Arabia	5.59%	25,377				
Oman	4.89%	22,199				
Australia	3.57%	16,207				
Maldives	3.55%	16,116				

Country of Origin	Foreign Tourist Arrivals		
	Percentage Share	Total	
Malaysia	3.44%	15,617	
UAE	2.98%	13,528	
Canada	2.63%	11,939	
Russia	2.52%	11,440	
Italy	2.12%	9,624	
Switzerland	2.12%	9,624	
Spain	1.52%	6,900	
Others	27.35%	124,162	



Source: Kerala Tourism Statistics 2017

Kochi as a MICE Destination

- Kerala is **fast emerging as a MICE destination**. With a fine mélange of culture and natural settings, Kerala also offers state-of-the-art technology for business meetings, conferences and exhibitions to match global standards.
- The calm & serene environs makes Kerala an attractive meeting venue for corporates companies across the nation as well as worldwide.
- MICE tourism became an alternative option for Hotel & resorts as its increase occupancy during the lean (April - September) season.
- The Kerala region is also in the international crossroads between the Middle East/Europe and Far East/ Australia. Kerala has air links with the Middle East and Singapore. This advantage attracts the international community for business tourism to the State.
- As of now Kochi city has made a significant foray into the MICE tourism as Kochi the port city is a growing hub of information technology, health services, shipbuilding, and tourism and is among the fastest-growing Tier-II metros in the country.
- Kochi as a region is well connected to all mode of transport with significant share of branded hotel & resorts, with excellent facilities and amenities supporting the MICE sector.







Thiruvananthapuram

Kochi as a MICE Destination

- Kochi ranks *11th among India's MICE destinations,
- As per the recent statistic (Year 2019) from Department of Tourism, Gok, 64% of all MICE events had attendees in range of 600-1,200 people of which majority of the events are from Kochi, followed by Trivandrum, Thrissur and in Kollam.
- Operation of Le Meridian Hotel, on the subsequent year 2006, the State entered into global arena for MICE activities and still remains a major city to support MICE tourism.
- Bhaskareeyam convention centre (seating capacity 500) and Le-Meridian (seating capacity 500), Grand Hyatt and Marriott International are among the top venues to host MICE events in Kochi. Lulu Bolgatty International Convention Centre (LBICC) is one of the biggest convention facilities in the county which has a capacity of 3000 pax.
- Kochi alone hosted 736 MICE events, over 200 weddings and social events in last year. MICE events alone contributed INR 675 crores to Kochi City of which 40% share is from International Inbound MICE revenue. However, the overall MICE sectoral share with Kochi City is about 3% of the estimated MICE revenue across India (INR 22,360 crores).





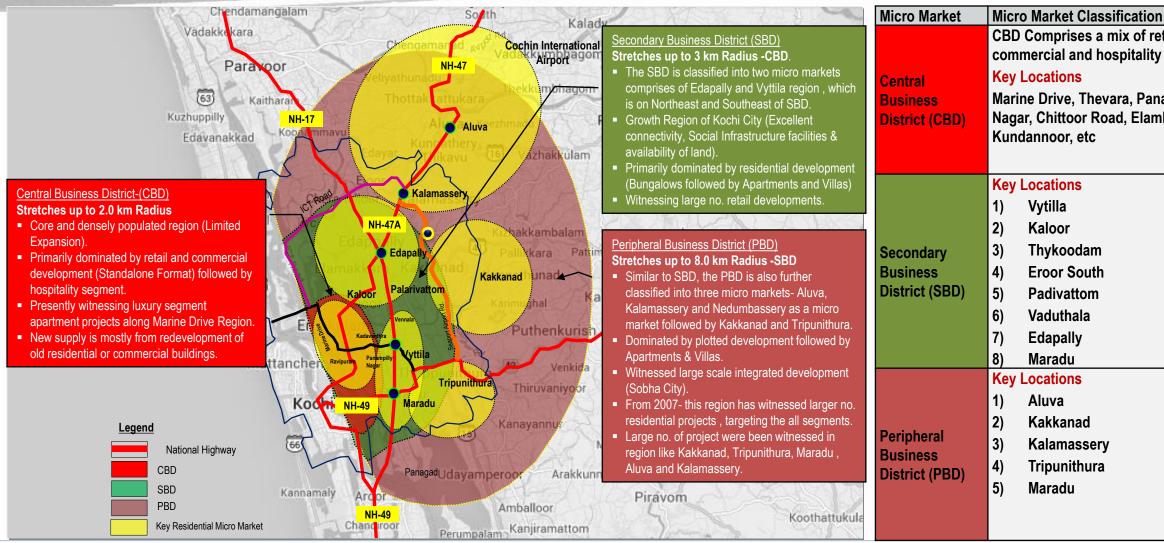


Contents

- 1 The Assignment
- 2 Overview of Kochi City
- Real Estate Market Commentary Commercial / Office & Residential Sub-Sector
- 4 Business Specific Indicators
- 5 Conclusions and Recommendations



Real Estate Classification - Kochi City



Central Business District (CBD)	CBD Comprises a mix of retail, commercial and hospitality Key Locations Marine Drive, Thevara, Panampilly Nagar, Chittoor Road, Elamkulam, Kundannoor, etc		
Secondary Business District (SBD)	Key Locations 1) Vytilla 2) Kaloor 3) Thykoodam 4) Eroor South 5) Padivattom 6) Vaduthala 7) Edapally 8) Maradu		
Peripheral Business District (PBD)	Key Locations 1) Aluva 2) Kakkanad 3) Kalamassery 4) Tripunithura 5) Maradu		



Residential Sector in Kochi City (1/3)

- Residential real estate landscape- Changing with new villa & high-rise developments replacing the traditional bungalows-Increase in property price & high real estate activity are few reasons.
- Predominant Housing Typology: Plotted development followed by Apartment and Villas (confined only in peripheral area).
- Villas accounts only 4.8% of the total supply & stock.
- Key Drivers: NRI Investment, IT&ITES & Industrial (Port Based & Manufacturing) growth, Educational & Heath care.
- Annual demand- 2500-3000 units.
- Demand for mid-segment are from end users while for premium segment its from NRKs & NRIs, IT&ITES, Doctors, Traders & Industrialists.

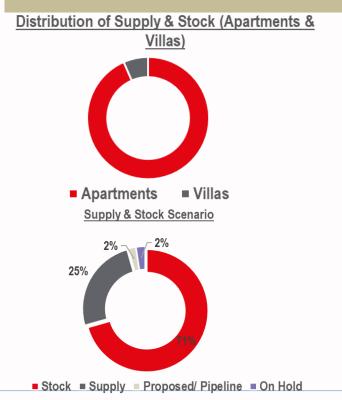
Supply & Stock Analysis

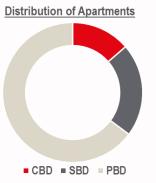
	Units (Nos.)	Projects (Nos.)
Stock	34,493	410
Supply	12,220	80
Proposed/ Pipeline	962	9
On Hold	1,181	3
Total	48,856	502

CBD: Upcoming supply is through redevelopment of old residential buildings.

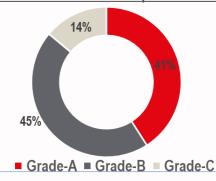
SBD: Second most preferred location after PBD as the connectivity & excellent access to social infrastructure facilities and proximity to CBD and work center , excellent connectivity and Social Infrastructure facilities.

PBD: Most Active and preferred Location - as its close to work center. Kakkanadhouses Info Park (includes all phases) & Smart City project.





Grade wise classification of apartment units





Residential Sector in Kochi City (2/3)

CBD Micro Market

- **Key Locations in CBD -**Marine Drive, Thevara, Ravipuram, Panampilly Nagar, Kadavanthra, Chittoor Road, Banerji Road and Elamkulam etc.
- Marine Drive Posh location of CBD as it faces the Vembanad Lake.
- Prominent projects in the region include Prestige Neptune's Courtyard, Purva Grand Bay, Purva Oceania, Pearl Sky Villa, Tritvam & Sobha Marina One etc.
- Average project size in the CBD especially in Marine drive is about 250 Units.
- Pricing: Average price in the CBD is INR 6800 per sq. ft.. Resale Option- DD Samudra Darshan Apartment by Desai Homes at Marine Drive is available for resale at INR 14,000 per sq. ft.
- **Absorption:** As per 1Q 2020, the average absorption in the CBD is about 68%.
- Sales velocity: 25-35 units per project per annum based on developer profile, type of development, location, etc. However, aggressive pricing, good marketing and better schemes can increase the sales velocity unto 40-50 units per annum per project.

SBD Micro Market

- Key Locations: Irumpanam, Vyttila, Kaloor, Vennala, Palarivattom, Off NH 47
 Bypass, Palarivattom, Edappally and part of Maradu etc.
- 2nd most preferred location. As it has good access to physical & social infrastructure facilities, well connected to CBD and work center.
- NH-Bypass act like major retail spine of Kochi City. Houses major operational malls such as LULU Mall, Oberon Mall and Gold Souk Grande Mall etc.
- SBD is classified into two micro markets comprises of Edappally (northeast-SBD) and Vyttila (southwest) micro market. Both the micro market are distinct in nature and due the natural constrain, the southeast micro market is very active than the northeast micro market
- Stock: 8461 units from 127 projects, Supply: 1840 units, which is about 15% of the total supply..
- Prominent projects includes- Skyline The Legend, Abad Oasis, Asset Luminaire, Mather Asteroid, SFS Center Cove, SFS Boulevard and SOBHA Isle etc etc.
- Average project size : 90 Units.
- Sales velocity: 60-70 units per project per annum based on developer profile, type of development, location, etc. However, aggressive pricing, good marketing and better schemes can increase the sales velocity unto 80-90 units per annum per project.



Residential Sector in Kochi City (3/3)

PBD Micro Market

- Key Locations Aluva, Vaduthala, Kakkanad, Nedumbassery, Maradu, Kalamassery, Tripunithura, Vazhakala and Seaport Airport Road etc.
- The most preferred zone of Kochi City as its close to work center (Info Park) and also has good access to physical and social infrastructure facilities.
- Similar to SBD, the PBD is also further classified into three micro markets- Aluva, Kalamassery and Nedumbassery as a micro market followed by Kakkanad and Tripunithura.
- Stock: 21784 units, Supply: 8,576 units, which is about 70% of the total supply.
- Prominent projects are Prestige Cityscape, Asten Nautica, Asten Campus Court, Prestige Panorama, Asset Rangoli and SI Shell Crest, etc.
- Average project size : 150 Units.
- Sales velocity: 110-120 units per project per annum based on developer profile, type of development, location, etc. However, aggressive pricing, good marketing and better schemes can increase the sales velocity unto 80-90 units per annum per project.

Constituent Locations	Indicative Price (INR per sq. ft.)	*Rental (INR per month)
Marine Drive, M.G. Road and extensions,	6,500 - 14,500	20,000 - 32,000
Kadavanthara, Jawahar Nagar, Panampally Nagar	5,500 - 9,800	19,000 - 25,000
Judge's Avenue, Lissy Junction, Stadium, SRM Road	5,000 - 7,500	15,000 - 22,000
Tripunithura, Irumpanam, Putiyakavu	4,000- 5,200	12,000 - 20,000
Maradu, Panangadu, Vytilla	4,200 - 5,200	18,000 - 26,000
Edappally, Palarivattom, Amrita	3,950 - 6,500	13,000 - 22,000
Seaport Airport Road, Trikakkara, Kakkanad, Kizhakkambalam, etc.	3,800 - 5,300	9,000 - 16,500
Aluva Municipality, Desam, Nedumbassery, etc	3,800 - 4,500	8,000 - 15,000

^{*} The above rental is for 2-BHK format and doesn't includes furnishing

