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1	**Citizen participation**	**A smart city constantly shapes and changes course of its strategies incorporating views of its citizen to bring maximum benefit for all. (Guideline 3.1.6)**	The City begins identifies priorities and projects to pursue without consulting citizens.	City undertakes citizen participation with some select stakeholders. The findings are compiled and incorporated in some projects or programs. Very few major decisions are shared with -citizens until final projects are unveiled.	City conducts citizen engagement at city level and local area level with most stakeholders and in most areas. The findings are compiled and incorporated in projects or programs.	City constantly conducts citizen engagement with people at each Ward level to incorporate their views, and these shape priorities and development projects in the city. Multiple means of communication and getting feedback such, both face-to-face and online are utilised. The effectiveness of city governance and service delivery is constantly enhanced on the basis of feedback from citizens.	**4**	□ Active Ward sabhas once every 3 months □ Minimum quorum of atleast 40 members □ The City prepares a five year Capital Investment plan based on ward consultations	4	□ Diversify the channels for citizen engagement – Greater utilization of Print and electronic media, Social media and representative tools □ Activities for Ward level community mobilization to be taken up
2	**Identity and culture**	**A Smart City has a unique identity, which distinguishes it from all other cities, based on some key aspect: its location or climate; its leading industry, its cultural heritage, its local culture or cuisine, or other factors. This identity allows an easy answer to the question "why in this city and not somewhere else?" A Smart City celebrates and promotes its unique identity and culture. (Guideline 3.1.7)**	There are few architectural monuments, symbols, and festivals that emphasise the unique character of the city. Built, natural and cultural heritage is not preserved and utilised or enhanced through physical, management and policy structures.	Historic and cultural resources are preserved and utilised to some extent but limited resources exist to manage and maintain the immediate surroundings of the heritage monuments. New buildinds and areas are created without much thought to how they reflect the identity and culture of hte city.	Historic and cultural heritage resources are preserved and utilised and their surroundings are well-maintained. Public spaces, public buildings and amenities reflect the cultural identity of the city;-	Built, natural and intangible heritage are preserved and utilised as anchors of the city. Historical and cultural resources are enahnced through various mediums of expression. Public spaces, open spaces, amenities and public buildings reflect local identity and are widely used by the public through festivals, events and activities.	**2**	□ Fort Kochi - Mattanchery has a strong multi-cultural history with small sections of different cultures living in harmony, distinguished by unique architectural styles of settlements. □ Heritage precincts of high historic value attract tourists, are not well-maintained. □ The only Bienanale in the country, a success	4	□ Heritage Management Plan: This will include creating an inventory of heritage buildings, special regulations for development in the vicinity □ Tools for information dissemination and promotion of tourism such as E-Kiosks at strategic points for information regarding monuments, hotel bookings, renting of cycles and vehicles, location of amenities.
3	**Economy and employment**	**A smart city has a robust and resilient economic base and growth strategy that creates large-scale employment and increases opportunities for the majority of its citizens. (Guideline 2.6 & 3.1.7 & 6.2)**	There are some job opportiunities in the city but they do not reach all sections of the population. There are a high number of jobs in the informal sector without sufficient facilities.	There is a range of job opportunities in the city for many sections of the population. The city attemps to integrate informal economic activities with formal parts of the city and its economy.	There are adequate job opportunities for all sections of society. But skill availability among residents can sometimes be a challenge.	There are adequate opportunities for jobs for all sections of income groups and skill levels. Job-oriented skill training supported by the city and by industry. Economic activities are suited to and build on locational and other advantages of the city.	**3**	□ Outward migration of educated keralites despite opportunities available within the city. This is associated with the quality of jobs in the service sectors, pay scale and growth opportunities. □ Low Work Force Participation ratio of 38%. Employment within Govt. agencies is highly sought for. □ Self-employment in the informal sector. □ Lack of opportunities database	4	□ Setting up of Incubation units, vocational training centres to promote small level business developments □ Key interventions include Organizing informal sector activity (organized hawker zones along shanmugam road, marine drive walkway and Fort Kochi area), redevelopment of existing market places (spice market, ernakulam market, broadway).
4	**Education**	**A Smart City offers schooling and educational opportunities for all children in the city (Guideline 2.5.10)**	The city provides very limited educational facilities for its residents. There are some schools but very limited compared to the demand. Many schools are in poor condition.	City provides adequate primary education facilities within easily reachable distance of 15 minutes walking for most residential areas of the city. The city also provides some secondary education facilities.	City provides adequate primary and secondary education facilities within easily reachable distance for most residential areas of the city. Education facilities are regularly assessed through - databases of schools including number of students, attendance, teacher - student ratio, facilities available and other factors.	City provides adequate and high-quality education facilities within easily reachable distance of 10 minutes walking for all the residential areas of the city and provides multiple options of connecting with specialised teaching and multi media enabled education. Education facilities are regularly assessed through database of schools including number of students, attendance, teacher-student ratio, facilities available and other factors.	**3**	□ City provides adequate primary and secondary education facilities (470 schools and 7 colleges) □ A clear balance between Private and Public schools □ One of the pioneers in Education reform in the country □ Poor sanitation system leading to health issues is one of the major concerns □ Lack of quality infrastructure	4	□ Upgradation of infrastructure – classrooms, toilets, bio-gas plant, solar roof panels □ The key component here is Smart classrooms in all schools. Asset utilization options include using the smart classroom set up for counseling of young adults, children of migrants who have limited or no access to schools

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5	**Health**	**A Smart City provides access to healthcare for all its citizens. (Guideline 2.5.10)**	Healthcare is difficult for citizens to access - demand for healthcare often exceeds hospitals' ability to meet citizen needs.	The city provides some access to healthcare for its residents but healthcare facilities are overburdened and far from many residents. Access to preventive health care is only easily available for some residents.	City provides adequate health facilities within easily reachable distance for all the residential areas and job centers of the city. It has an emergency response system that connects with ambulance services.	City provides adequate health facilities at easily accessible distance and individual health monitoring systems for elderly and vulnerable citizens which are directly connected to hospitals to prevent emergency health risks and to acquire specialised health advice with maximum convenience. The city is able to foresee likely potential disases and develop response systems and preventive care.	**3**	□ Kochi has sufficient number of hospital (97). The General hospital has recently been revamped to accommodate dialysis, palliative care unit □ City provides adequate primary and secondary healthcare within reachable distances □ Special care centres for Senior citizens, women and children, albeit limited number □ Emergency response infrastructure in place	4	□ The Area Development Plan proposes to scale up services at the 4 identified hospitals in the area. □ Key focus - transforming the hospitals into multi-specialty hospitals □ Smart and integrated MIS system - for efficient response to emergency calls, palliative care, coordination between agencies, efficient maintenance of database
6	**Mixed use**	**A Smart City has different kinds of land uses in the same places; such as offices, housing, and shops, clustered together. (Guidelines 3.1.2 and 3.1.2)**	The city has mostly separated uses and areas are focused either on residential, commercial, or industrial, with little co-existance of uses. The average resident cannot walk to the closest market or shops near his or her home. For almost everyone, going to work or going shopping for basic needs requires a journey by automobile or bus of more than 15 minutes. Land use regulations prevent putting commercial or office locations in residential neighborhoods and vice versa.	In some parts of the city , there is a mixture of land uses that would allow someone to live, work, and shop in close proximity. However, in most areas, there are only small retail stores with basic supplies near housing. Most residents must drive or use public transportation to access a shop for food and basic daily needs. Land use rules support segretating housing, retail, and office uses, but exceptions are made when requested.	Most parts of the city have housing, retail, and office buildings in close proximity. Some neighborhoods have light industrial uses within them (e.g., auto repair, craft production). Land use rules allow for mixed uses.	Every part of the city has a mix of uses. Everyone lives within a 15-minute trip of office buildings, markets and shops, and even some industrial uses. Land use rules require or encourage developers to incorporate a mixture of uses in their projects.	**3**	□ Land-use, Population density varies, with Mattanchery being haphazardly developed (predominantly residential) □ Mainland characterized by mixed land use □ Lack of open and public spaces (only 1% of gross area) □ The Structural Plan provide for mixed use development. FAR of 4 allows high rise, high density mixed landuse.	4	□ Detailed and strict landuse regulations to be enacted in order to reconstitute existing fragmented land parcels to free space for green pockets □ Key focus on Transit Oriented Development catalyzed by increased FAR of 6 in central city area □ Strict development guidelines for Heritage area
7	**Compact**	**A Smart City encourages development to be compact and dense, where buildings are located close to one another and are ideally within a 10-minute walk of public transportation, forming concentrated neighborhoods. (Guidelines 2.3 and 5.2)**	The city is expanding rapidly at its periphery into undeveloped land, rural or natural areas, or along industrial corridors - both formally and informally. Formal new development is occuring in a way that is "sprawling," meaning that the buildings spread across a wide area and are far from one another. Residents or tenants find it easier or safer to travel by automobile because it takes a long time to walk between destinations and there are busy roads separating buildings. Large pockets of land in the inner-city are vacant. New developments at the periphery tend to be large-scale residential	The city has one or two high density areas - such as the city center, or historic areas, where buildings are concentrated together and where people can walk easily from building to building and feel as though they are in center of activity. Most of the city consists of areas where buildings are spread out and difficult to walk between, sometimes with low-density per hectare. Regulations tend to favor buildings that are separated from one another, with lots of parking at the base and set-back from the streets. The city likely has some pockets of under-utilized land in the center. New formal	The city has multiple high density clusters that are easy to walk around where buildings are close together. However, the city actively encourages development to occur on under-utilized parcels of land into high-density, walkable areas. When new formal large-scale development projects happen at the periphery, they are encouraged to be dense and compact, with buildings that are close together and line the streets. The city actively encourages or incentivizes re-development of under-utilized parcels in the inner-city, especially those located close to public transportation.	The city is highly compact and dense, making the most of land within the city. Buildings are clustered together, forming walkable and inviting activity centers and neighborhoods. Regulations encourage or incentivize re-development of under-utilized land parcels in the city center. Buildings are oriented to the street –- and parking is kept to a minimum, located below ground or at the back of buildings. Public transport and walking connects residences to most jobs and amenities. Residential density is at an optimal with affordable housing available in most areas.	**3**	□ The city has a density of 63.5pph. The term compactness can be attributed to some portions of the city. City has multiple high density clusters □ Facilities are within a 15 minute reach of the residential settlements in city centre. □ Congested core city with old and dilapidated structures especially in central city area – Case for redevelopment	4	□ The proposal envisages to tackle the hovering issue of compactness through 'last mile connectivity' options. □ Electric feeder buses and affordable para-transit modes of commutation will be introduced in all the identified nodes in the area □ Key focus: TOD, High rise-medium density oriented planning with increased FAR (6)

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8	**Public open spaces**	**A Smart City has sufficient and usable public open spaces, many of which are green, that promote exercise and outdoor recreation for all age groups. Public open spaces of a range of sizes are dispersed throughout the City so all citizens can have access. (Guidelines 3.1.4 & 6.2)**	The city has very few usable public open spaces and very few usable green spaces. Available recreational spaces are located far away and are dispersed at long distances around the city. The few available public open spaces offer a limited variety of experiences for all sections of population and age groups such as places for sport, places for rest, and places for play.	A variety of public open spaces are available in some neighborhoods, but are not available in all the areas of the city or are located far away from residential areas -Many of the open spaces have access restrictions, or are not well-maintained. A variety of types of public open spaces may be lacking, such as natural areas, green areas, parks, plazas, or recreation areas.	Most areas of the city have some sort of public open space. There is some variety in the types of public spaces in the city. However, public spaces are sometimes not within easy reach or access of more vulnerable populations and are more restricted in poorer neighbourhoods.	Public open spaces are well dispersed throughout the city. Every residential area and work space has access to open space within 10 minutes walking distance. Open spaces are of various types - natural, green, plazas, parks, or recreation areas - which serve various sections of people. Public spaces tend to truly reflect the natural and cultural identity of the city.	**1**	□ City lacks green, open spaces and public places (only 1% of gross area) □ 0.4% of net area is covered by parks and open spaces against a norm of 10-15% □ 21% of the gross area covered by water bodies provides the required lung space	4	□ Redesigning Nehru park and to make it more accessible □ Development of plazas for social congregations, etc. □ The concept of connecting green-blue elements throughout the area is the key focus here. (accentuated walkway connecting DH – Marine walkway – Mangalavanam wetlands)
9	**Housing and inclusiveness**	**A Smart City has sufficient housing for all income groups and promotes integration among social groups. (Guidelines 3.1.2)**	Housing is very limited and highly segregated across income levels. Population growth far exceeds the creation of new housing. The poor live in informal settlements with limited to no access to basic services, and are concentrated in a few areas. The wealthy live in separate enclaves. Those in the middle have few , if any options.	Housing is available at most income levels but is highly segregated across income levels. Population growth slightly exceeds the creation of new housing. The wealthy and the middle class have housing that meets their needs at costs appropriate to their income. The poor live in informal settlements.	Housing is available at all income levels, but is segregated across income levels. The growth of supply of housing almost meets the rate of population growth. Increasingly, lower and middle-income people can find housing in areas that are conveniently located.	A wide range of a housing is available at all cost levels. The supply of housing is growing at pace with population. Affordable, moderate, and luxury housing are found clustered together in many areas of the city	**2**	□ Dilapidated houses in Mattanchery □ Only 3% of the city area is covered by a sewerage network. Absence of sewer lines, Inefficient septic tanks, direct discharge into canals □ Rate of growth of housing in the city fails to meet the demand due to unavailability of land □ High land and building prices make housing unaffordable across sectors	4	□ The Area Development Plan highlights a replicable model of redevelopment of housing in Mattanchery □ 755 Dwelling units are planned to be constructed and developed at Thruruthy and Kalavathy colonies Provision and upgradation of basic infrastructure in existing houses have been planned under the Credit Linked scheme
10	**Transport**	**A Smart City does not require an automobile to get around; distances are short, buildings are accessible from the sidewalk, and transit options are plentiful and attractive to people of all income levels. (Guidelines 3.1.5 & 6.2)**	Personal automobile centric city with very few modal options. Long trip lengths for daily commute to work and education. Accessing various areas by walking or cycling is difficult. Women and vulnerable sections find it very difficult to move independently in the city. There is limited public transport. Vehicles cause high air and noise pollution levels in the city. Vehicles dominate public spaces and affect their effective functioning.	The street network system is elaborate but public transport choices are restricted. Public transport can be too expensive or unafforadable for the poor. Pedestrian infrastructure is only available in select areas. Tha majority of investments focus on reducing traffic congestion through the creation of more roads.	Network of streets are fairly complete. Public transport covers most areas of the city. However last mile connectivity remains incomplete -and affects transport options-. Foot paths are accessible in most areas, whereas-concerns of safe crossings and security throughout the day remain. Parking zones are demarcated but absence of pricing increases over utilization of parking lots.	Street network is complete and follows a clear structure. Public transportation network covers the entire city and intensity of connection relates with the demand. Plenty of options of public transport are available and affordable for all sections of the society. There is multi-modal integration at all mass transit staions and organized-priced on street and off street parking. Walking and cycling is prevalent.	**2**	□ Share of Public transport more than 50% □ Second highest decadal growth (12% CAGR) in private vehicles among 44 cities in India. □ City characterized by narrow roads, too many intersections □ Traffic congestions, lack of capacity to carry spill over traffic. □ Last mile connectivity, an issue.	4	□ Key focus - Developing a Multi-modal, Intelligent transport system with enhanced water and road transport infrastructure. □ MG Road will be developed as a mass transit corridor. □ The ABP proposes to introduce electric feeder buses, bicycle sharing systems, and affordable para-transit modes of transport to provide last mile connectivity.

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11	**Walkable**	**A Smart City's roads are designed equally for pedestrians, cyclists and vehicles; and road safety and sidewalks are paramount to street design. Traffic signals are sufficient and traffic rules are enforced. Shops, restaurants, building entrances and trees line the sidewalk to encourage walking and there is ample lighting so the pedestrian feels safe day and night. (Guidelines 3.1.3 & 6.2)**	The city is designed mainly for the automobile. Daily life without a car requires long bus rides. Walking is difficult and often dangerous; there are few pavements, existing pavements need repair and lack trees to provide shade for pedestrians, and marked pedestrian crossings are rare. New buildings have their main entrances set-back from the street, sometimes with large driveways or parking lots separating them from the street, and sometimes are are enclosed by gates. Traffic signals are often disobeyed	Older areas of the city see a mix of pedestrians, cyclists, and vehicles but newer areas are focused mainly on the automobile. In the new areas, there are few pavements and main entrances to new buildings are not accesible from the front of the street. large driveways or parking lots often separating them from the street, and sometimes are are enclosed by gates. In these areas, traffic signals are disobeyed.	The city has a good network of pavements and bike lanes. Buildings in most areas of the city are easily accessible from the pavement. Howver, traffic signals are sometimes disobeyed and it can feel difficult to cross the street.	The city is highly walkable. Pavements exist on every street and are maintained. Trees line many sidewalks to provide shade for pedestrians. Buildings in most areas of the city are easily accessible from the sidewalk. Traffic signals control the flow of automobiles and are enforced. A network of bike lanes exists to promote cycling as a means of transport. Traffic rules are followed and enforced with great seriousness.	**1**	□ Less than 6% of the road network within the city have footpath on both sides of the road. □ NOT pedestrian friendly □ Disorganized traffic renders the main roads dangerous for those on foot or bicycle. □ Major traffic signals within the ABP area, are manned and most often face technical problems.	**4**	□ ABP proposes Non-motorized roads, streets. Roads will be transformed into best in class pedestrian friendly roads with a minimum of 2.5m on either side serving as a sidewalk □ Minimum of 2m to serve as a bicycle lane. □ Creation of walkways connecting all major nodes, Barrier free elements of utmost importance
12	**IT connectivity**	**A Smart City has a robust internet network allowing high-speed connections to all offices and dwellings as desired. (Guideline 6.2)**	City has no major plans to bring increased high speed internet connectivity to the public.	The city has made plans to provide high speed internet connectivity through the existing framework.	The city makes has high speed internet connectivity available in most parts of the city.	The city offers free wifi services to provide opportunity for all the citizens to connect with high speed internet across the city.	**3**	□ An extensive network of Optical Fibre cables runs all across the city. □ Lack of towers proves to be an obstacle to uniform high speed connectivity in various areas.	4	□ The Smart City Plan will focus on enhancing the existing network by increasing the number of towers for better connectivity. □ Strong Wifi hotspots will be created all across the area. Smart Wi-fi Bus shelters and public spaces
13	**ICT-enabled government services**	**A Smart City enables easy interaction (including through online and telephone services) with its citizens, eliminating delays and frustrations in interactions with government. (Guidelines 2.4.7 & 3.1.6 & 5.1.4 & 6.2)**	Essential Government services are not linked with online platforms. Paper intensive interactions with the local Government continues. Recieving services and response to citizen complaints take a long time. There is limited availability of data to monitor service delivery.	Some of the public services are provided online and infrastructure for total digitalization is not in place. Service delays occur regularly in some sectors. Responses to citizen inquiries or complaints are often delayed. No integration between services and billing.	Most of the services are provided online and offline. Data transparency helps monitoring. Systema and processes to better coordinate between various Government agencies are being developed.	All major services are provided through online and offline platforms. Citizens and officials can access information on accounting and monitor status of projects and programs through data available on online system. Robust data infratsructure system shares information and enhances internal governmental coordination.	**2**	□ Kochi Municipal Corporation has developed 22 e-governance modules which will be live and implemented in the near future.	4	□ Integrated City App will serve as a platform for service delivery. Citizens can use the app to avail a plethora of services and information related to all aspects of the city - bookings, traffic data, property tax payment, etc. □ E-kiosks to compliment the Smart City App
14	**Energy supply**	**A Smart City has reliable, 24/7 electricity supply with no delays in requested hookups. (Guildeline 2.4)**	There is only intermittent electricity supply with regular power shedding. Many residents have to plan their days around when power is available.	Electricity supply and loads are managed as per demand and priority for various functions with clear scheduling, with electricity being available in many areas for most hours of the day.	Electricity is available in most parts of the city for most hours of the day but some areas are not so well-served. Smart metering exists in some parts of the city but not all.	Electricity is available 24 x 7 in all parts of the city with smart metering linked to online platforms for monitoring and transparency.	**3**	□ Electricity is available in most parts for most hours. □ There are no major cases of outages. Power consumption for Kochi city high at 567 million KWh.	4	□ The proposals aim at Improving reliability by providing proposed sub-stations and universally implement smart metering. Underground wiring under R-APDRP to be scaled up under the IPDS scheme.

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15	**Energy source**	**A Smart City has at least 10% of its electricity generated by renewables. (Guideline 6.2)**	The city does not have any renewable sources of energy and there is no commitment to promote this for the forseeable future.	The city is preparing plans for ensuring that it gets more energy from renewable sources and is in the process of making commitments in this regard.	Some energy consumed is the city is produced through renewable sources. There are long term targets for higher renewable energy capacities and the city is making plans to achieve these.	At least 10% of the energy used in the city is generated through renewable sources. The city is undertaking long-term strategic projects to tap renewable sources of energy in its region/beyond to increase the percentage of renewable energy sources.	**3**	□ Solar/ renewable source energy is used in some residential and Institutional areas. □ Biomass energy is around 41% of total consumption of energy from renewable sources. □ Solar energy consumption to increase to 5% of total.	4	□ The proposal will increase the share of energy from renewable sources by promoting Bio-gas plants in all schools, solar panels in over 5000 houses □ Smart metering of water supply and electricity connections. □ One of the key proposals in this sector is the solar powered LED street lighting.
16	**Water supply**	**A Smart City has a reliable, 24/7 supply of water that meets national and global health standards. (Guidelines 2.4 & 6.2)**	The city has a poor water supply system with limited water availability. There are no clear targets to achieve higher quality and optimal quantity standards. Unaccounted water loss is above 40%	The city has intermittent water supply and availability. However it is setting targets and processes in place to try to improve its water supply. Unaccounted water loss is less than 30%.	The city has 24 x 7 water supply in most areas but the quality of water does not meet international health standards. Unaccounted water loss is less than 20%.	The city has 24 x 7 treated water supply which follows national and global standards and also available in suffecient quantity and affordable across all sections of the society. Unaccounted loss less than 15%.	**3**	□ Duration of supply ranges between 2 hours a day to 24 hours ; □ Reported NRW/ UFW~30%. □ However some areas of the city the NRW is as high as 50%	4	□ Aim to provide potable water 24*7 (pan-city initiative) □ Initiatives to bring down NRW to sub-20% □ Tap additional source of 180 MLD □ Improved distribution network □ Replacement of Household connections (last mile) for across 10,000 HSCs with Smart Metering and isolation valves
17	**Water management**	**A Smart City has advanced water management programs, including smart meters, rain water harvesting, and green infrastructure to manage stormwater runoff. (Guideline 6.2)**	The city does not measure all its supply. It does not recycle waste water to meet its requirements and rain water harvesting is not prevalent. Flooding often occurs due to storm water run-off.	The city has meters for all its water supply but lacks mechanisms to monitor. Water wasteage is very high. Some, but not much, rainwater harvesting exists.	The has meters for all its water supply with some smart mechanisms to monitor. Rainwater harvesting systems are installed and storm water is collected and stored in water bodies. However, recycling of waste water and reusage of storm water is limited.	The city has meters for all its water supply. It includes smart mechanisms to monitor remotely. Rainwater harvesting systems are installed and utilised through the city and storm water is collected and stored in water bodies and treated for usage. Recycled waste water is supplied for secondary uses.	**2**	□ 95% of Household connections are metered □ Lack of Smart Metering facilities Absence of Rainwater harvesting facilities □ Significant UFW in some lines	4	□ Strengthening Institutional mechanisms to adopt RWH systems (mandatory), Smart Metering proposed in the ABP area.
18	**Waste water management**	**A Smart City treats all of its sewage to prevent the polluting of water bodies and aquifers. (Guideline 2.4)**	The city is unable to treat all its sewage. Many local sewer lines open on to water bodies and open ground and pollute the environment.	Most waste water is collected and treated before before disposal. However the treated water does not meet standards and is not recycled for secondary uses.	All the waste water is collected and treated before before disposal. It is also treated to a high standard and some is recycled.	The city has zero waste water because all the waste water is collected, treated and recycled. It meets standards an reduces the need for fresh water.	**1**	□ Only 3% coverage of sewerage network in the city □ Damaged septic tanks in HHs not repaired □ Direct discharge of effluent into the canals □ The city is unable to treat all its sewage	4	□ Key focus - Decentralized Treatment and collection system will be undertaken in Fort Kochi – Mattanchery area □ Small bore sewer/ Vacuum system for onsite sanitation mgmt in city centre and Mattanchery □ Improvements to Elamkulam STP and collection system in central city area

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19	**Air quality**	**A Smart City has air quality that always meets international safety standards. (Guideline 2.4.8)**	City does not have plans, policies or programs to improve the air quality. Systems to monitor air quality are absent.	City has programs and projects to monitor air quality and spatialising the data to ascertain reasons for degrees of pollution in the air. A few strategies to decrease air pollution have been implemented.	City has programs and projects to monitor air quality and spatialising the data to ascertain reasons for degrees of pollution in the air. Pollution levels are acceptable.	The city has clean air by international standards. Live Air quality monitoring cover the entire city and data of air quality are mapped.	**3**	□ Air pollution levels meets the KSPCB standards □ Key concern are elevated RSPM levels due to vehicular pollution and metro construction	4	□ New monitoring stations under NAMP will be set up after identifying priority areas of higher levels of pollution. □ Real time citizen access to the data
20	**Energy efficiency**	**A Smart City government uses state-of-the-art energy efficiency practices in buildings, street lights, and transit systems. (Guideline 6.2)**	City has no programs or controls or incentive mechanisms to promote or support energy effeciency in buildings	The city promotes energy efficiency and some new buildings install energy effeciency systems that track and monitor energy use and savings.	Most new public buildings install energy effeciency systems and some older buildings are also retrofitted to be more energy efficient. Local government conducts counselling and outreach with developer, businesses and residents to adopt energy effeciency strategies	All the existing old and new public buildings employ energy effeciency principles in development and operation and apply for energy rating by national and international forums. Many non-public buildings are also energy efficient because the government promotes energy efficiency through incentices and regulations.	**2**	□ Low number of LED Lights in city; The initiatives towards the Energy efficient lighting driven at an individual level. □ First Solar powered airport in the country. □ City as part of the Solar city project also aims to shift towards energy efficient technologies	4	□ Key focus: Solar powered LED lighting on all streets and major corridors. □ 5000 HHs connected to the Smart Grid of the city, RWH in all HHs, recycling and reuse of waste water □ Implementation of Waste to energy plant in Brahmapuram
21	**Underground electric wiring**	**A Smart City has an underground electric wiring system to reduce blackouts due to storms and eliminate unsightliness. (Guideline 6.2)**	City does not have plans for underground electric wiring system.	More than 40% of the city has underground electric wiring system.	More than 75% of the city has underground electric wiring system.	More than 90% of the city has underground electric wiring system.	**2**	□ R-APDRP undertaken as part of shifting to the smart grid mode in the state. □ Major work – 200km laying of underground electric cables. □ Frequency of power disruption will be reduced, voltage fluctuations will be eliminated, distribution loss in city limits will be below 15% from the current 23%	4	□ Extension of underground wiring will be taken up under the IPDS scheme in the Fort Kochi – Mattanchery – Central city area
22	**Sanitation**	**A Smart City has no open defecation, and a full supply of toilets based on the population. (Guidelines 2.4.3 & 6.2)**	Many parts of the city do not have access to sanitation infrastructure and facilities.	Sanitation facilities are availabile to 70% of the city's population.	Sanitation facilities are available to 90% of the city's poopulation.	Sanitation facilities are available to 100% of the city's population.	**3**	□ Almost 95% households have individual toilets □ Key concern is the lack of public/ community toilets (only 14 in the city) due to O&M challenges	4	□ E-toilets have been proposed to be installed along all main roads. Parks and public spaces will house 'pay and use' public toilet complexes that will be developed all across on PPP mode. □ The goal is to provide and set up one toilet complex at every 1km stretch.
23	**Waste management**	**A Smart City has a waste management system that removes household and commercial garbage, and disposes of it in an environmentally and economically sound manner. (Guidelines 2.4.3 & 6.2)**	Waste collection systems do not pick up waste on a frequent basis and waste often enters into water bodies.	Waste generated is usually collected but not segregated. Recycling is attempted by difficult to implement.	Waste is segretated, collected, recycled and disposed in an environmentally sound manner.	The city reduces land fill caused by waste so that it is minimal. All the solid waste generated is seggregated at source and sent for recycling. Organic waste is sent for composting to be used for gardening in the city. Energy creation through waste is considered.	**3**	□ Only domestic waste is covered under the Municipal SWM system; □ Separate systems for E-waste and biomedical waste managed by the Institutions □ Lack of treatment/ processing facilities for E-waste and bio-medical waste; New Projects sanctioned to address this. □ Almost 100% door to door coverage	4	□ Overall efficiency in the SWM system : (i) 100% Efficiency in collection and segregation with bins for Organic and inorganic wastes (ii) Localized bio-composting facilities for minimized transportation of waste to the city SWM plant. (iii) Smart Equipments including Street sweeping/ GPS enabled Vehicles (iv) Bio-composting in Government institutions

A	B	C	D	E	F	G	H	I	J	K
	Feature	**Definition**	Scenario 1	Scenario 2	Scenario 3	Scenario 4	**Self-assessment of the city) with regard to each feature**	**Basis for assessment and/or quantitative indicator (Optional - only if data exists)**	**Projection of 'where the city wants to be' with regard to the feature/indicator**	**Input/Initiative that would move the city from its current status to Advanced status (Scenario 4: Column G)**
24	**Safety and security**	**A Smart City has high levels of public safety, especially focused on women, children and the elderly; men and women of all ages feel safe on the streets at all hours. (Guideline 6.2)**	The city has low levels of public safety - most groups of residents feel insecure during most parts of the day in many parts of the city.	The city has medium levels of public safety - some more vulnerable groups feel insecure during some points of the day and in some parts of the city	The city has high levels of public safety - all citizens including women, children and the elderly feel secure in most parts of the city during most time in the day.	The city has very high levels of public safety - all residents feel safe in all parts of the city during all hours of the day.	**3**	□ Only 100 CCTV surveillance points in the city □ The city has relatively high levels of public safety driven by community policing models like HOPE, Janamaithri □ However, Women, children and elderly feel insecure	4	□ ABP proposes to scale it up to the whole city - 7000 cameras. □ The plan proposes to scale up community – police engagement forums and Greater use of technology to streamline response.

ANNEXURE III

3.1 Abbreviations

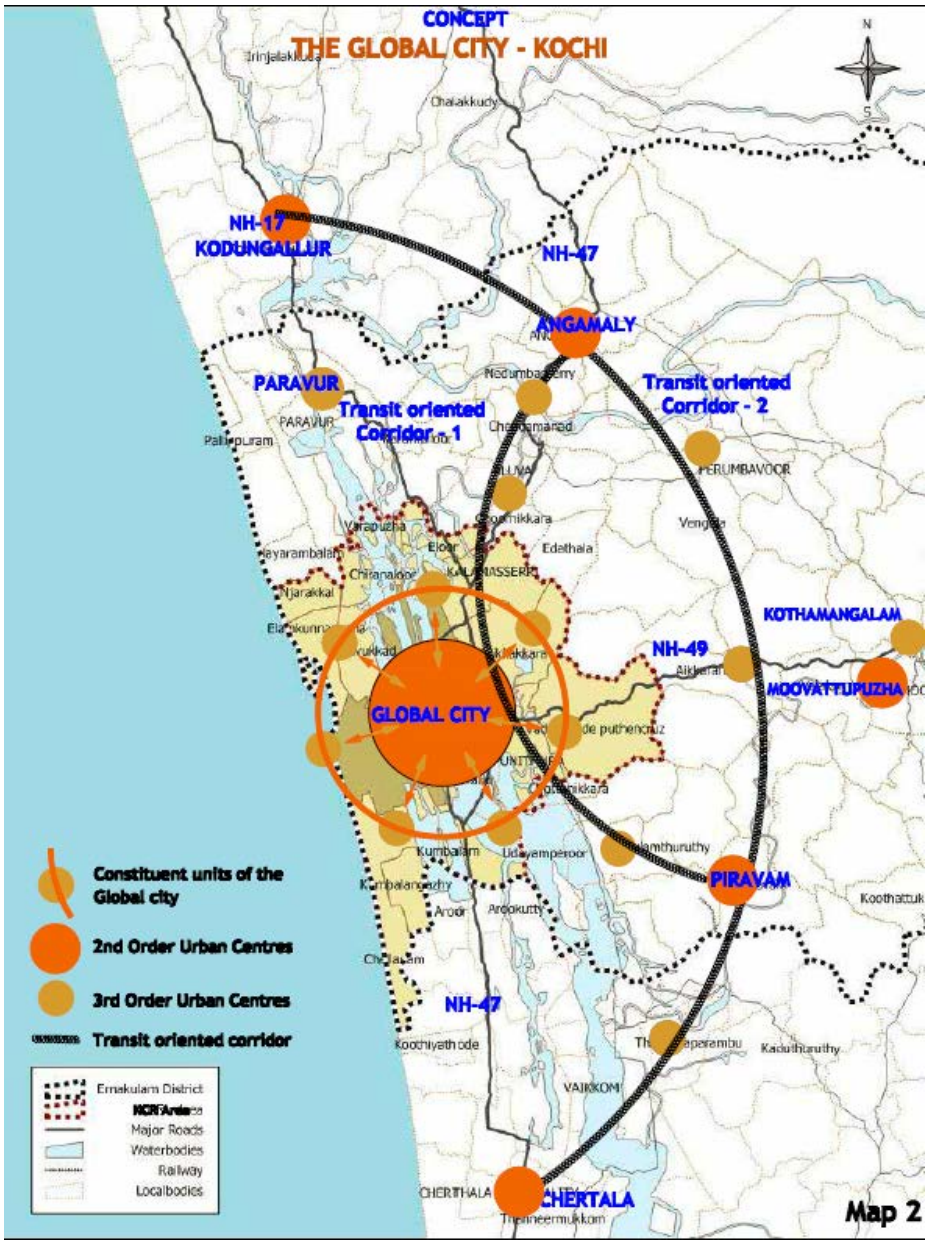
ABP	Area Based Plan
ADB	Asian Development Bank
BOD	Biological Oxygen Demand
BPL	Below Poverty Line
BSUP	Basic Services for Urban Poor
BKRG	Better Kochi Response Group
CAGR	Compounded Annual Growth Rate
CDP	City Development Plan
CED	Centre for Environment and Development
CKCL	Clean Kerala Company Limited
CKM	Clean Kerala Mission
CSP	City Sanitation Plan
CPCB	Central Pollution Control Board
CPHEEO	Central Public Health Environmental Engineering organisation
CREDAI	Confederation of Real Estate Developers' Associations of India
CSP	City Sanitation Plan
DPR	Detailed Project Report
EMV	(Europay, MasterCard, Visa)
GCDA	Greater Cochin Development Authority
GIDA	Goshree Island Development Authority
GoI	Government of India
GoK	Government of Kerala
GIZ	GesellschaftfürInternationaleZusammenarbeit
HUDCO	Housing and Urban Development Corporation Limited
IMaCS	ICRA Management Consulting Services Limited
IIA / IIUD	Indian Institute of Architects, Indian Institute of Urban Designers
IKM	Information Kerala Mission
JNNURM	Jawaharlal Nehru national Urban Renewal Mission
KBF	Kerala Builders Forum
KIIFB	Kerala Infrastructure Investment Fund Board
KITCO	Kerala Industrial and Technical Consultancy Organisation Ltd.
KMRL	Kochi Metro Rail Limited
KUIDFC	Kerala Urban Infrastructure Development Finance Corporation
KURTC	Kerala Urban Road Transport Corporation
KILA	Kerala Institute of Local Administration
KRFB	Kerala Road Fund Board

KSEB	Kerala State Electricity Board
KSRTC	Kerala State Road Transport Corporation
KSUDP	Kerala Sustainable Urban Development Project
KTDC	Kerala Tourism Development Corporation
KWA	Kerala Water Authority
KSINC	Kerala State Inland Navigation Corporation
LPCD	Litres Per Capita Per Day
LSGD	Department of Local Self Government, Government of Kerala
MLD	Million Litres Per Day
MGP	Modernizing Government Program
MoU	Memorandum of Understanding
NATPAC	National Transportation Planning and Research Centre
NMT	Non-Motorized Transport
NHM	National Health Mission
NULM	National Urban Livelihoods Mission
NUSP	National Urban Sanitation Policy
O&M	Operation and Maintenance
PMO	Project Management Office
PWD	Public Works Department
R-APDRP	Restructured Accelerated Power Development and Reforms Programme
RWA	Residents Welfare Association
SPC	Student Police Cadet
STP	Sewage Treatment plant
SWM	Solid Waste Management
SWOT	Strengths, weaknesses, Opportunities and Threats
TCPD	Town and Country Planning Department
TDS	Total Dissolved Solids
T&D	Transmission and Distribution
UNESCO	United Nations Educational, Scientific and Cultural Organization
UFW	Unaccounted For Water
UIDSSMT	Urban Infrastructure Development Scheme for Small & Medium Towns
ULB	Urban Local Body
UPAD	Urban Poverty Alleviation Department
WTP	Water Treatment Plant

3.2 List of Sources and References

Q	Sub - component	Source
1.a	Transportation	City Mobility Plan (2007), Strategic Transit Oriented Development Action Plan for Kochi (KMRL), Development Plan for the Kochi City Region 2031, Integrated Water Transport System for Kochi City (KMRL, 2015), Vyttila Mobility Hub Report (CII, CPPR, Kumar Group)
1.b **1.c**	Water Availability Solid Waste Management	CDP 2006, Development Plan for the Kochi City Region 2031, KWA Annual Report, City Sanitation Plan 2011, AMRUT SLIP (SLB indicators), https://kwa.kerala.gov.in/
1.d	Energy	Development Plan for the Kochi City Region 2031, CDP for Kochi city (2006) www.kseb.in/, State Economic Review 2009 (Chapter 7)
1.e	Safety and security	www.kochicitypolice.org/ , KMC, National Crime Records Statistics 2011, 2013 (NCRB)
1.f	Housing	RAY DPR for Rehabilitation of Thruruthy slum (2013), City Development Plan 2006, Kudumbashree Slum Survey Report 2011, Discussions held with Kudambashree units w.r.t status of slum housing projects.
2.b	**Two-way communication between citizens and administration**	new**sutharya**.**kerala**.gov.in/
2.c **2.e**	**Use of e-Gov to enable hassle free access to statutory documents** **Availability of basic information relevant to citizens**	www.corporationofcochin.net/ , Discussions with KMC

3.3 City profile and Growth nodes



Population projections for KMC	
Year	**Population**
1981	513249
1991	564589
2001	595575
2011	602046
2031	929541

Source: Development Plan for Kochi City Region 2031

3.4 Consultation sessions conducted

3.5 Options for Area Based Development emerging from consultations

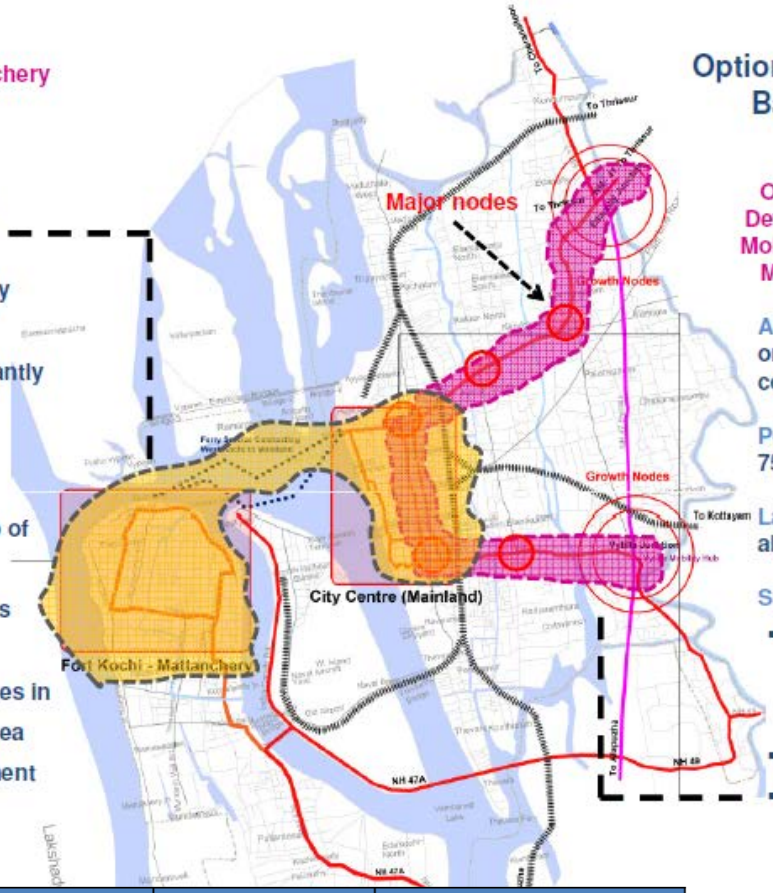
Option 2: Fort Kochi – Mattanchery

Area of direct impact : 6.9 km square

Population benefitted: 100,000

Land use:
1. Mattanchery : Predominantly residential (Urban poor population)
2. City Centre area: Predominantly Mixed

Significance of area:
- Reflects Heritage value
- Houses the commercial hub of Kochi
- Affected population includes large population of EWS
- Poor quality of urban services in Fort Kochi – Mattanchery area
- Scope for holistic development



Options considered for Area Based Development

Option 1: Transit Oriented Development between Vytilla Mobility Hub and Edapally via Metro Corridor (MG Road)

Area of direct impact: 500m on either side of 25km main corridor

Population affected: approx. 75,000

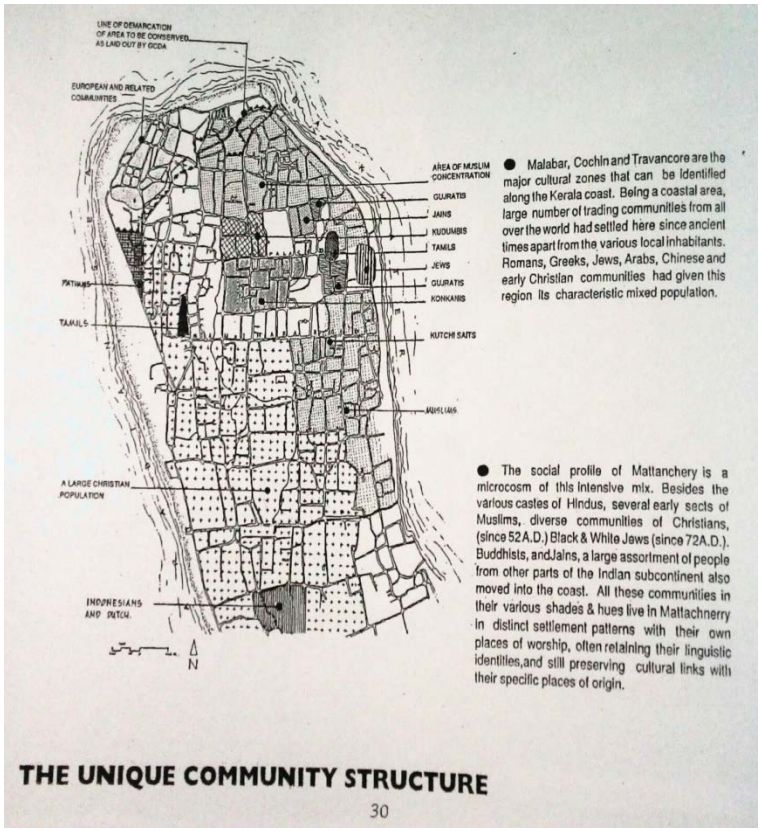
Land use: Residential + Mixed along corridor

Significance of the area:
- Covers important junctions and nodes of the city
- Important city spine
- Scope for transit oriented growth and commercial development
- Along the Metro Corridor

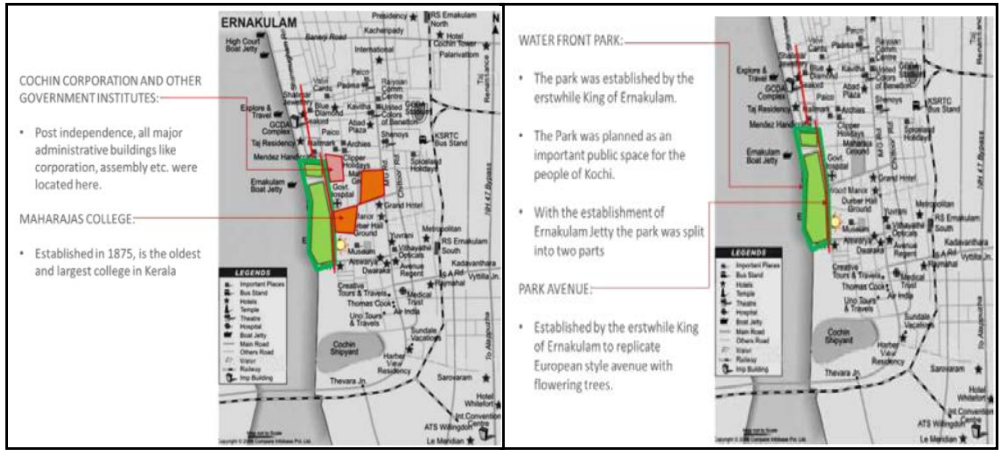
Selection Parameter	Option 1 Retrofit of parts of West Kochi and Central City	Option 2 TOD around Terminals including Vytilla, Edapally, MG Road	Option3 Integrated Intelligent Multi Modal Transport plan linking major modes from Fort Kochi to Edapally.
Alignment with Citizen Priorities and City Vision – 20%	15	10	7
Considerable Economic and livelihood impact – 15%	10	10	5
Inclusiveness – 15%	15	5	10
Maximum impact wrt number of beneficiaries – 20%	15	10	10
Innovative and building on the unique strengths of the city – 15%	15	8	12
Readiness of plan/ projects – 15%	15	12	7
Area Score	**85%**	**55%**	**51%**

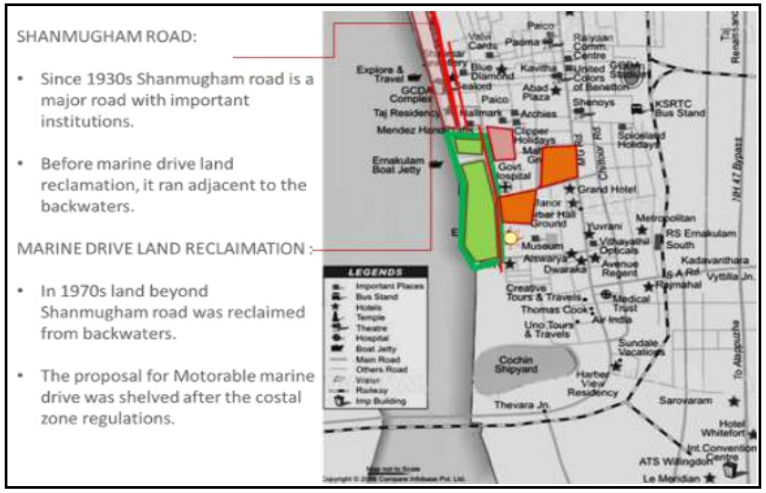
3.6 Significance of the selected area: Fort Kochi – Mattanchery – Central city area

Fort Kochi – Mattancherry Heritage Area



Growth of Central city area





Demographics – Fort Kochi – Mattancherry – Central city area

Ward	Area (In Acres)	Households	Density (pph)	Population (2011)	Sex Ratio	Population 2021	Population 2031
Fortkochi	355	2,578	72	10,279	1106	10,739	11,333
Kalvathy	94	1,652	206	7,814	1107	8,205	8,615
Earaveli	43	1,282	367	6,425	1115	6,746	7,084
Karippalam	98	2,003	222	8,882	1037	9,326	9,792
Mattanchery	153	2,227	164	10,144	1015	10,651	11,184
Ekm South	385	1,741	38	5,941	1082	6,832	7,857
Ekm Central	394	2,131	55	8,734	1023	10,044	11,551
Ekm North	204	1,140	53	4,414	1091	5,076	5,838
Floating Pop + Indirect Beneficiaries				40,000 Approx.		51,627	62,984
Total	**1,726**	**14,754**	**-**	**100,000 Approx.**	**-**	**119,300**	**136,238**

Source: Census 2011



3.7 Major developmental projects in Kochi

Kochi city exerts a powerful economic influence extending over a much larger area than its corporate limits. As the focal point of an extensive regional network of transport and communication, Kochi is the nerve centre of a large urban agglomeration. Summarized below, are projects that have significant influence on the city and its' growth.

1. **International Container Transshipment Terminal, Kochi -** is a container trans-shipment facility which is part of the Kochi Port. It is the only trans-shipment port in India. The project is being undertaken in three phases. The first phase of the terminal was commissioned in February, 2011. This can handle cargo up to one million TEUs (Twenty-foot Equivalent Units) per annum. On completion of the third phase, the terminal will handle 4 million TEUs of cargo per annum.
2. **International Airport:** Cochin International airport, the country's first airport built under PPP model has scripted another chapter in aviation history by becoming the first airport in the world that completely operates on solar power. 12 MWp solar power plant, comprising of 46,150 solar panels laid across 45 acres near cargo complex has been set up. Now, Cochin airport's solar power plant is producing 50,000 to 60,000 units of electricity per day to be consumed for all its operational functions, which technically makes the airport ' absolutely power neutral '.
3. **Kochi Metro:** Kochi Metro is an under construction, rapid transit system, being set-up at a cost of INR 5,146 Crore. In the Phase-I, the Kochi Metro Rail Corporation has proposed an elevated route spanning approximately 25.25 km. from Aluva to Pettah. Once completed, the metro would help improve connectivity and reduce travel time from Aluva to the key micro-markets of Kochi. The route would have 23 stations and the tickets would be priced between INR 10 to INR 30. The project is expected to be completed by the year 2017.
4. **Vyttila Mobility Hub:** Vyttila Mobility Hub, is an integrated transit terminal in the city of Kochi. It is designed as a converging point of various forms of public transportation, such as local and long distance buses, metro rail and inland water transport. It is planned over an area of 37 acres in Vyttila, making it one of the largest bus terminals in Asia. When fully implemented, it will have the facility to integrate all modes of public transportation. The terminal will also house shopping, entertainment and hospitality services.
5. **Waste to Energy Plant at Brahmapuram:** The 450 crore project is expected to convert the non-recyclable and combustible portion of the waste to electricity. It will also reduce the amount of material sent to landfills besides preventing contamination of air and water. The project will be an integrated solid waste management plant with minimum land fill, producing electrical energy output capacity to cater to treatment of 500 tonnes of municipal solid waste per day. The government will provide 10 acres near the now defunct plant of the Kochi Corporation at Brahmapuram for the new project.



3.8 Graphical representation of Potential Interventions

Towards a smarter Kochi...

Rejuvenation of city canals

Redevelopment of existing parks and open spaces

Protection of green cover

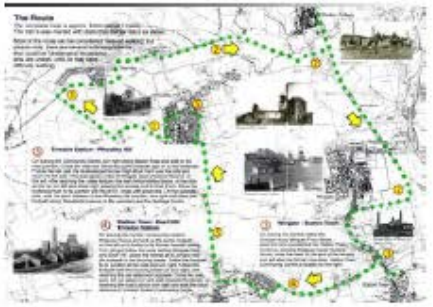
Creation of green walkways, plazas, etc

Compactness: Mixed land use – Transit Oriented Development along all major roads

Priority Area: Reconstitution of urban form

Reviving the cities green and glory through rejuvenation of water canals, existing parks, creation of plazas, walks along canals and green pockets, ensuring a greener tomorrow for kochi.

Towards a smarter Kochi...



Heritage and Tourism Master plan

Heritage Trail

Cultural centre for promotion of local art forms

Smart Branding

Smart amenities for tourists

Reviving the image of Fort Kochi as the cultural and heritage capital and that of the city centre as a commercial hub will restore the city to its former glory. Smart brand building and redevelopment of key areas will prove to be vital in achieving this.

Priority Area: Reviving identity and culture

Towards a smarter Kochi...

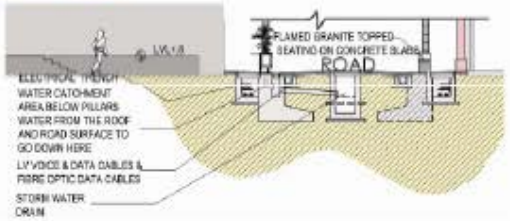
Reconstitution of shops and stalls

Ernakulam Market

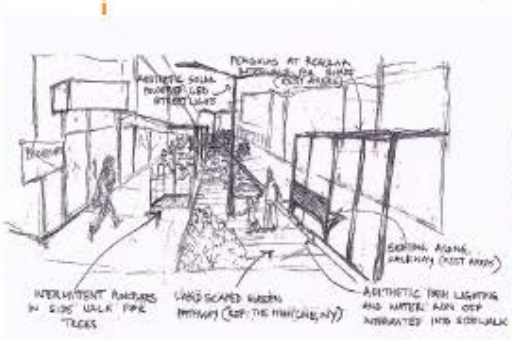
Transforming defunct market jetty into Market Canal Square

Redevelopment of Ernakulam Market

Broadway



Section of proposed footpath - Broadway



Pedestrianization of Broadway

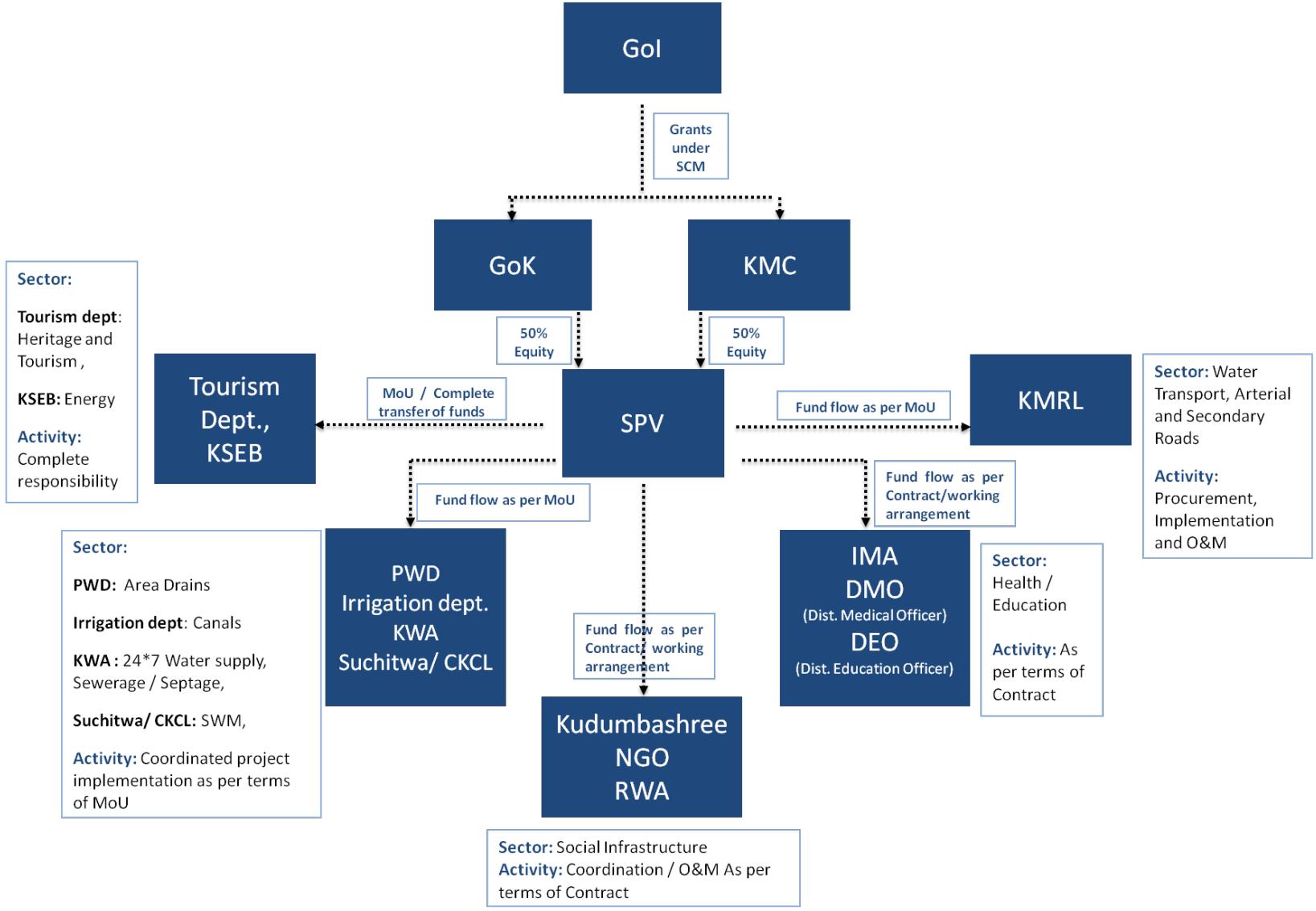
Priority Area: Reviving Identity and Culture

3.9 SCP Implementation: Gantt Chart showing Activities, Sequencing, Timelines (Q-32)

Sl. No	Efforts and Milestones	Timeline									
		Year 1 - FY 17		Year 2 - FY 18		Year 3 - FY 19		Year 4 - FY 20		Year 5 - FY 21	
		H1	H2	H1	H2	H1	H2	H1	H2	H1	H2
1	**Constitution of SPV and Institutional actions**										
a	**Constitution of SPV**										
	Incorporation of SPV; First tranche of funding										
	Recruitment of Key personnel										
b	**MoUs and Working arrangements with line departments/ agencies**										
c	**Institutional review arrangements**										
	Board of SPV - Quarterly review										
	Inter-departmental										
	Citizen Advisory forum - Quarterly										
	Council review - Half-yearly										
	Review by State Mission										
	Reporting to MOUD - Quarterly										
2	**Projectivisation phase**										
a	Detailed Scoping and ToR for the the list of projects										
b	Review of existing DPRs and Technical documents through joint committees										
c	RFP/ Tender for new technical studies/ DPR										
d	Completion of all project preparatory studies										
e	**Integrated project planning**										
2	**Spatial mapping of assets and information**										
	Spatial Mapping of all assets in the proposed area										
	Integrating survey and digital information on the GIS platform										
3	**PROCUREMENT & IMPLEMENTATION**										
a	**Procurement process - Tendering/ Bidding/ Selection/ Financial**										

	closure										
	Vendors - procurement of equipments/ materials										
	EPC contractors - Construction activities/ Housing etc										
	EPC contractors plus annuity based O&M contract - WS and Sewerage, Roads, canals and allied infrastructure										
	PPP concessionaires - Streetlights										
	O&M contract - SWM, Sanitation,										
	JV partners for Social infrastructure										
b	**Project implementation**										
	Integrated Intelligent Multi-modal transport										
	Central City Urban Renewal										
	Slum Redevelopment and Housing improvement										
	Water Supply										
	Sewerage/ Septage										
	Solid waste management and Sanitation										
	Canals/ Waterways										
	Roads and allied infrastructure										
	Parks and open space										
	Energy										
	Social Infrastructure										
	Heritage and Tourism Development										
	24*7 Water supply										
	Integrated City APP										
4	**OPERATION AND MAINTENANCE PLAN**										
	Revenue improvement plan for the city										
	Implementation of the plan recommendations										

3.10 Relationship between SPV and Govt. / Non Governmental Organizations (Q-34)



3.11 Stakeholder Role and Relationships (Q-36)

TABLE 9

SN	Stakeholders	Relation and role in preparation of SCP	Possible role in future
1	Mayor, Deputy Mayor and Elected Council members	▪ The Mayor was the Central core to the SCP preparation process ▪ Shared a Vision for the city and the strategic direction over the next 5-10 years ▪ Chaired all FGDs and consultations ensuring public support for the project ▪ Instrumental in driving the citizen engagement across platforms ▪ Reaching out to elected representatives and assisting in gaining the council's complete acceptance for the whole programme	▪ The Mayor and the Council shall remain the Anchor for driving the Smart City Mission. ▪ The Elected representatives shall monitor the performance of the SPV and ensure citizen support. ▪ Continue the citizen engagement process to align the development plans and implementation with the cities' aspirations
2	Principal Secretary, LSG Department, Government of Kerala	▪ Provide the Strategic direction for the SCP framework and preparation building on the unique strengths of the city ▪ Helped in a creating platform involving around 47 departments/ agencies for driving the SCP preparation process ▪ Helped in laying out a Vision for the city deriving from the consultations from across citizen forums	▪ Instrumental in driving the policy level support / interventions required for the smooth and seamless functioning of the systems for implementing the projects
3	Secretary, LSGD (Urban Affairs), GoK (Mission Director)	▪ Spearheaded the preparation process at the State level and provided constant support and motivation ▪ Instrumental in promoting the citizen outreach programmes like Essay competition, Painting competition, Logo design and Tag-line competition	▪ As one of the State's nominee in the SPV, the Mission Director shall represent the State's priorities and interest during the Smart city mission implementation and also serve as the interface between the State Departments and the SPV
4	District Collector	▪ As an Acting Mayor for a brief phase during the SCP preparation, the Collector steered consultations with Citizen groups and shared inputs on the Area Development plan and Pan-city proposal	▪ As the administrative Head of the District, the Collector will be instrumental in ensuring smooth functioning of the SPV ▪ The District collector also has a crucial role to play in case of conflicts between the activity partners
5	Project Director, KSUDP (Nodal officer for Smart Cities Mission) and Key Staff, SMMU	▪ Facilitated discussions on the technical feasibility and impact of the potential proposals, platform for inter-departmental knowledge transfer ▪ Spearheaded three rounds of Consultations on Smart Solutions involving all the major line departments, agencies and the in technical service providers. This drew participation from experts across the globe. ▪ Evaluate the Smart City Proposal to ensure robustness of the proposal	▪ Providing Handholding support to the SPV for its effective functioning ▪ Support the SPV in case of Convergence of funds with other schemes like KSUDP, AMRUT etc
6	Secretary and Additional Secretary KMC Key KMC Staff Centre for Heritage and Development	▪ Single point for all city data; Co-ordination between line departments ▪ Support in conducting 73 ward sabhas (out of 74) in a limited time-span ▪ Helped in framing the baseline assessment of the city and services. ▪ Furnish technical/ plan documents for the relevant sectors and provided a brief on its present status ▪ Played important role in vision formulation	▪ Providing Handholding support to the SPV in the initial stages to ensure smooth transfer of functions ▪ Provide SPV with the relevant asset information and service levels ▪ Facilitate a platform for knowledge transfer and peer learning between the SPV and the Govt. agencies
7	Parastatal agencies/ Line departments	▪ Furnish technical/ plan documents for the relevant sectors and provided a brief on its present status ▪ Shared the relevant baseline information with respect to the proposed area and also helped in charting out a detailed technical and financial plan to address the specific challenges in the area	▪ Officials of these agencies and departments will serve as one of the key enablers for convergence of various ongoing and potential schemes, projects. ▪ Being the key drivers of projects across various sectors at the ULB, these officials will provide the platform required to merge and develop integrated plans and projects.
8	Active Citizen Forums and Industry Trade chambers	▪ Citizens from different walks of life, Representatives of various private and non-governmental organizations including trade union members, builders association, para-transit workers, industry representatives, members of FICCI and CII, Resident Welfare Associations, members of the Indian Medical Association, Kudambashree members and Anganwadi workers, representatives of Management and Technical Insitute, women and children rehabilitation centres, Centre for senior citizens, and citizens belonging to vulnerable sections of the society, OoruKootam, etc who play an important role in the functioning of the city were actively engaged and their inputs absorbed into the process of area selection	▪ These sects of citizens form an integral part of the Smart City Mission and will need to be roped into the process of Proposal Planning, Project development and implementation at every stage. A forum for active participation of these stakeholders may be created. ▪ Significant inputs in terms of identifying issues at area or ward level, as well as compliment the process of overall acceptance of the plans and projects in the society.
9	Architects and Urban Designers	▪ The Indian Institute of Architects, Kerala chapter (IIA-K) and the Indian Institute of Urban designers (IIUD-K) played an important role in providing inputs on urban planning concepts, identifying projects related to Planning with significant implications on reviving the character of certain areas. ▪ These experts were active through the proposal formulation stage and helped by furnishing concept level plans of each of the urban-character	▪ Expertise of these stakeholders may be leveraged during the project preparation and formulation phase for Architecture and Urban form related inputs.
10	World Bank, ADB and KfW	▪ Provided inputs on the nature of funding support that can be available for the Smart cities scheme.	▪ Potential to explore funding / lending opportunities to the SPV and project proposals under the mission
11	Private Service Providers and financiers	▪ Technology experts were engaged across 5 rounds of consultations to identify solutions specific to citizens concerns and aspirations in each of the thematic areas. Also separate consultations with representatives from FICCI and CII were also undertaken. ▪ These experts provided their views and technical inputs on the feasibility of the proposals and estimated cost and the indicative outcomes ▪ Helpful in identifying implementation and operational challenges.	▪ Potential to participate in downstream projects and initiatives to provide smart solutions
11	Press and Media	▪ The role of the press in promoting the Smart City Kochi Project at the city and State has complimented the citizen outreach programmes. ▪ Regional and English Newspapers, Social media platforms such as Facebook and Twitter, FM stations in the city, etc have all played a vital role in gaining city and State wide coverage	▪ Will continue to be a key platform for KMC to communicate progress of initiatives under the SCP
		Technical Assistance Experts	
12	British High Commission and Atkins	▪ Assistance in project design and concepts; Integration of global standards in city planning concepts into the SCP; ▪ Support in preparing plans for Future Proofing Kochi city	▪ Technical assistance and Handholding support during the Smart City plan period
13	Kochi Metro Rail Ltd	▪ Technical assistance in project planning and structuring; ▪ Inputs on key initiatives undertaken in the city to address the mobility challenge	▪ KMRL will work closely with the SPV during the project implementation and maintenance: urban transport projects under ABP and Smart Card, City App

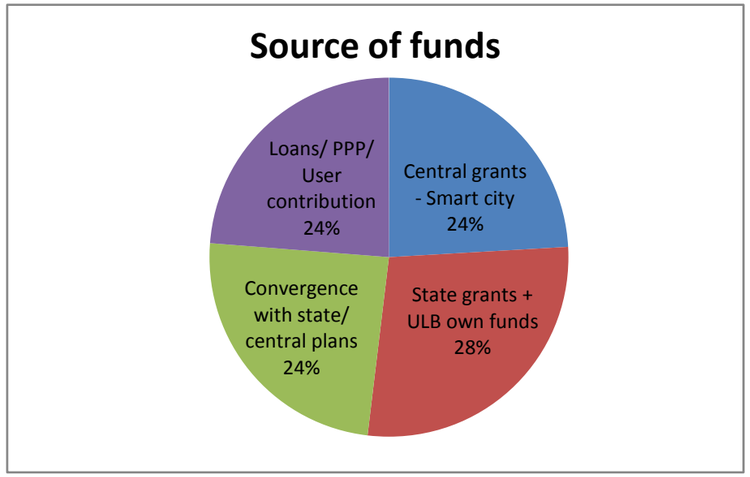
3.12 Financial Summary and Capital Investment Plan

Rs. Lakh	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22
OPENING BALANCE	-	33,300	32,970	29,028	15,506	10,803
REVENUE ACCOUNT						
Revenue Income						
Tax	1,289	1,300	1,312	1,416	1,600	1,808
Other Own income	867	949	1,040	1,159	1,305	1,471
Plan funds	1,748	1,764	1,779	1,795	1,811	1,827
Water & Sewerage Charges	430	486	549	621	701	792
Sub-Total	**4,335**	**4,499**	**4,680**	**4,990**	**5,417**	**5,898**
Revenue Expenditure						
Establishment and Admin and interest cost	486	502	521	544	571	604
Base O&M Costs in Service Area	657	583	518	460	408	362
Additional O&M	122	561	1,248	1,983	2,662	3,061
Others	1,230	1,216	1,202	1,189	1,175	1,162
Sub-Total	**2,495**	**2,862**	**3,490**	**4,175**	**4,816**	**5,190**
REVENUE SURPLUS	**1,840**	**1,637**	**1,190**	**815**	**600**	**709**
CAPITAL ACCOUNT						
Capital Receipt						
Grants - Smart Cities Mission	40,000	20,000	20,000	10,000	15,230	-
Own funds	208	534	611	592	499	115
Grants - Others	4,101	10,549	12,069	11,688	9,860	2,267
PPP and CSR	1,960	5,041	5,767	5,585	4,712	1,083
Loans	2,041	5,251	6,007	5,817	4,908	1,128
Sub-Total	**48,310**	**41,375**	**44,455**	**33,682**	**35,209**	**4,594**
Capital Expenditure						
Project Spending	16,850	43,341	49,587	48,019	40,512	9,315
Sub-Total	**16,850**	**43,341**	**49,587**	**48,019**	**40,512**	**9,315**
CLOSING BALANCE	**33,300**	**32,970**	**29,028**	**15,506**	**10,803**	**6,791**

Note: The capex in FY 21 and FY 22 driven by 24*7 WS. 80% of ABP initiatives to be completed by FY 20. Principal moratorium on loans assumed. Loan component attributable for ABP is low.

Capital Investment Plan

APPLICATION OF FUNDS		
Sl no	**Heads**	**Capital Cost**
		Rs lakh
	AREA DEVELOPMENT PLAN	
I	Intelligent Transportation and Seamless Mobility	
A	Integrated Intelligent Multi-modal transport	11,128
B	Roads and allied infrastructure	19,699
II	Reconstitution of Urban form	
A	Central City Urban Renewal including Market Devl	11,500
B	Revival of Parks and open space	420
III	Inclusive Urban Planning	
A	Slum Redevelopment and Housing improvement	23,999
B	Water Supply	13,155
C	Sewerage/ Septage	20,200
D	Solid waste management and Sanitation	689
E	Canals/ Waterways	4,100
	Energy	15,262
	Social Infrastructure	6,290
IV	Revival of the multi-cultural, pluralistic and commercial identity	
F	Heritage and Tourism Development	3,000
	Sub-total	129,442
	Project development and contingency cost	*9,061*
	Total	138,502
2	PAN CITY SOLUTION	
A	24/7 Water Supply Pan-city	62,100
B	Integrated City APP	2,500
	Sub total	64,600
	Project development and contingency cost	*4,522*
	Total	69,122
	TOTAL	**207,624**



Detailed costing of ABP

	Proposed interventions	Total Cost (in Rs lac)
1	**Water supply**	
	West Kochi	
	Karuvelipady Pump house – Pumping augmentation	100
	Extension of pipelines from Maradu to Island to be extended to West Kochi to supply 12 MLD	55
	Replacement of pipe lines from Perumanoor to Thevara and Thoppumpady bridge to Karuvelipady	1,100
	Dedicated pumping main	350
	Storage capacity augmentation in Karuvelipady sump by 5 million litres	800
	Three OH Tanks in the region (Modibath, Fort Kochi and Koovapadam); Rejuvenation of the	75
	Replacement of 20 kms of Distribution line with D.I. pipes including Road cutting charges	3,500
	Replacement of Household connections (last mile) for across 10,000 HSCs with Smart Metering and isolation valves	2,500
	Bulk Meters and Isolation valves with remote meter reading	100
	Mainland	
	Rider line for increased water supply	1,000
	Overhead Storage Reservoir + 1 Million Litre Sump + pump near Ernakulam Ground	300
	Replacement of connections (last mile) for across 10,000 HSCs (Commercial and Domestic) with Smart Metering and isolation valves	2,000
	Bulk Meters and Isolation valves with remote meter reading	150
	General	
	Rainwater structures in ~5000 households	1,125
2	**UGSS**	
	Decentralized Treatment and collection system for West Kochi under ADB (Mundamveli)	2,200
	Small bore sewer/ Vacuum system for onsite sanitation - *Includes storage facility for treated water use for landscaping*	11,000
	Improvements to Elamkulam STP and collection system Mainland (JNNURM scheme)	7,000
3	**NMT Roads and Pedestrianized areas**	
	Relaying of roads	4,200
	Standard Footpaths including signages	2,853
	Restoration/ Rehabilitation of Stormwater drains in the proposed area	2,360
	MLCP and Commercial complex at Kacheripady	*5,000*
4	**Main roads**	
	World class Arterial roads -- KB Jacob & Amravati Road/ Bazaar Road in West/ -- Avenue, MG Rd, DH Rd, Banerjee Rd in Central city	5,287
	Relaying of roads, Aesthetic and improved Urban design Pedestrian facilities with Street furniture, Boulevards and urban greenery	*1,650*
	Utility ducting for SWD, Water supply, Sewerage, OFC etc	*3,300*
	Signages, Junction improvement with Intelligent Traffic management	*97*
	Escalator FOBs	240
5	**Energy Supply**	
	West Kochi	3,851
	Compact Secondary Substation (990 KVA)	180
	Undergound HT Line	0
	Undergound LT Line	10
	LT UG for Streetlights	1
	AMR Metering - Single phase	690
	AMR Metering - Three phase	110
	AMR Metering - HT	5
	RMU with Remote terminal units	174
	Distribution panel board	2,156
	Installation of feeder pillars	524
	Mainland	8,403
	Underground Cabling - 11 KV	435
	LT UG Cabling	501
	Installation of Transformers (Compact Sub-stations)	1,026
	Installation of Ring Main Units with Remote terminal units	761
	Smart Meters (AMR)	2,660
	Installation of feeder pillars	3,020
6	**Energy efficiency**	
	Solar based LED with Smart poles	1,250

	Solar panels in Households and Institutions - Grid connected	1,758
7	**Solid waste and Sanitation**	
	Equipments including Smart Street sweepers/ GPS enabled Vehicles/ Compactors	600
	Bio-composting in all Government institutions	5
	Household segregated bins for Organic and inorganic wastes	74
	Public toilets with Fit-in Treatment facility for Decentralized STP in West kochi	10
8	**Parks and Open spaces**	
	Upgradation of Nehru Park	200
	Development of open spaces and playgrounds	30
	Open space corridor linking DH Ground to Mangalavanam (depends on ecological sensitivity)	90
	Mangalavanam Eco-restoration project	100
9	**Canal Restoration**	
	Restoration of Mullassery canal - including linking of standardized area drains	100
	Restoration of Market canal - *Walkways and Market square around the canal pond, Solar paneled roofs, LED Lighting, Light posts*	500
	Restoration of Kalvathy canal and area drain improvement - Open spaces, Street furniture and landscaping features	2,000
	Restoration of Rameswaram-Kalvathy canal - Upto Cochin college – Walkways and Linking the Canal Bank Road	1,500
10	**Urban mobility**	
	Water transport infrastructure (around 12 100 pax boats)	4,200
	Electric Feeders, Bicycle Sharing, Elevated Walkways and Travelators	1,148
	Walkway from Ekm Jetty to Metro station	900
	Jetty improvement	800
	Property development along jetties	720
	Boatyard and Command & Control Centre	2,000
	Dredging cost	1,000
	Extend 'Smart Wi-Fi bus shelters' with LED bulbs, FM radio, USB drive slots, magazine/newspaper kiosks, mobile charger units	60
	Standard Wifi Enabled Bus Stands With Commercial space development	300
11	**Housing**	
	Integrated redevelopment of Slum housing	14,140
	Upgradation of infrastructure in Housing through Credit linked schemes	2,435
	Construction & upgradation of 755 DUs in Thuruthy, Kalvathy & Konchery colony	7,424
12	**Economy and Employment**	
	Broadway Market and Ernakulam market Redevelopment and Mattancherry spice market	11,000
	Standard Hawker zones in Fort Kochi	500
13	**Health**	
	Scale up of GH into a Super-speciality care centres	3,000
	Integrated development of 4 Hospitals in West Kochi - Excellence in Secondary care	1,000
14	**Education**	
	Upgradation of facilities - Basic services, Digital classrooms, Libraries, Eco-toilets, Sports kits , Biogas plant, Urban farming etc	
	Anganwadis and public schools	450
	Higher Educational institutions	100
15	**Safety and Security**	
	5 Rapid response boats for water transport safety	50
	Drone Surveillance	30
16	**Other Social Infrastructure**	
	Upgradation of Community Centre at Mattancherry with indoor sports facilities	100
	Standardize structures for "*Petti Kada"*	60
17	**Identity and Culture**	
	Fortkochi and Mattanchery region Master plan for Tourism	3,000
18	**Others**	
	Spatial Mapping of assets and SCADA systems for Information gathering with monitoring centres	1,500
	Total (except for project development and escalation components)	**1,29,442**

ANNEXURE IV

4.1 Kochi Municipal Council Resolution (1.10.2015, 25.11.2015)

കൊച്ചി മുനിസിപ്പൽ കോർപ്പറേഷൻ കൗൺസിലിന്റെ 01.10.2015 തീയതിയിലെ
1(88) നമ്പർ തീരുമാനം

സ്മാർട് സിറ്റി പദ്ധതി നടപ്പിലാക്കുന്നതുമായി ബന്ധപ്പെട്ട് കൗൺസിലിൽ സമർപ്പിച്ചിട്ടുള്ള കൺസെപ്റ്റ് നോട്ട് അംഗീകരിക്കുന്നതിന് തീരുമാനിച്ചു. ആവശ്യമായ തുടർ നടപടികൾ സ്വീകരിക്കുന്നതിന് നഗരസഭാ സെക്രട്ടറിയെ ചുമതലപ്പെടുത്തി.

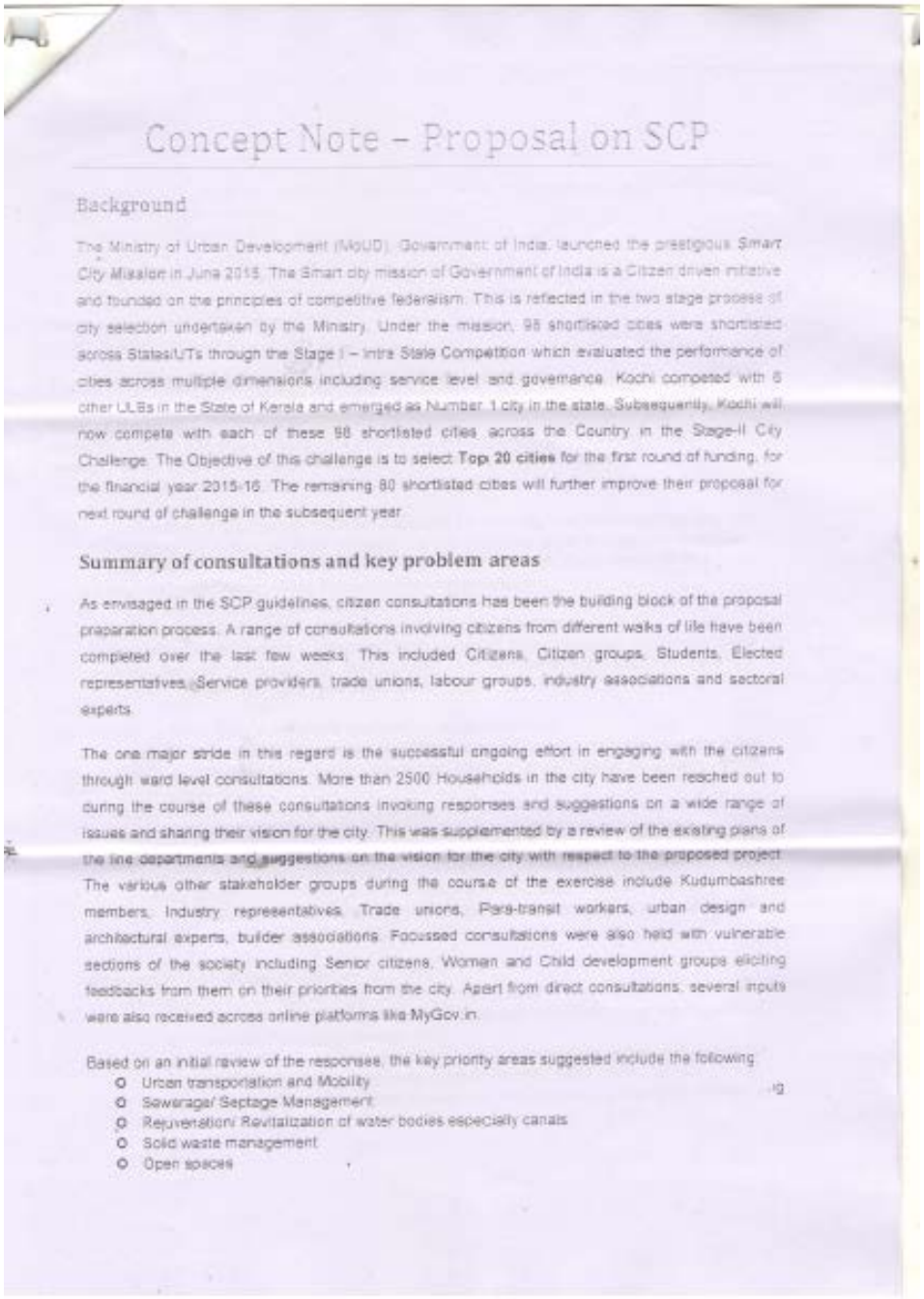
(ഒപ്പ്)
മേയർ

//ശരിപ്പകർപ്പ്//

1/12/15
കൗൺസിൽ സെക്രട്ടറി

1/12/15

SECRETARY
CORPORATION OF COCHIN



Concept Note – Proposal on SCP

Background

The Ministry of Urban Development (MoUD), Government of India, launched the prestigious Smart City Mission in June 2015. The Smart city mission of Government of India is a Citizen driven initiative and founded on the principles of competitive federalism. This is reflected in the two stage process of city selection undertaken by the Ministry. Under the mission, 98 shortlisted cities were shortlisted across States/UTs through the Stage I – Intra State Competition which evaluated the performance of cities across multiple dimensions including service level and governance. Kochi competed with 6 other ULBs in the State of Kerala and emerged as Number 1 city in the state. Subsequently, Kochi will now compete with each of these 98 shortlisted cities across the Country in the Stage-II City Challenge. The Objective of this challenge is to select **Top 20 cities** for the first round of funding, for the financial year 2015-16. The remaining 80 shortlisted cities will further improve their proposal for next round of challenge in the subsequent year.

Summary of consultations and key problem areas

As envisaged in the SCP guidelines, citizen consultations has been the building block of the proposal preparation process. A range of consultations involving citizens from different walks of life have been completed over the last few weeks. This included Citizens, Citizen groups, Students, Elected representatives, Service providers, trade unions, labour groups, industry associations and sectoral experts.

The one major stride in this regard is the successful ongoing effort in engaging with the citizens through ward level consultations. More than 2500 Households in the city have been reached out to during the course of these consultations invoking responses and suggestions on a wide range of issues and sharing their vision for the city. This was supplemented by a review of the existing plans of the line departments and suggestions on the vision for the city with respect to the proposed project. The various other stakeholder groups during the course of the exercise include Kudumbashree members, Industry representatives, Trade unions, Para-transit workers, urban design and architectural experts, builder associations. Focussed consultations were also held with vulnerable sections of the society including Senior citizens, Women and Child development groups eliciting feedbacks from them on their priorities from the city. Apart from direct consultations, several inputs were also received across online platforms like MyGov.in.

Based on an initial review of the responses, the key priority areas suggested include the following

- Urban transportation and Mobility
- Sewerage/ Septage Management
- Rejuvenation/ Revitalization of water bodies especially canals
- Solid waste management
- Open spaces

Consideration set

Based on an initial review of the context of the city, a possible set of variables may be considered for identifying the plan. This includes

- Number of beneficiaries
- Innovative
- Readiness of plan/ project
- Inclusive
- Convergence with other schemes
- Economic impact

Proposal on Area Development and Pan-city solution

Based on the above consideration set, proposal on the projects which may be looked at is summarized below. The projects build upon some of the existing initiatives by KMC and line departments like KMRL which improves the feasibility of the proposal and also bring in aspects of uniqueness with respect to the City's context.

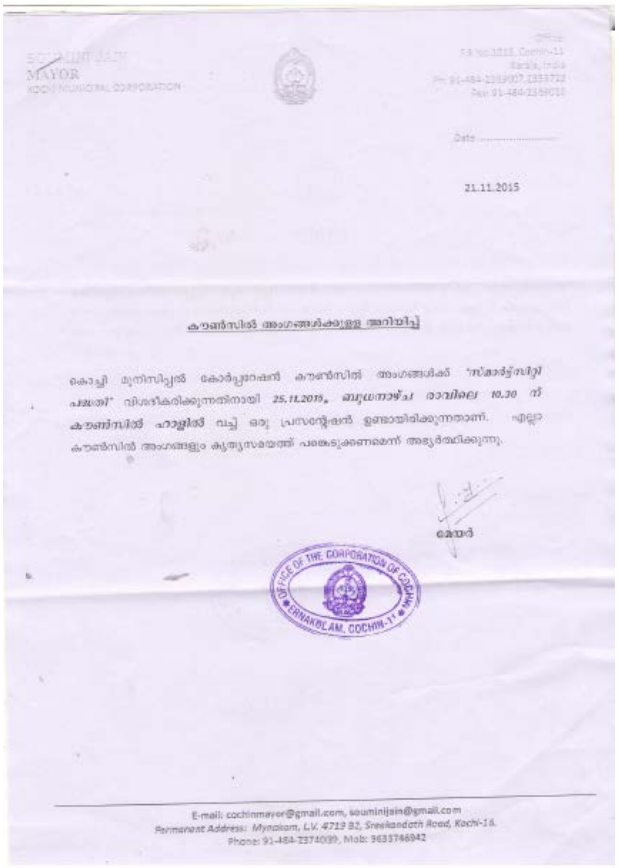
1. Rejuvenation of a portion of the West Kochi belt by providing improved urban services and leveraging the Water transport infrastructure and providing quick linkage with Ernakulam. **AND** improvements to the CBD belt starting from Durbar Hall Road and extending up to Goshree bridge, incorporating improved urban design features
2. Transit oriented development between terminals or in and around a major terminal – Vytila, Edapally, MG Road stations with focus on improvement of services
3. Connecting Kochi Project – Integrated Intelligent Multi Modal transport plan linking major modes like water transport, Rail, Bus/ mini BRT, and para-transit extending from one end of the city Fort Kochi to Edapally and areas within

Some of the key focus areas in the above interventions will be as follows:

- Focus on Improvement of existing core infrastructure services for residential pockets in the vicinity – including Water supply, Sewerage/ Septage, Public toilets, Healthcare, Social infrastructure etc
- Redevelopment of existing slums/ market areas, if any. Revitalize an area through new economic drivers like Heritage, faster access to workplace, Healthcare, Housing etc
- Redevelopment/ Revival of the commercial areas in the region especially in Key nodes like Bus stands/ Jetty/ Metro stations/ Commercial markets
- Improved urban design with focus on seamless movement, safety and aesthetics
- Last mile access or connectivity to the Jetty including walkability/ Parking facilities/ Mobility, Intelligent traffic management systems

Initial thoughts on the Pan-city solutions are as follows:

- Building upon the SMART card plan of KMRL in two phases
  - Phase I – Payment integration with Corporation services, Other line department services, Para transit services etc
  - Phase II – Information integration and a common city portal with integrated information system linking multiple agencies KMC, KWA, KMRL, GCDA
- Energy efficient street lighting (solar based) with Wifi hotspot + surveillance monitoring and Electric charger



MAYOR
KOCHI MUNICIPAL CORPORATION

Date .....

21.11.2015

കൗൺസിൽ അംഗങ്ങൾക്കുള്ള അറിയിപ്പ്

കൊച്ചി മുനിസിപ്പൽ കോർപ്പറേഷൻ കൗൺസിൽ അംഗങ്ങൾക്ക് "സ്മാർട്ട്സിറ്റി പദ്ധതി" വിശദീകരിക്കുന്നതിനായി 25.11.2015, ബുധനാഴ്ച രാവിലെ 10.30 ന് കൗൺസിൽ ഹാളിൽ വച്ച് ഒരു പ്രസന്റേഷൻ ഉണ്ടായിരിക്കുന്നതാണ്. എല്ലാ കൗൺസിൽ അംഗങ്ങളും കൃത്യസമയത്ത് പങ്കെടുക്കണമെന്ന് അഭ്യർത്ഥിക്കുന്നു.

മേയർ

OFFICE OF THE CORPORATION OF COCHIN
ERNAKULAM, COCHIN-11

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Permanent Address: Mynakom, LV. 4719 B2, Sreekandath Road, Kochi-16.
Phone: 91-484-2374039, Mob: 9633746942

റിപ്പോർട്ട്

കൊച്ചി മുനിസിപ്പൽ കോർപ്പറേഷൻ കൗൺസിലിലേയ്ക്ക് പുതിയതായി തെരഞ്ഞെടുക്കപ്പെട്ട അംഗങ്ങൾക്ക് "സ്മാർട്ട് സിറ്റി പദ്ധതി" പരിചയപ്പെടുത്തുന്നതിന് 25.11.2015 ബുധനാഴ്ച രാവിലെ 10.30 ന് കൗൺസിൽ ഹാളിൽ വച്ച് ഒരു പ്രസന്റേഷൻ നടത്തി.

11/12/15

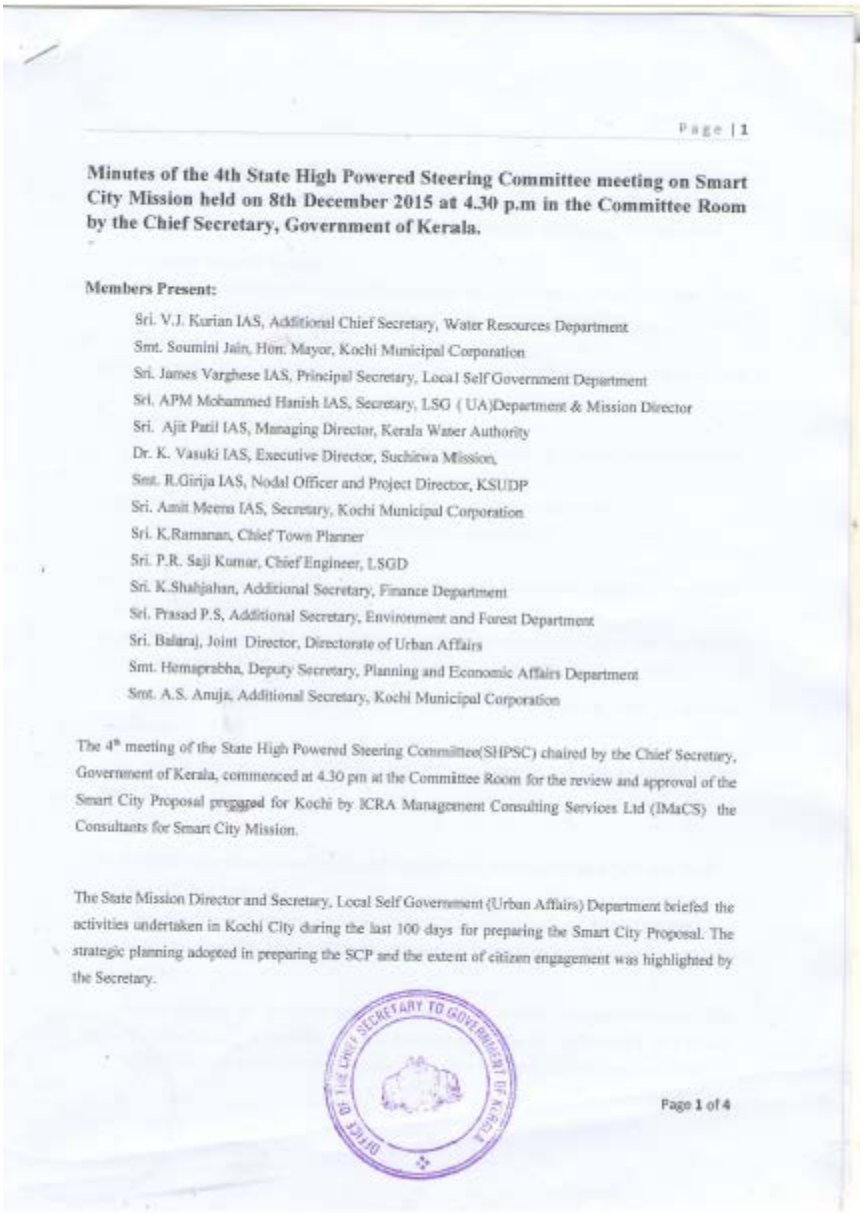
കൗൺസിൽ സെക്രട്ടറി

11/12/15

SECRETARY
CORPORATION OF COCHIN

OFFICE OF THE CORPORATION OF COCHIN
ERNAKULAM, COCHIN-11

4.2 Minutes of the 4th HPSC Meeting on Smart Cities Mission



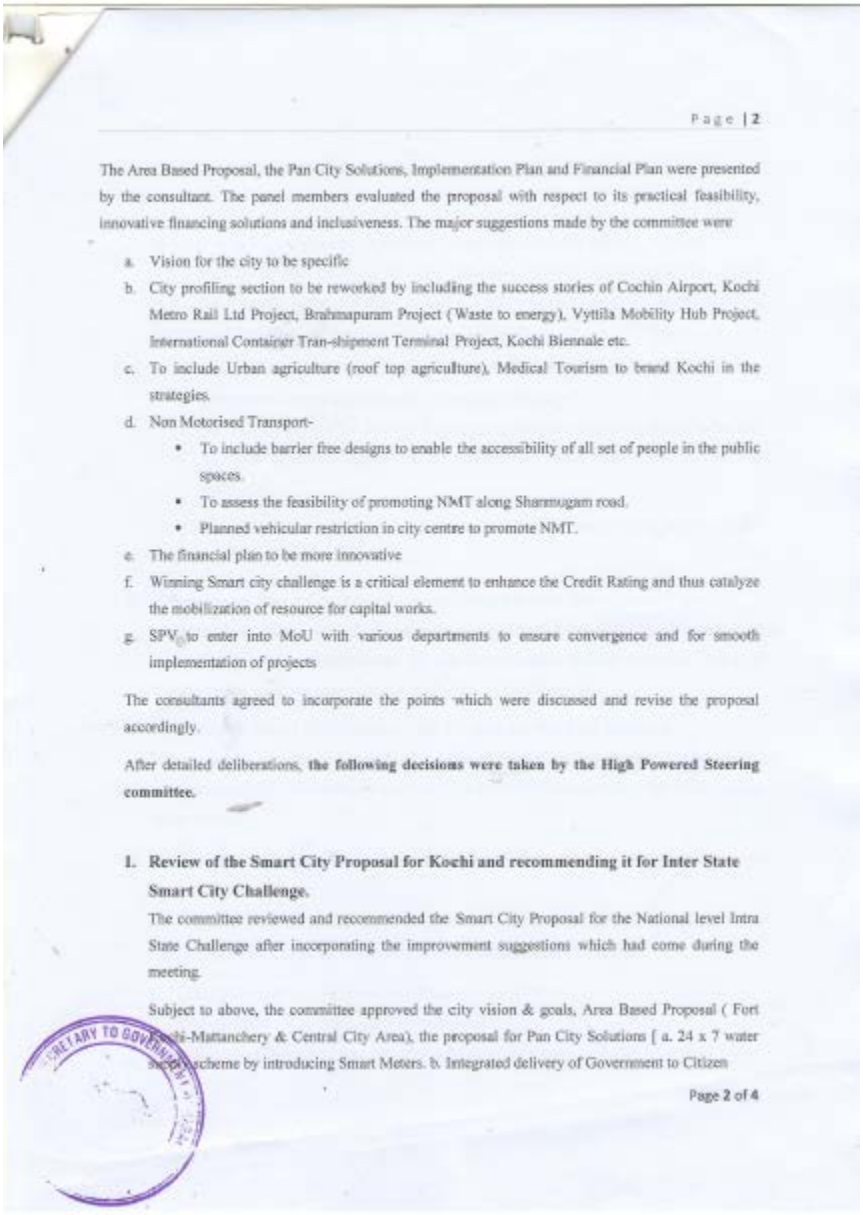
Minutes of the 4th State High Powered Steering Committee meeting on Smart City Mission held on 8th December 2015 at 4.30 p.m in the Committee Room by the Chief Secretary, Government of Kerala.

Members Present:

Sri. V.J. Kurian IAS, Additional Chief Secretary, Water Resources Department
Smt. Soumini Jain, Hon. Mayor, Kochi Municipal Corporation
Sri. James Varghese IAS, Principal Secretary, Local Self Government Department
Sri. APM Mohammed Hanish IAS, Secretary, LSG (UA)Department & Mission Director
Sri. Ajit Patil IAS, Managing Director, Kerala Water Authority
Dr. K. Vasuki IAS, Executive Director, Suchitwa Mission,
Smt. R.Girija IAS, Nodal Officer and Project Director, KSUDP
Sri. Amit Meena IAS, Secretary, Kochi Municipal Corporation
Sri. K.Ramanan, Chief Town Planner
Sri. P.R. Saji Kumar, Chief Engineer, LSGD
Sri. K.Shahjahan, Additional Secretary, Finance Department
Sri. Prasad P.S, Additional Secretary, Environment and Forest Department
Sri. Balaraj, Joint Director, Directorate of Urban Affairs
Smt. Hemaprabha, Deputy Secretary, Planning and Economic Affairs Department
Smt. A.S. Anuja, Additional Secretary, Kochi Municipal Corporation

The 4th meeting of the State High Powered Steering Committee(SHPSC) chaired by the Chief Secretary, Government of Kerala, commenced at 4.30 pm at the Committee Room for the review and approval of the Smart City Proposal prepared for Kochi by ICRA Management Consulting Services Ltd (IMaCS) the Consultants for Smart City Mission.

The State Mission Director and Secretary, Local Self Government (Urban Affairs) Department briefed the activities undertaken in Kochi City during the last 100 days for preparing the Smart City Proposal. The strategic planning adopted in preparing the SCP and the extent of citizen engagement was highlighted by the Secretary.



The Area Based Proposal, the Pan City Solutions, Implementation Plan and Financial Plan were presented by the consultant. The panel members evaluated the proposal with respect to its practical feasibility, innovative financing solutions and inclusiveness. The major suggestions made by the committee were

a. Vision for the city to be specific
b. City profiling section to be reworked by including the success stories of Cochin Airport, Kochi Metro Rail Ltd Project, Brahmapuram Project (Waste to energy), Vyttila Mobility Hub Project, International Container Tran-shipment Terminal Project, Kochi Biennale etc.
c. To include Urban agriculture (roof top agriculture), Medical Tourism to brand Kochi in the strategies.
d. Non Motorised Transport-
    - To include barrier free designs to enable the accessibility of all set of people in the public spaces.
    - To assess the feasibility of promoting NMT along Shanmugam road.
    - Planned vehicular restriction in city centre to promote NMT.
e. The financial plan to be more innovative
f. Winning Smart city challenge is a critical element to enhance the Credit Rating and thus catalyze the mobilization of resource for capital works.
g. SPV to enter into MoU with various departments to ensure convergence and for smooth implementation of projects

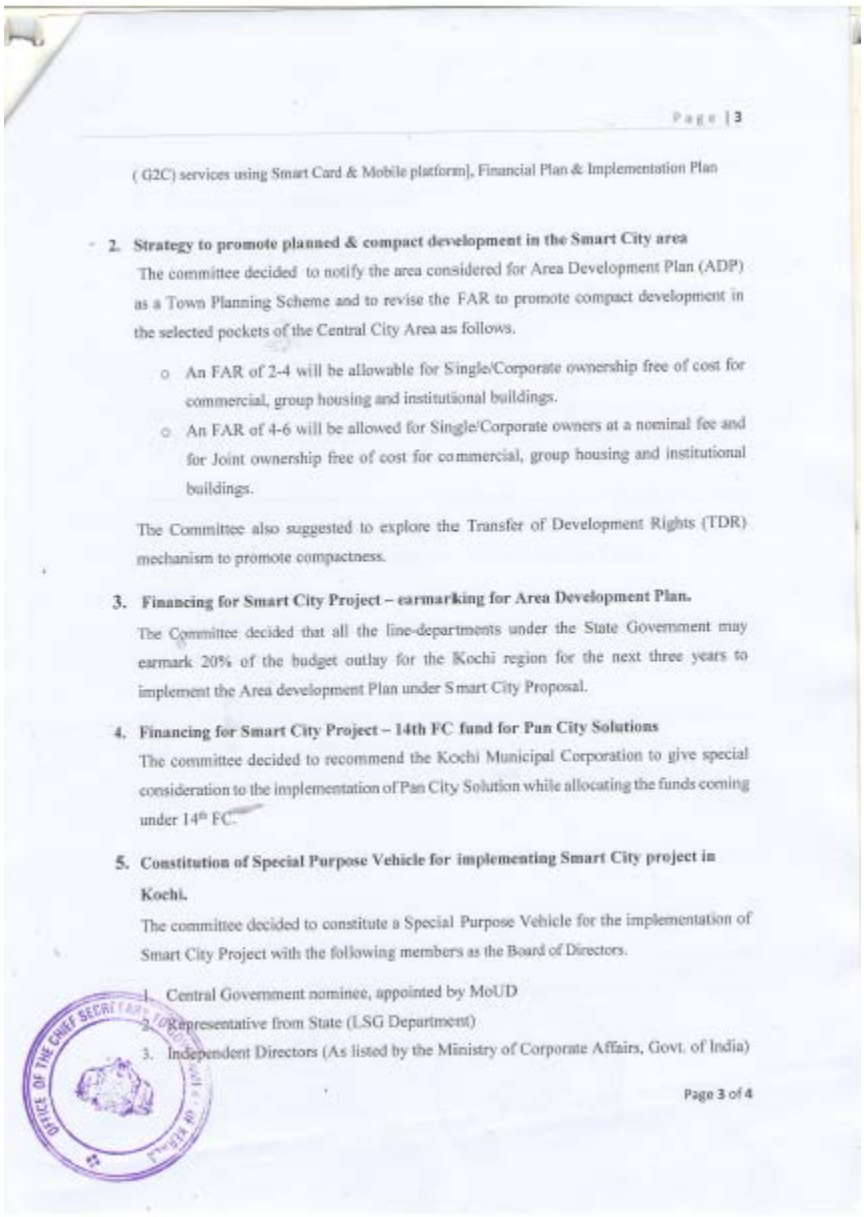
The consultants agreed to incorporate the points which were discussed and revise the proposal accordingly.

After detailed deliberations, **the following decisions were taken by the High Powered Steering committee.**

1. **Review of the Smart City Proposal for Kochi and recommending it for Inter State Smart City Challenge.**

   The committee reviewed and recommended the Smart City Proposal for the National level Intra State Challenge after incorporating the improvement suggestions which had come during the meeting.

   Subject to above, the committee approved the city vision & goals, Area Based Proposal (Fort Kochi-Mattanchery & Central City Area), the proposal for Pan City Solutions [a. 24 x 7 water supply scheme by introducing Smart Meters. b. Integrated delivery of Government to Citizen



(G2C) services using Smart Card & Mobile platform], Financial Plan & Implementation Plan

2. **Strategy to promote planned & compact development in the Smart City area**

The committee decided to notify the area considered for Area Development Plan (ADP) as a Town Planning Scheme and to revise the FAR to promote compact development in the selected pockets of the Central City Area as follows.

- An FAR of 2-4 will be allowable for Single/Corporate ownership free of cost for commercial, group housing and institutional buildings.
- An FAR of 4-6 will be allowed for Single/Corporate owners at a nominal fee and for Joint ownership free of cost for commercial, group housing and institutional buildings.

The Committee also suggested to explore the Transfer of Development Rights (TDR) mechanism to promote compactness.

3. **Financing for Smart City Project – earmarking for Area Development Plan.**

The Committee decided that all the line-departments under the State Government may earmark 20% of the budget outlay for the Kochi region for the next three years to implement the Area development Plan under Smart City Proposal.

4. **Financing for Smart City Project – 14th FC fund for Pan City Solutions**

The committee decided to recommend the Kochi Municipal Corporation to give special consideration to the implementation of Pan City Solution while allocating the funds coming under 14th FC.

5. **Constitution of Special Purpose Vehicle for implementing Smart City project in Kochi.**

The committee decided to constitute a Special Purpose Vehicle for the implementation of Smart City Project with the following members as the Board of Directors.

1. Central Government nominee, appointed by MoUD
2. Representative from State (LSG Department)
3. Independent Directors (As listed by the Ministry of Corporate Affairs, Govt. of India)

OFFICE OF THE CHIEF SECRETARY TO GOVT. OF KERALA

4. Hon. Mayor, Kochi Municipal Corporation
5. Secretary, Kochi Municipal Corporation
6. Functional Directors
7. A Chief Executive Officer for the SPV

However, the Committee observed that the exact staffing pattern would be finalized at the time of actual formation and operationalization of the SPV.

6. **Agreements with line departments for implementing the full scope of the Smart City Proposal (SCP) and sustaining the pan-city and area-based developments.**

The committee decided that all stakeholder departments involved in the implementation of the Smart City Project may enter into agreements with the Special Purpose Vehicle to actively involve in the successful implementation of the Smart City Project .

7. **Approval of prize money for Logo and Tagline competition of Smart City- Kochi as part of promotional activities.**

The Committee decided to approve the prize money of Rs.80,000/- for both the LOGO and Tagline competitions (1st prize : Rs. 25,000/-, 2nd prize : Rs.10,000/-, 3rd prize : Rs 5,000/-) and decided to meet the expenditure from the Central funds allocated for preparing the Smart City Proposal.

The meeting ended at 08.30 PM.

Jiji Thomson
Chief Secretary
High Powered Steering Committee

9/12/15
JAMES MARGHESE I.A.S.
Principal Secretary to Government
LSG, Ports & Housing Department
Government Secretariat, Tvpm.
Tel: 2517219, Telefax : 2320434

4.3 G.O no. 2280/2015/LSGD for Constitution of Interdepartmental Task Force

GOVERNMENT OF KERALA
Abstract

Local Self Government Department-Smart City Mission- Inter departmental Task Force constituted - Orders issued.

LOCAL SELF GOVERNMENT (DC) DEPARTMENT

G.O (Rt) No. 2280/2015/LSGD. Dated, Thiruvananthapuram, 25.7.2015

Read :- Letter No. A1-181/2015/KSUDP dtd. 24.7.2015 from the Project Director, KSUDP, Thiruvananthapuram

ORDER

In the circumstances reported by the Project Director, KSUDP vide her letter read above, Government are pleased to constitute an inter departmental Task Force as part of pre-conditions for implementation of the Smart City Mission with the following members.

1. The Chief Town Planner
2. The Chief Engineer, PWD (Roads & Bridges)
3. The Director, Directorate of Urban Affairs
4. The Chief Engineer, Local Self Government Department.
5. The Managing Director, Kerala Water Authority
6. The Executive Director, Suchitwa Mission
7. The Executive Director, Kudumbasree
8. The Project Director, Kerala Sustainable Urban Development Project
9. The Director, Information Kerala Mission
10. The Director, IT Mission
11. The Chairman, Kerala State Electricity Board
12. The Deputy General Manager, Bharat Sanchar Nigam Ltd.
13. The Secretary, Urban Development Authority
14. The Special invitees (as and when required)

By order of the Governor,
J. SELVARAJ
Deputy Secretary to Government.

To
All members of the inter departmental task force
The Principal Accountant General (Audit)I(A&E)I(LBA&A), Kerala, Thiruvananthapuram
The Information Officer, Web & New Media
Stock file/Office Copy

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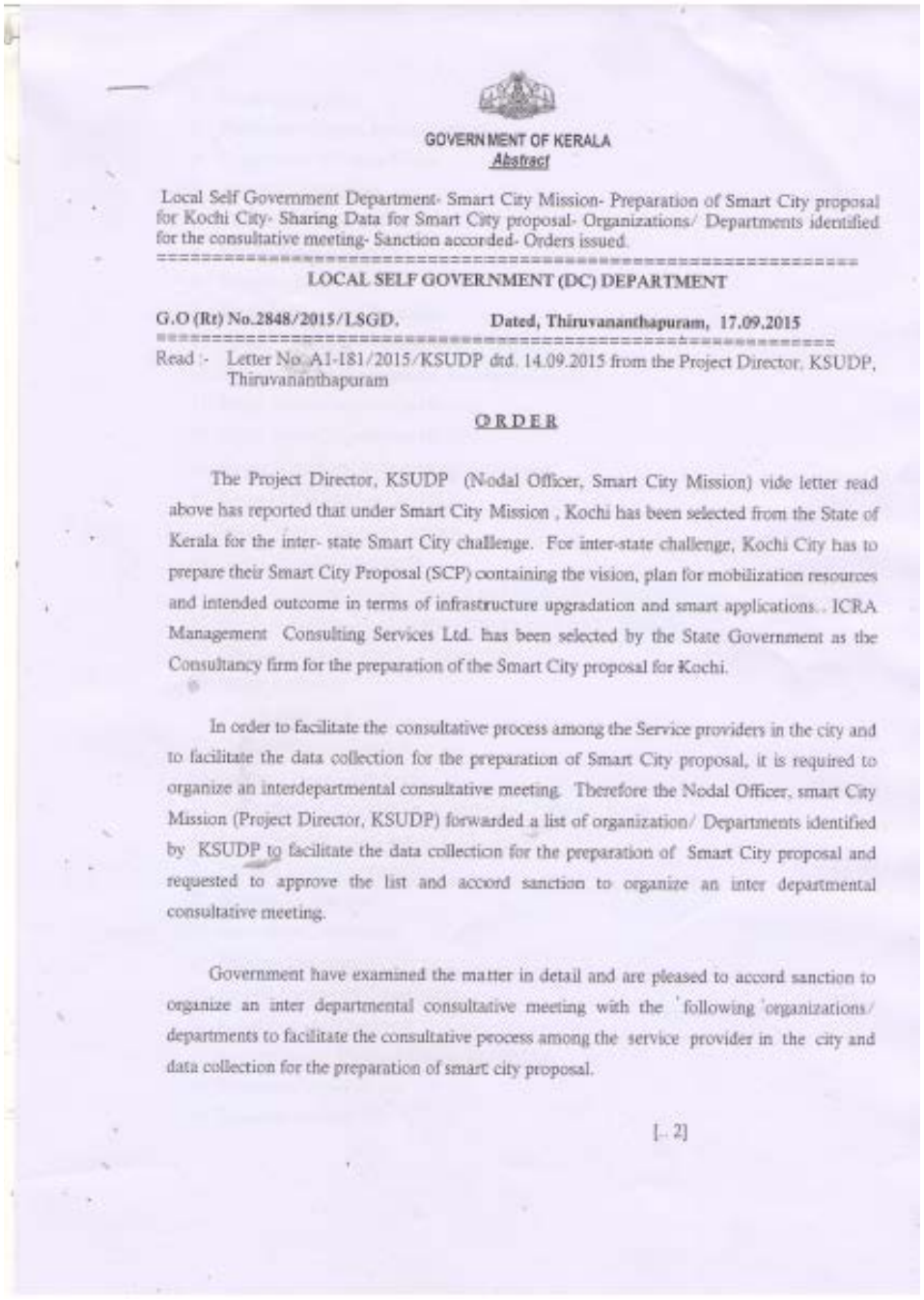
Section Officer

KSUDP THIRUVANANTHAPURAM 29 JUL 2015

4.4 G.O no. 2848/2015/LSGD for consultative sessions – Govt. Departments



GOVERNMENT OF KERALA
Abstract

Local Self Government Department- Smart City Mission- Preparation of Smart City proposal for Kochi City- Sharing Data for Smart City proposal- Organizations/ Departments identified for the consultative meeting- Sanction accorded- Orders issued.

LOCAL SELF GOVERNMENT (DC) DEPARTMENT

G.O (Rt) No.2848/2015/LSGD. Dated, Thiruvananthapuram, 17.09.2015

Read :- Letter No.A1-181/2015/KSUDP dtd. 14.09.2015 from the Project Director, KSUDP, Thiruvananthapuram

ORDER

The Project Director, KSUDP (Nodal Officer, Smart City Mission) vide letter read above has reported that under Smart City Mission , Kochi has been selected from the State of Kerala for the inter- state Smart City challenge. For inter-state challenge, Kochi City has to prepare their Smart City Proposal (SCP) containing the vision, plan for mobilization resources and intended outcome in terms of infrastructure upgradation and smart applications. . ICRA Management Consulting Services Ltd. has been selected by the State Government as the Consultancy firm for the preparation of the Smart City proposal for Kochi.

In order to facilitate the consultative process among the Service providers in the city and to facilitate the data collection for the preparation of Smart City proposal, it is required to organize an interdepartmental consultative meeting. Therefore the Nodal Officer, smart City Mission (Project Director, KSUDP) forwarded a list of organization/ Departments identified by KSUDP to facilitate the data collection for the preparation of Smart City proposal and requested to approve the list and accord sanction to organize an inter departmental consultative meeting.

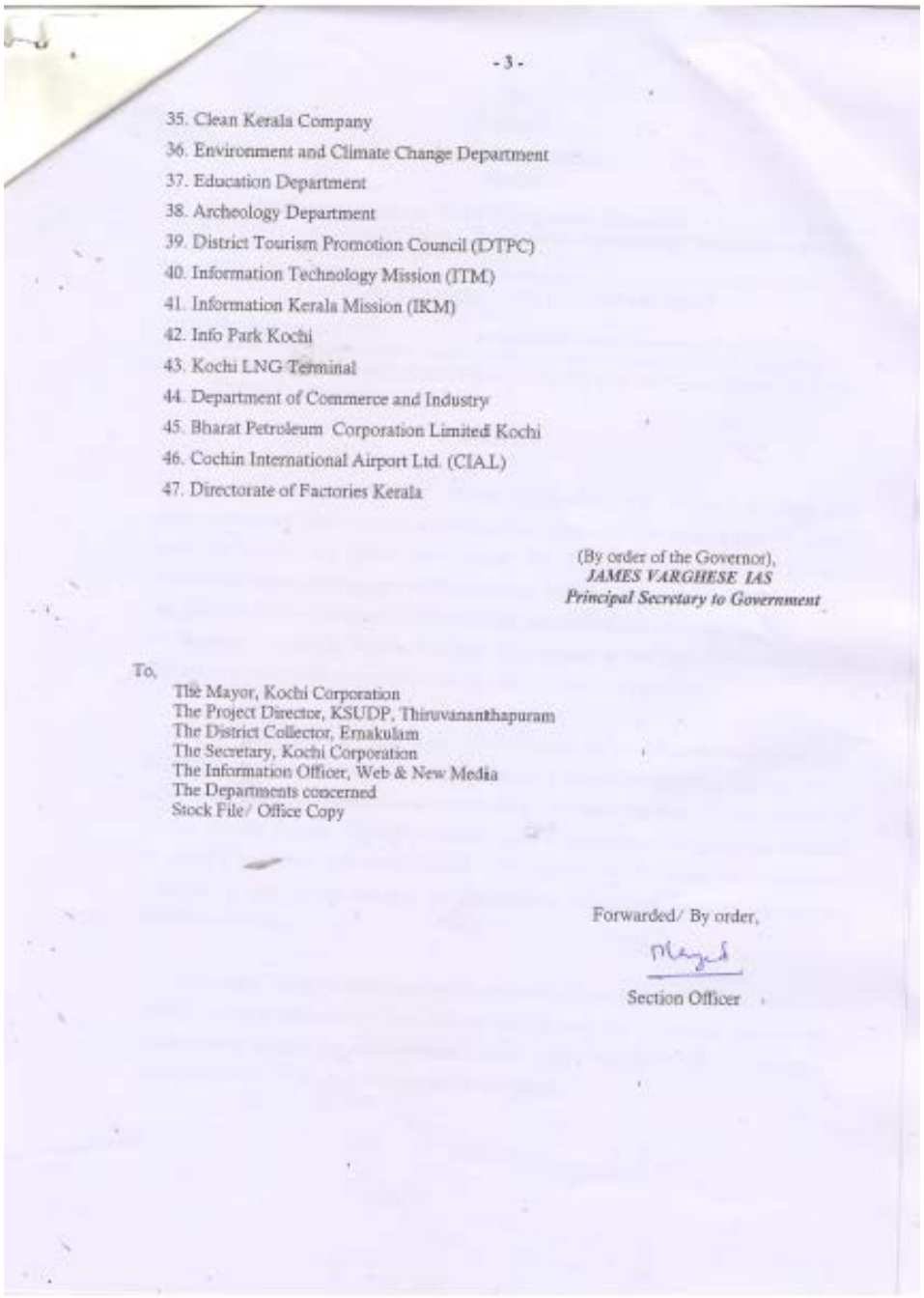
Government have examined the matter in detail and are pleased to accord sanction to organize an inter departmental consultative meeting with the following organizations/ departments to facilitate the consultative process among the service provider in the city and data collection for the preparation of smart city proposal.

[.. 2]

- 2 -

1. Kochi Corporation
2. Ernakulam District Administration
3. Department of Urban Affairs
4. Revenue Department
5. Chief Engineer (LSGD)
6. Kerala Water Authority
7. Irrigation Department
8. Town and Country Planning
9. Greater Cochin Development Authority (GCDA)
10. Goshree Island Development Authority (GIDA)
11. Public Works Department (Works)
12. Public Works Department (Roads)
13. Kerala State Road & Transport Corporation
14. Kochi Metro Rail Ltd (KMRL)
15. Inland Water Transport Agency
16. Motor Vehicle Department
17. National Transportation Planning and Research Centre (NATPAC)
18. Roads & Bridges Development Corporation Kerala (RBDCK)
19. National High Authority of India (NHAI)
20. Indian Railways
21. Cochin Port Trust
22. Cochin Shipyard Limited
23. Southern Naval Command
24. International Container Trans -shipment Terminal, Kochi
25. Police Department including Traffic Police
26. Fire and Safety Department
27. Housing Department
28. Agriculture Department
29. Fisheries Department
30. Animal Husbandry Department
31. Social Justice Department
32. Kudumbashree District Mission- Ernakulam
33. Pollution Control Board
34. Suchitwa Mission

[... 3]



- 3 -

35. Clean Kerala Company
36. Environment and Climate Change Department
37. Education Department
38. Archeology Department
39. District Tourism Promotion Council (DTPC)
40. Information Technology Mission (ITM)
41. Information Kerala Mission (IKM)
42. Info Park Kochi
43. Kochi LNG Terminal
44. Department of Commerce and Industry
45. Bharat Petroleum Corporation Limited Kochi
46. Cochin International Airport Ltd. (CIAL)
47. Directorate of Factories Kerala

(By order of the Governor),
JAMES VARGHESE IAS
Principal Secretary to Government

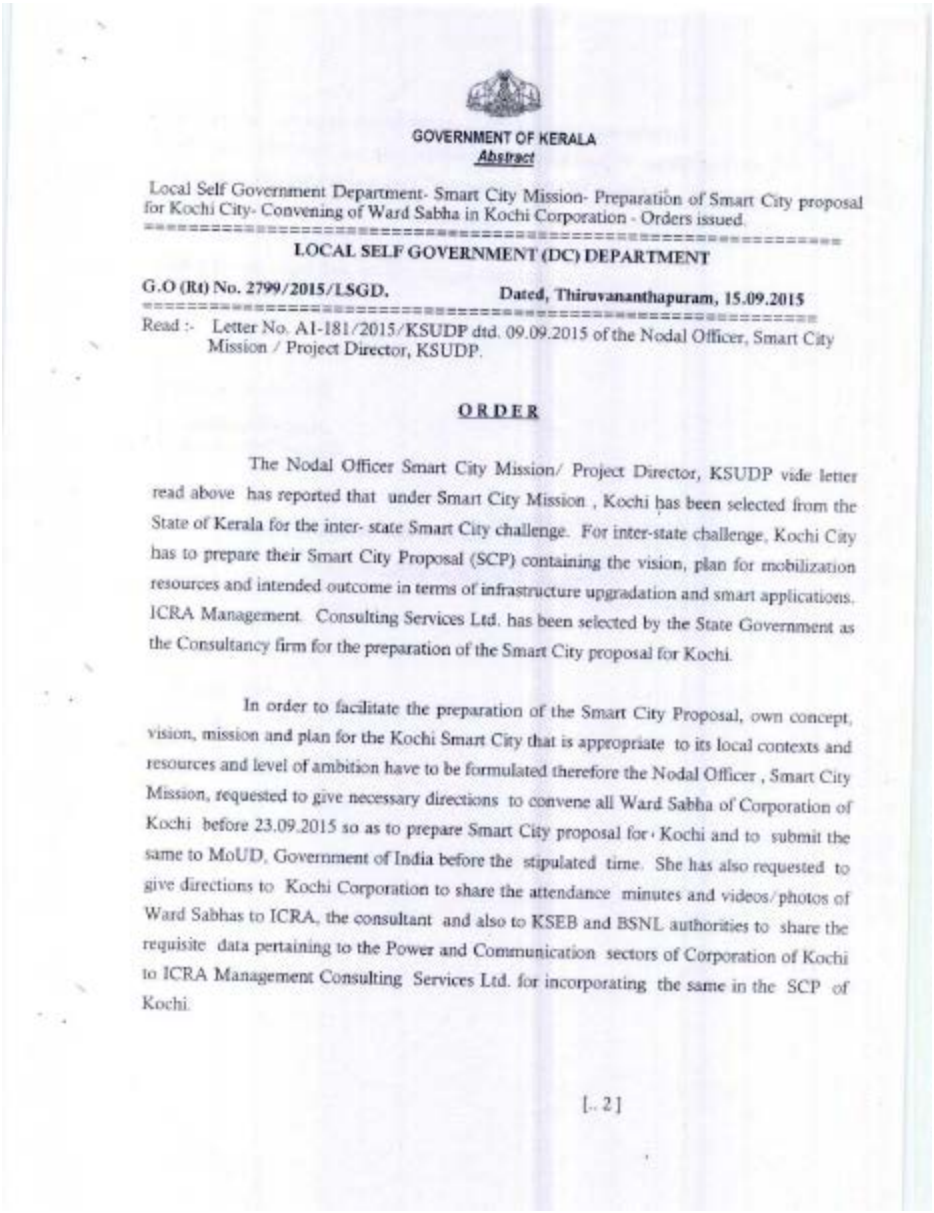
To,

The Mayor, Kochi Corporation
The Project Director, KSUDP, Thiruvananthapuram
The District Collector, Ernakulam
The Secretary, Kochi Corporation
The Information Officer, Web & New Media
The Departments concerned
Stock File / Office Copy

Forwarded/ By order,

Section Officer

4.5 G.O no. 2799/2015/LSGD for Ward Committee Meetings



GOVERNMENT OF KERALA

Abstract

Local Self Government Department- Smart City Mission- Preparation of Smart City proposal for Kochi City- Convening of Ward Sabha in Kochi Corporation - Orders issued.

LOCAL SELF GOVERNMENT (DC) DEPARTMENT

G.O (Rt) No. 2799/2015/LSGD. Dated, Thiruvananthapuram, 15.09.2015

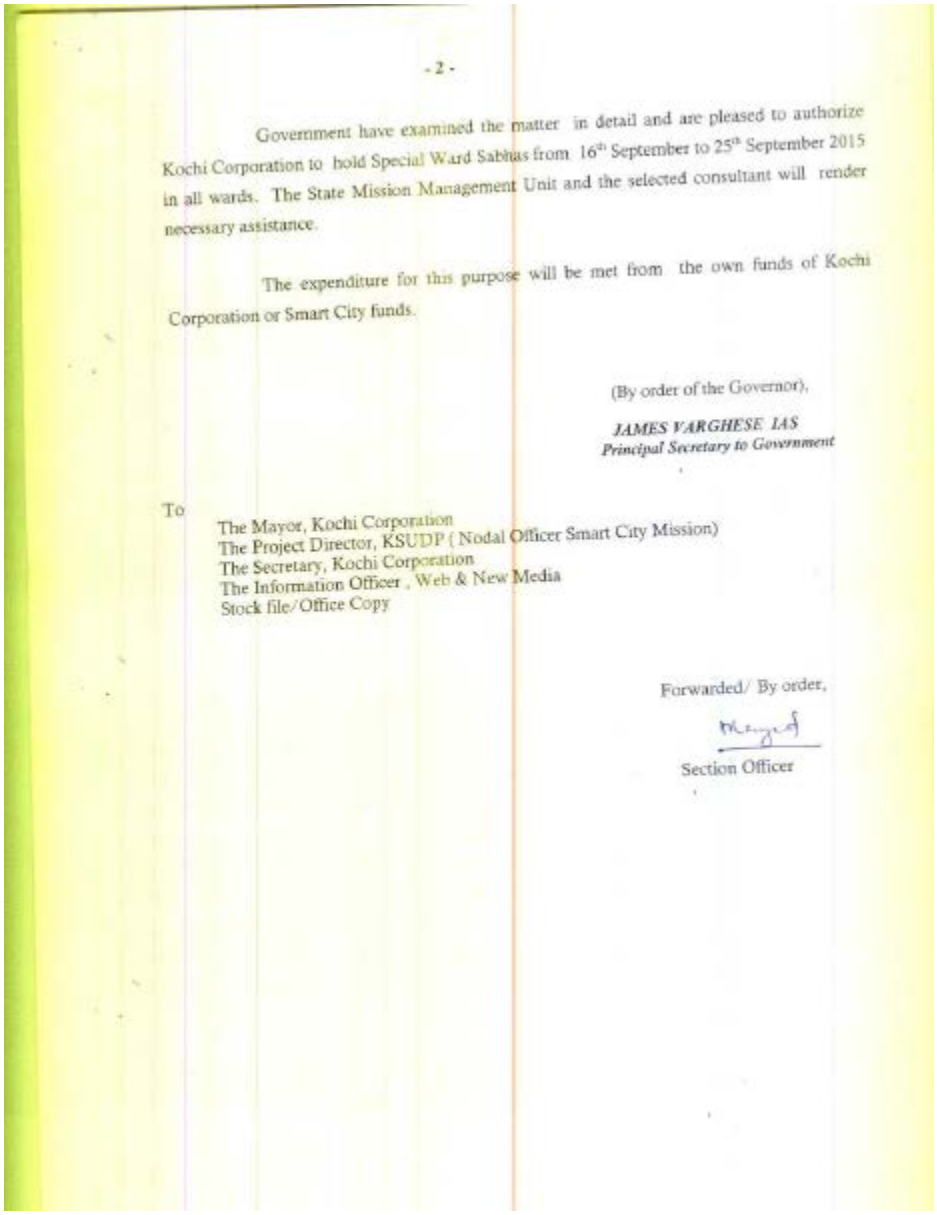
Read :- Letter No. AI-181/2015/KSUDP dtd. 09.09.2015 of the Nodal Officer, Smart City Mission / Project Director, KSUDP.

ORDER

The Nodal Officer Smart City Mission/ Project Director, KSUDP vide letter read above has reported that under Smart City Mission , Kochi has been selected from the State of Kerala for the inter- state Smart City challenge. For inter-state challenge, Kochi City has to prepare their Smart City Proposal (SCP) containing the vision, plan for mobilization resources and intended outcome in terms of infrastructure upgradation and smart applications. ICRA Management Consulting Services Ltd. has been selected by the State Government as the Consultancy firm for the preparation of the Smart City proposal for Kochi.

In order to facilitate the preparation of the Smart City Proposal, own concept, vision, mission and plan for the Kochi Smart City that is appropriate to its local contexts and resources and level of ambition have to be formulated therefore the Nodal Officer , Smart City Mission, requested to give necessary directions to convene all Ward Sabha of Corporation of Kochi before 23.09.2015 so as to prepare Smart City proposal for Kochi and to submit the same to MoUD, Government of India before the stipulated time. She has also requested to give directions to Kochi Corporation to share the attendance minutes and videos/photos of Ward Sabhas to ICRA, the consultant and also to KSEB and BSNL authorities to share the requisite data pertaining to the Power and Communication sectors of Corporation of Kochi to ICRA Management Consulting Services Ltd. for incorporating the same in the SCP of Kochi.

[.. 2]



- 2 -

Government have examined the matter in detail and are pleased to authorize Kochi Corporation to hold Special Ward Sabhas from 16th September to 25th September 2015 in all wards. The State Mission Management Unit and the selected consultant will render necessary assistance.

The expenditure for this purpose will be met from the own funds of Kochi Corporation or Smart City funds.

(By order of the Governor),

JAMES VARGHESE IAS
Principal Secretary to Government

To

The Mayor, Kochi Corporation
The Project Director, KSUDP (Nodal Officer Smart City Mission)
The Secretary, Kochi Corporation
The Information Officer , Web & New Media
Stock file/Office Copy

Forwarded/ By order,

Section Officer