Policy Brief

POLICY RECOMMENDATIONS TO KEY ISSUES IN KERALA'S URBANISATION

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CONTEXT

Urban spaces are essential elements of contemporary cities. As urban populations continue to grow, projections indicate a significant increase in the demand for urban spaces in the coming years. As per the UN projections, over two-thirds of the global population is expected to reside in urban areas by 2050, highlighting the pressing need for well-designed, accessible and environmentally safe urban spaces to accommodate the demographic shift. Residing on the southern tip of India, the state of Kerala, with a population of more than 3 crore (2011 census), is a highly urbanised state. The urban populace of Kerala has registered huge growth, from 25.9% in 2001 to 47.7% in 2011, with a three-times increase in the number of towns in the state. Kerala has 461 census towns (i.e., panchayat regions with urban characteristics) and 59 statutory towns based on the 2011 census.

The urbanisation index, brought out in the "State of the Cities India (2021)" report, comprises 25 indicators assessing the states in India on urban parameters. The report evaluates States and Union territories based on urbanisation, productivity, and inclusion/environmental security. It examines whether higher urbanisation correlates with increased productivity and inclusivity. The findings indicate that Kerala (66.0) is the second most urbanised state in India, behind Goa (66.5), among the seventeen general states. Kerala ranks highest in urbanisation and productivity; however, the state faces challenges in inclusion and environmental safety.

The concept of infrastructure in the context of a city has changed over the years. A closer look at the different government interventions like Smart City Mission, AMRUT, etc. sheds light on the fact that infrastructure in a city encompasses water supply, waste management, urban mobility and public transport, green spaces, park and recreational spaces, electricity, health and education, affordable housing, parking spaces, non-motorised transport, street furniture and many more. Therefore, any study on how inclusive a city is has to look at all parameters of the various infrastructural components of the city.

To gain an understanding of why Kerala falls behind in inclusive and environmentally safer cities, a study was undertaken in close collaboration with urban local governments and communities. CPPR's Urban Fellows studied the challenges confronted by local urban governments in Kerala by conducting in-depth observational studies, engaging in dialogues, and providing region-specific recommendations. The conclusions drawn in the State of Cities India report were reiterated in the studies undertaken.

The brief was prepared by analysing the research reports and field studies undertaken by Fellows of the CPPR-FNF Urban Fellowship 2023 to better understand the urban landscape of Kerala. The Urban Fellows, who are residents of Kerala, undertook secondary research and field surveys to identify and understand key urban issues in their respective localities. Stakeholder interviews and in-depth research were conducted during the process.

1. Lack of Open and Recreational Spaces and Basic Amenities in Urban Areas

a. Pathanamthitta town in Pathanamthitta district grapples with a glaring dearth of public recreational spaces for all age groups, which hinders a leisure culture among inhabitants and can affect their health, productivity, well-being, and even socio-economic prospects.

b. on-functioning street lights in Nedumkandam town in Idukki district.

The street lights, which were installed in 2012 along the Munnar-Kumily highway, have stopped functioning since 2016.

c. Lack of recreational and safe spaces in the Kalanchira region in Chalakudy in Thrissur district.
The Kalanchira road in Chalakudy is one of the roads that is used by the public for daily walks, spending leisure time watching sunsets, etc. However, the road lacks street lights and other street furniture, like seating arrangements, that can improve the use of the space as a recreational one.

2. Lack of bus connectivity and related public infrastructure

a. Lack of proper bus stops and bus shelters on the prominent city bus routes.
The prominent bus routes from Mananthavady town to other cities in Wayanad district lack proper bus stops and bus shelters, thus causing inconvenience to commuters and tourists visiting the city.

b. Poor bus connectivity to certain parts of Kochi City.
There are only a few buses from the Kalamassery Medical College-NUALS University area to Kochi City or Aluva town This route has educational institutions like the National University of Advanced Legal Studies, Xavier Institute of Management, Cooperative Nursing College, etc., and the Kinfra Industrial Area. The commuters on the route use either autorickshaws, taxi services or private vehicles to reach Kochi City or Aluva, thereby increasing the daily transport expenditure.

3. Waste Management and Sustainability

a. One of the major issues highlighted in waste management is improper waste collection and waste segregation.
Aluva Municipality has irregular waste collection and municipal source segregation, which leads to waste dumping in public areas.

b. The lack of cooperation from the public with HKS members has severely affected the waste collection mechanism.
Locals in Pattambi, Palakkad, are reluctant to pay the Haritha Karma Sena waste collection fee, resulting in a breakdown of the town's waste collection system. The residents refuse to pay HKS on a monthly basis because they believe they do not produce enough waste each month to be given to HKS.

c. There is a lack of awareness and proper mechanisms to dispose of menstrual waste in educational institutions.
Girl students of schools in Irinjalakuda, Thrissur district, lack awareness about sustainable menstrual practices and waste disposal mechanisms.

d. The lack of formalisation of the street vending sector and irregular implementation of the laws have affected access to sanitation and waste disposal facilities for street vendors.
In Kottayam Municipality, there are issues with waste disposal and insufficient sanitary facilities for street vendors.

MAJOR FINDINGS

2.1 Open Urban Spaces and Street Lights

Lack of Planning

There is no blueprint for the creation or allocation of funds in municipalities like Pathanamthitta and Chalakudy for the creation of open spaces and the installation of streetlights. Multiple open space projects were announced, and land was allocated for open stadiums and parks, but they failed to take off. There is no annual allocation of funds for the creation of new open spaces in Chalakudy. There are a lot of bureaucratic procedures for the installation of basic amenities like streetlights in Kerala's urban spaces, and only state-approved agencies can undertake the installation. This causes a hesitance from interested private parties to install street lights.

The Ministry of Housing and Urban Affairs, under its Smart Cities Mission, has undertaken a special initiative on 'placemaking'. Placemaking in urban design prioritises people above infrastructure. It seeks to create socially and culturally engaging public areas. Public places are vital to community life and identity, according to placemaking. Some of the examples are shown in the pictures below.

Figure 1: A garbage dump turned into a park in slum community in Warangal

The urban local bodies have to work closely with the communities to create open spaces through innovative use of existing spaces. An Anganwadi building under a flyover in Vadodara, Gujarat, is one such example. Effective placemaking uses a community's assets, inspiration, and potential through community-based engagement.

Figure 2: Race Course Road in Coimbatore

Lack of Proper Maintenance

There is no follow-up from the municipality after the installation of street lights or the creation of public parks. The streetlights in Nedumkandam received no maintenance after their installation, and there is no annual budget allocation for streetlight maintenance in the municipal plans. In Pathanamthitta, the public parks and the stadium are in poor condition due to a lack of maintenance.

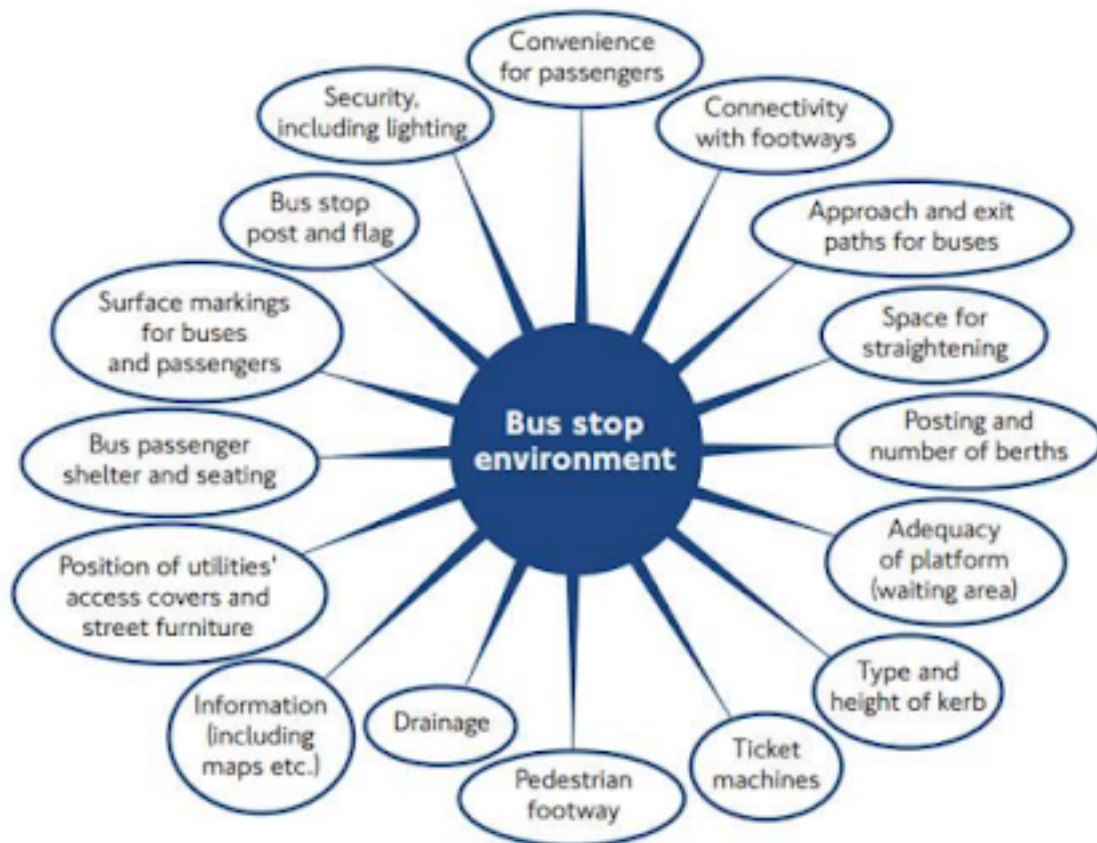## 2.2 Bus Connectivity and Waiting Sheds

Poor Connectivity

The bus services are not frequent on the Kalamassery Cooperative Medical College-NUALS University route from Aluva or HMT Junction, Kalamassery. Residents and commuters highlighted poor connectivity, especially on weekends and after 6 p.m. New permits are not being granted in the specified route to bus owners seeking to ply buses in the route. In the report titled "Road and Road Transport" by the Kerala State Planning Board's Working Group of 2017, it is highlighted that "Even though there is a considerable fleet of public transport buses in the state, their utilisation has not been up to par due to improper planning and scheduling, low reliability, lesser comfort, longer travel times with waiting, lack of integration with other modes of transport, etc." This statement holds true with respect to the route that is under study.

The poor connectivity to this area poses some serious challenges to individuals who reside here and those seeking to access it from outside. The residents of HMT Colony report long waiting times and high costs of alternative transportation. The poor connectivity also poses a major challenge to patients seeking affordable health care and to healthcare workers. This also means that law students, medical students and nursing students find it hard to access and exit this area, seriously hampering the medical and legal training of the future doctors and lawyers of the state.

Lack of Bus Waiting Sheds

There is a lack of bus waiting sheds on the Mananthavady to Periya, Niravilpuzha & Koilery routes. There is no designated area for building bus stops on the specified routes. After a conversation with the Motor Vehicles Department, municipal officials and bus operators, it was identified that buses are stopping at spaces where they used to stop traditionally. No designated place is marked as a bus stop in the route map, as per officials. There was no land allocation for bus stops in any of the municipal plans, as per the present officials. The determination of bus stops under the Kerala Motor Vehicles Rules 1989 lies with the Regional Transport Authority (RTA). The RTA shall, in consultation with the authorities concerned of any corporation, municipality, or panchayat, the Executive Engineer and the Superintendent of Police of the District, determine the location of bus stands and from where the stage carriages will start or terminate their service. An illustration of how a bus stop environment must be is given in the Accessibility Guidelines for Bus Terminals and Bus Stops published by the Ministry of Road Transport and Highways.

Figure 3: Bus Stop Environment

2.3 Waste Management

Waste Collection

In Aluva Municipality, waste is collected only from 3,209 of the total 6,000 residents, as per the survey. The waste collection from commercial units was also close to zero. Shop owners primarily rely on private waste collection agents due to irregularities in waste collection by the municipality.

There is a resource crunch in the Haritha Karma Sena (HKS), which is responsible for waste collection. There are only 27 HKS members instead of the required 52 members as prescribed by the Kerala State Government. The HKS workers attributed the irregularities in waste collection to irregular wage payments, which are the result of additional irregularities in household fee collection. The same issue persists in Pattambi Municipality, where there is a reluctance among the residents to pay the HKS fee. The residents of Pattambi are of the view that they do not generate much plastic waste every month to be given to the HKS.

According to the MSWM Manual, 2000, which was released by the Ministry of Urban Development's CPHEEO, each authority in its specific area of operation is required to gather statistics on waste generation, weight, and volume. The Urban Local Bodies (ULBs) must gather data on municipal solid waste. The Kerala government has instituted the Haritha Karma Sena as a micro enterprise to manage waste and earn a livelihood from selling collected waste to private companies engaged in waste recycling, etc. To gather the data, the government has launched the Haritha Mitram- Smart Garbage Management System App. This application provides a comprehensive solution for waste collection and disposal. The app would aid in keeping track of the trash that HKS volunteers collected from various households. Through the app, the waste generators will have the option to pay the user fee via digital methods. Every house will receive a QR code. Each household member could affix the QR code at the house's entry for management of the information on waste collection by HKS Members.

The initial phase of the online trash management system was introduced in 25 grama panchayats and nine municipalities. HKM is implementing the project in collaboration with Suchitwa Mission, Clean Kerala Company, and the Local Self-Government Department (LSGD).

Information on households and businesses that have not yet participated in the collection of non-biodegradable waste at their doorstep can be obtained. Information regarding the amount of waste collected and the fees paid by users will be uploaded to the centralised system. The app will assist consumers in lodging complaints regarding issues with waste collection. However, the case studies shed light on the inefficient management of these initiatives.

Figure 4: Haritha Mitram- Smart Garbage Management System App

Source: Mathrubhumi

Waste Segregation

Waste segregation is an important process in waste management. The conversion of waste to wealth and material recovery from waste necessitate waste segregation. There are two different approaches to waste segregation. The first is waste segregation at source by individuals and households using separate collection systems and the second is recovery through mixed trash mechanical processing and sorting at central facilities that receive huge volumes of waste. The second approach has a lot of disadvantages in terms of the land, capital and energy required. Many countries in Europe that had adopted the second approach have now shifted to the first approach of waste segregation at source to reduce the carbon and cost footprint. Another advantage of the first approach is the possibility of converting the segregated wet waste into community compost bins, bio bins, etc.

A step-by-step waste minimization strategy that is closely related to the 3Rs (Reduce, Reuse, and Recycle) is prescribed in Section 2.1 of the Municipal Solid Waste Management Manual, 2016, issued by the Central Public Health and Environmental Engineering Organisation (CPHEEO) Ministry of Urban Development. The Manual highlights the necessity of national, state, and local policy interventions and envisions ULBs playing a crucial role in efficient administration. Despite these policies and guidelines in place, the ULBs are failing to prevent incidents like the Brahmapuram landfill fire in Kerala.

In both Aluva and Pattambi Municipalities, there is a notable issue of inadequate and improper segregation of waste at source. The HKS workers explained their difficulty in separating dry waste and wet waste in both municipalities. Moreover, HKS workers in both municipalities raised concerns about the lack of protective gear while collecting the waste and the potential health hazards associated with it.

Waste Treatment

Due to improper segregation of waste, the waste processing at Aluva Municipality has taken a hit. As a consequence, the municipality has ceased the transportation of processed waste to cement factories and Clean Kerala Company Limited. Currently, the municipality is unable to generate revenue through the sale of the processed waste.

Awareness

The lack of awareness among students and communities about menstrual waste segregation is another major concern. None of the five schools visited had more than three sessions on menstrual waste segregation in total in the last academic year, with infrequent and limited expert sessions reported by teachers and principals, hindering comprehensive dissemination to the entire student body.

RECOMMENDATIONS & WAY FORWARD

3.1 Creation of Open and Inclusive Urban Spaces

3.1.1 As per the Kerala Parks, Play-Fields and Open Spaces (Preservation and Regulation) Act, 1969, the Municipality or Corporation is responsible for the maintenance of parks, play-fields and open spaces. Also, as per the Kerala Town and Country Planning Act, 2016, a Municipal Corporation, Municipal Council, Town Panchayat or Village Panchayat may undertake the development of an area, including the regulation of activities in that area, under its jurisdiction, by framing and implementing Detailed Town Planning Schemes, within the framework of a Master Plan.

Open gyms and pedestrian pathways can be a crucial strategy to increase fitness levels and public participation. Such gyms must be placed at a walkable distance, preferably 15 minutes or 300-500m away, within high-density residential areas, and equipped with geriatric-friendly designs such as ramps, signage, non-slip floors, shaded benches, and well-lit pathways.

3.1.2 To address the issues with streetlight maintenance, it is recommended to consider the restrictions on state-approved agencies. By removing these restrictions, the door can be opened to increased competition, allowing diverse firms, individuals, or groups to participate in streetlight maintenance. This shift can stimulate innovation and enhance efficiency, ultimately contributing to improved service delivery and sustained maintenance of street lights.

3.1.3 One of the major problems faced by ULBs in Kerala is the lack of funds to execute activities or plans. The ULBs can explore utilising the Pooled Finance Development Fund Scheme, a programme designed to provide financial resources to ULBs for enhancing urban infrastructure projects and services. They also have the option to secure funds from the bond market through tax-free municipal bonds or green bonds. Different municipalities in close proximity could explore the potential of pooled financing by identifying similar issues in their urban local bodies.

3.2 Urban Transport Planning - Bus Shelters, Bus Routes

3.2.1 Granting more private bus permits and liberalising the sector

More permits should be granted to private bus owners for operating buses in the Kalamassery Medical College-NUALS area. The current rate of buses granted permits by the RTO is inadequate to cater to the demand of the region. The existing water metro feeder services can also be extended to NUALS to provide better connectivity. The issue of bus connections extends beyond Ernakulam district in Kerala. The route nationalisation of bus permits in Kerala in 2011 resulted in a significant decrease in the overall number of private buses, dropping from 35,000 in 2011 to only 8,000 in 2023. The state-operated KSRTC was unable to meet the increased demand with fewer than 6,000 buses. This has caused the public to increasingly use private vehicles, resulting in traffic congestion and connection issues in regions where private vehicles are not affordable by the majority of the residents. Efforts should be made by the State government to grant more permits to the private players to solve the bus connectivity issues in various parts of the state. Apart from granting new permits, more private players must be attracted to the transport sector by easing the legal and regulatory barriers.

3.2.2 Determination of bus stops

The power to determine bus stops can be decentralised to the local body to decide in consultation with the traffic police and RTA than in the present structure. This will help in quick decision making as well as the planning of cities by urban local bodies. The Motor Vehicles Rules may be amended accordingly. The bus stops must be designed in such a way that they are inclusive and accessible and provide information on bus timings, etc. The city plan should have bus stops and shelters mapped for better usage of the urban space.

3.2.3 Governance issues

Locally elected governments must undertake city planning with the assistance of urban planning specialists. Despite the 74th Constitutional Amendment, which directs the state government to empower local bodies to carry out urban planning, it is rarely put into practice or enforced by law. This must be corrected by amending state level Municipal Acts, so that elected officials can bring innovative urban designs to cities.

3.3 Better Waste Management Practices and Strategies

3.3.1 Expedite the process of decentralised biodegradable waste collection and encourage windrow composting or treatment plants in every municipality or corporation in Kerala. Biobins should be provided to all households and commercial units. A specific plan has to be prepared for flats and apartments that lack space, like providing a community composting pit for treating food/wet waste in the region. Some processes in waste management, such as segregation or wet waste treatment, may be outsourced to private players. Kerala has many private players emerging in the waste management field, which could be utilised. Based in Cochin, Urban Trash is a cutting-edge waste aggregator platform that offers a complete end-to-end waste management solution customised for business-to-business requirements. A private waste management company named Konaris handles a significant portion of the plastic waste in Pattambi municipality.

3.3.2 Provide safety equipment like gloves, masks, etc. for the HKS workers to ensure smooth collection from their end. It is important to make sure that the number of HKS employees who are available for waste collection is equivalent to the number the government has set. The collection of user charges from waste generators must be improved so as to fund waste management services, thus making it more profitable for HKS workers. Residents and shop owners must be made aware of the importance of waste collection fees and digital payments may be promoted.

3.3.3 Waste segregation at the source should be enforced among the public and residents to reduce the mixing of different types of waste. This will make the recycling process more efficient and minimise the disposal of recyclable materials. UNEP in 2020 launched "The Little Book of Green Nudges," which has 40 ready-made nudges that university campuses can use to promote environmentally friendly behaviours among students and staff. Understanding the importance of green nudges, NITI Aayog released Policy Guidelines on Waste Segregation in 2021 on how to use behavioural economics as a solution to many issues. One of the recommendations includes persuasion techniques such as peer pressure, social proof or authority endorsed messages that can be effective in bringing about behaviour change.

The municipality can incorporate nudges like appreciation towards wards that generate less waste. Along with the wider adoption of the Haritha Mitram App used by HKS, a rating mechanism by HKS members for each household on waste segregation practices can be incorporated into the app. The data on the amount of waste collected can be used by urban local bodies to rank the wards for waste segregation at source and to assess waste generation as well. This approach can persuade households to adopt sustainable practices in waste management.

3.3.4 Practical experience and healthcare professional collaboration should be employed for menstrual awareness and management of menstrual waste. The schools in Kerala must initiate a structured sampling initiative to give students hands-on experience with diverse sustainable menstrual products, accompanied by a feedback system. Specialised workshops may be organised on product utilisation, comfort optimisation and disposal techniques. A collaborative initiative can be established with healthcare professionals to address the nuanced concerns articulated by students. Kerala has many menstrual awareness programmes implemented by the state government, local MLAs and NGOs. It is important to ensure that these activities effectively fulfil their objectives and benefit children. Often, these undertakings are pursued merely for appearance's sake by resource persons who are not professionals.

CONCLUSION

The research conducted by the Fellows of CPPR-FNF Urban Fellowship 2023 sheds light on critical urban issues in Kerala that demand immediate attention and strategic interventions. The findings underscore the multifaceted challenges faced by urban areas in the state, ranging from waste management deficiencies to inadequate infrastructure and connectivity. With Kerala's urban population on a steady rise, it becomes imperative to address these issues promptly to ensure the well-being and livability of residents. The recommendations put forth, including expedited waste management processes, enhanced waste segregation initiatives, strategic infrastructure developments and changes in the present laws, provide actionable steps towards mitigating these challenges and fostering sustainable urban development.

The emphasis on collaboration between local authorities, residents, and private stakeholders highlights the need for a collective approach towards tackling urban challenges. As Kerala continues to urbanise, leveraging these recommendations can not only address immediate concerns but also lay the foundation for sustainable, equitable and resilient urban development that enhances the quality of life for all residents.

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