

PLANNING FOR AN AGE FRIENDLY CITY: A CASE OF THRISSUR, KERALA

A Thesis Project

*submitted in partial fulfillment of the requirements for the
award of the degree of*

Bachelor of Planning

By

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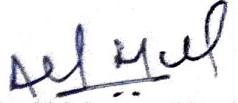


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May, 2026

DECLARATION

I Ahad Mohammed E M Scholar No. 2211002122 hereby declare that the thesis titled PLANNING FOR AN AGE FRIENDLY CITY: A CASE OF THRISSUR, KERALA, submitted by me in partial fulfilment for the award of degree of Bachelor of Planning, at Maulana Azad National Institute of Technology, Bhopal, India, is a record of bonafide work carried out by me. The matter/result embodied in this thesis has not been submitted to any other University or Institute for the award of any degree or diploma.


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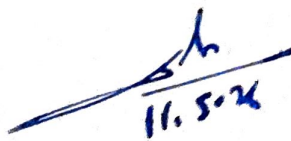
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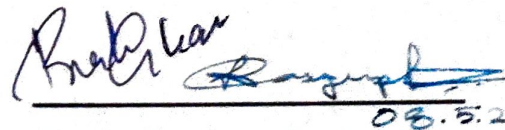

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Abstract

Rapid population ageing and urbanisation are placing unprecedented demands on cities to adapt their environments for active ageing. Kerala, with one of India's highest elderly populations, presents a critical context for such planning. Thrissur Municipal Corporation, a regional hub with a large ageing demographic, faces barriers in mobility, accessibility, and social inclusion. This study develops a holistic age-friendly city framework for Thrissur aligned with WHO's Active Ageing approach across eight domains, with a mechanism to mobilise senior citizens as productive human resources.

The specific objectives are to: (i) benchmark Thrissur against WHO's eight age-friendly domains; (ii) assess seniors' lived experiences through participatory methods; (iii) map seniors' skills and capabilities for volunteering, mentoring, and employment; (iv) propose measurable indicators for monitoring; and (v) develop an actionable age-friendly framework.

The study employed mixed-methods research with a survey of 383 elderly respondents, visual surveys, and stakeholder consultations. GIS-based spatial analysis mapped accessibility patterns across health facilities, parks, and transit. Findings revealed significant deficiencies: walkability challenges, inadequate public transport, lack of age-friendly housing modifications, limited Infrastructure for social participation, constrained healthcare access, and pronounced digital divide among women and super-seniors.

The proposed framework operates at city, ward level, and dwelling levels, including: footpath corridor upgradation on priority; retrofitting parks for senior-activities ; low-floor bus deployment; Mobility Cards for Seniors; Vayagraha Home Adaptation Scheme; Pakalveedu expansion to all 55 wards; and School of Seniors for lifelong learning. Institutional mechanisms include ward-level monitoring committees and convergence financing through AMRUT 2.0 and PPP models. The study concludes that Thrissur can convert its demographic transition into a longevity dividend through structured, inclusive planning.

सारांश

तेजी से बढ़ती वृद्ध जनसंख्या और शहरीकरण शहरों पर सक्रिय वृद्धावस्था के लिए अपने वातावरण को अनुकूलित करने की अभूतपूर्व मांग रख रहे हैं। केरल, भारत की सबसे अधिक वृद्ध आबादी वाले राज्यों में से एक, ऐसी योजना के लिए एक महत्वपूर्ण संदर्भ प्रस्तुत करता है। त्रिशूर नगर निगम, एक बड़ी वृद्ध जनसांख्यिकी वाला क्षेत्रीय केंद्र, गतिशीलता, पहुंच और सामाजिक समावेशन में बाधाओं का सामना कर रहा है। यह अध्ययन WHO के आठ डोमेन में सक्रिय वृद्धावस्था दृष्टिकोण के साथ त्रिशूर के लिए एक समग्र आयु-अनुकूल शहर ढांचा विकसित करता है, जिसमें वरिष्ठ नागरिकों को उत्पादक मानव संसाधन के रूप में संगठित करने का तंत्र है।

विशिष्ट उद्देश्य हैं: (i) WHO के आठ आयु-अनुकूल डोमेन के विरुद्ध त्रिशूर का बेंचमार्क करना; (ii) सहभागी विधियों के माध्यम से वरिष्ठ नागरिकों के जीवित अनुभवों का आकलन करना; (iii) स्वयंसेवा, मार्गदर्शन और रोजगार के लिए वरिष्ठ नागरिकों के कौशल और क्षमताओं का मानचित्रण करना; (iv) निगरानी के लिए मापने योग्य संकेतक प्रस्तावित करना; और (v) एक कार्ययोग्य आयु-अनुकूल ढांचा विकसित करना।

अध्ययन ने 383 वृद्ध उत्तरदाताओं के सर्वेक्षण, दृश्य सर्वेक्षण और हितधारक परामर्श के साथ मिश्रित-विधि अनुसंधान को नियोजित किया। GIS-आधारित स्थानिक विश्लेषण ने स्वास्थ्य सुविधाओं, पार्कों और पारगमन में पहुंच पैटर्न का मानचित्रण किया। निष्कर्षों ने महत्वपूर्ण कमियां प्रकट कीं: चलने की चुनौतियां, अपर्याप्त सार्वजनिक परिवहन, आयु-अनुकूल आवास संशोधनों की कमी, सीमित सामाजिक भागीदारी के लिए सीमित बुनियादी ढांचा बुनियादी, सीमित स्वास्थ्य सेवा पहुंच, और महिलाओं और अति-वरिष्ठ नागरिकों में स्पष्ट डिजिटल विभाजन।

प्रस्तावित ढांचा शहर, वार्ड और आवासीय स्तर पर लागू होता है, जिसमें शामिल हैं: फुटपाथ गलियारों का प्राथमिकता के आधार पर उन्नयन; वरिष्ठ नागरिकों की गतिविधियों के लिए पार्कों का पुनर्निर्माण; लो-फ्लोर बसों की तैनाती; वरिष्ठ नागरिकों के लिए मोबिलिटी कार्ड; वायोग्रह गृह अनुकूलन योजना; पकालवेदु योजना का सभी 55 वार्डों में विस्तार; और आजीवन शिक्षा के लिए वरिष्ठ नागरिकों का विद्यालय। संस्थागत तंत्रों में वार्ड-स्तरीय निगरानी समितियां और अमृत 2.0 और पीपीपी मॉडल के माध्यम से अभिसरण वित्तपोषण शामिल हैं। अध्ययन से यह निष्कर्ष निकलता है कि त्रिशूर संरचित, समावेशी योजना के माध्यम से अपने जनसांख्यिकीय परिवर्तन को दीर्घायु लाभ में परिवर्तित कर सकता है।

CHAPTER 1: INTRODUCTION

Population ageing and urbanisation together create a major planning challenge, and WHO frames an age-friendly city as one that supports **active ageing** by optimising health, participation, and security to enhance quality of life as people age. In practical planning terms, this requires cities to adapt structures and services to be accessible and inclusive for Senior citizens (people aged 60 and above) with varying needs and capacities, using an integrated approach domains assessed across eight interlinked domains of city living rather than isolated projects. Building on this, the thesis adds a Kerala-specific layer: mobilising Thrissur's literate older population as a community asset ("senior resource") to strengthen support through volunteering programmes, mentoring programmes, employment and entrepreneurship, aiming to increase social security and productivity while improving everyday access and to assess the age friendliness of the Thrissur city through WHO's eight age friendly domains

1.1 Justification of the Topic

WHO explicitly positions older people as a resource for families, communities, and economies when environments are supportive and enabling. The WHO guide is built on bottom-up inputs from older people and provides a practical domain framework and checklists that cities can adapt for local action.

This thesis is further justified because age-friendly planning fosters healthy ageing and equity by enabling seniors to live longer, healthier lives and reducing social disparities. It also supports the universal-design argument: barrier-free interventions (ramps, seating, lighting, safer walking/transit environments) benefit the whole population children, people with disabilities, and all age groups not only Senior citizens. Additionally, engaging Senior citizens in planning strengthens community cohesion by empowering seniors and leveraging their lived experience for more resilient neighbourhoods.

Finally, Kerala's existing senior welfare ecosystem strengthens feasibility, because Thrissur can build on institutional support while proposing an asset-based, productivity-oriented model where Senior citizens' experience and literacy become inputs into

volunteering, mentoring, employment and entrepreneurship supporting social security, inclusion, and local development rather than only welfare provisioning.

1.2 Need for the Study

Thrissur is a city which had 33 percent of adult population and youth population in 2011 as we can see from the figure 1 as time passes that portion of population slowly turns into a huge proportion of old age population so as to cater the problem of Population ageing and urbanisation, it is required by the cities to rethink how they plan services, streets, housing, and social systems for longer lives. Therefore, it is important to consider the impact of the urban and rural environments on older people. This is especially relevant in the current economic climate, where service providers face a difficult challenge in trying to provide for the needs of older people in a time of austerity and budget reductions

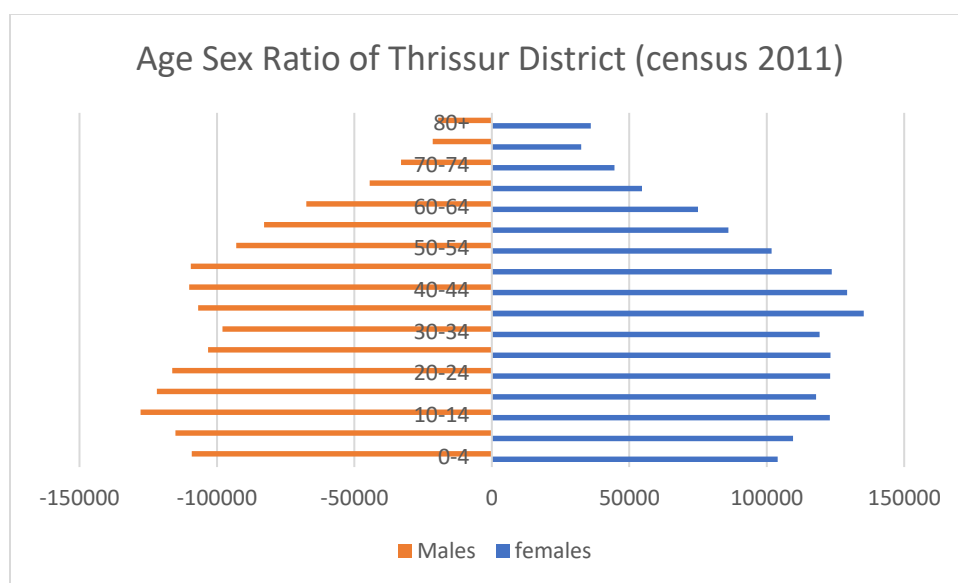


Figure 1 Age sex pyramid for Thrissur district

Source: census 2011

Age-friendly planning is needed because access barriers and exclusion reduce Senior citizens' ability to participate in community life, which in turn impacts wellbeing and independence. At the city level, improving age-friendliness is not only about infrastructure; it also requires systems that reduce isolation, expand participation, and create enabling conditions for Senior citizens' contributions. Thrissur has an opportunity to convert demographic change into a “longevity dividend” by building civic, social, and economic roles for Senior citizens in ways that are safe, structured, and locally relevant.



Figure 2 Sustainable development goals 9,10,11

This need is further strengthened because the proposed age-friendly interventions accessible infrastructure and services, inclusive participation, and reduced social exclusion directly align with SDG 9 (resilient infrastructure), SDG 10 (reduced inequalities), and SDG 11 (inclusive, safe, and sustainable cities) from figure 2.

1.3 Aim

‘To develop a holistic age-friendly city framework and action strategy for Thrissur’
aligned with WHO’s active ageing approach and eight domains, with a focused mechanism to mobilise Senior citizens as a productive human resource

1.4 Objectives

- Documenting Thrissur’s current conditions against WHO’s eight age-friendly domains with Physical Planning as priority
- Assess available infrastructure for Senior citizens within the domain indicators

- Map Senior citizens skills, literacy-based capabilities, interests, and constraints to identify “where Senior citizens can contribute” (volunteer roles, mentors, micro-entrepreneurs, part-time workers) alongside “where Senior citizens need support.”
- Finding suitable measurable indicators and a monitoring framework to track progress as a self-assessment tool and for ranking cities on age friendliness.
- Proposals for developing an Age friendly city Thrissur



Figure 3 WHO 8 age friendly domains

Source: World Health Organization (2007b), *Global Age-Friendly Cities: A Guide*, WHO Press, Geneva. <https://www.who.int/publications/i/item/9789241547307> (Accessed on 01 May 2026).

1.5 Methodology

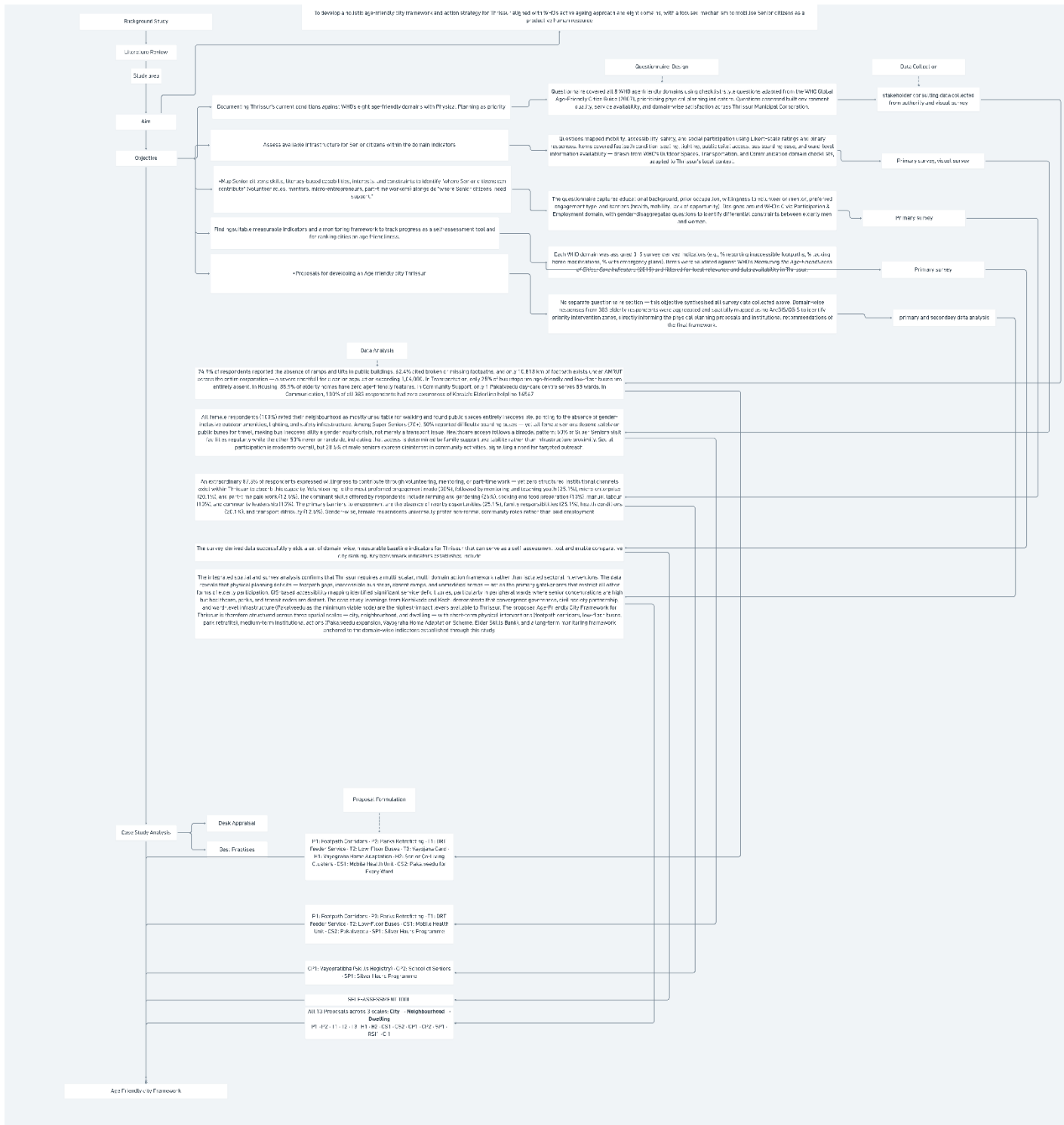


Figure 4 Flowchart of Methodology

1.6 Study Area

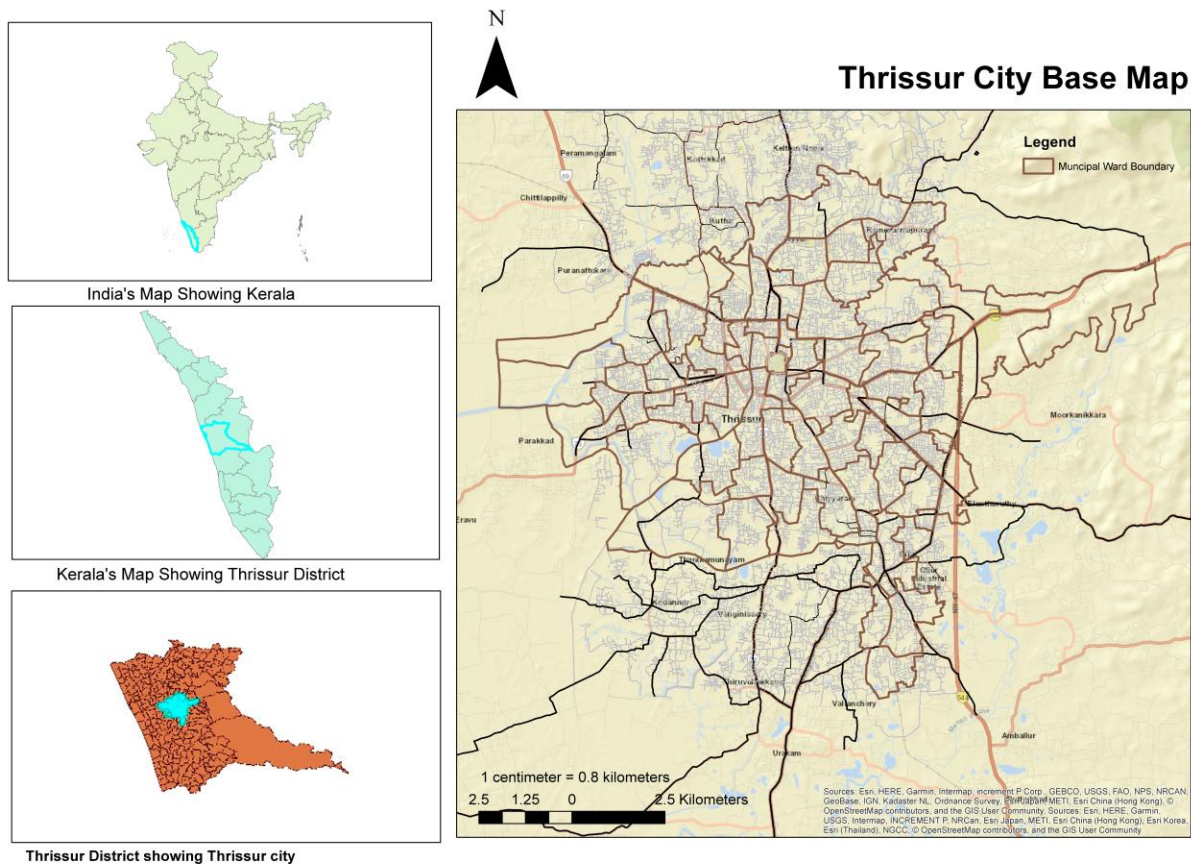


Figure 5 Thrissur city Location Map

Source: Author

The study area is Thrissur City (Thrissur Municipal Corporation), Kerala shown in figure 5. This city is selected because Kerala already has operational learning contexts from age-friendly initiatives in Kochi and Kozhikode, making Thrissur a strong case for adaptation/replication and localisation of tools and interventions. Thrissur's role as a regional cultural/service centre (education, health, markets, religious/civic destinations) makes mobility and communication central to Senior citizens' participation and inclusion outcomes Figure 6 shows the Thrissur city Base Map.

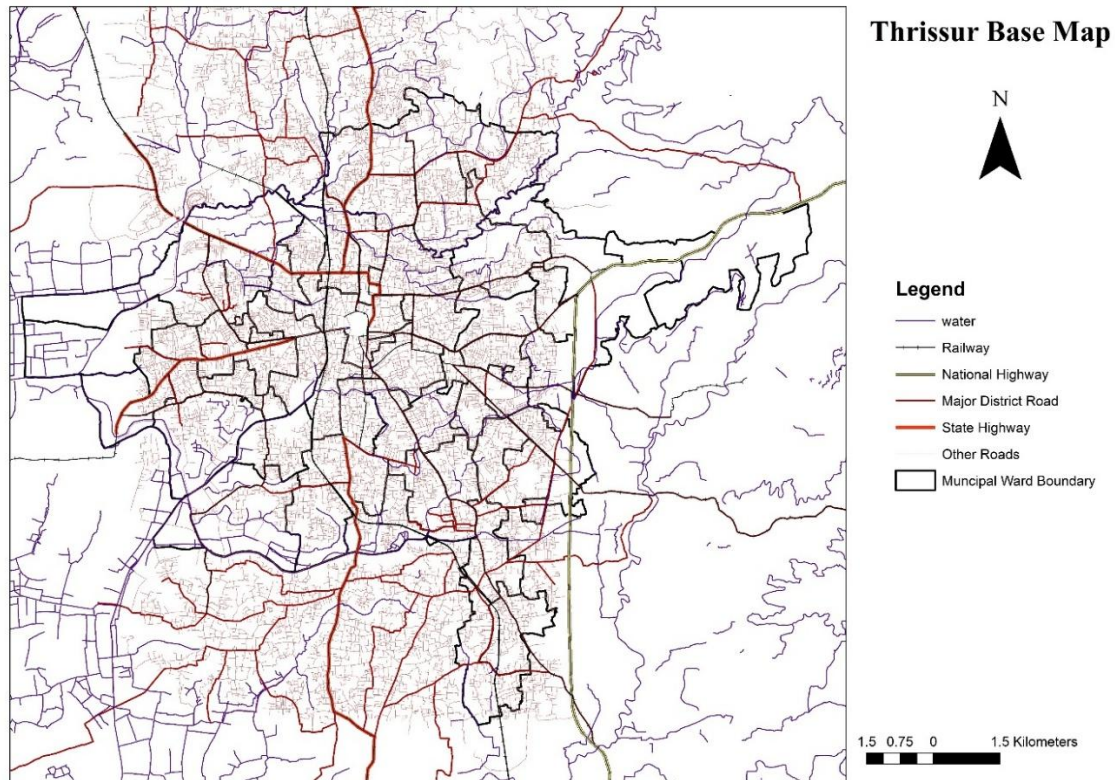


Figure 6 Thrissur city Base Map

Source: Author

1.7 Scope of the Study

The scope includes a domain-wise assessment and proposal for Thrissur city across outdoor spaces/buildings, transport, housing, social participation, respect/inclusion, civic participation/employment, communication/information, and community support/health services. The scope gives special emphasis to “civic participation & employment” and the enabling ecosystem for volunteering, mentoring, and senior entrepreneurship, while still addressing access constraints that determine whether participation is possible. The study will develop both spatial recommendations (where changes are needed) and institutional recommendations (who implements, funds, and monitors).

The Study will be limited to Thrissur Municipal Corporation Boundaries only

1.8 Analytical Tools and Methods

- Benchmark Thrissur's current conditions against WHO's eight age-friendly domains – stakeholder consulting data collected from authority and visual survey
- Assess available infrastructure for Senior citizens lived experience of mobility, accessibility, safety, information access, and social participation through participatory methods. - questionnaire survey, visual survey
- Map Senior citizens' skills, literacy-based capabilities, interests, and constraints to identify “where Senior citizens can contribute” (volunteer roles, mentors, micro-entrepreneurs, part-time workers) alongside “where Senior citizens need support.” - questionnaire survey
- Propose measurable indicators and a monitoring framework to track progress as a self-assessment tool and for ranking cities. - questionnaire survey
- Develop a holistic age-friendly city framework and action strategy for Thrissur city aligned with WHO's active ageing approach and eight domains, with a focused mechanism to mobilise Senior citizens as a productive human resource

Tools such as ArcGIS, Q GIS and Excel will be used to analyse the spatial data and numerical data

1.9 Expected Outcome

- A domain-wise age-friendly baseline assessment for Thrissur Municipal Corporation across the WHO's eight domains, identifying key strengths, gaps, barriers, and priorities for action.
- A spatial understanding of age-friendliness in Thrissur through GIS-based accessibility mapping of senior concentrations and key destinations (health facilities, parks, transit stops, markets), including identification of low-access/service-deficit areas that require targeted interventions.

- Evidence-based recommendations for improving everyday access and safety (walkability, transport usability, public spaces, and information access) so that Senior citizens can participate in civic, social, and economic life with fewer barriers.
- A structured “Older Adult Resource Mobilisation” framework for Thrissur that converts the city’s literate older population into a productive human resource through clearly defined pathways for volunteering programmes, mentoring programmes, part-time employment linkages, and senior entrepreneurship support.
- A city-level institutional and governance roadmap that clarifies roles and coordination between the ULB, NGOs, health system actors, transit agencies, community centres/libraries, and employers—including implementation phasing, funding possibilities, and monitoring responsibilities.

1.10 Overview of the Work

The first chapter introduces the study, establishing its rationale and contextual significance. It covers the justification of the topic in light of India’s rapidly ageing population and the specific demographic pressures facing Thrissur, followed by the aim, objectives, and the methodological framework adopted for the research. The chapter also delineates the study area, outlines the scope of inquiry, describes the analytical tools employed, and concludes with the expected outcomes of the thesis.

The second chapter presents the literature review, which critically examines global frameworks and scholarship on age-friendly city planning. It explores the WHO’s Age-Friendly Cities and Communities programme, harmonised guidelines for elderly and disabled persons, and core features of age-friendly environments identified across international settings. The chapter also surveys case studies from cities in Sweden, China, India, and elsewhere, drawing cross-cutting lessons in spatial distribution, community cohesion, and lifelong learning relevant to the Thrissur context. It concludes with a critical assessment of the scope and limitations of existing literature, identifying the gaps this study seeks to address.

The third chapter situates the study within its regional setting, providing an overview of Thrissur city and examining the Kerala context for age-friendly planning. It presents the Samanwaya Model of Kozhikode Municipal Corporation and the CEDAC Age-Friendly City Model of Kochi Municipal Corporation as illustrative examples of how Kerala's urban local bodies have approached elderly inclusion. The chapter also catalogues the social benefit schemes available to older persons under the Kerala state government, and derives comparative learnings and policy implications specifically relevant to planning interventions in Thrissur.

The fourth chapter presents the primary and secondary data analysis. It reports findings from a structured survey of elderly respondents across Thrissur Municipal Corporation, analysed domain by domain against the WHO's eight age-friendly indicators: outdoor spaces and buildings, transportation, housing, social participation, respect and social inclusion, civic participation, communication and digital inclusion, and community support and health services. The chapter further undertakes cross-cutting gender and age differentiated analysis, maps the skills, capabilities, and barriers of the senior citizen population, and integrates secondary data on social and cultural infrastructure and road networks to build a comprehensive evidence base for the proposals that follow.

The fifth chapter translates the evidence gathered into a set of actionable planning proposals for Thrissur. Structured around the WHO domains, it puts forward spatially grounded interventions covering accessible footpath corridors, parks and outdoor spaces, demand-responsive transport, low-floor buses, senior mobility cards, housing adaptation schemes, co-living clusters, mobile health units, Pakalveedu day-care hubs, digital inclusion programmes, and institutional coordination mechanisms. Each proposal is supported by design standards, phasing timelines, and indicative stakeholder responsibilities, providing a practical blueprint for making Thrissur a genuinely age-friendly city.

The sixth and final chapter brings the thesis to a close by synthesising the key findings and evaluating the extent to which the study's objectives have been met. It reflects on the significance of the research for elderly-inclusive planning in mid-sized Indian cities and articulates a way forward, including priority actions, governance recommendations, and

areas requiring further research. The chapter underscores the imperative of embedding age-friendliness as a core principle in urban planning practice, and concludes with a call for sustained, collaborative, and rights-based approaches to building a city that works for all its residents across every stage of life.

CHAPTER 2: LITERATURE STUDY

A systematic literature search was conducted to identify relevant studies, frameworks, and policy documents on age-friendly cities and communities. Two major academic databases were used: Scopus and Google Scholar. The search was carried out between January and March 2025, and was designed to capture both peer-reviewed research and grey literature relevant to the planning of age-friendly environments, with a particular focus on the Global South and Indian urban contexts.

Search Terms and Databases

The following primary and secondary keyword combinations were used across both databases. Boolean operators (AND, OR) were applied to broaden or narrow results as appropriate. Searches were conducted in English and were not restricted by year of publication in the initial sweep, although results were later filtered to prioritise literature published after 2000 to ensure contemporary relevance.

Primary Keywords: “Age-friendly city”, “Age-friendly community”, “Ageing in place”, “Elderly-friendly urban planning”, “Active ageing”, “WHO Age-Friendly Cities Programme”

Secondary Keywords: “Senior citizen urban environment”, “Accessible city”, “Elderly mobility”, “Urban ageing India”, “Senior-friendly infrastructure”, “Spatial distribution senior facilities”, “Geriatric urban services”, “Age-friendly Kerala”

Screening and Filtering Process

The initial search across Scopus and Google Scholar yielded approximately 120 results in total. These results were then subjected to a multi-stage filtering process to arrive at the final set of literature reviewed in this chapter.

Stage 1 Title and Abstract Screening: Duplicates and clearly irrelevant results (e.g., medical gerontology papers with no urban planning component) were removed. This reduced the pool to approximately 42 documents.

Stage 2 Full-Text Eligibility: Documents were assessed for relevance based on the following inclusion criteria: (i) focus on urban or peri-urban settings; (ii) addressing at least one domain of the WHO Age-Friendly Cities framework; (iii) policy, planning, or design orientation rather than purely clinical. This further reduced the pool to approximately 18 documents.

Stage 3 Final Selection: The remaining documents were reviewed in full and assessed for depth of analysis, methodological quality, and direct applicability to the Thrissur planning context. From this process, 11 key works and 6 case studies were selected for detailed review and are presented in Sections 2.1 and 2.2 of this chapter respectively.

Inclusion and Exclusion Criteria

Literature was included if it: (a) addressed age-friendly or elderly-inclusive urban design or planning; (b) focused on a city or urban community as the unit of analysis; (c) engaged with at least one WHO domain (outdoor spaces, transportation, housing, social participation, civic participation, communication, or community support); or (d) provided evidence from Indian, South Asian, or comparable Global South cities relevant to the Thrissur context. Literature was excluded if it was purely biomedical, focused exclusively on rural settings, or not available in English. Policy documents from WHO, Government of India, and State of Kerala were additionally included regardless of database availability given their direct normative relevance to the study.

The final literature selected through this process forms the basis of the review presented in this chapter. Section 2.1 covers key theoretical frameworks and empirical studies on age-friendly cities, while Section 2.2 synthesises the scope and limitations of the existing body of work and introduces the international and Indian case studies that inform the planning proposals for Thrissur.

2.1 Age-friendly cities: literature study

Creating a welcoming and friendly environment is central to the concept of Age friendly cities. The Elderly population that live in these cities are given top priority, so they have access to a wide variety of services and amenities. (*WHO, 2007b*)

2.1.1 The WHO's Age-friendly Cities Program

The WHO's Age-friendly City Project was developed by Alexandre Kalache and Louise Plouffe of the WHO and launched at the 18th IAGG World Congress of Gerontology and Geriatrics in Rio de Janeiro, Brazil in June 2005 (*Kalache and Plouffe, 2010*). Between September 2006 and April 2007, 33 cities from all continents participated in a WHO research project to explore the elements that make up an age-friendly city with each city conducting focus groups with older people, their carers and service providers (WHO, 2007a). From the extensive information obtained from the research, the WHO produced the Global Agefriendly Cities: A Guide and the Checklist of Essential Features of Age-friendly Cities to assist cities and communities to self-assess against a range of criteria across eight key domains. These are (WHO, 2007a):

- Outdoor spaces and buildings: the outside environment significantly impacts on the mobility, independence and quality of life of older people and affects their ability to age in place.
- Transportation: accessible and affordable transportation enables older people to move around a city and influences social and civic participation and access to community and health services.
- Housing: appropriate and affordable housing influences the independence and quality of life of older people and enables them to age safely within the community.
- Social Participation: having opportunities to participate in leisure, social, cultural and spiritual activities in the community, and within the family, allows older people to exercise their competence, enjoy respect and esteem and to build and maintain relationships.
- Respect and Social Inclusion: creating environments where older people are respected, recognised and included in the community and the family.
- Civic Participation and Employment: ensuring older people have the opportunities to continue to contribute to their communities through paid work or volunteering and to be engaged in the political process.

- Communication and Information: supporting older people to stay connected with events and people and have ready access to relevant information in a variety of forms.
- Community Support and Health Services: having access to health and support services that are affordable, of good quality and appropriate is vital for older people to maintain health and independence in the community.

In developing an age-friendly city, the WHO advocates a bottom-up participatory approach to enable older people to identify the issues that most affect them and to exercise influence over policy. This approach has been recommended by the United Nations as a way of 'empowering older people to contribute to society and to participate in decision-making processes' (WHO, 2007a). Therefore, the WHO expects that communities that participate in the Age-friendly Cities Project will involve older people as partners at all stages, from assessing their city's strengths and gaps, to the development, implementation and monitoring of initiatives, as well as acting as advocates and advisors on age-friendly issues. Since the launch of the WHO guidelines, the WHO model of age-friendly cities has been applied by city, state and municipal governments and civil society organisations in several countries. In 2010, the WHO launched the Global Network of Age friendly Cities and Communities to support cities and communities that want to develop age friendly initiatives. The network now has over 200 cities in 26 countries across all continents that are formal partners in the project. Each city that becomes a member of the global network makes a five-year commitment to focus on developing an action plan to create age friendly city initiatives based on a process of continuous improvement and the involvement of older people (WHO website). In some locations, the WHO age-friendly initiative has been taken up by individual communities. However, several countries, such as Canada and Ireland, have taken a much wider perspective and adopted a whole of country approach

2.1.2 Harmonised Guidelines for Persons with Disability and Elderly Persons

The "Harmonised Guidelines and Space Standards for Barrier-Free Built Environment for Persons with Disabilities and Elderly Persons" were prepared by the Ministry of Urban

Development, Government of India in 2015 to consolidate and update earlier accessibility standards issued by CPWD, the National Building Code and the Office of the Chief Commissioner for Persons with Disabilities. They translate India's commitments under the Persons with Disabilities Act, 1995 and the UN Convention on the Rights of Persons with Disabilities (UNCRPD) into detailed design requirements for public buildings, transport interfaces and housing, explicitly including elderly persons as beneficiaries. (*Ministry of Urban Development, 2015*)

Key Conceptual Foundations

The guidelines adopt the UNCRPD view of disability as the interaction between individual impairments and environmental barriers rather than only a medical condition, and therefore frame accessibility as a rights-based obligation for the State. They also explicitly ground the technical standards in the principles of universal design, emphasising dignity, independence, safety and usability "for all" rather than segregated solutions, and position barrier-free design as integral to inclusive city-building.

Universal Design Elements in Sites and Buildings

The guidelines devote an extensive chapter to "Universal Design Elements within Building Premises", covering walkways, tactile paving, gratings, doors, internal corridors, flooring, lighting, parking, handrails and seating. They prescribe minimum walkway widths (typically 1800 mm for two-way movement), ramp gradients and landings, slip-resistant floor finishes, location and configuration of bollards and protruding objects, and systematic use of tactile guiding and warning blocks to support independent mobility of persons with visual impairment.

Signage, Wayfinding and Communication

A full chapter is dedicated to signage, recognising its role in wayfinding and orientation for people unfamiliar with their environment and for users with sensory or cognitive impairments. It distinguishes directional, information, identification, instructive and safety signage, and sets out requirements for letter height, contrast, placement, tactile and Braille information, and integration with audio cues and hearing enhancement systems.

Accessible Sanitation and Interior Facilities

The document elaborates layouts and fixtures for unisex accessible toilets, ambulant cubicles, showers and public toilets, with clear manoeuvring spaces for wheelchairs and grab-bar configurations. It also standardises heights, clearances and control types for everyday facilities such as drinking water fountains, telephones, ATMs, vending machines, counters and seating so that older people and persons with disabilities can use them independently.

Transport Interfaces and Public Realm

Beyond buildings, the guidelines extend barrier-free design principles to alighting and boarding areas, bus stops, rail and metro stations, taxi stands, sidewalks, crossings and median refuges, and low-floor buses and accessible taxis. They treat transport and road planning as a critical domain where sidewalk design, kerb ramps, traffic signals, subways and foot-over-bridges must all be designed to be accessible and safe for persons with reduced mobility, aligning closely with age-friendly city concerns around mobility and outdoor spaces.

Adapted Housing and Access Audit Tools

A later section focuses on "Adapted Housing", translating universal design and accessibility principles into guidance for dwelling exteriors, entries, internal circulation, bedrooms, living rooms, kitchens and washrooms. The annexed access audit checklist provides a practical tool for systematically assessing existing buildings and sites against the standards, supporting retrofitting strategies in addition to guiding new construction.

2.1.3 Age-Friendly Cities and Communities Around the World

Fitzgerald & Caro mentioned that some Preconditions must exist before serious age-friendly work can succeed.

Demographic precondition – population density of older people

- Large and/or growing concentrations of Senior citizens provide the rationale and urgency for age-friendly initiatives.

- Urbanisation and earlier rural-to-urban migrants now ageing in cities make age-friendly planning particularly important. *(Fitzgerald and Caro, 2014)*

Climate and weather

Extreme climates constrain outdoor activity and participation; communities need climate-responsive design

Topography

Steep or difficult terrains (e.g., Brazilian favelas, bayou communities) make age-friendly walking environments challenging; local solutions like escalators in Medellín show how infrastructure can overcome topographical barriers

Social and civic organisation

- Age-friendly work assumes basic political institutions, law-abiding behaviour and functioning municipal services are present.
- Civic action and community organisations can mitigate negative conditions (crime, dereliction) and build trust. *(Fitzgerald and Caro, 2014)*

Health and social services

- Advanced societies have complex health and social care systems; access is often limited by cost, information, distance and transport.
- Age-friendly initiatives can: improve information, reduce cost barriers, enhance transport, and coordinate among service providers and government tiers. *(Fitzgerald and Caro, 2014)*

2.1.4 Core features of age-friendly communities

Housing

Variety of housing types (single-family, apartments, assisted living) needed to match incomes and disabilities.

Universal design and visitability (zero-step entries, wider doors, main-floor toilets, lever handles) are key principles.

Zoning and property taxes influence housing affordability and mix; age-friendly strategies may include targeted tax relief for low-income seniors. (*Fitzgerald and Caro, 2014*)

Mobility and transport

Older people rely on public transport, specialised senior transport and walkable environments, particularly after they stop driving.

“Complete Streets” policies are highlighted as a way to design roads for all users (pedestrians, cyclists, public transport, all ages and abilities), improving safety and walkability.

Communities must ensure safe sidewalks, crossings, and regulate conflicts (e.g., bicycles on footpaths) to protect older pedestrians.

Outdoor spaces and buildings

Built environment affects independence, mobility, quality of life and safety; outdoor spaces and buildings require long-term planning.

Involving older people in planning helps identify barriers, monitor changes and shape future designs.

Participation of older people

Participation includes both formal and informal activities that sustain relationships, respect and competence.

Barriers: access, affordability, information, encouragement, intergenerational integration and cultural sensitivity.

Employment and volunteering opportunities benefit both older people and communities.

Senior citizens can participate in: needs assessments, as peer interviewers, on advisory boards, and as leaders of initiatives (*Fitzgerald and Caro, 2014*)

2.1.5 Opportunities

Demographic opportunity

- Rapid growth of older population (projected 22% of global population >60 by 2050) strengthens the case for age friendly initiatives.
- Communities that invest in dense, universally designed, transit rich neighbourhoods will attract both older and younger residents.

Using current resources better

- Age friendly improvements do not always require large new budgets; better information and coordination can have big effects.
- Example: simple public restroom guides in Brookline or improved parking permits for caregivers, achieved mainly through inter departmental collaboration and communication. (*WHO, 2007b; Buffel and Phillipson, 2016*)

Age-friendly as all-inclusive

- Many age-friendly features (walkability, accessible transport, safe public spaces) benefit children, people with disabilities and other groups.
- The movement can catalyse coalitions across “special populations” (e.g., children, disabled adults, LGBT Senior citizens) for shared improvements.

2.1.6 Challenges and risks

- **Economy and government capacity**
 - Tight municipal budgets and weak economies constrain age-friendly initiatives; they may need to start small, draw on volunteers and piggy-back on existing programmes.
 - In developing countries, chronic under-funding and limited data on ageing can make age-friendly work appear unrealistic without external support. (*Phillipson and Buffel, 2020*).
- **Politics and policy continuity**

- Some initiatives (like WHO Global Network membership) require government commitment, which can be disrupted by political changes.
- Shifts in leadership and priorities can stall or reverse age-friendly work unless strategies are institutionalised.
- **Sustainability of initiatives**
 - Easy to start; hard to sustain momentum when funding, leadership or attention shifts.
 - Sustainability planning (how work continues if funds or leaders change) is critical from the beginning.
- **Monitoring, evaluation, benchmarking, comparability**
 - Monitoring and evaluation are essential but often under-funded and left to the end, risking incomplete evidence.
 - Technical capacity is a barrier for smaller communities; comparability across countries is difficult because contexts differ.

2.1.7 Key characteristics of age-friendly cities and communities

Stephanie Steels stresses that both physical and social environments must be addressed together, since most older-people outcomes (mobility, independence, participation, wellbeing) depend on their interaction.(Steels, 2015)

Transport and mobility

- Accessible, reliable, affordable public transport (especially age-friendly bus services) is presented as a core enabler of participation, independence and reduced isolation for older people.
- Features such as well-maintained footpaths, nearby bus stops, shelters and safe street design support walkability, reduce isolation and contribute to positive health and wellbeing through social inclusion and participation.

Social environment, participation and work

- The review shows that a positive social environment provides social support, opportunities for education and lifelong learning, employment and volunteering, and participation in community activities, all of which are linked to wellbeing in later life.
- Lifelong learning and training help older people build new skills, self-confidence and coping strategies, and flexible or reduced working hours can maintain health, lifestyle, job satisfaction and sense of usefulness.
- Intergenerational initiatives are highlighted as promising: structured interaction between younger and older people can strengthen social capital, reduce social exclusion and benefit all age groups (e.g., Generations of Hope Community in the US).
- Many community programmes rely on private funding or donations; integrating them with public services and funding is recommended for long-term sustainability.

Housing and ageing in place

- A substantial set of studies focus on home adaptations (handrails, bathroom modifications, non-slip steps), assistive technologies (panic buttons) and home-care services that allow older people to age in place and avoid or delay institutionalisation.
- These interventions reduce hazards leading to hospitalisation, maintain independence and avoid feelings of disempowerment associated with moving to institutional care facilities.

Governance, multi-stakeholder collaboration and participation of Senior citizens

- A core theme is that age-friendly initiatives are characterised by intersectoral collaboration involving national, regional and local government, as well as multiple sectors such as health, social care, housing, employment, education, social security and urban planning.

- Beyond government, NGOs, not-for-profit organisations and other civil-society actors are frequently involved; multi-stakeholder collaborations allow pooling of resources, knowledge exchange and targeting interventions to people approaching or already in old age.
- A strong emphasis is placed on involving older people and their caregivers in planning, implementation and evaluation to produce locally relevant interventions, with successful examples from Manchester and New York neighbourhoods.

2.1.8 main priorities found across 11 cities

1. Changing perceptions of older age (combating ageism)

- Cities use communication campaigns, realistic/non-stereotypical images, positive language, slogans, and intergenerational initiatives to challenge negative images and make older people more visible.
- Ageism and low political interest are described as major barriers to securing resources for age-friendly programmes, which justifies your emphasis on presenting Senior citizens as a “resource” and highlighting a longevity dividend in Thrissur. (*Remillard-Boilard, Buffel and Phillipson, 2021*).

Involving key actors in age-friendly efforts

- Successful programmes build broad partnerships with local councils, NGOs, businesses, universities and older people themselves; examples include senior advisory councils and multi-stakeholder observatories.
- Cities stress the need to mainstream ageing across sectors (housing, transport, health, planning, social work, environment) and levels (local–regional–national), mirroring your plan for a city-level governance roadmap linking ULB, NGOs, health system and transit agencies in Thrissur.

3. Responding to diverse needs of older people

- Programmes run projects in social participation (culture, volunteering, employment), health promotion, and built-environment improvements (benches, lighting, pavements, pedestrianisation, accessible transport).
- Cities struggle to address diversity within older populations (young-old vs oldest-old, people with disabilities, dementia, ethnic minorities, isolated elders) under tight budget

4. Improving planning, delivery and evaluation

- Common good practices: baseline assessments, focus groups, city-wide surveys, targeted consultations with specific groups (e.g., rural elders, caregivers, LGBTQ seniors, indigenous elders) to inform action plans.
- Cities work on embedding age-friendly policies into long-term planning documents and are starting to develop indicator sets (e.g., Ottawa's 66 indicators across the 8 domains, Manchester's statistical indicators), but overall evaluation remains limited (*Remillard-Boilard, Buffel and Phillipson, 2021*).

2.1.9 Designing Age-Friendly Communities

UGS support healthy ageing by:

- Enabling regular walking and physical activity when streets and footpaths are unsafe or crowded.
- Providing respite from intense noise, air pollution and heat; parks are described as “refuge” and the “only chance to breathe clean air”.

Senior citizens living near accessible parks use them as primary spaces for exercise, especially when they do not drive or live in congested neighbourhoods. (*Ali, Rahaman and Hossain, 2022*).

Quality, access and design issues

- Major barriers:

- Poorly designed or broken footpaths, lack of continuous, flat walking surfaces, encroached sidewalks and car-parking on footpaths.
- Inadequate age-friendly features in parks: missing benches with backrests/arms, toilets, non-slip paths, lighting and shade.
- Rapid urbanisation has removed street trees and reduced everyday shade, making remaining parks and green pockets extremely valuable for Senior citizens, especially those in high-rise or crowded housing.

Social participation, community and resilience

- Parks act as neutral, shared spaces where Senior citizens form walking groups, yoga groups, community-gardening clubs and festival committees, building social capital and informal support networks.
- Community gardens and small collective projects transform neglected corners and dumps into functional UGS, strengthening neighbourhood ties and “ownership” of space.
- Intergenerational use (grandparents with grandchildren, children’s events) increases interaction between age groups and supports emotional wellbeing and a sense of belonging.

Inequities and safety for disadvantaged groups

- Low-income neighbourhoods have fewer and poorer quality UGS; existing parks often have broken equipment, poor maintenance, and lack of basic amenities.
- Neighbourhood disorder (litter, vandalism) and crime/anti-social behaviour, especially groups of men drinking, make many older women feel unsafe and avoid local parks despite needing them for exercise and relief.

For poorer Senior citizens, free outdoor gyms and parks may be the only affordable way to exercise or manage chronic conditions, but poor quality and safety limit their use. (*Adlakha et al., 2021*).

2.1.10 Creating a Conducive Environment for the Elderly in India

Status and challenges of older people in India

- Census and projections show India's elderly population will rise sharply (multi-fold growth in 60+ by 2050), turning "young India" into an ageing society with major economic and social consequences.
- Older people face multiple, overlapping problems: health issues, financial insecurity, social isolation, weakening joint family systems, precarious living arrangements, crime and ill-treatment. *(Rajan, Shajan and Sunitha, 2020)*
- Data show increasing proportions of elders living alone or only with spouse, and a weakening of extended family support, making neighbourhood and city-level environments and services more critical.

Existing age-friendly initiatives in India (Delhi, Udaipur, Kolkata)

Table 1 Existing age-friendly initiatives in India (Delhi, Udaipur, Kolkata)

S.no.	State	Programme Initiated in City & Problems	Target Group	Results/Outcomes
1.	Delhi	The programme initiated in South Delhi in Sangam Vihar were no government services like water, electricity, and sewage facilities available in that area. Even they have little contact with local authorities, and mostly elders were concerns about their safety. A program is started to encourage contact between more established grown-ups and network road watch cops, which was actualized in 6 wards of Sangam Vihar, covering around 1800 more seasoned grown-ups. With the help of the nearby political authority and two neighborhood police headquarters, more seasoned grown-ups met their neighborhood ward cops. They were given cards in which they have a photo with their name and contact quantities of all road watch cops. To empower the utilization of cards, the more established grown-ups rehearsed by calling their nearby cops, and the police headquarters made a register of the taking an interest more seasoned grown-ups with the goal that they would be perceived in the event that they brought in once more. Wellness Health and You began intercessions to show the age-pleasing urban zones/systems movement and has now got the South Delhi Municipal Corporation as a person from the GNWAFC. Another mediation grasped with the assistance of W.H.O-S.E.A.R.O was the development in the Sangam Vihar to get together the body electorate zone. This area is the most huge ghetto in North India. They had the option to present the issue of age-accommodating network and had the option to address the trio of wellbeing security-social cooperation among the seniors of the territory. Through this mediation, they are attempting endeavors to invigorate the country and social associations to take an interest in further exercises.	Older people	Through this program, the result is positive which shows that in that area around 50 percent older people are starting to holding contact cards Likewise, the cops distinguished more established grown-ups living alone and completed intermittent visits to their homes. Still, personal security for older people became a huge problem.

S.no.	State	Programme Initiated in City & Problems	Target Group	Results/Outcomes
2.	Udaipur	Observed in the “Age-friendly cities report Udaipur” which examine the middle-income group differ from that of the low-income group. While the middle-income group was concerned with the economic and infrastructural developments, and the low-income group was more concerned about their “marginalization due to loss of income and lack of medical assistance” ^[36] .	Older people	The investigation is dependent on the point of view of senior residents. However, the solutions that have proposed are comprehensive as the proposed measures have not been quantified in terms of their numbers, distances, etc. This study shows selections of individuals fluctuate with their pay structure and social milieu. The study thus establishes the need to develop residential neighborhoods with amenities that contribute to the fulfillment and prosperity of the senior citizens in India.
3.	Kolkata	The study conducted in different cities in the state of West Bengal in India. This examination will recognize the differed needs of the different levels of mature age alongside those having a place with future older and propose potential answers to improving their QOL in private neighborhoods. The project is “self-management and community initiative for joint pains and hypertension in older women”. The effort was initiated at New Barrackpore, a suburban area of Kolkata in the state of West Bengal. They started the workshop and created awareness about joint pain and hypertension. They advertised by local TV operators with a campaign stating “Awareness and Assessment of Joint Pains and Hypertension in Older Women”. Exercise and diet mediations disclosed to the chose subjects. Asset material dispersed to each chosen member.	Older women equal to or more than 50 years of age. Limitations: Women who were bedridden and requiring long term care, diagnosed with accelerated hypertension, severe cardiac neurological disorders excluded from the study.	In this way this task led in Kolkata, where they featured the urban pieces of the province of West Bengal, shows a higher pattern, with 9.3% of the populace as more established men and 9.6% as more seasoned ladies. They make mindfulness and show self-administration of joint torments and hypertension through activities and diet adjustments to more seasoned ladies. They associated more established ladies to network and companion bunches for bunch treatment, which has comparable issues. They attempt to make a future model for feasible and financially savvy network wellbeing administrations and advance age-accommodating networks.

Source: WHO, Age-Friendly World, 2012; Who, Age-Friendly World, n.d.; HelpAge Research Reports.

Figure 7 Age-friendly initiatives in India

Source: WHO, Age Friendly World 2012; Who, Age friendly world,n.d;HelpAge Research Reports

- The paper by Sameen Rafi and Shyna Saif argues that Indian cities must modernise infrastructure, adapt buildings, transportation and public spaces and implement services that embody inclusivity, accessibility and safety for Senior citizens From figure 7 we can see the various age friendly initiatives in India .
- It advocates:
 - Bottom-up approaches with elders actively involved in planning and decision-making.

- Multi-sector collaboration across health, planning, social work, gerontology and policy to design and implement age-friendly communities.
- Extending age-friendly initiatives beyond the three pilot cities to other states with large and growing elderly populations.

2.1.11 Age-friendliness of cities and urban communities : The perceptions of senior citizens in Kolkata

Key findings: priority areas for age-friendliness

- Overall result: indicators in the **economic** and **physical** dimensions emerged as top priorities for policy intervention, while many **social** indicators scored relatively better (higher satisfaction).
- Seniors reported relatively good social bonding, neighbour compatibility, domestic help availability and sense of participation, suggesting social capital is a relative strength.
- elderly perceptions of age-friendliness in Kolkata are deeply influenced by accessibility to services, safety, healthcare, and opportunities for social engagement, with significant socio-economic disparities shaping these experiences.
- In contrast, they rated economic aspects poorly: benefits from workplaces, comfort at work, employment opportunities and job satisfaction—indicating the need for age-friendly employment, income security and recognition of Senior citizens’ productive role.
- Physical indicators such as universal design in public areas, age-friendly urban amenities, signage, barrier-free circulation and inclusive infrastructure received low ratings, signalling serious built-environment gaps for dignified, independent living. (*Sarkar and Banerji, 2023*).

2.2 Scope and limitations of existing literature

The literature covers multiple scales and themes, but with notable emphases:

- **Spatial focus:** Primarily *urban and city-level*. WHO's original "Age-Friendly Cities" project worked with 33 cities globally and now engages thousands of cities. National-level policies (like India's senior citizen programs) are less studied, as are rural or small-town contexts. A few studies mention rural ageing issues in passing, but nearly all age-friendly research focuses on cities or communities that have joined the WHO Global Network.
- **Sectoral/thematic focus:** Following WHO's 8-domain framework, most work clusters on *built environment* and *social inclusion*. Common themes include public spaces, transportation, housing, health/social services and civic participation. For instance, the WHO AFC checklist highlights **transportation, outdoor spaces and buildings, housing, social participation, respect/inclusion, civic engagement, communication, and community support/health**. The literature often examines these urban planning and social domains. Less attention has been paid to economic issues (e.g. older people's employment or income security), technology/digital inclusion, or intergenerational programs outside the WHO eight domains.
- **Study types:** Both **qualitative and quantitative** approaches appear, but with predominance of qualitative or mixed case methods. The cited works include large-scale quantitative analyses (e.g. confirmatory factor analysis of survey indicators) alongside descriptive policy reviews and stakeholder interviews. Reviews and policy papers (WHO guides, NGO reports, academic reviews) are common, while experimental or longitudinal studies are rare. For example, one global review uses structured questionnaires across 11 cities, whereas others compile narratives of single-city projects. Overall, evidence synthesis tends to be narrative (case comparisons) rather than meta-analytic; there are few systematic evaluations or mixed-methods cohorts.
- **Data constraints:** Much age-friendly research relies on coarse surveys and checklists rather than rich empirical data. "a major limitation" is the **lack of valid, reliable measures** capturing the full complexity of ageing environments. In practice this means local data on older populations is sparse or aggregated; many national surveys (e.g. India's NSSO) do not provide city-level breakdowns, and key

indicators (e.g. accessibility of public facilities by age) are often missing. The WHO has proposed core indicators, but consistent data collection is rare. In short, existing studies often use cross-sectional self-report data or qualitative observations, rather than longitudinal or geocoded datasets, making it hard to track trends or perform robust comparisons.

- **Contextual limitations:** The referenced literature skews strongly toward **high-income, Global North contexts**. WHO’s Global Network already connects about 1,114 cities in 44 countries (mostly Europe, North America, Australasia and a few Asian metropolises). Authors on age-friendly cities are often based in UK, USA, Canada, Australia, etc., and case examples frequently come from those regions. For example, research groups in Europe, North America, and Hong Kong have led much of the work. By contrast, there are **very few studies in South Asia or Africa**. An Indian literature review explicitly notes that age-friendly initiatives in India are limited to a handful of pilot cities (Delhi, Udaipur, Kolkata) despite India’s large elderly population. Likewise, African cities are virtually absent from WHO’s list. This implies a **Global North bias**: social, physical and policy frameworks may not translate well to low-income cities with different family systems and informal support networks. In sum, almost all cited examples and data come from wealthier countries, and even WHO’s “35 cooperating cities” were mostly in developed or semi-developed nations. The slide deck’s language (WHO guides, global network membership) reinforces this; no Indian or broadly Global South case studies were presented.

2.3 Case study Analysis

6 case studies were analysed to understand the global best practices which can be implemented in Thrissur and how it is implemented To understand global and national best practices in age-friendly urban planning, six case studies were analysed spanning diverse geographical, economic, and cultural contexts. These cases were selected to represent the five core spatial dimensions most relevant to Thrissur — mobility and street design, senior centre distribution, zoning and facility access, urban green spaces, senior housing, and

lifelong learning — thereby providing a comprehensive reference base for intervention strategies.

2.3.1 Spatial Distribution from SWEDEN

Table 2 Spatial Distribution & Mobility — Sweden

Case Study 1: Spatial Distribution & Mobility — Sweden	
Implemented By	OECD; in collaboration with Transportation Research Board (US) and European Conference of Ministers of Transport
Target Group	Senior citizens aged 65+; especially fragile elderly (80+), those with mobility impairments, cognitive decline, or sensory limitations
Area	Urban, suburban, and semi-rural contexts; focus on Gothenburg, Sweden
Launch Context	Rapid demographic ageing across OECD nations; need to modernise infrastructure and transport; loss of mobility = loss of independence; emphasis on safe and equitable access to services and social life
Key Spatial Elements	
Ageing-in-Place Land Use	Prioritise local services (health, retail, community centres) within walking or short-transit distances; mixed-use zoning to reduce trip length and car dependence; dense, walkable communities around transport hubs
Safe & Inclusive Street Design	Universal Design: tactile paving, wider sidewalks, visual contrast in curbs, resting benches; Traffic Calming: speed bumps, raised crossings, tighter curb radii; improved lighting and visibility at pedestrian crossings
Public Transport Adaptation	Low-floor buses and trams for step-free access; sheltered stops with clear signage and real-time displays; paratransit services for frail seniors
Retrofitting Neighbourhoods	Add sidewalks, pedestrian crossings, and cycling lanes; enable mobility scooters and wheelchairs on bike lanes; modify intersections for longer pedestrian crossing times
Landscape & Maintenance	Resident-managed outdoor spaces with committee oversight; landscaping encourages participation and community pride in upkeep
Designated Mobility Zones	Zones with high accessibility scores prioritised for elderly housing; create mobility hubs within walking distance
Source	https://extranet.who.int/agefriendlyworld/searchnetwork/?_sft_countries=sweden

2.3.2 Spatial Distribution (Senior Centers) In Shanghai, China

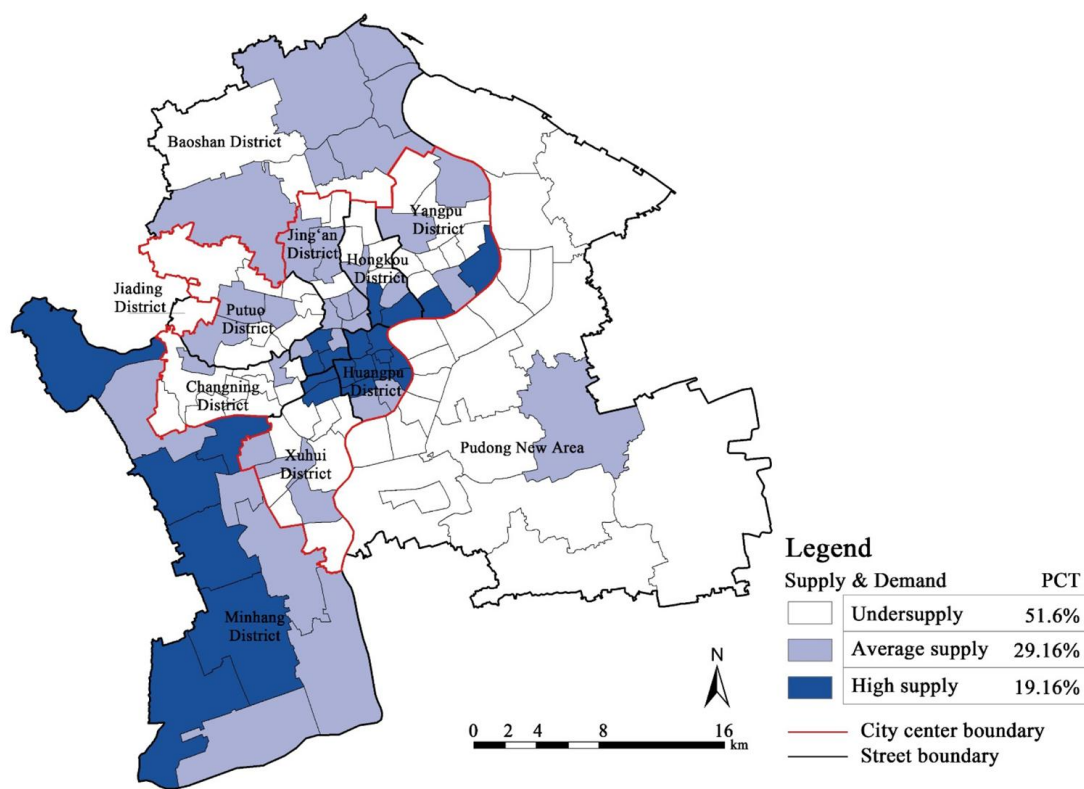


Figure 8 Community hub concentration map shanghai china

Source: <https://pmc.ncbi.nlm.nih.gov/articles/PMC6241662/>

Table 3 Senior Community Centres — Shanghai

Case Study 2: Senior Community Centres — Shanghai, China	
Implemented By	Local governments in Shanghai; Ministry of Civil Affairs under Healthy Aging Policy
Target Group	Urban elderly preferring 'ageing in place'
Area	Shanghai; 7 senior community centres studied (e.g., East Nanjing Road, Hongqiao Road)
Launch Context	High ageing ratio: 216 million (15.4%) aged 65+ in 2024; decline of family caregivers (4-2-1 family structure); growing demand for local, multifunctional care centres
Need for Intervention	Elderly experiencing social and physical isolation; nursing homes culturally and socially unpopular; need for neighbourhood-based support infrastructure

Key Spatial Elements	
Multi-functional Design	Combined medical care, canteen, sport areas, therapy rooms, and social lounges under one roof; buildings include healing gardens, rooftop terraces, and daylight-maximised rooms for cognitive and emotional well-being
Universal Design	Non-slip floors, contrasting wall colours, wide hallways, clear signage, acoustic-friendly materials
Proximity Planning	All facilities located within 5–10 minute walking radius of dense residential zones
Zoning Integration	Senior centres embedded within residential-civic mixed-use zones, enabling intergenerational and neighbourhood interaction
Wayfinding Support	Circuitous layouts, visual cues, and central orientation points for those with memory decline
Source	https://pmc.ncbi.nlm.nih.gov/articles/PMC6241662/

2.3.3 Spatial Distribution (Zoning) In Hong Kong and Kwun Tong, China

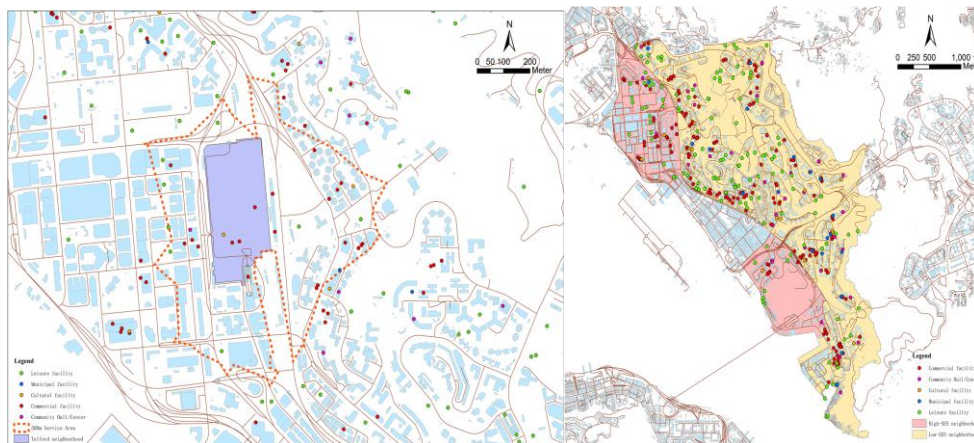


Figure 9 Left shows Community facility distribution within 500 m of Telford neighborhood right shows concentration of public utilities

Source: <https://extranet.who.int/agefriendlyworld/network/kwun-tong-district/>

Table 4 Age-Friendly Zoning — Hong Kong & Kwun Tong

Case Study 3: Age-Friendly Zoning — Hong Kong & Kwun Tong (Launched 2007)

Implemented By	Urban Renewal Authority (URA), Govt. of Hong Kong; Housing Authority and Planning Department
Target Group	Elderly residents in low socioeconomic status (SES) neighbourhoods
Area	Kwun Tong District — Ngau Tau Kok and Kwun Tong Town Centre
Launch Context	High elderly poverty (32% in 2019); inadequate public amenities in old districts undergoing gentrification and urban renewal
Need for Intervention	Social exclusion of elderly from community facilities; rising inequality from urban renewal prioritising commercial over social land uses; mobility barriers to accessing public amenities
Key Spatial Elements	
Land Use Planning	High-density mixed-use redevelopment zones to integrate social and commercial functions
Transit-Oriented Development	Connected new housing and malls to MTR; however, need identified for affordable senior housing and care centres near transit nodes
GIS Facility Mapping	Used ArcGIS to identify elderly facility gaps; low-SES areas found to have poor service coverage
Barrier-Free Urban Design	Leisure sitting-out areas, physical exercise zones, and ramp systems specifically for elderly mobility (in Ngau Tau Kok Estate)
Equitable Facility Provision	Enforce standards requiring minimum elderly facilities per neighbourhood based on demographic share
Mobility-Focused Design	Prioritise walkable access, shade, signage, and rest areas within 300–500m of residences
Source	https://extranet.who.int/agefriendlyworld/network/kwun-tong-district/

2.3.4 Spatial Distribution (Urban Green Spaces) In Kolkata India

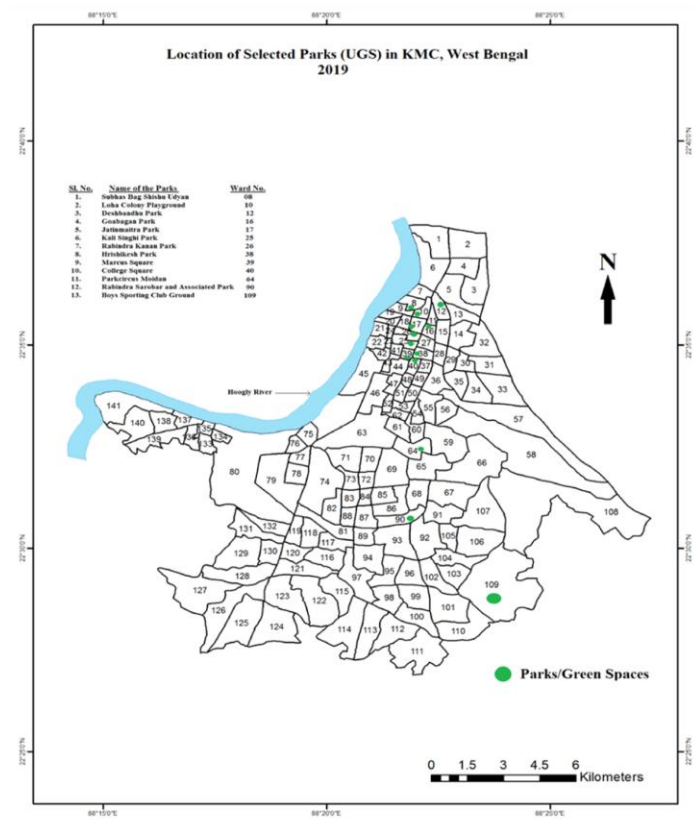


Figure 10 Concentration of urban green spaces in Kolkata india

Source:<https://iprr.impriindia.com/assessing-the-growth-of-urban-green-spaces-in-the-kolkata-metropolitan-area-effects-of-the-amrut-scheme/>

Table 5 Urban Green Spaces for Elderly — Kolkata

Case Study 4: Urban Green Spaces for Elderly — Kolkata Municipal Corporation, India	
Researchers	Md. Julfikar Ali, Mohidur Rahaman, Sk. Iqbal Hossain
Target Group	Elderly citizens (60+ years); especially those with NCDs: cardiovascular disease, high blood pressure, diabetes, obesity, neurological issues
Area	Kolkata Municipal Corporation (KMC), India; selected parks: Marcus Square (Ward 39), Rabindra Kanan Park (Ward 26), College Square (Ward 40), Rabindra Sarobar (Ward 90)
Launch Context	Rapid unplanned urbanisation; declining green space availability — only ~0.2% public open space vs. WHO's recommended 15%

Key Spatial Elements	
Proximity-Based Planning	Urban Green Spaces (UGS) within 300m–1km of residences to encourage daily use (83% walk to park)
Neighbourhood-Level Green Infrastructure	Focused UGS placement in high-density zones with elderly concentration
Greening Non-Traditional Spaces	In dense areas, plan for green-lined streets, walls, and rooftops
Zoning for Accessibility	Zoning that prioritises elderly-friendly parks with separate walking/cycling tracks
Infrastructure Enhancements	Addition of exercise equipment, rest benches, safety lighting, water facilities, and toilets
Park Design Improvements	Emphasis on safety, maintenance, and inclusion of features for elderly use
Source	https://iprr.impriindia.com/assessing-the-growth-of-urban-green-spaces-in-the-kolkata-metropolitan-area-effects-of-the-amrut-scheme/

2.3.5 Community Cohesion (Atha Shri Project) In Vadodara and Pune ,India

Table 6 Atha Shri Project, India

Case Study 5: Senior Community Housing — Atha Shri Project, India	
Implemented By	Paranjape Schemes (Construction) Ltd.
Project Goal	Address the needs of seniors whose families have retired from active caregiving; build dedicated senior living communities
Project Areas	Pune, Vadodara, Bengaluru; upcoming projects in Bhugaon, Khurd, Hinjewadi
Timeline	Early 2000s–2010: Conceptualisation and Initial Launch; 2010–2020: Expansion and Brand Building; 2020–Present: Diversification and Ongoing Growth; Total Paranjape Schemes projects: 200+
Key Priority Areas in Senior Community Building	
Healthcare & Medical Support	On-site or proximate medical facilities; dedicated healthcare personnel; emergency response infrastructure
Safety & Security	Gated communities, 24/7 security personnel, surveillance systems, fall-prevention design in all common areas

Daily Living Assistance	Housekeeping, laundry, meal services, and daily assistance for activities of daily living (ADL)
Community & Recreation	Organised social, cultural, recreational activities; common spaces for interaction, hobbies, and intergenerational engagement
Design Approach	Age-in-place housing design — unit and community layout adapted for mobility limitations and ageing-related changes

2.3.6 The “School of Seniors”: A Lifelong Learning Model In Kochi, Keralam, India

Table 7 School of Seniors — Lifelong Learning Model, Kochi, Kerala

Case Study 6: School of Seniors — Lifelong Learning Model, Kochi, Kerala	
Implemented By	SMRI (Sports & Management Research Institute) in partnership with CEDAC, a division of MAGICS NGO
Framework Alignment	WHO Age-Friendly Cities Framework; UN Sustainable Development Goals (SDGs); University of the Third Age (U3A) / Lifelong Learning model
Main Target Group	Older people in general; retired persons and those above 50 years of age
Coverage	Being implemented across Kerala
Programme Domains & Activities	
Sectors Covered	Education, Health, Information & Communication, Labour, Social Protection, Sports and Games
Annual Learning Modules	Languages, art, agriculture, fashion design, entrepreneurship and other specialised topics tailored to senior preferences
Engagement Pathways	Internships, volunteer roles, and entrepreneurial ventures enabling seniors to remain active contributors to the silver economy
Physical & Mental Well-being	Physical activity programmes, creative arts, intellectual enrichment to build mental resilience and social connectedness
Desired Outcomes & Issues Addressed	
Outcomes for Older People	Learn, grow and make decisions; improved mental well-being, physical health, and social connectedness; reduction in social isolation
Issues Addressed	Ageism, accessibility, dementia, elder abuse, healthy behaviours (e.g. physical activity), intergenerational activities, participation, economic independence

PLANNING FOR AN AGE FRIENDLY CITY: A CASE OF THRISSUR, KERALA

Replicability	Stands as a replicable model; showcases that lifelong learning can empower seniors as learners and active community contributors
Impact Areas	Public health improvement, social inclusion, economic growth through silver economy participation

CHAPTER 3: AGE FRIENDLY CITY, KERALA CONTEXT

Kerala's demographic trajectory among the oldest in India, with an elderly population exceeding 15 per cent and life expectancy approaching national bests has produced a state-level learning ecosystem that other cities in the country are yet to replicate. Within this ecosystem, two municipal corporations, Kozhikode and Kochi, have emerged as pioneering laboratories for age-friendly urban planning, each developing distinct institutional models and programmatic approaches rooted in the WHO's eight-domain framework. This chapter documents and analyses these two models, structured to extract transferable lessons directly relevant to the Thrissur context.

Kozhikode's Samanwaya model represents a corporation-led, integrated multi-department convergence approach relevant to Thrissur for its governance architecture and its health-service delivery network. Kochi's CEDAC model, driven by the Centre of Excellence for Developing Age-Friendly Communities under MAGICS NGO in partnership with the Kochi Municipal Corporation, offers a richer programmatic repertoire covering employment, lifelong learning, sports, digital inclusion, mental health, and social participation. Together, these two models provide the contextual and programmatic reference base against which the proposals in Chapter 5 are developed.

3.1 Thrissur city: an Overview

Thrissur, widely recognised as the 'Cultural Capital of Kerala,' is located almost centrally in the state of Kerala, serving as the administrative headquarters of Thrissur District. The city lies between 10°47'N and 10°15'N latitudes and 75°57'E and 76°54'E longitudes, situated approximately 295 km north of Thiruvananthapuram, 70 km north of Kochi, and 120 km south of Kozhikode. The city derives its name from 'Thrissivaperur,' a combination of the Malayalam words Tiru-Siva-Peroor, meaning 'the city bearing the holy name of Lord Shiva,' a reference to the renowned Vadakkumnathan Temple that crowns the 65-acre Thekkinkadu Maidan at the heart of the city. This central hillock gives Thrissur its distinctive ring and radial pattern of urban development, with Swaraj Round encircling the

Maidan and eight major roads radiating outward. To the west, the city is bounded by the ecologically significant Kole wetlands, which have long defined its natural edge.

Thrissur Municipality came into existence on 1st July 1949 and was upgraded to the status of a Municipal Corporation the fourth in Kerala on 2nd October 2000, following the merger of adjoining panchayats including Ayyanthole, Ollur, Ollukkara, Koorkkenchery, Vilvattom, and a part of Nadathara. The Thrissur Municipal Corporation today extends over an area of 101.42 sq.km, comprising 15 revenue villages and a part of Nadathara village, and is divided into 55 administrative wards. As per the 2011 census, the Corporation recorded a total population of 3,15,957 with a population density of 3,115 persons per sq.km. The city enjoys a tropical and humid climate, receiving an average annual rainfall of 3,159 mm, with summer temperatures reaching up to 35°C and relative humidity generally exceeding 70% throughout the year.



Figure 11 Vadakunnath temple

Source: <https://www.keralatourism.org/districts/thrissur/>

Historically, Thrissur has played a significant role in the political and cultural life of South India, with the Zamorins of Kozhikode, Tipu Sultan of Mysore, the Dutch, and the British all having influenced its development. The credit for shaping the modern city is largely attributed to Raja Rama Varma IX, popularly known as SakthanThampuran, who ascended the throne of Cochin in 1790 and is regarded as the architect of present-day Thrissur. The city's rich cultural identity is anchored in its famous temple trio Vadakkumnathan (figure 11), Paramekkavu, and Thiruvambady and the world-renowned Thrissur Pooram, celebrated annually during April-May and recognised as the 'Mother of all Poorams.' Institutions such as the Kerala Kala Mandalam, Kerala Sahitya Academy, and Kerala

Sangeetha Nataka Academy, all based in the city, further reinforce Thrissur's stature as a centre of art, literature, and cultural heritage in Kerala

3.2 Kozhikode Municipal Corporation: The Samanwaya Model

Table 8 Key initiatives in kozhikode

WHO Domain	Key Initiatives
Community Support & Health Services	• Vayomithram mobile clinics (65 camps, 6,500+ beneficiaries) • Beach Hospital geriatric ward (₹1 crore) • Mandahasam (artificial dentures) • Vayo Amrutham & Vayo Maduram (Ayurvedic treatment) • Free nutritional meals via Pakalveedu • Dementia screening & mental health counselling • Medical camps with assistive device distribution
Outdoor Spaces & Buildings	• 75+ Thanalidam shelters (community rest spaces) • Age-friendly parks for recreation and walking • Mandatory age-friendly features in all new constructions (non-slip floors, handrails, ramps, adequate lighting) • Open gym for senior citizens • Morning walk trail with health check-up kiosk
Transportation	• Request to State Government for low-floor buses (under consideration) • Recognition that high bus-step heights are primary boarding barrier
Housing	• Financial assistance for durable house construction (since 2009) • Repair assistance for dilapidated housing • Integration with schemes: EMS, Rajiv Awas Yojana, NSDP, VAMBAY, Suvarna Jubilee, PMAY, LIFE Mission
Social Participation	• 4 Pakalveedu day-care centres + 3 additional facilities • Daytime company, structured activities, nutritional meals (6 days/week) • Cultural activities: outdoor tours, fashion shows, competitions, handicraft fairs • Annual souvenir publication showcasing elderly talent
Respect & Social Inclusion	• Indira Gandhi National Old Age Pension (₹1,600/month to 40,000+ beneficiaries) • Cultural activities and art competitions • OpenMyk performing spaces (5 locations)
Civic Participation & Employment	• Skill Development Training for income generation • Ward Sabha participation encouraged • Knowledge and Skill Bank catalogue (teachers, engineers, scientists, farmers, workers, doctors)
Communication & Information	• Free legal aid clinics • Equivalency Programme (Class 4-12, 11 Continuing Education Centres, 2 Equivalency Centres)



Figure 12 Left on 1st row showing Newspaper article showing Samanya Vision next to it in right shows Mandahasam done in Kozhikode in second row left shows vayomitram camp done in Kozhikode next to it shows Cultural programs conducted in Kozhikode in row 3 left shows the Skill training program conducted in Kozhikode next to it Awareness classes in Kozhikode

Source: <https://kzhikode.agefriendlykerala.in/activities>

3.3 Kochi Municipal Corporation: The CEDAC Age-Friendly City Model

Table 9 Community Support & Health Services

Programme		Description	Status
Smritiyoram Café	Memory	Kerala's first Memory Café for people with dementia and caregivers. Monthly gatherings with traditional music, chess, carrom, storytelling. Includes Cognitive Stimulation, Music, Art, Reminiscence Therapy	Ongoing

Vayosmitham	Oral Health Screening and Awareness Camps. Partnered with Association of Geriatric Dentistry (Pune) and Council on Dental Health. 12 locations across 9 districts since August 2023	Ongoing
Dementia-Friendly Kochi	First dementia-friendly city in India (declared October 2017). Grassroots screening, telemedicine for caregivers, helpline, therapy centres, memory clinics	Ongoing
Brain Gym Exercises	Coordination, balance, and sensory-integration movements to prevent dementia and Alzheimer's. Implemented in old-age homes and residential areas	To Initiate
Building Blocks for Healthy Ageing	Cross-generational preventive health programme addressing NCD burden from early childhood through healthy behaviours	To Initiate

Table 10 Active Ageing, Social Participation & Outdoor Spaces

Programme	Description	Status
Senior Walk Trail & Happiness Hub	Age-friendly walking infrastructure at JLN Stadium, Fort Kochi, Marine Drive. Health kiosks, seating, reflexology tracks, YOGA, diabetic screening, mental health activities, City Walkers Clubs	Planning Phase / Ongoing
Generation Games	Intergenerational sports competition (adapted from Norway model). Every team must include members from at least two generations, with one senior citizen	Initiated
All Kerala Senior Athletic Meet (AKSAM)	International sports gathering exclusively for seniors at Maharajas Ground. Co-organized by Cochin Corporation and MAGICS NGO. Aligns with WHO Age-Friendly Cities and SDGs 3, 10, 11, 17	Ongoing
Sallapam	Intergenerational social-connection programme combating loneliness. MSW students serve as phone companions and make home visits, outings, tours with isolated seniors	Ongoing

Geriatric Tourism (G-Tourism)	Structured travel programme tailored to elderly needs. Group visits to attractions in/around Kochi. Proposes elderly residents as Geriatric Tourist Guides	Ongoing
RESPIRE	Traditional art forms (Thiruvathira, Kolkali, Kalari, Yoga) for balance and fall prevention. Improves neuromuscular coordination and breath control	To Initiate
Kochi Spotlight	Intergenerational open-mic platform for seniors and youth to share stories, talents, performances. Promotes mutual respect and breaks stereotypes	To Initiate

Table 11 Civic Participation, Employment & Lifelong Learning

Programme	Description	Status
School of Seniors	Lifelong learning based on University of the Third Age (U3A) model. Annual subject selection from Knowledge Bucket List: languages, creative arts, super-specializations, sports, internships	Initiated
University of Third Age (U3A)	Structured opportunities through Age-Friendly Colleges. Seniors interact with students, access social networks. Students teach seniors computer skills (role reversal)	Ongoing
Vayo-Prathibha	Recognizes and celebrates senior talents and wisdom. Creates pathways to skill development, income generation, continued productive life. Frames ageing as badge of honour	Initiated
Samaya Bank	Time-banking programme by Jai Bharat College. Students/volunteers earn credit hours for assisting seniors via iOS/Android app. Credits beneficial for future career and exchangeable for care later	Ongoing
Handyman Services	Home maintenance for elderly (repairs, plumbing, electrical). Police-certified workers prioritizing senior residents as	Initiated

3G Agriculture	staff. Trained at ITIs and engineering institutions Three Generations Agriculture: microgreens and kitchen-garden vegetables. Students, teachers, older persons collaborate. Produce supplied to day-care centres. Indoor cultivation	Initiated
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Table 12 Communication & Digital Inclusion

Programme	Description & Status
Yuva Vigyan	Digital literacy for seniors 60+ developed with St. Teresa's College. Covers basic computer, smartphone, WhatsApp, Gmail, YouTube, Google Maps, Uber, K-Smart, MS Office. Inter-generational learning model. Status: Ongoing

Table 13 Respect & Social Inclusion

Programme	Description & Status
RespectAge Resource Centre	Zero tolerance for elder abuse (Mayor's declaration). One-stop support: helpline, counselling, legal services via Legal Services Authority and MWPSA Act 2007. Collaborates with IMHANS Kozhikode. Training materials for professionals/caregivers. Status: Initiated

Table 14 Transportation

Programme	Description & Status
Senior Taxi	~150 taxi and auto-drivers (2 per ward) selected, police-verified, trained in elderly care, basic life support, psychological sensitivity. 'Senior Taxi' sticker on vehicles. Age-friendly bus running in Paravur with trained staff. Status: Initiated

Table 15 Housing & Living Conditions

Programme	Description & Status
Living Streets of Kochi	Support for homeless elderly who are abandoned or street-dwelling. Immediate relief, rehabilitation, sustainable housing access, long-term healthcare support. Addresses extreme housing vulnerability. Status: To Initiate



Figure 13 Top row left poster showing smrithiyoram café next to it Vayosmritam program second row left showing sport activities for senior citizens next to it Respect age program conducted in kochi

Source: <https://www.agefriendlykochi.com/>

3.4 Social Benefits Schemes Existing in Kerala Addressing Old People

Kerala stands as one of the foremost states in India in terms of human development indices, and its approach to elderly welfare reflects this distinction. The state has long recognised that ageing is not merely a demographic reality but a social responsibility requiring institutional commitment. With one of the highest proportions of elderly population in the country, Kerala has responded through a comprehensive legislative and programmatic framework that addresses the multi-dimensional vulnerabilities of senior citizens encompassing health, economic security, legal protection, social inclusion, and

psychological well-being. The Department of Social Justice, Government of Kerala, has been the nodal agency in designing, implementing, and monitoring a wide spectrum of schemes that collectively constitute a robust social protection architecture for the aged. The following sub-sections critically examine the principal schemes and programmes operational in Kerala that are specifically directed at the welfare of the elderly population.

Table 16 Social Benefits Schemes Existing in Kerala for Elderly

Scheme Name	Description	Implementing Agency
Vayosanthatwanam	Government grants to NGOs operating care centres for destitute, bedridden elderly. Covers 80% operational cost. Free food, medicine, palliative services	Dept of Social Justice
Sallapam	Psychosocial intervention pairing isolated seniors with MSW student 'phone mates'. Regular calls and social interaction to combat loneliness. Elderline 14567 identification	Dept of Social Justice
Kerala State Elderly Commission	First in India. Quasi-judicial body with authority to issue guidelines on elderly welfare. Protection from neglect, exploitation, abandonment. Chairperson + 4 members (3-year terms)	State Government, Thiruvananthapuram
Elderline 14567	Toll-free national helpline for elderly in distress. Information, emotional support, guidance, field intervention. Connect Centre with Project Manager, Call Officers, Field Response Officers	Ministry of Social Justice & Empowerment / Dept of Social Justice
Vayoraksha	Emergency assistance for vulnerable seniors: medical aid, surgeries, COVID-19 treatment, ambulance, assistive devices, palliative care. District Monitoring Committee oversight. Targets BPL households	Dept of Social Justice
Maintenance & Welfare of Parents Act 2007	27 Maintenance Tribunals (sub-divisional, presided by RDOs), 14 Appellate Tribunals (district, presided by Collectors). Technical Assistants for case handling. Legal protection mechanism	State Government via Kerala Rules 2009 (G.O. P No. 38/2009/SWD)
Second Innings Home Project	Transformative institutional care model. Multi-Service Community Age Care Centres integrating health, education,	Dept of Social Justice

Vayomadhuram		legal, psycho-social services. Piloted in Kannur. Support for family caregivers	
		Free glucometers for BPL elderly diabetic patients. Targets 1,000 beneficiaries per district. Addresses 80% diabetes prevalence among elderly in Kerala (per ICMR study)	Dept of Social Justice
Vayomithram Project		Mobile clinical units (Medical Officer, Staff Nurse, JPHN) delivering primary healthcare at doorstep for 65+ in Corporation/Municipal areas. 25 project areas. Free medicine, palliative care, help desk	Kerala Social Security Mission (KSSM) with LSGIs
Vayo Amrutham		Ayurvedic treatment for government old age home inmates. Addresses chronic ailments: diabetes, asthma, skin diseases, arthritis. Dedicated Medical Officer and attendant per facility. Includes palliative care	Dept of Social Justice with ISM Dept
Mandahasam		Free artificial dentures for BPL elderly with complete/significant tooth loss. Empanelled dental colleges and treatment centres. Addresses nutrition, self-esteem, social withdrawal	Dept of Social Justice
Sayamprabha Project	Home	Community-based day care at Block Panchayat level. Minimum 20 beneficiaries per centre. Yoga, physiotherapy, counselling, meditation, medical check-ups, 2 meals daily. Combats daytime isolation	Dept of Social Justice with LSGIs

3.5 Comparative Learnings and Implications for Thrissur

The following table consolidates the transferable lessons from both city models, mapped to the WHO domain where each lesson applies and noting the specific implication for the Thrissur proposals in Chapter 5.

Table 17 Comparative Learnings and Implications for Thrissur

WHO Domain	Kozhikode Learning	Kochi Learning	Implication for Thrissur
Community Support & Health	Samanwaya's tiered health delivery (mobile clinic → OPD → geriatric ward → UHC conversion) provides a tested architecture for expanding services without new infrastructure	Memory Café, dementia screening, and Brain Gym show that cognitive health must be an explicit programme component, not an afterthought	Thrissur's proposed ICCN (Chapter 5) adopts the tiered model; cognitive health sessions must be built into Pakalveedu programming
Outdoor Spaces & Buildings	75+ Thanalidam shelters show that rest infrastructure at scale is feasible with moderate investment per unit	Senior Walk Trail and Happiness Hub demonstrate that existing popular outdoor spaces can be upgraded without acquiring new land	Priority footpath corridors and park retrofits in Thrissur should include Thanalidam-type rest shelters at regular intervals, especially near worship places and markets identified in survey mapping
Transportation	Low-floor bus requests show that ULBs must coordinate with KSRTC this is a state-	Senior Taxi with 150 trained drivers and police verification shows	Thrissur proposals include both KSRTC low-floor bus request and a ward-level Senior Taxi /

	level policy lever, not just a municipal decision	that the taxi/auto sector can be transformed into a safe elderly transport option at ward level	auto-rickshaw partnership programme
Housing	LIFE Mission and PMAY integration into Samanwaya shows that existing housing schemes can be accessed through the age-friendly database (Kerala Care)	Handyman Services shows that home-maintenance safety and elderly employment can be addressed by the same programme	Thrissur's home adaptation scheme should integrate with LIFE Mission data, and a Handyman Services module should be piloted as part of the Elder Skills Bank
Social Participation	Pakalveedu as the primary daytime social node (4+ centres in Kozhikode) confirms the model; nutritional meals are a key attendance motivator	Sallapam, G-Tourism, Generation Games, and Kochi Spotlight demonstrate a diverse activity menu beyond the basic day-care model	Thrissur's 55-ward Pakalveedu expansion should include a varied activity calendar; Sallapam and G-Tourism components can be added as the programme matures
Civic Participation	Knowledge and Skill Bank, Ward Sabha inclusion, and Skill Development Training	School of Seniors, U3A, Vayo-Prathibha,	Thrissur should establish an Elder Skills Bank (modelled on

& Employment	show that the corporation can structure elder civic roles institutionally	Samaya Bank, Handyman Services, and 3G Agriculture collectively form a comprehensive senior economy ecosystem	Kozhikode's Knowledge Bank) as the institutional entry point, with School of Seniors and Handyman Services as first-phase employment programmes
Communication & Information	Legal Aid Clinics and Equivalency Centres show that access to justice and education are essential information-domain interventions	Yuva Vigyan's inter-generational digital literacy model (college students training seniors) is scalable and low-cost	Thrissur's digital literacy hubs should use the Yuva Vigyan model, partnering with local colleges; free legal aid should be delivered at ward offices
Respect & Inclusion	Pension administration and cultural activities frame dignity as both economic and expressive	RespectAge Centre and the Mayor's Zero Tolerance declaration show that institutional commitments to elder rights must be backed by operational mechanisms	Thrissur Corporation should adopt a formal Zero Tolerance resolution and establish a single-point elder grievance mechanism, building on the Elderline 14567 national helpline

CHAPTER 4: DATA COLLECTION AND ANALYSIS

This chapter presents a comprehensive domain-wise analysis of age-friendliness in Thrissur Municipal Corporation, drawing on two complementary data sources: a primary questionnaire survey conducted with 383 respondents (elderly persons and their caregivers) across the corporation's 55 wards, and secondary data sourced from the Thrissur Corporation's Basic Local Level Statistics (BLLS) and administrative records (2015–16). The analysis is structured around the WHO's eight age-friendly domains and is further disaggregated by gender (male/female) and age category (Senior: 60–69 years; Super Senior: 70 years and above) to reveal differential experiences and needs

4.1 Questionnaire Preparation

The structured questionnaire (Annexure 1) used for primary data collection was developed through a systematic and iterative process. As the foundational reference, the World Health Organization's Age-Friendly Cities Checklist and its associated indicators across the eight domains outdoor spaces and buildings, transportation, housing, social participation, respect and social inclusion, civic participation and employment, communication and information, and community support and health services were thoroughly analysed to identify the core parameters essential for assessing age-friendliness Annexure 2. Each indicator from the WHO framework was critically examined for its relevance to the local urban context of Thrissur Municipal Corporation, and questions were contextualised to reflect the city's specific built environment, socio-cultural characteristics, and the everyday lived experiences of its senior population. For instance, questions on mobility were framed around Thrissur's street typology and public transport conditions, while questions on social participation were tailored to reflect the prominence of religious institutions and neighbourhood-level civic organisations characteristic of the city. The draft questionnaire was subsequently reviewed and refined under the guidance of the thesis supervisor, whose recommendations led to the incorporation of gender-disaggregated response categories and age-cohort-specific indicators to ensure the instrument could capture the differential needs of male and female respondents as well as the senior (60–74 years) and super senior (75+ years) sub-groups. The finalised questionnaire comprised both closed-ended and open-ended questions to enable quantitative analysis as well as the capture of qualitative

experiential insights, and was pre-tested before field administration to ensure clarity, cultural appropriateness, and respondent comprehension.

4.1.1 Sample size Preparation

The target population for the study was estimated by applying the age distribution derived from Census 2011 Table C-14 Population in Five Year Age-Group by Residence and Sex which revealed that 33 percent of the urban population of Thrissur district fell within the 45+ year age group. On the premise that this cohort, having aged by approximately fourteen years since the 2011 Census, would constitute the senior citizen population 59+ of Thrissur Municipal Corporation by 2025, and in the absence of mortality disaggregation data, 33 percent of the Thrissur Municipal Corporation's 2011 census population of 315,957 persons was applied as a conservative proxy estimate, yielding an approximated senior population of 104,266 persons as the sampling universe for this study. I am using Cochran formula to identify the sample size for the study. Using population $N = 104,266.81$ and the common planning-survey assumptions of 95% confidence ($Z = 1.96$), margin of error $e = 0.05$, and maximum variability $p = 0.5$

Cochran Formula

First compute Cochran for “infinite” population:

$$n_0 = \frac{Z^2 p(1 - p)}{e^2}$$

This gives $n_0 = 384.16$.

Apply finite population correction (since N is known):

$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$

For $N = 104,266.81$, $n \approx 382.75 \rightarrow 383$ (rounded).

Secondary data from the BLLS 2015–16, though dated, provides the most granular ward-level administrative dataset available from the corporation, covering infrastructure, health facilities, social welfare schemes, and housing.

4.2 Demographic Profile of Survey Respondents

This section presents the demographic characteristics of the 383 survey respondents, covering gender distribution, age categories (Senior 60–69 years and Super Senior 70 years and above), living arrangements, disability status, and mobility profile. Understanding the respondent composition is essential for interpreting the domain-wise findings that follow, particularly since the data has been disaggregated by both gender and age group

4.2.1 Sample Composition

From table 18 A total of 383 individuals participated in the survey, comprising elderly persons themselves as well as caretakers and family members responding on their behalf. The demographic breakdown is presented below.

Table 18 Gender-wise Distribution of Survey Respondents (N=383)

Gender	Count	Percentage
Male	335	87.5%
Female	48	12.5%
Total	383	100%

Source: Primary survey

Table 19 Age-wise Distribution: Senior vs. Super Senior (N=383)

Age Category	Age Range	Count	Percentage
Senior	60–69 years	287	74.9%
Super Senior	70 years & above	96	25.1%

Age Category	Age Range	Count	Percentage
Total	—	383	100%

Source: Primary survey

The gender skew (87.5% male) partially reflects the socio-cultural context of Thrissur, where male elders were more accessible in public spaces and community gatherings where the survey was primarily administered. The underrepresentation of women warrants cautious interpretation and is addressed in the gender disaggregated analysis below. From table 19 The dominance of the 60–69 age cohort (74.9%) aligns with Kerala's rapid ageing trajectory, where the 'young old' form the largest segment of the current senior population.

4.2.2 Living Arrangement, Disability and Mobility Profile

Table 20 Disability and Mobility Aid Use by Gender (N=383)

Indicator	Male (n=335)	Female (n=48)	Overall
Physical / Mobility Disability	57.0%	0.0%	50.1%
No Disability	43.0%	100.0%	49.9%
Uses Walking Stick or Walker	28.4%	0.0%	24.8%
Moves Independently (No Aid)	71.6%	100.0%	75.2%
Steps Out Independently (Regular)	86.0%	100.0%	87.5%
Sometimes Needs Assistance to Step Out	14.0%	0.0%	12.3%

Source: Primary survey

Key Finding: A striking gender differential emerges in disability and mobility. From table 20 Over half (57%) of male respondents report a physical or mobility-related disability, compared to none among female respondents. This is likely a reflection of sampling female respondents were predominantly 'active' seniors encountered in community settings.

Among the male cohort, 28.4% rely on walking aids, which directly impacts their built environment needs. The finding underscores that male elders in Thrissur face significant mobility infrastructure challenges.

4.3 Domain Analysis: Outdoor Spaces, Buildings And Transportation

Outdoor spaces, buildings, and transportation collectively form the physical foundation of an age-friendly city. Together, these two domains determine whether Senior citizens can move freely, access essential services, and participate in community life without depending entirely on others. This section analyses Thrissur's performance across walkability, public space accessibility, and transportation, drawing on primary survey data from 383 respondents disaggregated by gender and age category.

4.3.1 Walkability and Neighbourhood Suitability

Walkability is one of the most foundational determinants of an age-friendly city, enabling Senior citizens to remain mobile, participate socially, and access essential services independently. The survey assessed neighbourhood suitability for walking, including for wheelchair and walking-aid users.

Table 21 Walkability Suitability by Gender and Age Category (N=383)

Walkability Assessment	Male	Female	Senior (60–69)	Super Senior (70+)
Fully Suitable	42.7%	0.0%	16.4%	100.0%
Partially Suitable	12.5%	0.0%	16.7%	0.0%
Mostly Unsuitable	28.7%	100.0%	50.2%	0.0%
N/A	16.1%	0.0%	16.7%	0.0%

Source: Primary survey

From table 21 The overall survey finding that only 37.5% of respondents consider their neighbourhood fully suitable for walking masks critical gender and age disparities. All female respondents (100%) reported their neighbourhood as mostly unsuitable for walking, compared to 28.7% of males. This stark contrast reflects that female senior in Thrissur face heightened exclusion from public outdoor spaces, likely due to the absence of safe, enclosed walking paths, inadequate lighting, and the absence of gender-inclusive outdoor rest areas.

Paradoxically, all Super Senior (70+) respondents rated their neighbourhood as fully suitable, while 50.2% of Seniors (60–69) found it mostly unsuitable. This counterintuitive finding may be explained by residential location the 70+ cohort in the sample tends to reside closer to the city core where infrastructure is marginally better or may reflect a lower mobility expectation and an adjusted baseline among the older cohort.

4.3.1.1 Top Mobility Challenges Reported

Table 22 Frequency of Major Mobility Challenges (N=383)

Mobility Challenge	Count (N=383)	% Reporting
No ramps or lifts in public buildings	287	74.9%
Uneven roads or broken footpaths	239	62.4%
No resting places or benches along routes	191	49.9%
No accessible or clean public toilets	144	37.6%
Fear of crime or personal safety concerns	96	25.1%
No footpaths along main roads	192	50.1%

Source: Primary survey

From table 22 The absence of ramps and lifts in public buildings is the single most cited mobility barrier (74.9%), followed by uneven or broken footpaths (62.4%) and the absence of footpaths on main roads (50.1%). These physical barriers disproportionately affect persons with walking aids, and all persons with mobility impairments. The secondary data from the BLLS 2015–16 confirms that only 10.818 km of footpath existed under the AMRUT scheme across the entire corporation a stark shortfall for a city with an estimated 1,04,000+ senior citizens figure 14 shows existing bus and bus stop infrastructure in the city.



Figure 14 Left shows an existing bus stop which is accessible Right shows existing seats reserved for disabled and old people

Source: Primary survey

4.3.2 Public Space Accessibility

Public spaces parks, markets, worship places, hospitals and civic buildings are the daily destinations of Senior citizens. Their accessibility determines the quality and frequency of social participation.

Table 23 Public Space Accessibility by Gender (N=383)

Accessibility Rating	Male (n=335)	Female (n=48)	Overall
Most Accessible	56.7%	0.0%	50.2%

Accessibility Rating	Male (n=335)	Female (n=48)	Overall
Inconsistent	14.9%	0.0%	14.9%
Not Accessible	28.4%	100.0%	34.9%

Source: Primary survey

From table 23, While 50.2% overall rate public spaces as most accessible, this is entirely driven by male respondents (56.7%). Female respondents unanimously (100%) rated public spaces as not accessible. This finding points to critical gendered gaps: women face exclusion not merely due to physical barriers but also due to the absence of gender-segregated amenities, poor lighting, and social safety concerns in public spaces.

4.3.3 Transportation Domain Analysis

Transportation is a critical enabler of social participation, healthcare access, and economic engagement for Senior citizens. Inadequate public transport directly translates into social isolation, particularly for those without private vehicles or those with mobility limitations. This sub-section examines the modes of travel used by Thrissur's elderly population, bus accessibility, and the age- and gender-based differential in transport experiences.

4.3.3.1 Mode of Travel and Bus Boarding Ease

Table 24 Mode of Travel by Gender (N=383)

Mode of Travel	Male (n=335)	Female (n=48)	Overall
Walks Independently	42.7%	0.0%	37.6%
Private Vehicle (family-owned)	42.7%	0.0%	37.6%
Public Bus (KSRTC / City Service)	14.6%	100.0%	25.1%
Does Not Travel	0.0%	0.0%	0.0%

Source: Primary survey

From table 24 All female respondents (100%) rely exclusively on public buses for travel a critical finding that makes bus accessibility a gender equity issue, not merely a transport concern. Male respondents are more diversified in their travel modes, with walking (42.7%) and private vehicles (42.7%) being equally prevalent.

Table 25 Bus Boarding Ease by Age Category (N=383)

Bus Boarding Experience	Senior (60–69)	Super Senior (70+)	Overall
Easy to Board	60.0%	50.0%	50.2%
Somewhat Manage	20.0%	0.0%	14.9%
Difficult to Board	20.0%	50.0%	28.5%
Does Not Use Bus	0.0%	0.0%	6.4%

Source: Primary survey

Bus boarding difficulty is significantly higher among the Super Senior (70+) cohort, with 50% reporting difficulty compared to 20% among Seniors (60–69) from table 25. The survey further recorded that only 25% of bus stops within the Corporation were considered age-friendly, with shelter, seating, and adequate lighting. The secondary BLLS data does not specifically record age-friendly attributes of bus stops, reflecting the absence of such a lens in Thrissur's infrastructure planning until recently.

Key Finding on Transport: All female seniors depend entirely on public buses, yet half of all Super Seniors find boarding difficult. Only 25% of bus stops are age-friendly. This demands an urgent, gender-and-age-sensitive transport intervention prioritising low-floor buses, retrofitted bus stops, and a dedicated Senior Taxi programme.

4.4 Domain Analysis: Housing

Housing is the primary environment where Senior citizens spend the largest share of their daily lives. An age-friendly housing domain requires dwellings that are physically adapted for ageing-in-place, located in affordable and accessible neighbourhoods, and supported by home-based care services where needed. This section assesses Thrissur's housing domain using both primary survey data on comfort, adaptation, and affordability, and secondary administrative data from the BLLS 2015–16 on housing schemes and institutional infrastructure.

4.4.1 Housing Comfort and Age-Friendly Features

Housing quality and adaptation are critical to enabling ageing-in-place, which is the dominant preference across Indian and South Asian contexts. The survey assessed housing comfort, availability of age-friendly features (grab bars, non-slip flooring, accessible toilets, adequate lighting), affordability, and adaptation status.

Table 26 Housing Indicators by Gender (N=383)

Housing Indicator	Male	Female	Overall
Mean Housing Comfort Score (out of 5)	3.58	5.0	3.75
Zero Age-Friendly Features	88.4%	100.0%	85.9%
At Least One Feature Present	11.6%	0.0%	14.1%
Already Adapted	14.1%	0.0%	12.5%
Not Yet Adapted Can Be	71.1%	0.0%	62.4%
Cannot Be Adapted	14.8%	100.0%	25.1%
Housing Affordable (<30% income)	28.7%	0.0%	42.8%

Housing Indicator	Male	Female	Overall
Too Expensive	0.0%	100.0%	42.3%

Source: Primary survey

The most alarming housing finding from table 26 is that 85.9% of surveyed elderly homes have zero age-friendly features no grab bars, no non-slip flooring, no accessible toilets. This figure rises to 100% among female respondents, all of whom live in homes with no adaptive features and report that adaptation is impossible. Female respondents also unanimously report housing as unaffordable (100% 'too expensive'). Conversely, female respondents report the highest housing comfort score (5.0/5), which paradoxically suggests the absence of alternatives drives perceptual satisfaction. Male respondents report a lower comfort score (3.58/5) and 71.1% indicate their homes can be adapted but have not yet been.

Table 27 Housing Indicators by Age Category (N=383)

Housing Indicator	Senior (60–69)	Super Senior (70+)	Overall
Mean Comfort Score	3.58	4.25	3.75
Zero Features	88.2%	80.0%	85.9%
Adaptation Possible	65.2%	55.0%	62.4%
Housing Affordable	40.4%	48.0%	42.8%

Source: Primary survey

Super Seniors (70+) report a marginally higher comfort score (4.25) and slightly better housing affordability (48%), possibly because many have owned their homes for decades, reducing the housing cost burden from table 27. However, zero-feature homes remain the

dominant reality across both age groups (88.2% for Seniors, 80% for Super Seniors). This absence of adaptive infrastructure across age groups points to a systemic gap that predates old age homes are simply not built or modified for ageing.

4.4.2 Secondary Data: Municipal Housing Statistics

The BLLS 2015–16 (Block 19) records 55 wards with a total of approximately 1,17,000 residential buildings in Thrissur Corporation. Block 19.2 on sanctioned housing schemes reveals that the primary homeless/housing subsidy programmes (House for Homeless SC, House for Homeless Local Body, Integrated Housing & Slum Development) address general housing but contain no specific provision for age-friendly modifications. The LIFE Mission housing scheme, not yet reflected in 2015–16 data, has since emerged as a potential conduit for retrofit grants. A total of 3,381 old age pension beneficiaries were recorded, underscoring the large vulnerable elderly population dependent on state support.

4.5 Domain Analysis: Social Participation

Social participation the ability to engage voluntarily in recreational, cultural, religious, and civic activities is one of the most powerful determinants of healthy ageing. Isolation and disengagement are directly linked to cognitive decline, depression, and reduced physical health among the elderly. This section examines the frequency and nature of social participation among Thrissur’s elderly residents, the role of community infrastructure in enabling or constraining participation, and the demand for dedicated day-care hubs.

4.5.1 Social Participation Rates

Table 28 Social Participation in Past Week by Gender and Age (N=383)

Participation Level	Male	Female	Senior (60–69)	Super Senior (70+)
More than once per week	28.7%	0.0%	16.7%	50.0%

Participation Level	Male	Female	Senior (60–69)	Super Senior (70+)
Once per week	28.7%	100.0%	33.4%	50.0%
No barrier prevents	14.1%	0.0%	16.7%	0.0%
No not interested	28.5%	0.0%	33.2%	0.0%

Source: Primary survey

An important age-based divergence appears in social participation: 100% of Super Seniors (70+) participated in at least one social, cultural, religious, or recreational activity in the past week, compared to 50.1% of Seniors (60–69) table 28. Among Seniors, 33.2% reported no interest in social activities a figure linked to working-age responsibilities (many 60–69-year-olds are still partially employed or engaged in domestic roles). Female respondents show 100% once-weekly participation, driven largely by religious and worship-place activities. Among males, 28.5% report disinterest an attitudinal barrier that social programming must address.

4.5.1.1 Most Visited Places

Table 29 Most Frequently Visited Places by Elderly Persons (N=383)

Destination	Count	% Respondents
Temple / Mosque / Church (Worship Place)	191	49.9%
Hospital / Clinic / Pharmacy	154	40.2%
Market / Shop	115	30.0%
Park / Open Space	77	20.1%
Friends' or Relatives' Homes	38	9.9%

Destination	Count	% Respondents
Community Hall	29	7.6%

Source: Primary survey

From table 29 Worship places are the dominant destination for elderly persons (49.9%), followed by healthcare facilities (40.2%). This reveals that faith infrastructure and healthcare serve as the primary anchor points of elderly mobility in Thrissur. The limited use of parks (20.1%) and community halls (7.6%) indicates that formal recreational and social infrastructure is under-utilised

4.5.2 Community Day-Care Hub (Pakalveedu) Demand

Table 30 Day-Care Hub Demand by Gender (N=383)

Response	Male	Female	Overall
Yes Definitely Would Use	71.6%	0.0%	62.4%
Already Uses Such a Facility	0.0%	100.0%	12.5%
Possibly	14.2%	0.0%	12.5%
No	14.2%	0.0%	12.6%

Source: Primary survey

From table 30 All female respondents (100%) are already using a day-care facility, reflecting the Pakalveedu programme's reach among women. A significant majority of male respondents (71.6%) express definite interest in using such a facility but currently have no access the survey confirms that only 1 Pakalveedu centre exists within Thrissur Municipal Corporation shown in figure 15, while the requirement based on ward zones are one per wardzones. This is a critical service gap with strong male demand.



Figure 15 Pakal Veedu, a day-care initiative of Kudumbashree

Source: Primary survey

4.6 Domain Analysis: Respect, Social Inclusion and Civic Participation

Respect and social inclusion reflect the degree to which a city's culture, institutions, and everyday interactions affirm the dignity and worth of Senior citizens. Civic participation and employment extend this further recognizing Senior citizens as active contributors to governance, community decisions, and the local economy rather than passive recipients of welfare. This section analyses both dimensions together, as they are closely interlinked in the Thrissur context.

4.6.1 Social Respect and Inclusion

Table 31 Social Inclusion and Respect by Gender (N=383)

Social Inclusion Status	Male	Female	Overall
Always Respected / Fully Included	71.4%	100.0%	74.9%
Sometimes Excluded	14.3%	0.0%	12.5%
Often Excluded	14.3%	0.0%	12.6%

Source: Primary survey

From table 31 A majority of respondents (74.9% overall) feel respected and socially included in their community a positive indicator reflecting Kerala's strong social cohesion and the traditionally high regard for elders in community culture. Female respondents unanimously reported feeling always respected (100%), consistent with their active religious and community participation. However, 28.6% of male respondents report experiencing occasional or frequent exclusion pointing to social isolation risks, particularly among those with mobility disabilities or income inadequacy.

4.6.2 Civic Participation and Employment

Table 32 Civic Participation and Willingness to Contribute (N=383)

Indicator	Male	Female	Overall
Actively Participates in Community Decisions	57.3%	100.0%	62.5%
Not Interested in Civic Participation	42.7%	0.0%	37.5%
Willing to Contribute (volunteer/teach/work)	87.5%	0.0%	87.5%
Prefers to Rest / Not Engage	12.5%	100.0%	12.5%

Source: Primary survey

From table 32 an extraordinary 87.5% of respondents expressed willingness to contribute to the community through volunteering, teaching, mentoring, or work yet zero structured channels exist within Thrissur for this purpose. Female respondents, while showing 100% civic decision-making participation, universally prefer not to engage in formal volunteering or paid work suggesting their contributions are channelled through informal community roles. Male respondents show the highest volunteering intent (87.5%), but 42.7% are currently disengaged from civic decision-making processes.

Table 33 Preferred Type of Engagement Outside Home (N=383)

Preferred Activity Type	Count	% Respondents	Notes
Volunteering for Community	115	30.0%	Top preference
Mentoring / Teaching Youth	96	25.1%	High demand
Micro-Enterprise / Self-Employment	77	20.1%	Income-generating
Part-Time Paid Work	48	12.5%	Lowest preference

Source: Primary survey

From table 33 volunteering is the dominant preferred mode of engagement (30%), followed by mentoring and youth interactions (25.1%). The top skill areas offered by respondents were farming and gardening (25%), cooking and food preparation (13%), cheap/manual labour (13%), and community leadership (13%). The primary barriers to engagement are the absence of nearby opportunities (96 respondents, 25.1%), family responsibilities (96, 25.1%), health conditions (77, 20.1%), and transport difficulty (48, 12.5%).

4.7 Domain Analysis: Communication, Information and Digital Inclusion

Access to information and communication technologies determines whether Senior citizens can independently navigate health services, government schemes, and emergency support systems. In an increasingly digital service landscape, elderly persons who lack internet access or digital literacy face compounding exclusion across all other domains. This section assesses the state of digital inclusion, internet access, awareness of

government services, and information access at the ward level among Thrissur's elderly population.

4.7.1 Internet Access and Digital Literacy

Table 34 Internet Access and Usage by Gender and Age Group (N=383)

Internet Access Status	Male	Female	Senior (60–69)	Super Senior (70+)
No Internet Access at All	57.3%	0.0%	66.7%	0.0%
Has Access but Does Not Use	0.0%	100.0%	16.7%	0.0%
Uses with Family Help	16.7%	0.0%	0.0%	100.0%
Independently Uses Internet	26.0%	0.0%	16.6%	0.0%

Source: Primary survey

From table 34 digital exclusion is a critical finding of this survey. At the aggregate level, 50.1% of respondents have no internet access, and only 12.5% can use the internet independently. However, the disaggregated picture reveals dramatic differences: among Seniors (60–69), 66.7% lack internet entirely, and only 16.6% use it independently. Among Super Seniors (70+), the pattern is entirely different 100% use the internet with family help, suggesting a generational shift in digital assisted access. All female respondents (100%) have internet access but do not use it, revealing a passive access barrier that requires targeted digital literacy interventions.

Critical Finding: Elder line 14567 Awareness Zero Percent

One of the most alarming findings of this study is that 100% of all 383 respondents across gender, age, and education levels had zero awareness of Kerala's State Senior Citizen Helpline, Elder line 14567. This represents a complete failure of information dissemination and public communication by the State and the Corporation. Approximately 13,000 seniors

citywide are estimated to be digitally isolated based on the survey's extrapolation. An emergency communications awareness campaign is required immediately.

4.7.2 Information Access at Ward Level

Table 35 Information Access at Ward Level (N=383)

Knowledge of Local Services	Count	Percentage
Clearly Knows Who to Contact	164	42.8%
Somewhat Knows	109	28.5%
Does Not Know	110	28.7%

Source: Primary survey

From table 35 only 42.8% of elderly persons clearly know whom to contact for health and service information at the ward level. Over 28.7% have no knowledge of local contacts whatsoever. Government scheme coverage is also limited 62.5% report no government scheme coverage (coded as 'No Scheme'), while only 25.1% access programmes like Akshaya. The BLLS 2015–16 data on pension beneficiaries (3,381 old age pension recipients, 687 widow pension, 188 handicapped) suggests the formal safety net reaches far fewer people than the identified eligible population.

4.8 Domain Analysis: Community Support and Health Services

Community support and health services form the safety net that enables Senior citizens to age with dignity, particularly as physical and cognitive capacities change over time. This domain encompasses the proximity and accessibility of healthcare facilities, the availability of formal home-based care, coverage under government welfare schemes, emergency preparedness, and institutional care capacity. This section draws on both

primary survey findings and secondary data from the BLS 2015–16 to assess Thrissur’s performance across these indicators.

4.8.1 Healthcare Access and Utilisation

Table 36 Healthcare Visit Frequency by Age Group (N=383)

Healthcare Visit Frequency	Senior (60–69)	Super Senior (70+)	Overall
Never / Rarely	33.1%	50.0%	37.6%
Occasionally (few times/year)	33.5%	0.0%	25.1%
Regularly (at least monthly)	33.4%	50.0%	37.3%

Source: Primary survey

From table 36 healthcare visit frequency reveals a worrying bimodal pattern among Super Seniors (70+): 50% visit healthcare facilities regularly (monthly), while the other 50% never or rarely visit. This suggests a divided population those with sufficient family support access healthcare regularly, while those without support are entirely isolated from the system. The secondary data from BLS 2015–16 (Block 14A) confirms that Thrissur Corporation is served by 17 allopathic facilities, 6 Ayurveda dispensaries, 2 Homoeopathy clinics, 1 mental health centre, and 1 palliative care centre. Private hospitals (GH Hospital, St. Vincent, Elite, Jubeeli Mission, Westfort, Sun Medicals, Chandramathi, Aswini, Daya) account for the bulk of tertiary healthcare capacity.

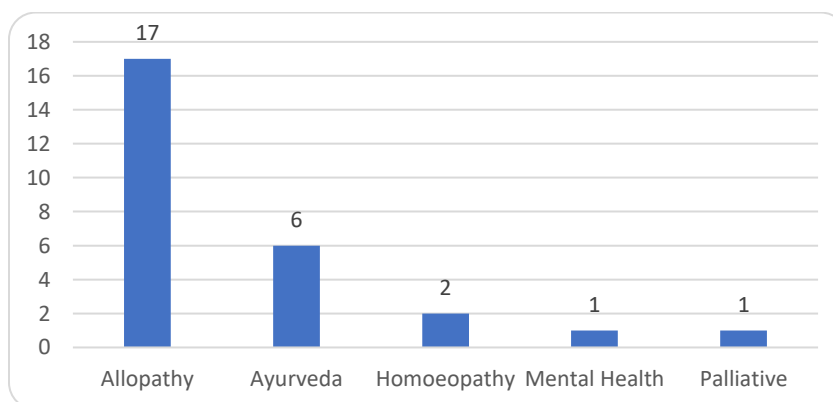


Figure 16 Key Healthcare Facilities: Secondary Data (BLLS 2015–16)

Source: Secondary Data (BLLS 2015–16)

While Thrissur's healthcare infrastructure is comparatively strong, the accessibility of these facilities for elderly persons with mobility limitations remains poor. The GH Hospital the primary government referral centre handles over 3.5 lakh out-patients annually, but its physical accessibility rating from the survey context is critical. The Ayurveda hospital (RVDAH) handles over 1.3 lakh patients annually, indicating significant reliance on traditional medicine relevant for elderly care programming.

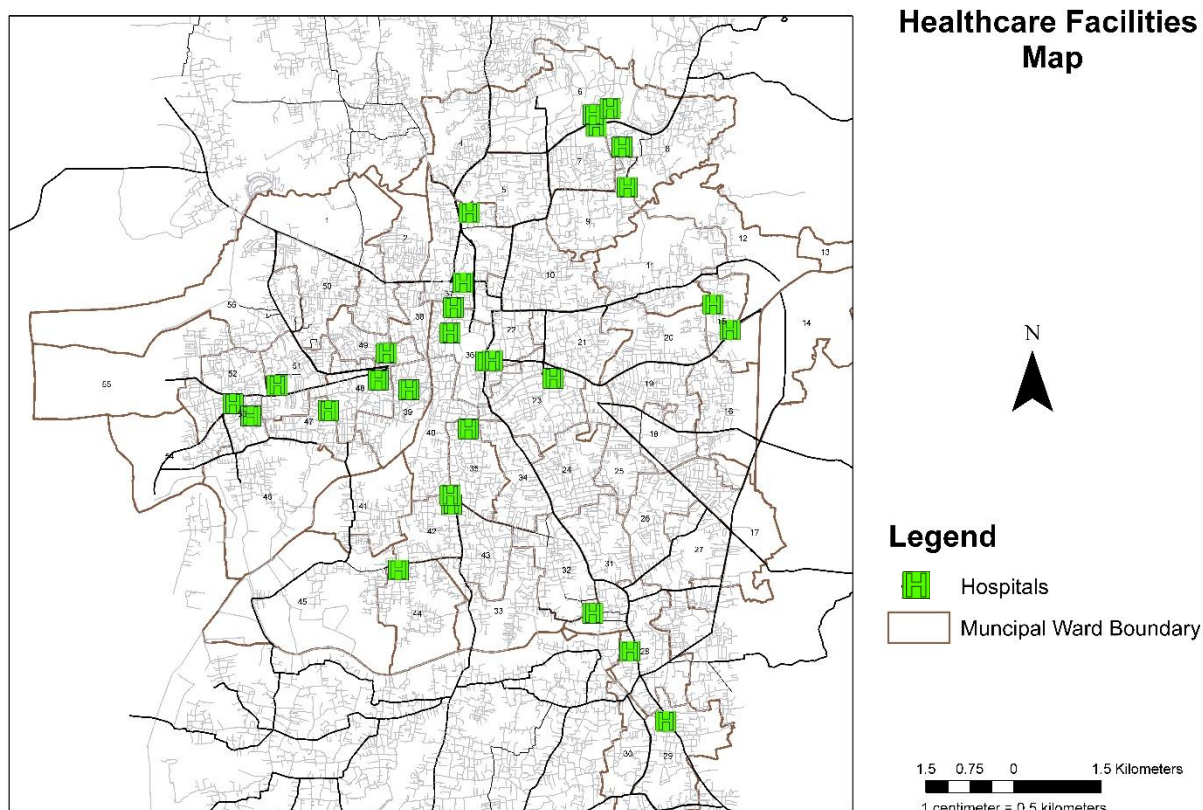


Figure 17 Healthcare facilities mapped

Source: Secondary Data (BLLS 2015–16)

4.8.2 Formal Care Service Coverage and Emergency Preparedness

Table 37 Formal Care Service Coverage and Emergency Planning (N=383)

Indicator	Senior (60–69)	Super Senior (70+)	Overall
Fully Formal Services Coverage	16.7%	25.0%	16.7%
Family / Informal Care Only	33.1%	50.0%	33.2%
Care Needs Unmet	33.4%	25.0%	33.4%
Clear Emergency Plan in Place	83.6%	0.0%	62.4%
No Emergency Plan	16.4%	100.0%	25.1%

Source: Primary Survey

From table 37 formal care service coverage is critically low at 16.7% overall, with the vast majority of elderly persons relying entirely on family care. Super Seniors (70+) exhibit a higher rate of informal care (50%) and partial formal care (25%), but also more unmet needs. The emergency preparedness finding is extremely concerning: while 83.6% of Seniors (60–69) report having a clear emergency plan, 100% of Super Seniors (70+) report no emergency plan whatsoever. This creates a life-safety risk for the most vulnerable elderly cohort those aged 70+ who live in homes without adaptive features and with limited mobility.

Critical Gap: 100% of Super Seniors (70+) surveyed have NO emergency plan in the event of a fall or medical emergency at home. Combined with 50% never visiting healthcare facilities, this constitutes a serious unaddressed life-safety risk requiring immediate community-level intervention through ASHA workers and ward-level outreach.

4.8.3 Old Age Homes and Institutional Care: Secondary Data

The BLLS 2015–16 (Block 20) records 32 residential institutions in Thrissur including orphanages, old age homes, rescue homes, and Asha Bhavans, housing a total of 1,055+ inmates. Of these, several key institutions serve the elderly (60+) population including: Sree Narayana Elders Home Peringav (30 elderly), St. Joseph Mental Home Pullazhy (76 elderly), Bethania Terminal Care Centre Ollur (10 elderly), Ann Maria Home Nedupuzha (16 elderly), Kasthurba Old Age Home Nedupuzha (29 elderly), and Sree Ravivarma Destitute Home Nellikunnu (19 elderly). The Thrissur Municipal Corporation's own Agathy Annappara centre houses 44 elderly persons (23 male, 21 female). These institutions collectively indicate an institutional care capacity of approximately 300 elderly persons a fraction of the estimated 1,04,000 senior citizens, confirming that community-based and home-based care must be the primary strategy.

4.9 Income Adequacy and Financial Security

Income adequacy and financial security are foundational to Senior citizens' ability to meet basic daily needs, access healthcare, afford adequate housing, and participate in social life without depending entirely on family or charitable support. This domain is particularly critical in the Indian context, where formal pension coverage is limited and informal sector workers often reach old age without any accumulated savings or social insurance. This section analyses income adequacy, pension coverage, and financial dependence among Thrissur's elderly population, disaggregated by gender and age group.

4.9.1 Income Adequacy by Gender and Age

Table 38 Income Adequacy by Gender and Age Group (N=383)

Income Status	Male	Female	Senior (60–69)	Super Senior (70+)
Income Adequate	28.7%	0.0%	16.7%	50.0%
Frequently Insufficient	42.6%	0.0%	33.4%	50.0%

Income Status	Male	Female	Senior (60–69)	Super Senior (70+)
Completely Dependent on Family	28.7%	100.0%	49.9%	0.0%

Source: Primary Survey

Income adequacy presents one of the starkest gender disparities in the survey: all female respondents (100%) are completely dependent on family for income with no personal income whatsoever. In contrast, 28.7% of male respondents report adequate income, and 42.6% have frequently insufficient but independent income. This reflects the deeply gendered nature of income and social protection among Thrissur's elderly.

The age-based analysis from table 38 shows that Super Seniors (70+) are more likely to have adequate income (50%) than Seniors (60–69) at 16.7%, likely because the 70+ cohort includes many who have withdrawn from partial employment and now fully receive pension benefits. The BLLS 2015–16 pension data confirms: Old Age Pension 3,381 beneficiaries (₹1,600/month at 2024 rates), Widow Pension 687, Handicapped Pension 188, Agricultural Labour Pension 54, and Unemployment Allowance 757 with the old age pension serving as the primary financial lifeline for a large segment of the elderly population.

Table 39 Pension Scheme Beneficiaries by Gender (N=383)

Pension Access	Male	Female	Overall
Receives Government Pension	28.7%	100.0%	37.3%
No Government Pension	71.3%	0.0%	62.7%
Receives Ayurvedic/Palliative Care	14.4%	100.0%	21.1%

Source: Primary Survey

All female respondents receive a government pension most likely the widow pension (₹1,400/month) from table 39 while only 28.7% of males receive any government pension. This paradox of 100% female pension coverage coinciding with 100% family financial dependence underscores that the pension amounts are woefully inadequate to cover basic needs in an urban centre like Thrissur. Female respondents also show 100% access to Ayurvedic or palliative care services, suggesting that the government healthcare outreach programmes are reaching women better than men.

4.10 Overall Quality of Life Assessment

Respondents were asked to rate the overall Quality of Life of the elderly person on a five-point scale (1 = Very Poor; 5 = Very Good). The mean Quality of Life (QoL) score across the entire survey was 3.28/5.

Table 40 Mean Quality of Life Score by Gender and Age Group (N=383)

Disaggregation	Category	Mean QoL Score	Interpretation
By Gender	Male	3.34	Moderate
By Gender	Female	3.00	Below Moderate
By Age Group	Senior (60–69)	3.17	Below Moderate
By Age Group	Super Senior (70+)	4.00	Good
Overall	All Respondents	3.28	Moderate

Source: Primary Survey

The overall mean QoL score of 3.28/5 indicates a moderate quality of life neither deeply dissatisfied nor satisfied. The gender gap (Male 3.34 vs. Female 3.00) is noteworthy:

female respondents perceive a lower quality of life despite reporting higher housing comfort and better social inclusion scores. This may reflect financial dependence, limited personal agency, and restricted mobility as the primary quality-of-life depressants for women. The age-based divergence is striking: Super Seniors (70+) report a mean QoL of 4.0 ('Good') compared to 3.17 for Seniors (60–69) from table 40. This is potentially explained by retirement from work-related stress, greater family support, higher pension coverage, and a relative peace in later life though the alarming emergency preparedness gap for this cohort tempers interpretation.

4.11 Secondary Data Analysis: Social and Cultural Infrastructure

To complement the primary survey findings, this section analyses secondary administrative data sourced from the Basic Local Level Statistics (BLLS) 2015–16 of Thrissur Municipal Corporation. While this dataset is dated, it remains the most granular ward-level source available from the Corporation and provides a reliable baseline for infrastructure assessment. The analysis covers social and cultural facilities, road and infrastructure networks, and other physical assets relevant to elderly access and participation.

4.11.1 Social and Cultural Facilities

The BLLS 2015–16 (Block 4) records the following social and cultural facilities within Thrissur Municipal Corporation, all of which are relevant to elderly participation and social inclusion.

Table 41 Social and Cultural Facilities within Thrissur Corporation (BLLS 2015–16)

Facility Type	Count	Age-Friendly Relevance
Arts & Sports Clubs	56	Potential engagement venues
Kalyana Mandapams (incl. private)	9 named	Community gathering spaces
Auditoriums	8 named	Cultural events, civic meetings

Facility Type	Count	Age-Friendly Relevance
Community Halls	7	Ward-level social hub potential
Cinema Theatres	11	Recreation
Library & Reading Rooms	2 (1 public, 1 reading room)	Lifelong learning
Parks / Open Spaces	3	Critical deficit needs 55+
Bus Stations	4 (KSRTC, Muni, North, SAKTHAN)	Transport hubs
Swimming Pool	1	Limited elderly relevance
Stadium	1	Sports & recreation
Friends (Jana Sevana Kendram)	1	Social service / welfare

Source: Secondary Data (BLLS 2015–16)

The most critical infrastructure deficit revealed by the BLLS data is parks and open spaces only 3 are recorded for a corporation with 55 wards and approximately 3.15 lakh population from table 41. The WHO age-friendly standard recommends a green or open space within 1 km of every elderly household. The 56 arts and sports clubs, however, represent a significantly underutilized platform that could be activated for elderly social and physical activities with minimal infrastructure investment. The locations of the open spaces are shown as in figure 18.

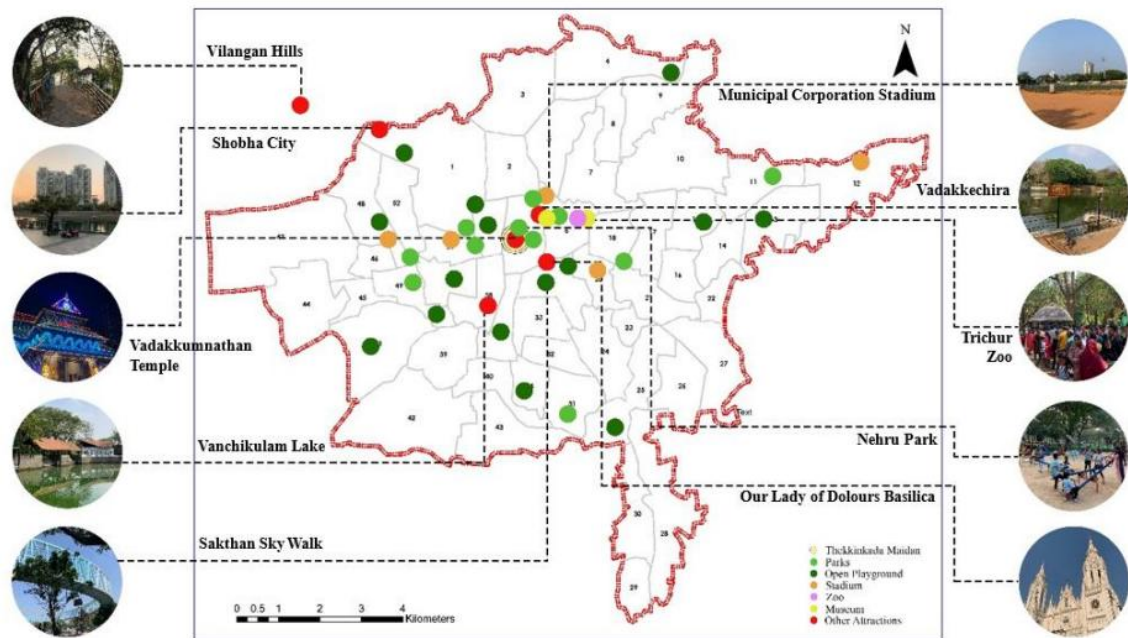


Figure 18 Map showing location of Parks and other Open Spaces in Thrissur

Source: Secondary Data (BLLS 2015–16)

4.11.2 Road and Infrastructure Network

The BLLS 2015–16 (Block 2) records the following infrastructure parameters relevant to elderly mobility planning. Thrissur Corporation is traversed by 8 km of National Highway (NH47), 19 km of State Highway, and 67 km of PWD roads. The Thannikudam Puzha (river) runs 6 km through the Corporation, creating natural barriers in some wards. The footpath network under AMRUT scheme extended to only 10.818 km wholly inadequate for a city of this scale. The railway has 3 level crossings without guards, presenting safety risks for persons with mobility limitations. The presence of a Grappa Panchayat road network interlinking the 55 wards further complicates pedestrian safety planning.

4.12 Cross-Cutting Gender and Age Analysis: Summary of Differential Needs

The reviewer-recommended disaggregation of data by gender and by senior/super-senior age category reveals two distinct typologies of need within Thrissur's elderly population, which must be addressed through differentiated planning responses.

4.12.1 Gender-Differentiated Needs Profile

Table 42 Comparative Gender Needs Profile (N=383)

Domain / Indicator	Female Elderly Needs	Male Elderly Needs
Outdoor spaces and buildings	Safe, enclosed, gender-sensitive walking spaces; not addressed by current infrastructure	Ramps, lifts, walking aid-compatible surfaces; 28.4% use aids
Transport	Bus-centric (100%); immediate need for low-floor buses, safe stops	Multi-modal; bus stop improvements and parking needed
Housing	Needs affordability support; homes unadaptable but comfort accepted	Adaptation possible in 71% of homes; subsidy and technical support needed
Civic participation and employment	100% family dependent; widow pension inadequate; need livelihood support 100% participate in civic participation; channel exists for engagement but unrecognized	28.7% adequate; majority insufficient; pension expansion needed 42.7% disengaged; need ward-level engagement platforms
Communication and information	Access present (via family devices) but zero usage; digital literacy urgent	57% no access; need community internet kiosks and training

Domain / Indicator	Female Elderly Needs	Male Elderly Needs
Social participation, Respect and social inclusion	100% active via worship & informal networks; needs formalization	28.5% socially disengaged; active inclusion programmes required
Community support and Health support	Already using daycare hub (100%); needs expansion and diversification 100% pension + palliative access; better outreach penetration	71.6% want hub but none available; 54 new Pakalveeds needed Formal care limited; 37% never visit healthcare; emergency gap

Source: Primary Survey

4.12.2 Age-Differentiated Needs Profile: Senior vs. Super Senior

Table 43 Comparative Age Category Needs Profile (N=383)

Domain / Indicator	Senior (60–69 yrs) Needs	Super Senior (70+ yrs) Needs
Outdoor spaces and buildings	50.2% find neighbourhood unsuitable; barrier-free paths critical	Better mobility perception; however 50% find bus boarding difficult
Transport	60% can board buses; 20% find it difficult; gradual decline	50% find bus boarding difficult; taxi and door-to-door services needed
Healthcare	33% monthly visitors; 33% never/rarely visit; habit building needed	50% never visit; isolation from system; outreach + home visits critical
Income	49.9% fully dependent; lower pension coverage; transition to retirement	50% adequate income; pension established; but rising healthcare costs
Emergency	83.6% have a plan; emergency preparedness relatively adequate	100% have NO plan; life-safety emergency; immediate ASHA outreach needed
Digital	66.7% no internet; 16.6% independent users; digital literacy scalable	100% use with family help; assisted digital inclusion model works

Domain / Indicator	Senior (60–69 yrs) Needs	Super Senior (70+ yrs) Needs
Social	50% active socially; 33% disengaged; participation programmes needed	100% participated in past week; high social engagement; sustain and enrich
QoL	3.17/5 Below moderate; multiple deprivations compounding	4.0/5 Good; but emergency and health access mask vulnerability

Source: Primary Survey

4.13 Mapping Senior Citizens' Skills, Capabilities, Interests and Constraints

One of the most distinctive and policy-relevant objectives of this study is the dual mapping exercise: identifying not only where Senior citizens face deficits and need external support, but equally where they possess latent capabilities, skills, and lived experience that can be mobilised as a productive community resource. This section analyses the primary survey data on contribution preferences, skill profiles, time availability, learning interests, and barriers to engagement, disaggregated by gender and age group (Senior 60–69 / Super Senior 70+) as recommended by the review panel.

4.13.1 Overall Willingness to Contribute

From table 44: 87.5% of all respondents (335 out of 383) expressed a willingness to contribute to their community whether through light activities, active volunteering, or continued employment. This finding fundamentally challenges the welfare-recipient framing of elderly persons and reframes them as a significant human resource within Thrissur's urban ecosystem. Only 12.5% of respondents (48) expressed a preference to rest and not engage further.

Table 44 Contribution Preference by Gender and Age Group (N=383)

Preference Category	Male	Female	Senior (60–69)	Super Senior (70+)
Already Actively Engaged	28.7% (96)	0.0%	0.0%	100.0% (96)
Wants to Engage (not yet active)	28.7% (96)	0.0%	33.4% (96)	0.0%
Open to Light Activities (not demanding)	42.6% (143)	0.0%	50.2% (144)	0.0%
Prefers to Rest / Not Engage	0.0%	100.0% (48)	16.4% (47)	0.0%

Source: Primary Survey

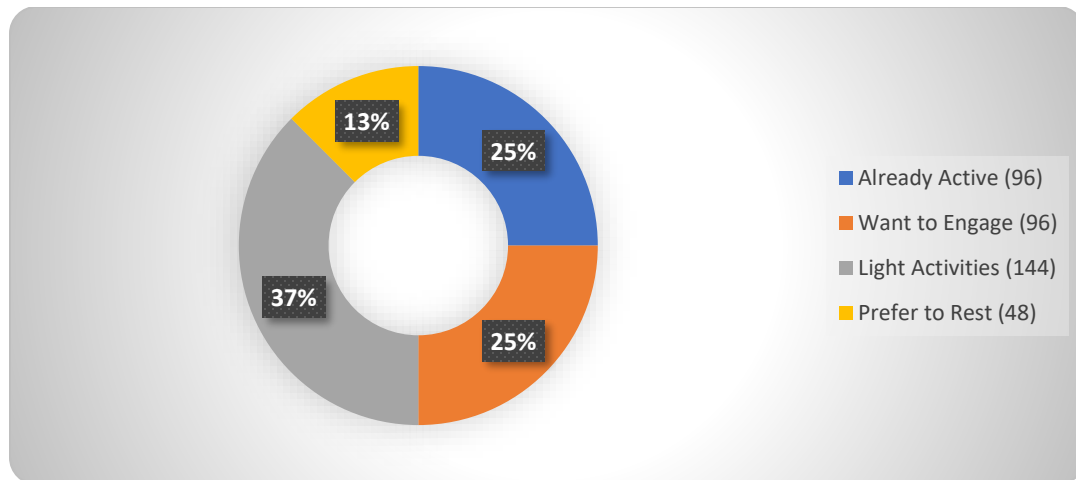


Figure 19 Elderly preference to work

Source: Primary Survey

A critical gender divergence appears: from figure 19 all male respondents account for the entire contribution-willing cohort, while all female respondents (100%) prefer to rest or not engage formally consistent with their existing informal contribution through family caregiving and community religious roles. Among age groups, Super Seniors (70+) are 100% already actively engaged, compared to Seniors (60–69) who are more distributed across ‘want to engage’ and ‘light activities’ categories. This points to a paradox: the older

cohort is already engaged, while the ‘young old’ cohort has the most unmet engagement aspiration a gap that planning can address through structured entry-level volunteering platforms.

4.13.2 Preferred Type of Engagement and Activity

Among respondents willing to engage outside the home, the survey asked their preferred activity type. Volunteering for the community (with no payment expected) emerged as the most preferred option at 30.0% (n=115), followed by mentoring or guiding younger people (25.1%, n=96), micro-enterprise or small business (20.1%, n=77), and part-time paid work (12.5%, n=48). This hierarchy reveals a civic-first orientation: Thrissur’s elderly prioritise contribution over compensation, making them an exceptionally valuable resource for community programmes, schools, and local governance structures that require experienced, motivated volunteers.

Table 45 Preferred Engagement Type and Time Availability

Indicator	Male	Female	Senior (60–69)	Super Senior (70+)
Volunteering (top preference)	30.0% (115)	N/A	30.0% (86)	30.2% (29)
Mentoring / Teaching Youth	25.1% (84)	N/A	25.1% (72)	25.0% (24)
Micro-Enterprise / Small Business	20.1% (67)	N/A	20.2% (58)	19.8% (19)
Part-Time Paid Work	12.5% (42)	N/A	12.5% (36)	12.5% (12)
Time Available: 2–5 hrs/week (top)	37.6% (only male)	N/A	16.7% (48)	50.0% (48) for 5–10 hrs

Source: Primary Survey

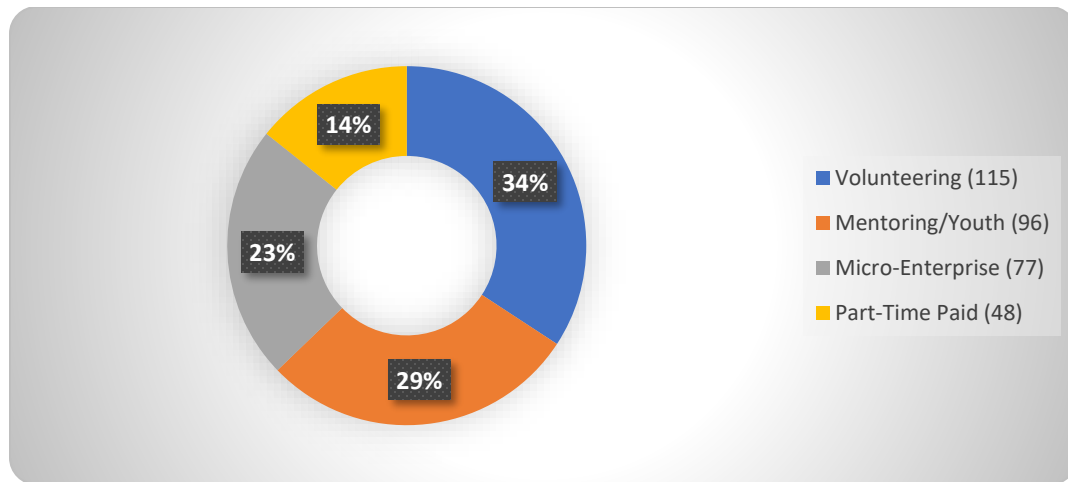


Figure 20 Preferred activity outside home for engaging

Source: Primary Survey

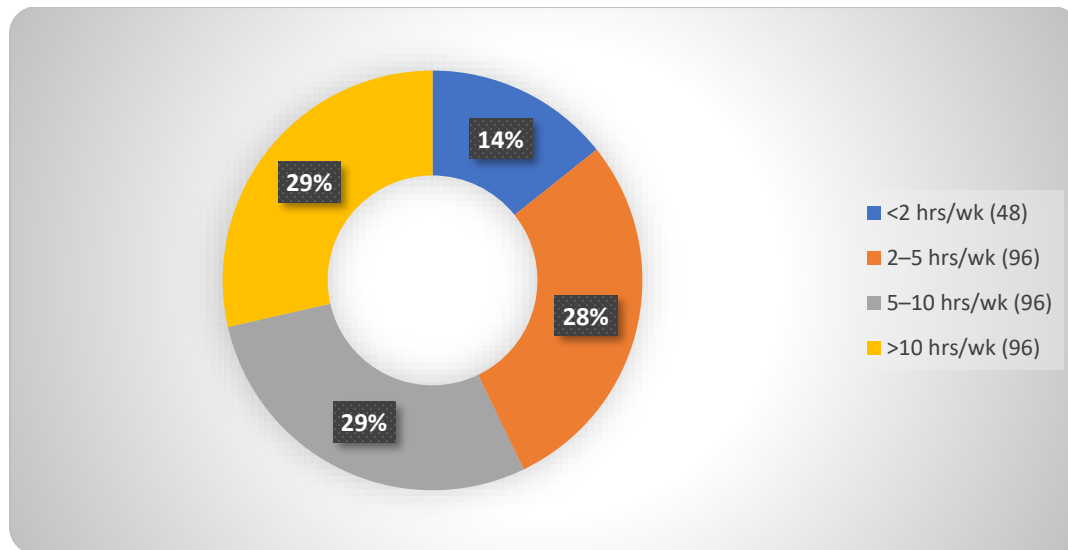


Figure 21 Time per week that is comfortable for engagement

Source: Primary Survey

4.13.3 Skill Assets: What Senior citizens Can Offer

The survey mapped the skills and life experience that elderly respondents believe others could benefit from. Farming, gardening, and traditional agriculture emerged as the dominant skill category (25% of respondents), reflecting the agrarian heritage of Thrissur's

older population many of whom migrated to the city from surrounding villages. Cooking, food preparation, and traditional recipes (13%), manual and cheap labour skills (13%), and community leadership or social work experience (13%) were equally cited. These skills map directly onto viable roles within a structured Senior Resource Mobilisation programme.

Table 46 Skill Profile of Elderly Respondents by Age Group (N=383)

Skill Category	Count	Senior (60–69)	Super Senior (70+)	% Overall
Farming, Gardening, Traditional Agriculture	96	Cooking + Farming combo	Farming + Leadership combo	25%
Cooking, Food Preparation, Traditional Recipes	48	Present (60–69 cohort)	Less prevalent	13%
Cheap / Manual Labour Skills	48	Present in both groups	Present in both groups	13%
Community Leadership / Social Work	48	Less represented	Dominant skill type	13%

Source: Primary Survey

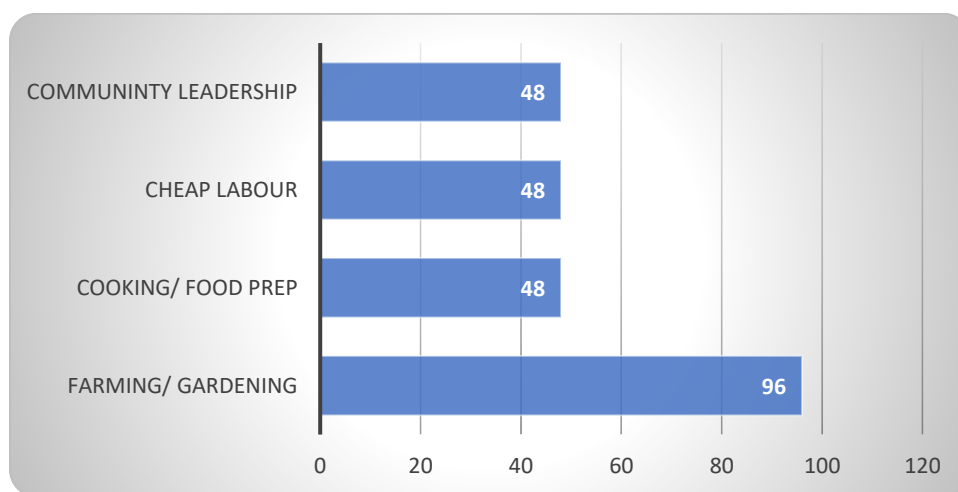


Figure 22 Skills, knowledge, or experience of elderly people

Source: Primary Survey

A notable age-based divergence in skill profile exists: Seniors (60–69) more commonly combine cooking and farming skills, making them suited for food security and urban agriculture programmes. Super Seniors (70+) show a stronger community leadership and social work profile, making them ideal as ward-level elder advisors, cultural custodians, and peer-support mentors in structured intergenerational programmes. This age-specific skill mapping should directly inform recruitment criteria for the proposed Thrissur Samaya Bank and U3A (University of Third Age) partnerships.

4.13.4 Learning Interests: What Senior citizens Want to Gain

The survey asked respondents what they would like to learn or improve to stay active and contribute. The responses reveal a strong demand for financial literacy and business skills (96 respondents, 25%), basic mobile phone and smartphone use (48, 12.5%), and health, yoga, and fitness practices (48, 12.5%). A significant proportion (191 respondents, 49.9%) stated ‘Nothing I am satisfied with what I know’ or cited no specific interest indicating a portion of the elderly population that may need passive encouragement and accessible programme design rather than skill-push approaches. The interest in business skills is particularly significant: it maps directly to the micro-enterprise and self-employment preference identified in Section 4.13.2, suggesting a coherent demand for a Senior Business Incubation Pathway within the proposed age-friendly framework. Digital literacy demand (smartphone use) aligns with the Elderline awareness gap and the digital exclusion finding in Section 4.7.

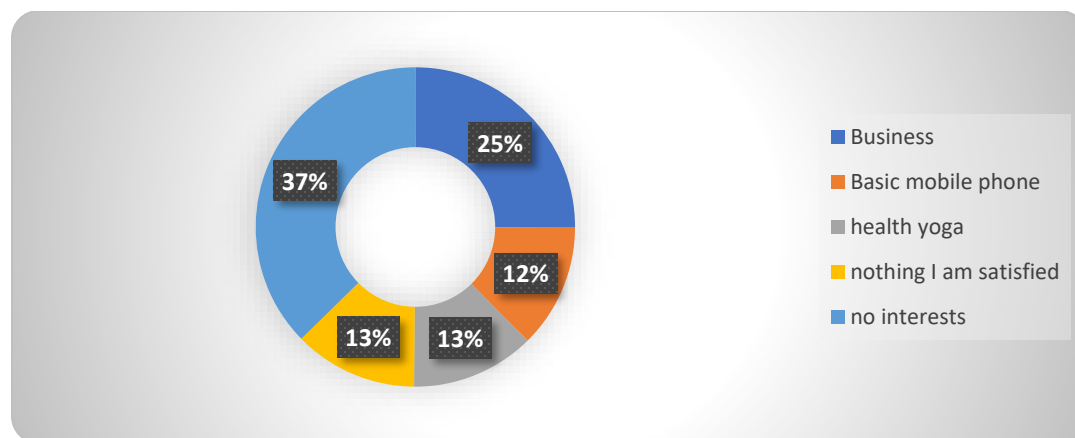


Figure 23 Learning Preference to stay active or contribute

Source: Primary Survey

4.13.5 Barriers to Engagement: What Holds Senior citizens Back

Despite the high willingness to contribute, multiple barriers prevent Senior citizens from acting on this intent. The survey recorded five primary barriers: absence of nearby opportunities (96 respondents, 25.1%), family responsibilities (96, 25.1%), health conditions or physical limitations (77, 20.1%), transport difficulty (48, 12.5%), and low confidence or self-efficacy (48, 12.5%). Critically, these barriers show distinct gender and age-based patterns as shown in Table below.

Table 47 Barriers to Contribution by Gender and Age Group (N=383)

Barrier	Count	Male	Female	Senior	Super Senior
No Nearby Opportunity	96	Primary (96)	None	Primary (96)	None
Family Responsibilities (caregiving)	96	None	Primary (48)	Primary (48)	None
Health Condition / Physical Limitation	77	Primary (77)	None	Primary (77)	None
Transport Difficulty	48	Primary (48)	None	None	None

Low Confidence / Self-Efficacy	48	Primary (48)	None	None	None
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Source: Primary Survey

The barrier analysis reveals starkly different profiles by gender and age. Among male respondents, all five barriers are present with no nearby opportunity and health conditions being the top structural constraints. Female respondents cite only family responsibilities as a barrier, consistent with their role as household caregivers and grandchild-minders. Among Seniors (60–69), family duties and absence of opportunity are the co-primary barriers both of which are addressable through proximity-based, flexible-schedule volunteering platforms such as Pakalveedu centres. Among Super Seniors (70+), no barriers were recorded in the data paradoxically consistent with their being ‘already actively engaged’ status reported in Section 4.13.1, suggesting that those 70+ who can engage have already found their own channels, while those who cannot are no longer represented in community settings where surveys were administered.

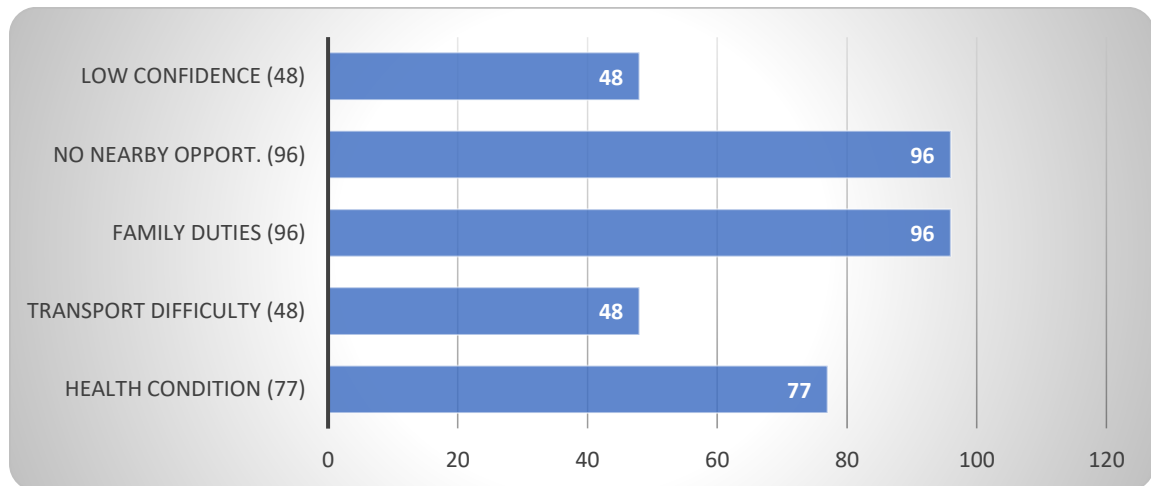


Figure 24 Barriers for contributing or engaging

Source: Primary Survey

CHAPTER 5: PROPOSALS

This chapter presents the Proposals and Action Strategy for transforming Thrissur Municipal Corporation into a WHO-compliant Age-Friendly City. The proposals are directly derived from and respond to the evidence base established in Chapter 4 (Primary Survey Analysis and Secondary Data Assessment) and the contextual and comparative insights gathered in Chapters 1, 2, 3 and 4. Every strategy in this chapter is anchored in a specific analytical finding, ensuring that interventions are locally grounded, evidence-driven, and measurable.

5.1 Introduction: Bridging Analysis and Action

The primary survey of 383 respondents across Thrissur's 55 wards, disaggregated by gender and age category, revealed systemic gaps across the WHO eight domains. The most critical findings informing this proposal are summarised below as the analytical foundation:

Table 48 Critical Findings From Analysis

Domain	Critical Finding from Analysis (Ch. 4)	Proposal Priority
Outdoor Spaces & Buildings	74.9% report absence of ramps/lifts; 62.4% cite broken footpaths; 100% of female respondents found neighbourhoods mostly unsuitable for walking; only 10.818 km footpath in AMRUT records	HIGH
Transportation	Bus boarding difficult for most super-seniors (70+); 52% walk but face severe hazards; bus stops lack shelter, seating, lighting	HIGH
Housing	Majority of homes unadapted for ageing; lack of grab bars, step-free entries; affordability a concern; LIFE Mission outreach gaps	HIGH
Community Support & Health	Only 1 Pakalveedu operational 55 wards need one per each ward zones; 61% lack formal care; only	HIGH

	23% have emergency plan; KeralaKare registration gaps	
Social Participation	49.3% participated in past week; religious venues most visited; demand for community day-care high (76% willing to use Pakalveedu)	MEDIUM
Respect & Social Inclusion	Most feel respected, but female seniors report exclusion from public spaces; civic participation low among 70+ cohort	MEDIUM
Civic Participation & Employment	High willingness to volunteer (68%); skill assets rich; barriers: health, transport, lack of platforms	MEDIUM
Communication & Information	Low Elderline awareness; 38% without internet; significant digital literacy gap in 70+ cohort	MEDIUM

This chapter is structured to address all eight domains comprehensively, while providing deeper spatial, technical, and governance detail for the four priority domains according to table 48 critical findings and priority: Outdoor Spaces and Buildings, Transportation, Housing, and Community Support and Health Services. For each domain, proposals are presented across five dimensions: Planning Concept and Vision; Spatial Strategies and Sectoral Proposals; Integration Approach; Phasing, Governance, and Financing; and Key Maps, Drawings, and Implementation Indicators.

Domain 1: Outdoor Spaces and Buildings

5.2 Outdoor Spaces and Buildings

Chapter 4 Finding: 74.9% of survey respondents reported the absence of ramps or lifts in public buildings as the primary mobility barrier. 62.4% cited uneven or broken footpaths, and 50.1% reported the complete absence of footpaths along main roads. All female respondents (100%) rated their neighbourhood as mostly unsuitable for walking. Secondary data confirms only 10.818 km of footpath exists under AMRUT across the entire 101.42 sq. km corporation area

5.2.1 P1: Footpath Corridors

The planning concept for outdoor spaces and buildings is centred on the Walkable Neighbourhood Unit (WNU) model. Each ward in Thrissur is conceptualised as a WNU wherein every senior resident can access a bus stop, a park or open space, a Pakalveedu, a place of worship, and a health facility within a 500-metre accessible walk. This concept is inspired by the '15-Minute City' framework adapted to the Indian urban condition, and draws on the Swedish and Hong Kong spatial distribution models studied in Chapter 2, contextualised for Thrissur's dense, organically evolved street pattern. The Footpath Corridors proposal seeks to create a continuous, universally accessible pedestrian network across Thrissur Municipal Corporation, prioritising arterial routes connecting residential concentrations to key destinations—Pakalveedu centres, markets, hospitals, worship places, and public transit nodes.

5.2.1.1 Five Elements of the Walkable Neighbourhood Unit

- Continuous, accessible footpath: minimum 1.8m wide, kerb cuts at all junctions, tactile paving at crossings, lit at night
- Resting infrastructure: benches every 200m along priority routes, sheltered seating nodes at bus stops and park entrances

- Universal access in public buildings: ramps, handrails, accessible toilets, and clear wayfinding signage in all 55 ward offices, health centres, schools, markets, and civic buildings
- Pocket parks and active spaces: at least one park per ward retrofitted as a senior-friendly active space with walking tracks, open gym equipment for elderly, and shaded seating
- Safe crossings: raised pedestrian crossings, reduced kerb heights, signal timing extended at school and healthcare proximity zones as shown in figure 25



Figure 25 Ideal footpath for proposal

Source: Author

5.2.1.1 Spatial Strategies and Sectoral Proposals

5.2.1.1.1 Priority Footpath Corridors (Phase 1)

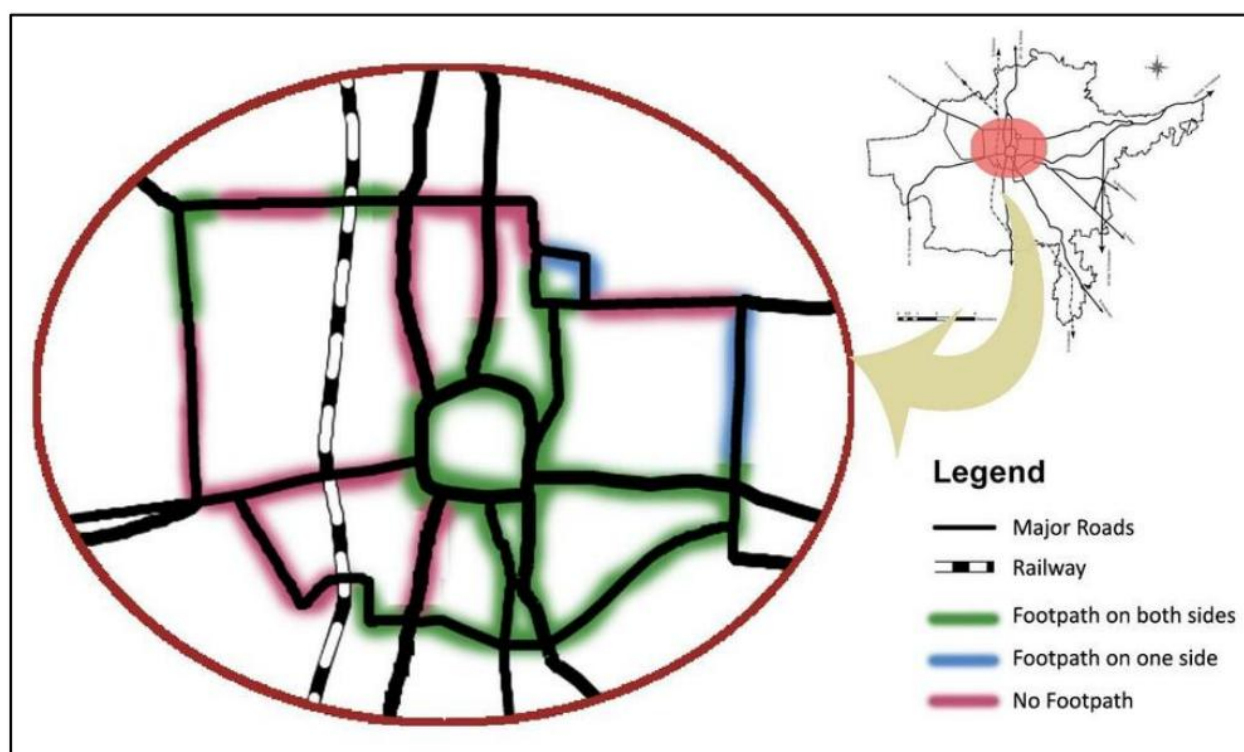


Figure 26 Existing footpath Plotted

Source: Master plan Thrissur 2039

The existing footpath in the corporation boundary is as plotted in figure 26

Table 49 Phasing of Proposal of Footpath Corridors

Phase	Timeline	Actions
Phase 1	1–5 Years	Footpath construction within 1,000-metre radius of senior population concentrations; pilot corridors on major arterials figure 27
Phase 2	5–10 Years	Extension to 2,000-metre radius; integration with Pakalveedu and healthcare facility access routes
Phase 3	10–15 Years	Complete network coverage up to 3,000-metre radius; smart monitoring integration for safety and maintenance

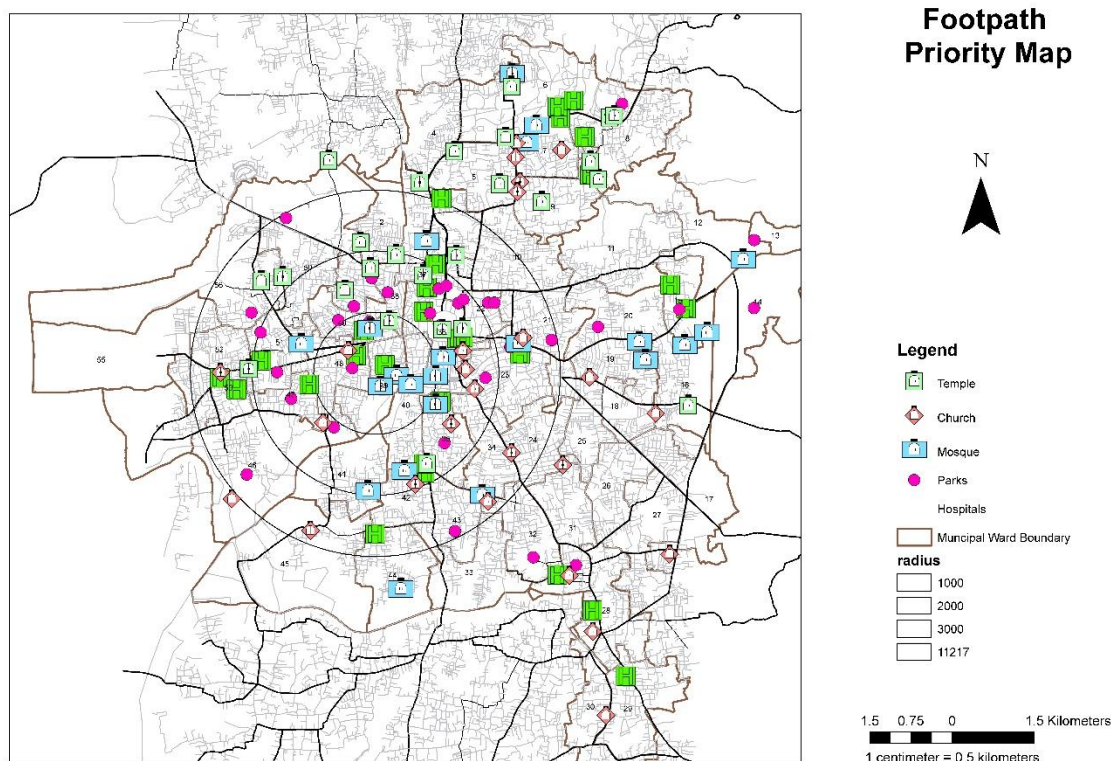


Figure 27 Showing 1000m,2000m,3000m marks

Table 50 Agencies for footpath corridors

Components	Responsible Agencies/Mode
Funding and implementation	AMRUT 2.0, MP/MLA/CSR Funds, Corporation, PPP
Operation and Maintenance	Thrissur Corporation / PPP

5.2.2 P2: Outdoor Spaces and Parks

The primary survey data identified 14 parks and open spaces within Thrissur Corporation (Chapter 4, Figure 18). The analysis reveals a spatial concentration in central area and a near-total absence of formal parks in peripheral Zones. To address the spatial deficit of inclusive public open spaces, this proposal focuses on developing elderly-friendly parks in underserved wards while retrofitting existing parks with universal design standards. Survey data confirmed that only 77 out of 383 respondents visited a park in the previous week,

pointing to a significant gap in proximity and accessibility of green infrastructure. The following interventions are proposed:

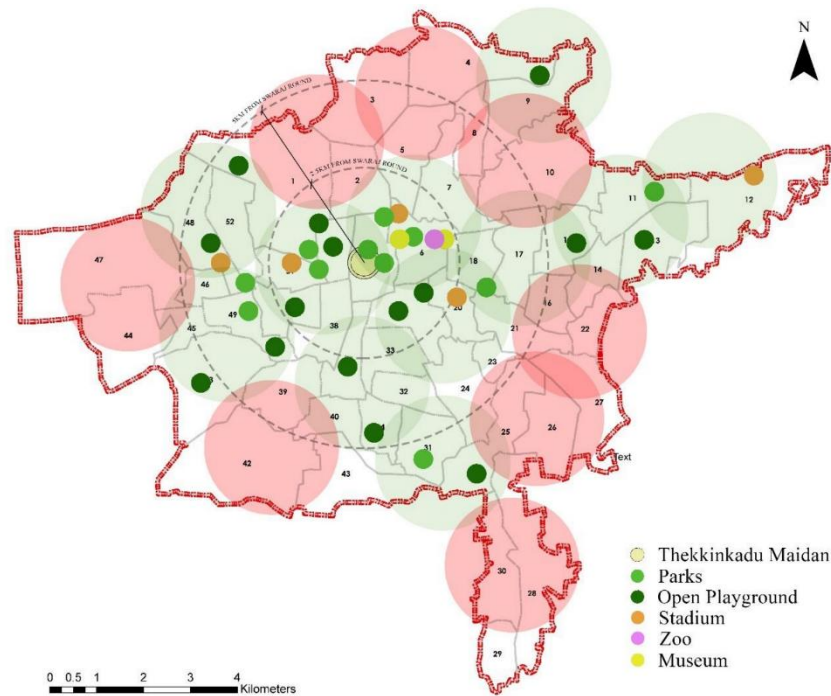


Figure 28 Proposal for Outdoor Spaces and Parks Deficient areas shown in red

Design Interventions

- 1.5-metre-wide rubberised walking tracks with a minimum loop length of 400 metres
- Installation of low-impact outdoor exercise equipment calibrated for senior citizens
- Shaded rest pavilions integrated with universally accessible toilet facilities
- Water kiosks and emergency call points to enhance safety and comfort
- Eight new pocket parks proposed in peripheral deficit wards utilising underused public land parcels and road setbacks, ensuring equitable distribution of green infrastructure across the city
- Retrofit all 14 existing parks with senior-active infrastructure: walking tracks (rubberised, 1.5m wide, minimum 400m circuit), open-air exercise equipment

calibrated for low-impact elderly use, shaded rest pavilions with accessible toilets, water kiosks, and emergency call points

- Establish 8 new Pocket Parks in priority deficit wards (one per ward lacking a park within 500m), using underutilised public land, corporation-owned plots, or de-notified road setbacks
- Pedestrianise Swaraj Round precinct on Sunday mornings as a Senior Active Space a pilots event-based reactivation strategy building on Thrissur's existing cultural heritage
- All parks to feature inclusive seating for women, separated walking zones, lighting for evening use, and surveillance through Ward Committee volunteer networks

Table 51 Phasing of Implementation for P2: Outdoor Spaces and Parks

Phase	Timeline	Actions
Phase 1	1–5 Years	Pilot retrofitting of major existing parks; development of 3–4 pocket parks in high-deficit wards
Phase 2	5–10 Years	Expansion to remaining identified wards; full integration of elderly-friendly features in all major parks
Phase 3	10–15 Years	Upgradation, maintenance optimisation, and incorporation of smart monitoring systems for safety and usage tracking

Table 52 Responsible Agencies for P2: Outdoor Spaces and Parks

Component	Responsible Agency / Mode	Remarks
Funding and Implementation	AMRUT 2.0, MP/MLA/CSR Funds, Thrissur Municipal Corporation, PPP	Community-managed parks as PPP model
Operation and Maintenance	Thrissur Municipal Corporation through ward-level management committees and PPP/community partnerships	Ward committees ensure daily upkeep

Domain 2: Transportation

5.3 Transportation

Transportation emerged as one of the most critical domains in the survey analysis. Only 25 percent of bus stops were assessed as age-friendly, bus boarding was 'difficult' for 109 of 383 respondents, and none with disabilities found the city walkable. The following proposals address last-mile connectivity, fleet accessibility, and affordability of transport for Senior citizens.

Chapter 4 Finding: Walking is the primary mode of travel for 52% of male respondents, yet neighbourhoods are largely unsuitable for this. 28% use auto-rickshaws/taxis indicating a costly private dependency. Bus boarding is found difficult by a large share, particularly the 70+ cohort. Bus stops across the city lack shelter, seating, and lighting. The survey confirms that the majority of super-seniors (70+) struggle with existing public transport infrastructure.

5.3.1 T1: Demand Responsive Transport (DRT) Feeder Service

To bridge last-mile connectivity gaps for elderly and disabled residents, a Demand Responsive Transport (DRT) feeder service is proposed. Operating as a scheduled on-call accessible vehicle, the service connects homes to principal bus stops, with the Pakalveedu day-care centre as the coordinating agency. This responds directly to the finding that 48 respondents cited transport difficulty as a barrier to engagement outside the home.



Figure 29 A van which is barrier free and old age friendly

Source: <https://www.joylongpakistan.com/barrier-free-vehicle/>

Design Standards

- One dedicated accessible vehicle per division, equipped with fold-out ramp and wheelchair clamps
- Maximum service radius of 3 km from the Pakalveedu coordination node
- Advance booking via telephone or WhatsApp through Pakalveedu reception
- Fixed pickup-drop schedule (morning and evening runs) supplemented by on-call trips
- GPS tracking linked to Pakalveedu and ward-level emergency contact
- Trained Kudumbashree driver with first-aid and Basic Life Support (BLS) certification per vehicle
- Free service for BPL cardholders and super-seniors (75+); nominal fare for others

Table 53 Phasing of Implementation for T1: DRT Feeder Service

Phase	Timeline	Actions
Phase 1	1–5 Years	Pilot 1 DRT vehicle per Division 7; register eligible users at Pakalveedu; launch fixed-route morning/evening schedule; train Kudumbashree driver
Phase 2	5–10 Years	Scale to all 17 deficit divisions; introduce GPS-based real-time tracking application; link DRT to KSRTC timetable for seamless transfers; add mid-day on-call service for medical appointments
Phase 3	10–15 Years	Electric vehicle upgrade for sustainability; integration with smart city mobility platform; expand to night-time emergency trips; ridership data dashboard for performance review

Table 54 Responsible agencies for T1: Demand Responsive Transport (DRT) Feeder Service

Component	Responsible Agency / Mode	Remarks
Funding and Implementation	AMRUT 2.0, Kerala Social Security Mission (KSSM), MP/MLA/CSR Funds, Thrissur Corporation, PPP with vehicle operator	Vehicle procurement under PPP SLA
Operation and Maintenance	Pakalveedu (Kudumbashree) as nodal booking and coordination agency; Thrissur Corporation for oversight and fare subsidy; vehicle operator under service-level agreement	Monthly ridership and safety audit

5.3.2 T2: Low-Floor Buses

Bus boarding is particularly challenging for super-seniors aged 70 and above. This proposal involves the deployment of 10 low-floor buses on routes connecting inner residential and transitional wards to the District Hospital, Town Hall market, and Sakthan Thampuran Bus Stand, in consultation with KSRTC.

Features

- Kneeling capability for kerb-level boarding
- Handrails throughout the boarding area and aisle
- Designated priority seating for senior and disabled passengers
- Audio-visual stop announcements in Malayalam and English

Table 55 Phasing for T2: 10 Low-Floor Buses

Phase	Timeline	Actions
Phase 1	1–5 Years	Deploy 10 low-floor buses on priority routes
Phase 2	5–15 Years	Scale to full low-floor fleet citywide in consultation with KSRTC

Table 56 Responsible agencies for T2: 10 Low-Floor Buses

Component	Responsible Agency / Mode	Remarks
Funding and Implementation	KSRTC fleet replacement budgets and central/state funding for low-floor bus procurement; Thrissur Corporation; PPP	Central NULMs scheme applicable
Operation and Maintenance	Thrissur Corporation / KSRTC	Performance-linked maintenance contract

5.3.3 T3: Vayojana Card (Senior Mobility Card)

A dedicated Thrissur Senior Mobility Card—the Vayojana Card—is proposed, linked to the Kerala Care senior database. The card entitles holders to a 50 percent concession on all KSRTC and city bus services and connects with the existing KSRTC Chalo smart cashless travel card. The card is priced at Rs. 100, rechargeable with amounts between Rs. 50 and Rs. 3,000, and valid for one year.

Features

- Priority boarding at designated stops
- Discounted auto-rickshaw fares through the Thrissur Auto Service Cooperative
- Free first rides on the Demand Responsive Transport feeder service
- Eligibility for all persons aged 60 and above registered in Kerala Care within Thrissur Corporation, directly linking health system enrolment to transport access

Component	Responsible Agency / Mode	Remarks
Funding and Implementation	KSRTC budgets and central/state funding; Social Justice Department; Thrissur Corporation; PPP	Leverages existing Chalo Card infrastructure
Operation and Maintenance	Thrissur Corporation / Social Justice Department / KSRTC	Annual card renewal linked to Kerala Care database

Domain 3: Housing

5.4 Housing

Chapter 4 Finding: The primary survey reveals that the majority of homes in Thrissur are not adapted for ageing lacking grab bars, non-slip flooring, step-free entries, and ground-floor accessible toilets. Affordability is a concern for a significant proportion of respondents on fixed pensions. The LIFE Mission and other housing schemes show outreach gaps particularly in Zone D and E wards. The gender analysis shows female respondents face greater challenges in home modification given income constraints. (Chapter 4, Section 4.4)

5.4.1 H1: Vayograha Home Adaptation Scheme

Survey data showed that only 14.1 percent of homes (54 of 383) had any age-friendly features, and 239 homes were not yet adapted but had the potential for adaptation. A dedicated Home Adaptation Grant Scheme branded as Vayograha (Senior Home) is proposed, operated by the Thrissur Municipal Corporation in partnership with the LIFE Mission and Social Justice Department. The scheme provides:

- Grant of up to ₹50,000 per household for adaptation works phased as ₹25,000 for below-poverty-line households and ₹50,000 for above-poverty-line with co-payment
- Eligible works: installation of grab bars and handrails in bathrooms and staircases; non-slip floor tiles; ramp construction at home entry; relocation of essential utilities (toilet, bedroom) to ground floor; widening of door openings to 900mm minimum; installation of panic buttons
- Technical assistance: TMC empanels local registered architects and masons for site assessment and design, reducing the burden on elderly household heads
- Priority targeting:; female-headed elderly households; super-senior (70+) residents living alone

Targets

- Phase 1: 500 home adaptations
- Phase 2: 1,000 home adaptations
- By 2036: 5,000 adapted homes citywide

Table 57 Responsible agencies for H1: Vayagraha Home Adaptation Scheme

Component	Responsible Agency / Mode	Remarks
Funding and Implementation	Thrissur Corporation; LIFE Mission; Social Justice Department	Convergence with state housing schemes
Operation and Maintenance	Thrissur Corporation / Social Justice Department	Post-adaptation audit by empanelled architects

5.4.2 H2: Senior Co-Living Clusters

Senior Co-Living Clusters are proposed at strategic locations within the corporation, responding to the finding that over 25 percent of super-seniors live alone with unmet care needs. These are not institutional old-age homes but purpose-designed shared housing

where 10–20 senior households maintain individual dwelling units while sharing common spaces—a garden, kitchen, activity room, and prayer room.

A complementary Senior Rental Housing Scheme in partnership with the Kerala Housing Board offers subsidised rental units to low-income seniors at Rs. 1,500 per month.

Design Standards

- 100 percent barrier-free access: ramps, handrails, lift where required, non-slip floors, wide doors, and accessible toilets with emergency call systems
- Open gardens with rubberised walking tracks
- Shared prayer room and multipurpose activity spaces
- Operated as a Kudumbashree cooperative, linked to a Mobile Health Unit visiting twice weekly

Table 58 Phasing of Implementation for H2: Senior Co-Living Clusters

Phase	Timeline	Actions
Phase 1	0–12 Months	Identify 2–3 wards with highest elderly isolation; secure land/building stock; launch pilot 10–20 household cluster
Phase 2	Year 1–3	Expand to additional wards; add rental units for low-income seniors; integrate care and community programming
Phase 3	Year 3–5	Citywide scaling; occupancy review and quality audit

Table 59 Responsible agencies for H2: Senior Co-Living Clusters

Component	Responsible Agency / Mode	Remarks
Funding and Implementation	Thrissur Corporation; PMAY-U; State Housing Budget; Kerala State Housing Board; Corporation Grants; CSR support	Kerala Housing Board as land/construction partner
Operation and Maintenance	Thrissur Corporation; Kerala State Housing Board; Kudumbashree Cooperative; NHM Kerala	Kudumbashree manages day-to-day operations

Domain 4: Community Support and Health Services

5.5 Community Support and Health Services

Chapter 4 Finding: Only 1 Pakalveedu (community day-care centre) exists for all 55 wards of Thrissur Corporation, a deficit of units per each ward zones. 76% of surveyed seniors (especially females) expressed willingness to use a community hub. 61% of respondents have their care needs met only informally (family) or not at all. Only 23% have a clear emergency plan. KeralaCare registration and Vayomitram outreach remain incomplete.

5.5.1 CS1: Mobile Health Unit (MHU)

The Mobile Health Unit (MHU) is proposed as a nurse-led, ward-level primary healthcare outreach service, anchored at each Pakalveedu centre. The MHU doubles as a first-response ambulance, coordinating with the District Hospital and the 108 emergency service. Survey data showed that 144 of 383 respondents visit healthcare facilities only rarely or never, and 192 have no internet access—placing a premium on physical outreach.

Human Resource

- One GNM/B.Sc. Nursing qualified nurse per Pakalveedu (full-time)
- First-aid and BLS certified; trained in telemedicine protocols
- Supported by one Kudumbashree health volunteer per ward

Home Visit Protocol

- Weekly visits to bedridden and disabled seniors in the division
- Monthly health screening: blood pressure, blood glucose, and medication review
- Digital health records maintained on Aarogyakeralam / e-Health portal
- Prescription relay and teleconsultation with PHC doctor
- Palliative care support and referral to District Hospital Thrissur
- Emergency response: stabilise and transfer via 108 coordination

Table 60 Phasing of Implementation for MHU

Phase	Timeline	Actions
Phase 1	1–5 Years	Recruit and deploy 1 nurse at Pakalveedu in Division 7 (pilot); register all 75+ and bedridden seniors; launch weekly home visits; procure 1 MHU vehicle; link with District Hospital for teleconsultation
Phase 2	5–10 Years	Expand to all Pakalveedu units across Thrissur Corporation; integrate digital records with Aarogyakeralam; add palliative care protocol; enable nurse-to-doctor teleconsultation for prescription relay

Table 61 Responsible agencies for MHU

Component	Responsible Agency / Mode	Remarks
Funding and Implementation	National Health Mission (NHM); Kerala Social Security Mission (KSSM); AMRUT 2.0; Thrissur Municipal Corporation; CSR/PPP for vehicle procurement	NHM outreach norms applicable for nurse deployment
Operation and Maintenance	Pakalveedu (Kudumbashree) as operational base; Health Department / PHC for medical supervision; District Hospital Thrissur for referral and teleconsultation	Monthly clinical audit by PHC Medical Officer

5.5.2 CS2: Pakalveedu for Every Ward zones

Only one Pakalveedu community day-care centre currently exists for all 55 wards of Thrissur Municipal Corporation a deficit of 54 wards. The proposal mandates one Pakalveedu per positioned within 500 metres of senior population concentrations. Seventy-six percent of surveyed seniors expressed willingness to use a community hub if one existed in their ward. Sixty-one percent reported that care needs were met only informally through family or not at all.

Service Provision

- Each Pakalveedu operates from 8 AM to 5 PM, six days a week, with capacity for 20–30 daily attendees, providing:
- Nutritional breakfast and lunch
- Daily health vitals monitoring (blood pressure, blood glucose)
- Physiotherapy exercises and wellness sessions
- Social, recreational, and cultural activities
- Individual and group counselling
- emergency preparedness support

Physical Design Standards

Each facility is a single-storey, step-free building of approximately 200 square metres with an accessible toilet, shaded outdoor activity space, prayer room, and emergency call system. It is co-located with or adjacent to the ward Kudumbashree office or community hall.

the pakalveedu is simultaneously a social participation venue (domain 5), a terminus of the accessible footpath (domain 1), a drop-in point for the elder skills bank (domains 6–7), and a digital literacy kiosk site (domain 8)—making it the single most cost-effective convergence node in the entire age-friendly city framework. work as a control centre for demand responsive transport feeder service issues vayojana card in the area find the needy in the area for vayograha home adaptation scheme coordinates mobile health unit (mhu) for regular checkups helps vayoprathiba to employ old people in the area and is a venue for school of seniors thrissur chapter by training them at pakalveedu. respectage initiative provide legal aids at pakalveedu.thrissur vayojana connect is conducted at and silver hours programme is conducted at pakalveedu

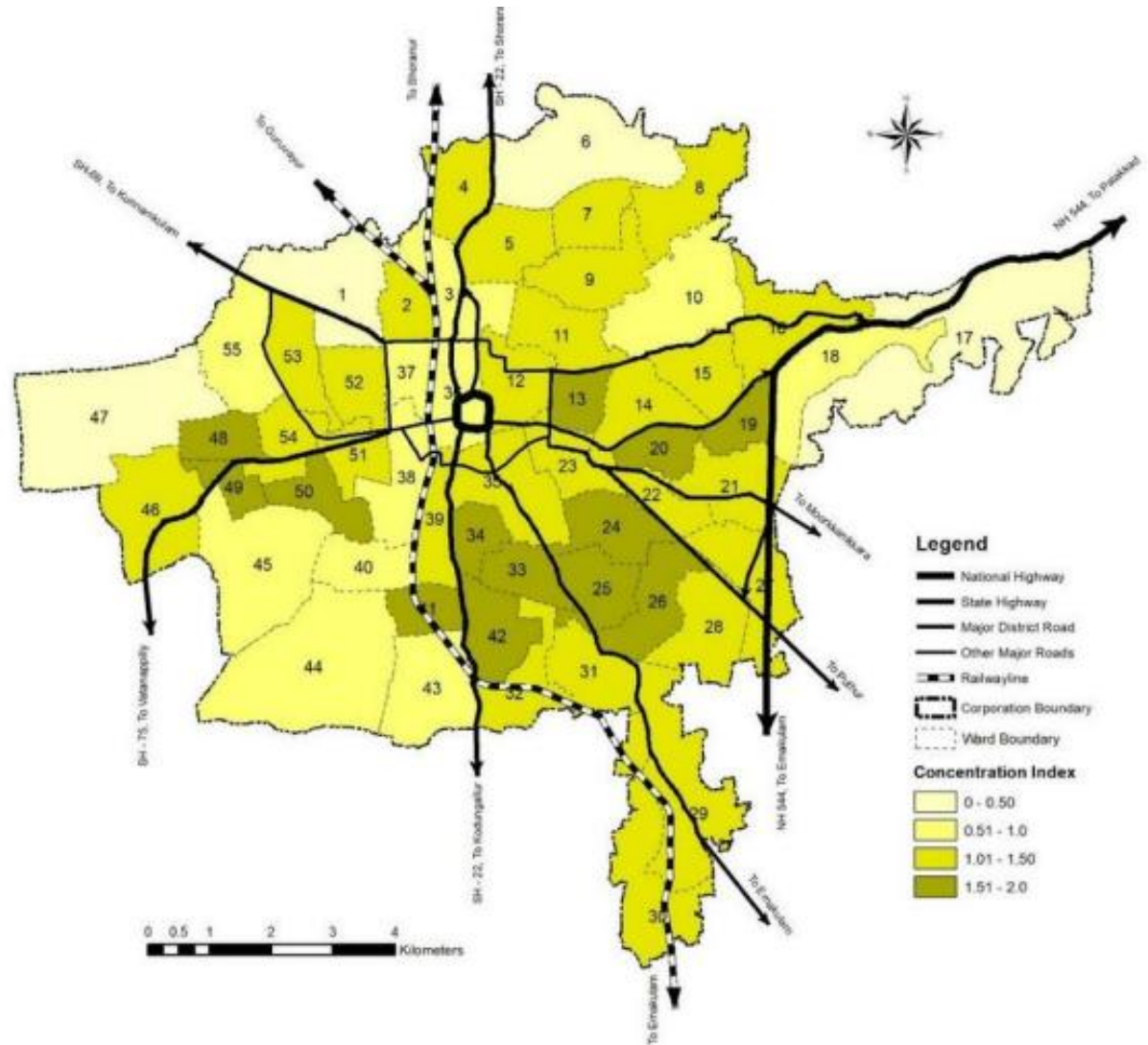


Figure 30 Existing Residential concentration map in Thrissur city

Source: Master plan 2039 Thrissur

Table 62 Phasing of Implementation for Pakalweedu

Phase	Timeline	Actions
Phase 1	Year 1–5	Wards 48, 49, 50, 41, 42, 34, 33, 25, 26, 24, 20, 13, 19 (highest senior concentration) Multiple wards will be zoned according to the senior population and needs

Phase	Timeline	Actions
Phase 2	Year 5–10	Wards 46, 54, 51, 52, 53, 2, 4, 5, 7, 8, 9, 11, 12, 14, 15, 16, 39, 35, 23, 22, 21, 28, 27, 29, 31, 32, 30 Multiple wards will be zoned according to the senior population and needs
Phase 3	Year 10–15	Remaining wards; full citywide coverage achieved Multiple wards will be zoned according to the senior population and needs

Table 63 Responsible agencies for pakalveedu

Component	Responsible Agency / Mode	Remarks
Funding and Implementation	Corporation/Ward Committee; Kudumbashree CDS/ADS Cooperative; Health Department/PHC; Social Justice Department; NGOs/CSR	State Pakalveedu scheme provides baseline funding
Operation and Maintenance	Thrissur Municipal Corporation / Kudumbashree	Ward-level management committees for daily operations

Domain 5: CIVIC PARTICIPATION AND EMPLOYMENT

5.6 CIVIC PARTICIPATION AND EMPLOYMENT

The survey data reveals a strong latent potential for civic participation among Senior citizens, with **87.5% willing to contribute** in some capacity either already active (96) or wanting to engage (96), with a further 144 preferring lighter activities. When it comes to preferred modes of engagement, volunteering emerged as the top choice (30%, n=115), followed by mentoring youth (96 respondents), micro-enterprise (77), and part-time paid work (48), indicating that Senior citizens are open to a spectrum of roles spanning both civic and economic spheres. Their contributions are grounded in tangible, community-

relevant skills farming and gardening (25%), cooking and food preparation (13%), and community leadership (13%) being the most commonly cited. In terms of availability, 37.6% are comfortable committing 2–5 hours per week, with a significant cohort also willing to offer 5–10 or more hours, suggesting meaningful and sustained engagement is feasible. However, several barriers constrain participation: the absence of nearby opportunities and family duties are the most prevalent obstacles (96 respondents each), followed by health conditions (77), transport difficulties (48), and low confidence (48). These findings underscore the need for locally accessible, flexible, and low-barrier pathways such as neighbourhood volunteer programmes, home-based micro-enterprise support, and digital mentoring platforms that can channel the skills and willingness of Senior citizens into productive civic and economic roles while addressing the structural constraints they face.

5.6.1 CP1: Vayoprathibha

Vayoprathibha is a digital and physical skills registry and civic participation platform designed to mobilise Senior citizens as productive community resources. Survey findings demonstrated that 87.5 percent of respondents were willing to contribute (335 of 383), with farming and gardening (25 percent), cooking and food preparation (13 percent), cheap labour (13 percent), and community leadership (13 percent) cited as key skill domains.

Platform Components

- Digital and physical registry on KeralaKare, cataloguing skills, time availability, and engagement preferences of every registered senior in Thrissur Corporation
- Drop-in desks co-located at all Pakalveedu nodes and Geriatric Health Centre counters, with trained Kudumbashree workers assisting seniors to complete skills profiles
- Active platform connecting skill-holders to openings in schools, Pakalveedus, maintenance, micro-enterprise, and community organisations—not a passive database

- Samaya Bank model: volunteer hours logged and redeemable for future care services or School of Seniors tuition credit

Table 64 Responsible agencies for vayoprathibha

Component	Responsible Agency / Mode	Remarks
Funding and Implementation	Thrissur Municipal Corporation plan funds; National Social Assistance Programme (NSAP); CSR from local employers; Kudumbashree convergence funds; PM SVANidhi Street Vendor Micro-Credit	KeralaKare platform integration required
Operation and Maintenance	Thrissur Municipal Corporation (TMC); Centre for Environment Development (CEDAC); Kudumbashree Mission; Social Justice Department; Local Schools and NGOs	Quarterly skills audit and engagement reporting

5.6.2 CP2: School of Seniors Thrissur Chapter

The School of Seniors is modelled on the CEDAC Kochi (Centre for Environment Development) / University of the Third Age (U3A) framework. Annual cohorts open to all residents aged 60 and above are proposed, with Thrissur established as a formal Chapter of the CEDAC network. The proposal directly operationalises learning interest data from the primary survey, where 25 percent expressed interest in business development, 13 percent in basic mobile phone use, 13 percent in health and yoga, and 12 percent in banking literacy.

Curriculum Areas

- Malayalam literature, Sanskrit, and foreign languages

- Music, painting, traditional crafts, and performing arts
- Digital literacy, civic engagement, and health and yoga
- Agriculture (3G inter-generational model)
- Business development and micro-enterprise skills

Delivery Model

- Ward-level sessions hosted physically at Pakalveedu centres for maximum accessibility
- Central chapter sessions at the Corporation community hall
- Partnership with Kerala Kalamandalam for arts curriculum and master trainers

No phasing as this is an immediate intervention

Table 65 Responsible agencies for School of seniors

Component	Responsible Agency / Mode	Remarks
Funding and Implementation	Thrissur Municipal Corporation plan funds; NSAP; CSR from local employers; Kudumbashree convergence funds	Modelled on established CEDAC/U3A framework
Operation and Maintenance	TMC; CEDAC; Kudumbashree Mission; Social Justice Department; Local Schools and NGOs	Annual curriculum review by CEDAC academic board

Domain 6: SOCIAL PARTICIPATION

5.7 Domain 6: Social Participation

The survey data reveals a moderately active but unevenly distributed pattern of social participation among Thrissur's older adult population. Of the 383 respondents, 240

participated in socio-cultural activities at least once during the past week 96 more than once and 144 once weekly while 48 were unable to participate due to barriers and a further 96 expressed no interest. The most frequented destinations were places of worship (191), hospitals and clinics (154), and markets (115), indicating that social interaction remains largely incidental to necessity-driven trips rather than purposeful community engagement. Community halls, which should ideally serve as primary social anchors, were visited by only 29 respondents, and parks by 77 pointing to a deficit of accessible, age-appropriate recreational infrastructure. The Pakalveedu day-care model, which is the most structured platform for structured social participation in the city, exists in only one of 55 wards, representing a critical gap: 76 percent of surveyed seniors expressed willingness to use such a hub if it were available in their ward. The need, therefore, is not to create demand for social participation but to remove the spatial, infrastructural, and programmatic barriers that currently prevent the existing willingness from translating into regular, meaningful engagement.

5.7.1 SP1: Silver Hours Programme

The Silver Hours Programme provides weekly elder-specific sessions in music, dance, storytelling, and traditional handicrafts at Pakalveedu centres and ward community halls, in partnership with Kerala Kalamandalam and Thrissur's cultural institutions. The programme serves as a structured social participation platform, directly responding to survey findings that 48 respondents cited a barrier to social participation and 96 were simply uninterested—suggesting a need for relevant, accessible cultural programming rather than generic activities.

Programme Features

- Weekly sessions covering classical music, Mohiniyattam, Kathakali appreciation, storytelling, and traditional crafts
- Master-class series by empanelled Kerala Kalamandalam artistes
- Annual Silver Hours Showcase for inter-ward performance and community celebration

- Optional premium workshops with participant contribution for revenue sustainability

Phasing

- Initial in core areas
- When the pakalveedu is finished or local parks conduct in the divisions

Table 66 Responsible agencies for Silver hours programme

Component	Responsible Agency / Mode	Remarks
Funding and Implementation	TMC plan funds under arts, culture, and community activity heads; CSR and local sponsorships for materials, events, and masterclasses; participant contributions for optional premium workshops and showcases	Kerala Kalamandalam provides subsidised faculty
Operation and Maintenance	TMC for coordination and venues; Kerala Kalamandalam for curriculum and master trainers; Kudumbashree for enrolment and facilitation; Department of Culture and local arts bodies	Monthly attendance and programme quality review

Domain 7: RESPECT AND SOCIAL INCLUSION

5.8 Domain 7: Respect and Social Inclusion

While the headline figure of 75 percent of respondents (287 of 383) reporting that they always feel respected appears reassuring, the data conceals significant intra-group

disparities that warrant targeted planning intervention. A combined 96 respondents 48 reporting being sometimes excluded and 48 often excluded represent a sizeable cohort experiencing social marginalisation, and qualitative observations from the primary survey indicate that female seniors in particular face systematic exclusion from public outdoor spaces, which are implicitly treated as male-dominated environments. This gendered dimension of exclusion is compounded by the near-complete absence of institutional mechanisms for reporting or redressing elder mistreatment: the Elderline 14567 state helpline recorded zero awareness among all 383 respondents, meaning that even those experiencing abuse or discrimination had no knowledge of available recourse. The Maintenance and Welfare of Parents and Senior Citizens Act 2007 and the MWPSA mechanisms remain effectively inaccessible to the population they are meant to serve, due to a complete absence of community-level awareness and ward-based referral pathways. The planning need in this domain is therefore twofold first to create physical spaces that are genuinely inclusive and safe for older women, and second to establish community-embedded awareness and grievance systems that make legal and psychosocial support practically accessible at the ward level.

5.8.1 RSI1: RespectAge Initiative

The RespectAge Initiative is a comprehensive anti-ageism and elder protection programme for Thrissur, aligned with the WHO Global Network's mission of creating livable communities for all ages. While 75 percent of respondents feel respected, female seniors report systematic exclusion from public outdoor spaces, and the absence of awareness about legal protections and support mechanisms represents a critical gap.

Programme Components

- Declaration of Zero Tolerance: the Mayor of Thrissur Corporation formally declaring zero tolerance for elder abuse and ageism in the city
- Raising public awareness about elder abuse, ageism, and rights under the Maintenance and Welfare of Parents and Senior Citizens (MWPSA) Act, 2007
- Providing a safe space for reporting elder abuse and seeking guidance

- Operating a dedicated helpline for clarifying doubts, consulting on specific situations, receiving counselling, and connecting with legal services through the Legal Services Authority or MWPSA Act provisions via the RDO

No phasing as this is an immediate intervention

Table 67 Responsible agency for Respect age initiative

Component	Responsible Agency / Mode	Remarks
Funding and Implementation	TMC plan funds for operations and IEC; Kerala LSGD 5% mandatory aged-welfare allocation; Vayaraksha state scheme for emergency support; CSR/philanthropy for hotline, training materials, and outreach kits	MWPSA Act 2007 enforcement linked to helpline
Operation and Maintenance	TMC as lead coordinator; Social Justice Department / Elderline 14567 for hotline linkage; District Legal Services Authority / KeLSA for legal aid; IMHANS for counselling; NGOs and ward-level volunteers for awareness	Quarterly case review and impact monitoring

Domain 8: COMMUNICATION AND INFORMATION

5.9 Domain 8: Communication and Information

The survey findings for this domain are among the most alarming across all eight WHO domains assessed, revealing a population that is largely disconnected from the information systems through which civic services, welfare entitlements, and emergency support are

delivered. Of the 383 respondents, 192 have no internet access whatsoever, 48 possess a device but do not use it, and only 48 a mere 12.5 percent are capable of independent digital navigation, implying that approximately 13,000 seniors within the Thrissur Municipal Corporation boundary are effectively digitally isolated. This exclusion is not merely a matter of technological preference but a structural barrier to accessing health portals, pension schemes, Kerala Care registration, and emergency services that have increasingly migrated to digital platforms. Compounding this, the Elderline 14567 helpline the state's primary communication channel for senior citizen support had zero recognition among the entire survey sample, confirming a systemic failure in outreach and information dissemination. Ward-level information access was also fragmented: while 164 respondents clearly knew about available services in their ward, 110 had no knowledge at all and 109 had only partial awareness. The need in this domain is to build a layered, multilingual, and channel-diversified information ecosystem that does not assume digital literacy, reaching seniors through physical ward-level boards, assisted kiosk access at Pakalveedu nodes, intergenerational volunteer support, and sustained helpline awareness campaigns to bridge what is currently a critical last-mile information gap.

5.9.1 CI1: Thrissur Vayojana Connect

Thrissur Vayojana Connect addresses the two most critical barriers to service access identified in the survey: near-zero awareness of the Elderline 14567 helpline (0 out of 383 respondents aware) and significant digital exclusion, including 192 respondents (50 percent) with no internet access at all, and sharper exclusion among those aged 70 and above. The objective is to improve older persons' awareness, access, and confidence in using civic, health, and welfare services through multilingual information, assisted digital access, and community-based intergenerational support.

Programme Interventions

- Install multilingual information boards in all ward offices displaying Pakalveedu timings, Elderline 14567, Kerala Care registration steps, Vayojana Card details, health contacts, and Hithakari contacts

- Set up one digital literacy kiosk in each Pakalveedu, operated by a trained volunteer digital mentor
- Deliver practical training on WhatsApp, UPI payments, and Kerala Care portal navigation
- Launch Yuva Vigyan, an intergenerational digital literacy programme with local colleges, NSS/NCC, and student volunteers
- Run an Elderline awareness campaign using auto-rickshaw stickers, posters, and ward-level outreach
- Hold monthly help sessions for older persons and family caregivers at ward level

No phasing as this is an immediate intervention

Table 68 Responsible agencies for Thrissur vayojana connect

Component	Responsible Agency / Mode	Remarks
Funding and Implementation	Thrissur Municipal Corporation annual plan; KSSM/Vayomithram; Social Justice Department IEC support; community/CSR add-ons from local college NSS/NCC and resident associations	Auto-rickshaw unions as awareness partners
Operation and Maintenance	Ward office staff for multilingual boards; Pakalveedu caretaker or volunteer digital mentor for computer kiosk; Corporation Health Section for schedule updates; Kudumbashree or college volunteers for periodic retraining	Quarterly Elderline awareness audit and digital literacy enrolment tracking

5.10 Division-Level Proposal: Kuttumukku Division

To demonstrate how the above proposals integrate spatially at the sub-city scale, a detailed division-level gap analysis was conducted for Kuttumukku Division selected as a pilot area

for Phase 1 implementation from the most respondents of the survey residing here. Four categories of spatial gap were mapped and assessed: land use and existing facilities, open space accessibility, transport access, and healthcare proximity.

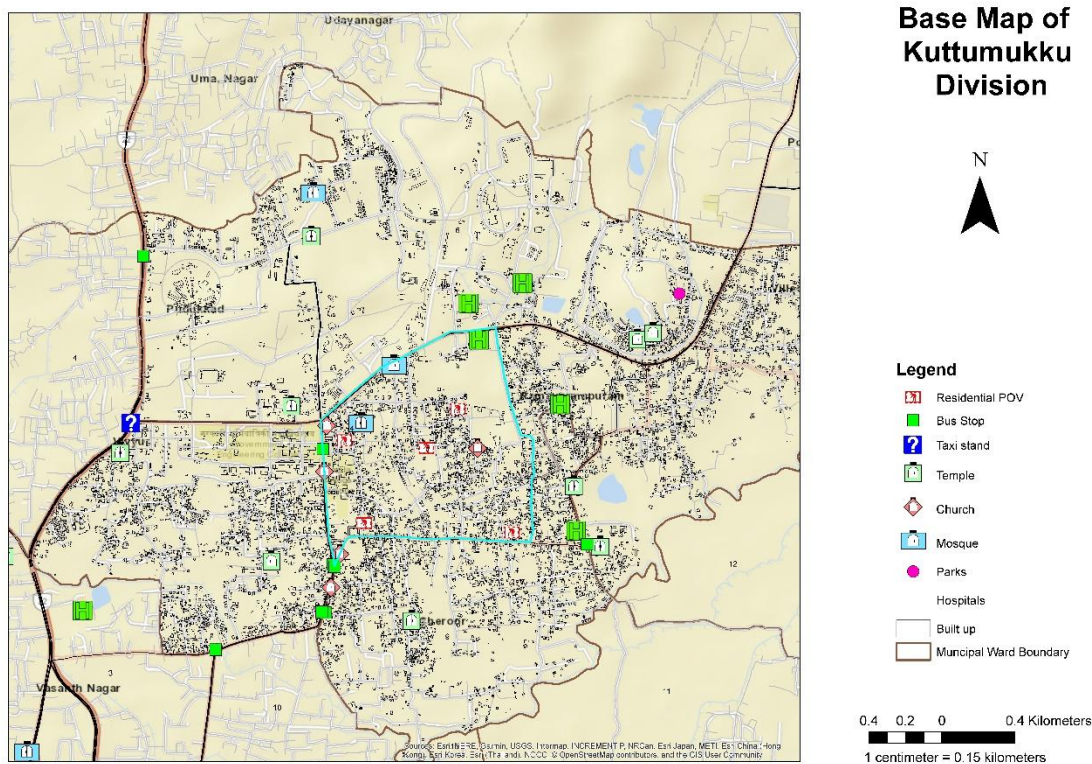


Figure 31 Base map of kuttumukku division

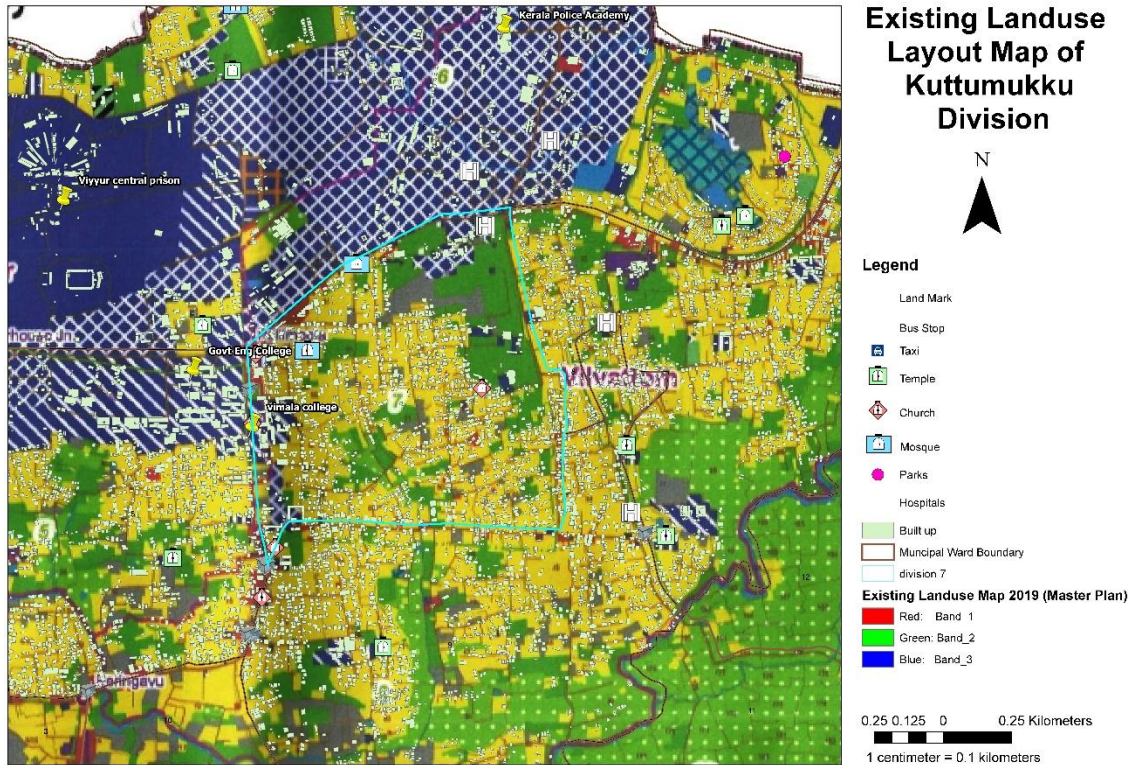


Figure 32 Existing land use map of kuttumukku division

5.10.1 Existing Conditions Assessment

To demonstrate how the above proposals integrate spatially at the sub-city scale, a detailed division-level gap analysis was conducted for Kuttumukku Division, selected as the pilot area for Phase 1 implementation given that it recorded the highest concentration of survey respondents. Four categories of spatial gap were mapped and assessed: land use and existing facilities, open space accessibility, transport access, and healthcare proximity. As a methodology, five residential Points of View (POVs) were first identified within the division, representing distinct residential clusters that reflect the distribution of the older adult population across the area. Around each POV, concentric buffer zones of 500 metres, 1,000 metres, and 3,000 metres were delineated to simulate walkable proximity, comfortable travel range, and broader service catchment respectively thresholds aligned with WHO age-friendly accessibility benchmarks and the mobility limitations documented in the primary survey. Existing infrastructure within each buffer was then systematically inventoried across all four gap categories, allowing a structured assessment of what

services and facilities were present, partially present, or entirely absent within each radius for each residential cluster. This multi-layered buffer analysis revealed that while some central POVs had reasonable access to healthcare facilities within the 1,000 metre band, significant deficits were identified in open space provision, age-friendly transport stops, and community care infrastructure particularly at the 500 metre walkable threshold across the peripheral POVs. These spatially grounded findings directly informed the phasing and prioritisation of proposals P1, P2, T1, T2, CS2, and CP1 within the Kuttumukku pilot, ensuring that Phase 1 investments are targeted precisely at the wards and corridors where the gap between need and existing provision is most acute.

Open Space Gap Analysis

The open space gap analysis maps the distribution of existing parks and recreational facilities against residential points of vulnerability (POV), using buffer radii of 500 metres, 1,000 metres, and 3,000 metres. The analysis reveals significant spatial deficits of open spaces as the existing openspaces are only available in within 1000m to 3000m radii in peripheral wards of the division, particularly for residents beyond 1,000 metres of any accessible green space, confirming the need for the pocket parks proposed under P2.

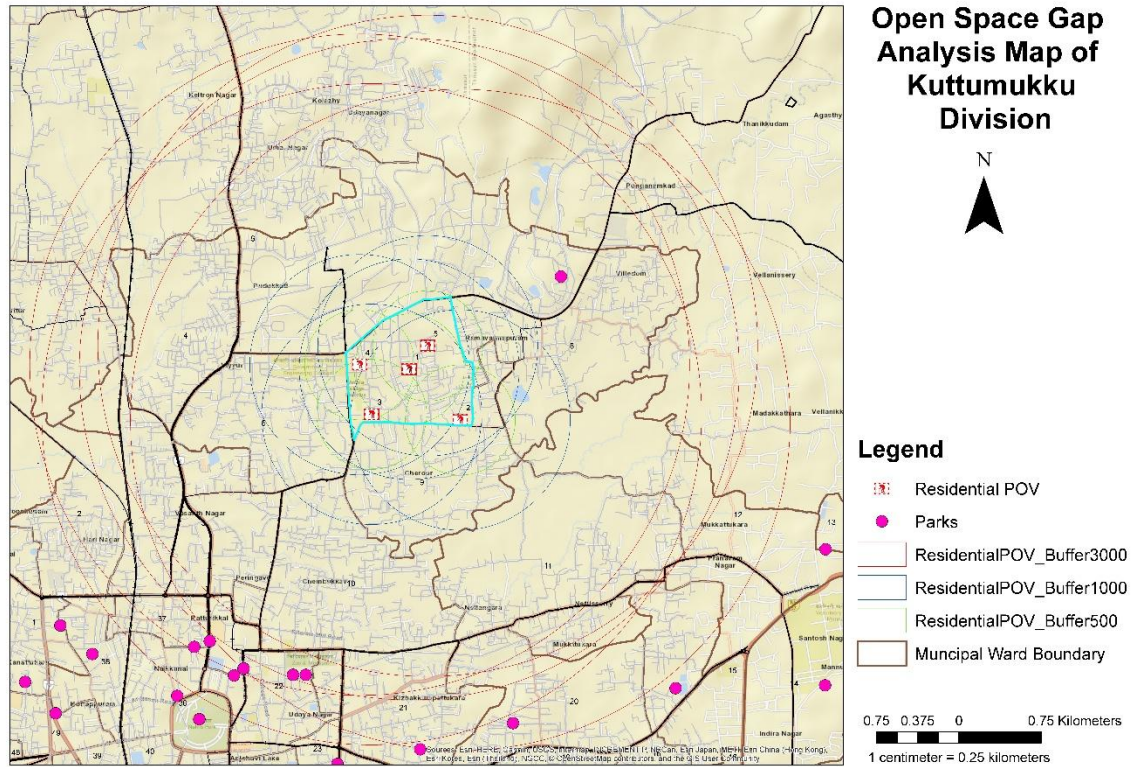


Figure 33 Open space gap analysis map of kuttumukku division

Transport Gap Analysis

The transport gap analysis maps bus stop locations, taxi stands, and existing bus route corridors against the five residential point of view. The analysis identifies areas beyond the 500-metre walkable catchment of bus stops as priority zones for the DRT feeder service (T1) and footpath corridor investment (P1) and residents living in the centre most part couldnot access the bus stops within 500m of walking distance and footpath was not available in the area and priority for footpath was required.

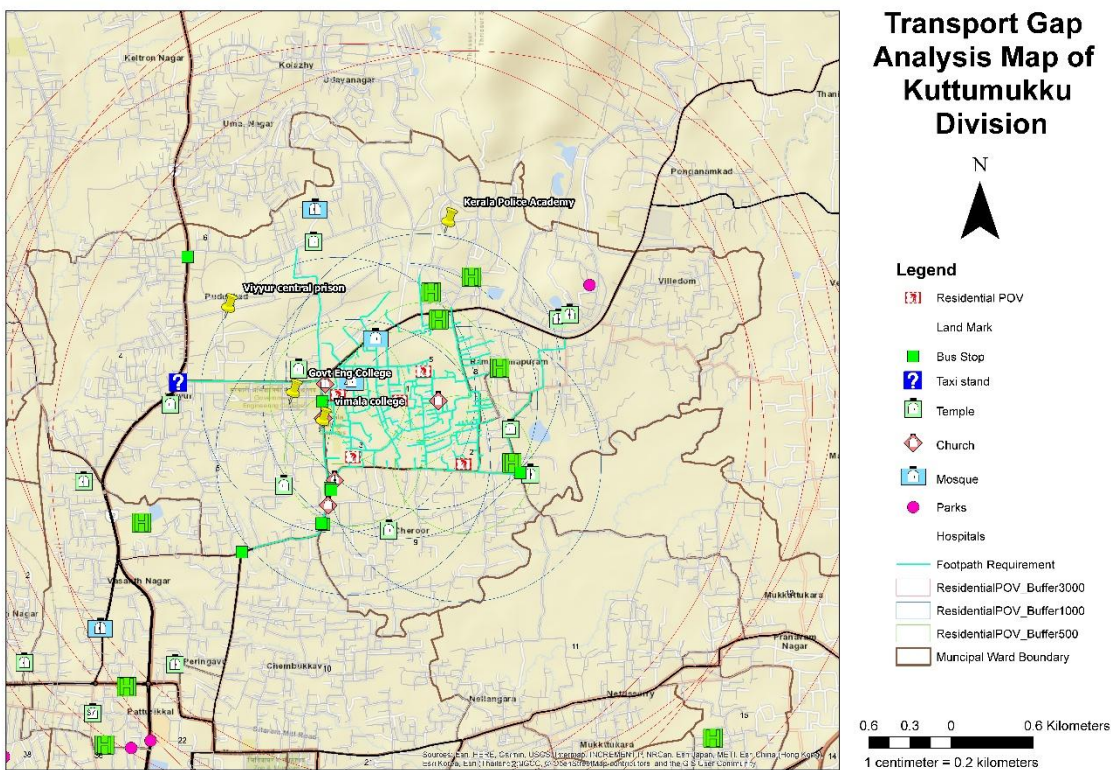


Figure 34 Transport gap analysis map of kuttumukku division

Healthcare Gap Analysis

The healthcare gap analysis maps hospital and clinic locations against residential POVs, using 500-metre, 1,000-metre, and 3,000-metre service buffers. Survey data showing that 192 respondents access healthcare within 500 metres–1 km (the largest cohort) underlines the importance of the Mobile Health Unit (CS1) for those in underserved innermost areas where they could not access these and for people with disabilities and super seniors who could not move independently.

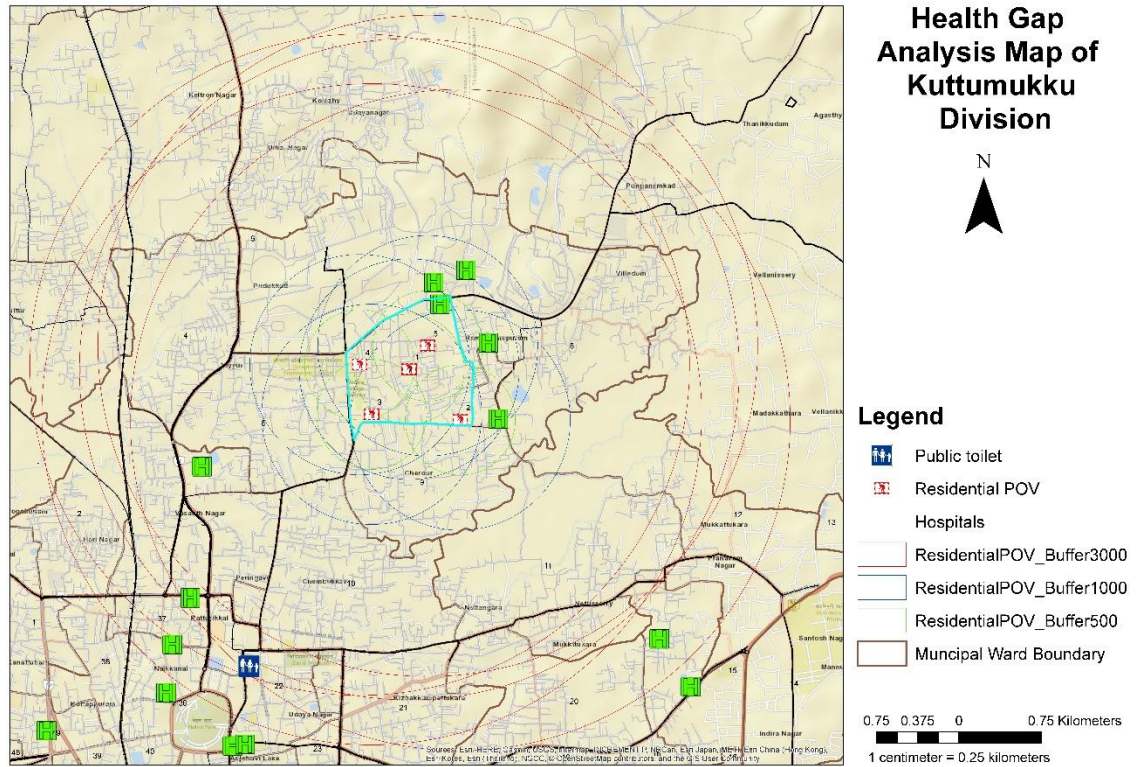


Figure 35 Health Gap analysis of Kuttumukku division

5.10.2 Integrated Proposal Map

The integrated proposal map for Kuttumukku Division spatially consolidates all 13 proposals, illustrating their geographical relationships and sequencing. Key features of the proposal map include:

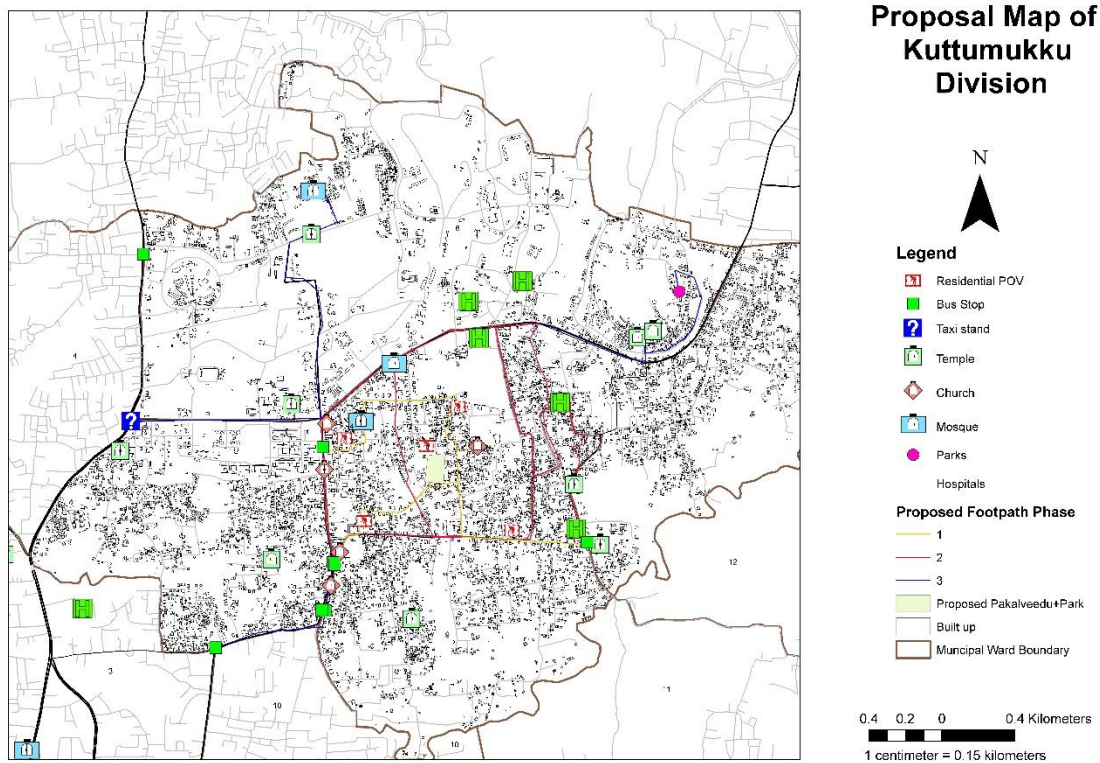


Figure 36 Proposal map of kuttumukku division

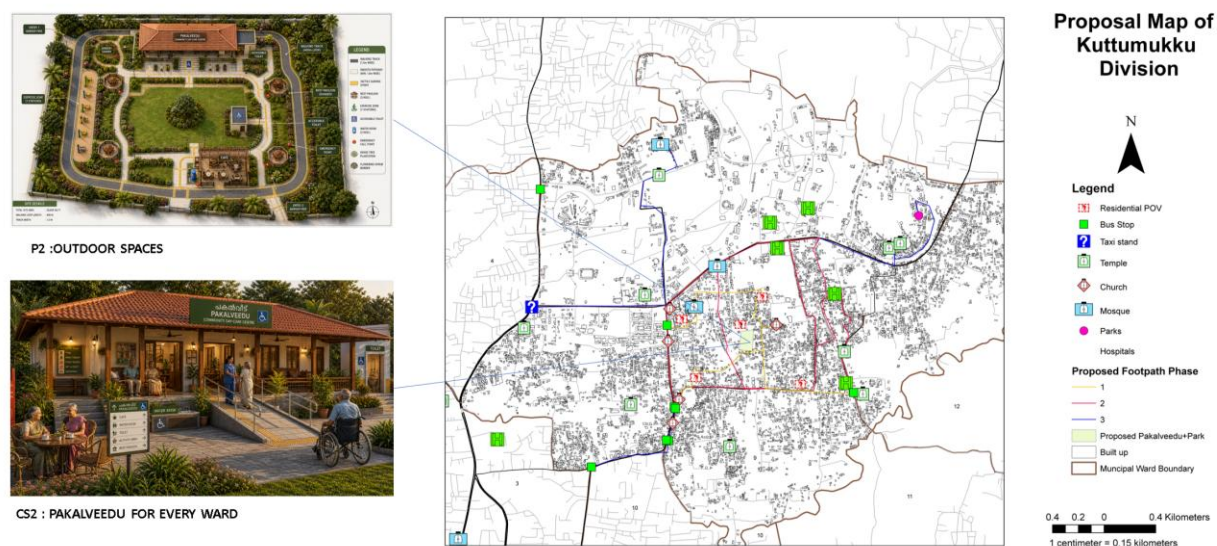


Figure 37 location of proposal for pakalveedu and outdoor space in Kuttumukku division

- Proposed footpath corridors shown in three phases (1, 2, and 3) radiating from Residential point of view which is residential concentration area and connecting to Pakalveedu nodes, Religious spaces bus stops, parks, and healthcare facilities
- Proposed Pakalveedu and park locations identified using a 500-metre proximity criterion to Residential Point of view and Vacant land identified according to Land use plan 2019
- Pakalveedu will be a spot where Vayoprathibha scheme and school of seniors, respect age initiative, thrissur vayojana connect, and silver hours program will be conducted at
- DRT feeder route overlaid on the transport gap map, linking residential pockets to the primary KSRTC corridor it will be coordinated by the pakalveedu as nodal head
- Low-floor bus routes indicated connecting Kuttumukku Division to District Hospital, Sakthan Bus Stand, and Town Hall market.
- Vayojana card will be introduced to give senior citizens subsidies for using public transport
- Need based home adaptation will be done in the division with priority to 70+ old and disabled old
- A mobile health unit will be deployed to help old people and disabled for regular checkups from pakal veedu

5.11 MONITORING FRAMEWORK

Table 69 Physical self-assessment tool

Physical Indicator	Definition Used	Indicator Value
Neighbourhood walkability	Proportion of streets with pedestrian paths meeting locally accepted standards	37.5% fully suitable (n=144/383)
Accessibility of public spaces and buildings	Proportion of new/existing public spaces and buildings	50.2% accessible (n=192/383)

	fully accessible by wheelchair	
Accessibility of public transport vehicles	Proportion of public transport vehicles with designated places for older people	50.2% easily accessible (n=192/383)
Accessibility of public transport stops	Proportion of housing within 500m of public transportation stop with shelter, seating, lighting	57.2% adequate stops (n=219/383)
Affordability of housing	Proportion of older people living in housing spending less than 30% of household disposable income	42.8% affordable (n=164/383)
Age-friendliness of housing	Proportion of older people in housing adapted or can be adapted to accommodate needs (grab bars, non-slip flooring, accessible toilet)	14.1% have features (n=54/383)

Source: Primary Survey

Table 70 Social self-assessment tool

Social Indicator	Definition Used	Indicator Value
Positive social attitude toward older people	Number of reported cases of mistreatment of older persons as proportion of total older population	75.0% feel respected (n=287/383)
Engagement in socio-cultural activity	Proportion of older people participating in socio-	62.5% participated at least once (n=239/383)

	cultural activities at their own discretion at least once a week	
Engagement in volunteer activity / civic contribution	Proportion of older people in local volunteer registries; Proportion engaging in volunteer activity in the past month at least once	87.5% willing to contribute (n=335/383)
Availability of health and social services	Number of older persons with personal care or assistance needs receiving formal (public/private) home-based services	16.7% formal service coverage (n=64/383)
Civic participation and employment	Proportion of older people involved in decision-making on issues affecting them at the local level	62.5% actively participate (n=239/383)
Access to information and communication	Proportion reporting having clear contacts for health/services; Awareness of national Elderline helpline; Internet access	Elderline: 0% (0/383); Internet: 12.5% independent (n=48/383)
Income adequacy and social protection	Proportion of older people with adequate income to meet basic needs	25.0% income adequate (n=96/383)

Source: Primary Survey

A key contribution of this study is the development of an original monitoring framework comprising thirteen measurable indicators six physical and seven social indicators designed

to serve both as a self-assessment tool for Thrissur Municipal Corporation and as a replicable instrument for ranking and comparing cities on age-friendliness. The physical indicators capture Proportion of streets with pedestrian paths meeting locally accepted standards, Proportion of new/existing public spaces and buildings fully accessible by wheelchair, Proportion of public transport vehicles with designated places for older people, Proportion of housing within 500m of public transportation stop with shelter, seating, lighting, Proportion of older people living in housing spending less than 30% of household disposable income, Proportion of older people in housing adapted or can be adapted to accommodate needs (grab bars, non-slip flooring, accessible toilet). The social indicators address the Number of reported cases of mistreatment of older persons as proportion of total older population, Proportion of older people participating in socio-cultural activities at their own discretion at least once a week, Proportion of older people in local volunteer registries; Proportion engaging in volunteer activity in the past month at least once, Number of older persons with personal care or assistance needs receiving formal (public/private) home-based services, Proportion of older people involved in decision-making on issues affecting them at the local level, Proportion reporting having clear contacts for health/services; Awareness of national Elderline helpline; Internet access, Proportion of older people with adequate income to meet basic needs

Baseline values for all twelve indicators were established from the primary survey data collected in the present study (N=383, Thrissur Municipal Corporation, 2025), providing a statistically valid reference point against which future rounds of data collection recommended at five-year intervals coinciding with local body planning cycles can measure incremental progress. The framework is intentionally designed to be low-cost and replicable: all twelve indicators can be measured through a structured questionnaire survey of comparable sample size, without requiring specialised infrastructure or GIS equipment, thereby enabling other Kerala municipalities and mid-sized Indian cities to adopt the same tool for self-assessment and inter-city benchmarking on age-friendliness. This positions the framework not merely as a research output but as a practical planning instrument that the Thrissur Municipal Corporation, the Kerala Institute of Local Administration (KILA), and the State government's urban ageing policy apparatus can operationalise as part of a broader Age-Friendly Kerala initiative.

CHAPTER 6: CONCLUSION

This chapter synthesises the principal findings of the study, consolidates the analytical and propositional work of Chapters 2 through 5, and positions the Age-Friendly City Framework for Thrissur within the wider context of demographic planning practice in India. The chapter is organised into five sections: a domain-wise summary of critical gaps identified through the primary survey, spatial analysis, and secondary data; a structured account of how the proposed framework and action strategy respond to each gap; the future scope of the research including replication, longitudinal tracking, and silver economy analysis; an honest account of the methodological limitations of the study; and a statement of the ethical principles that governed the conduct of the research.

6.1 Major Gaps Identified Across the Eight WHO Domains

The domain-wise benchmarking of Thrissur Municipal Corporation against the WHO Active Ageing framework drawing on primary survey data from 383 elderly respondents across accessible public spaces in the city, GIS-based spatial analysis, and secondary data from the BLLS 2015–16 and Census of India 2011 reveals systemic and interconnected deficits across all eight domains. The following six cross-cutting gaps represent the most critical barriers to age-friendliness in Thrissur today:

- **Structurally Exclusionary Outdoor Built Environment:** The pedestrian infrastructure of Thrissur is inadequate for its ageing population. Only 10.818 km of footpath exists under the AMRUT scheme across the 101.42 sq. km corporation area, and 74.9 per cent of respondents identified the absence of ramps and lifts in public buildings as their primary barrier to independent mobility. All female respondents unanimously rated their neighbourhood as mostly unsuitable for walking. With only three parks recorded in the BLLS 2015–16 dataset for a city of over 4.5 lakh, the acute shortage of safe, accessible, shaded outdoor recreational spaces further restricts the daily activity range and social participation of elderly residents across the city's 55 wards.

- **Physically Inaccessible Public Transportation:** Public transit is the primary mode of mobility for Thrissur's elderly yet it systematically fails its most vulnerable users. Half of all Super Senior (aged 70 and above) respondents reported difficulty in boarding buses; low-floor buses are entirely absent from most city routes; and only 25 per cent of bus stops offer any shelter, seating, or adequate lighting. The gendered dimension is acute: all female respondents depend exclusively on public buses, rendering transport accessibility simultaneously a mobility rights issue and a gender equity imperative. The absence of any last-mile feeder service leaves elderly residents in peripheral wards functionally cut off from the city's health, commercial, and civic centres.
- **Pervasive Housing Adaptation Deficit:** The built fabric of Thrissur's residential stock was not designed for ageing in place, and nothing has been done systematically to retrofit it. Eighty-five point nine per cent of surveyed elderly households report zero age-friendly features no grab bars, no non-slip flooring, no ramped entries, no accessible toilets. All female respondents live in homes without a single age-friendly modification, compounded by 100 per cent reporting their housing as unaffordable to adapt independently. The principal government housing schemes LIFE Mission and PMAY contain no provision for geriatric home adaptation, leaving this structural gap entirely unaddressed by current policy.
- **Critical Absence of Community Support and Emergency Infrastructure:** Community-based social and health infrastructure is at near-zero coverage relative to need. Only one Pakalveedu the community day-care hub that serves as the anchor of Kerala's elder care policy is operational in the entire 55-ward corporation, against a required minimum of 55, one per ward. Seventy-one point six per cent of male respondents expressed definite interest in using such a facility, yet none is accessible to them. Simultaneously, 100 per cent of Super Seniors have no emergency preparedness plan of any kind, formal care service coverage stands at just 16.7 per cent, and the overwhelming majority of elderly persons are entirely dependent on family care with no institutional fallback.
- **Total Digital Exclusion and Information Poverty:** The digital divide in Thrissur's elderly population is total and consequential. Not a single respondent

across all 383 surveyed regardless of gender, age cohort, or educational background was aware of the Kerala Elderline 14567, the primary government helpline for Senior citizens. Fifty point one per cent of respondents have no internet access, a figure that rises to 66.7 per cent among the Senior cohort (aged 60–69). As government welfare registration, pension portals, the KeralaKare health platform, and emergency services migrate increasingly to digital channels, this exclusion constitutes a systemic barrier that amplifies vulnerability across all other domains and effectively locks a large portion of the elderly population out of their own entitlements.

- **Untapped Civic and Productive Potential:** Thrissur holds a large and almost entirely unused human resource in its elderly population. Despite facing the barriers documented above, 87.5 per cent of respondents expressed a clear willingness to contribute to their communities through volunteering, mentoring, or part-time employment. The dominant skills traditional agriculture and farming (25%), community leadership and social organisation (13%), and cooking and culinary trades (13%) map directly onto viable productive roles at the ward level. Yet no structured institutional platform exists within the city to receive, channel, or sustain this intent. The 60–69 cohort the largest, most able, and most educationally qualified segment of the elderly population is paradoxically the most underserved in terms of structured engagement and productive participation opportunities.

6.2 How the Proposed Framework and Action Strategy Respond

The Age-Friendly City Framework and Action Strategy for Thrissur, developed in Chapter 5, is grounded directly in the analytical findings summarised above. Each of the thirteen proposals is anchored to a specific, evidenced gap drawing on the primary survey, spatial analysis, and comparative learnings from Kozhikode (Samanwaya), Kochi (CEDAC), Sweden, Shanghai, Hong Kong, Kolkata, Vadodara, and Pune. The following six points describe how the framework collectively, and at multiple scales, responds to the deficits identified:

- **Spatial Planning for Walkable, Accessible Neighbourhoods:** The Priority Footpath Corridor Upgradation Programme (P1) and the Senior-Active Space and Parks Retrofitting Programme (P2) directly address the outdoor environment gap. The three-phase footpath network, mapped through GIS spatial analysis, prioritises corridors within 1,000 metres of senior population concentrations and ensures continuous, obstacle-free pedestrian connections between bus stops, Pakalveedu centres, places of worship, and healthcare facilities all meeting universal design standards with tactile paving, kerb cuts, canopy shading, seating at 200-metre intervals, and adequate street lighting. Eight new pocket parks in identified deficit wards, combined with the retrofitting of all existing parks with rubberised walking tracks, shaded rest nodes, and emergency call points, extend safe outdoor activity space to wards currently without any green public infrastructure.
- **A Multi-Scalar Transport Package for Inclusive Mobility:** The integrated transport intervention comprising Demand-Responsive Transport feeder services (T1), deployment of ten low-floor buses on priority KSRTC routes (T2), and the Vayojana Senior Mobility Card (T3) dismantles the multi-layered transport barrier documented in the survey. The DRT feeder service links peripheral residential clusters to the KSRTC corridor within a 3 km radius, operating through Pakalveedu nodes as booking, waiting, and coordination hubs. The low-floor bus deployment prioritises routes connecting the District Hospital, Sakthan Bus Stand, and Town Hall market the three most frequent destinations identified in the survey data. The Vayojana Card, linked to KeralaKare, provides a 50 per cent fare concession and directly bridges the gap between health system enrolment and transport access for the city's most financially dependent elderly residents.
- **Pakalveedu for Every multiple wards with senior concentration: The Minimum Viable Convergence Node:** The Pakalveedu for Every multiple wards with senior concentration mandate (CS2) is the highest-impact single investment in the framework and directly rectifies the most acute service gap in the study: the 54-unit shortfall in community day-care infrastructure. One Pakalveedu per multiple wards with senior concentration, sited within 500 metres of senior

population concentrations identified through spatial analysis, functions simultaneously as a social participation venue, primary healthcare outreach node, digital literacy kiosk site, Elder Skills Bank drop-in point, and DRT feeder stop it is the convergence hub through which all eight domain proposals connect to the ground. The co-located Mobile Health Unit (CS1), staffed by a nurse with emergency response training, directly addresses the finding that 100 per cent of Super Seniors have no emergency preparedness plan by providing structured weekly home visits and a direct referral pathway to the District Hospital geriatric unit.

- **Vayograha Home Adaptation and Senior Co-Living as Housing Responses:** The Vayograha Home Adaptation Scheme (H1) and Senior Co-Living Cluster pilots (H2) address the housing gap through two complementary mechanisms: targeted in-situ adaptation of existing homes, and purpose-designed shared housing for isolated senior citizens. The Vayograha scheme provides grants of up to Rs. 50,000 per household for installation of grab bars, non-slip flooring, accessible toilet modifications, ramp construction, and emergency call systems, with Phase 1 prioritising 500 homes in wards with the highest elderly isolation rates. Priority targeting is explicitly directed at female-headed households and super-seniors living alone the two sub-groups identified as most vulnerable in the gender and age-disaggregated analysis. The scheme is designed for convergence financing under LIFE Mission, AMRUT 2.0, and State Finance Commission allocations.
- **Transforming Senior citizens from Welfare Recipients to Productive Community Assets:** The Vayoprathibha Elder Skills Registry (CP1) and the School of Seniors Thrissur Chapter (CP2) directly operationalise the finding that 87.5 per cent of respondents are willing to contribute but lack any structured platform through which to do so. Vayoprathibha is an active, ward-level deployment system integrated with KeralaKare that matches registered skill-holders to openings in school mentoring programmes, Pakalveedu facilitation roles, community maintenance trades, and civic organisations; it is not a passive registry. The School of Seniors, modelled on the CEDAC University of the Third Age framework piloted in Kochi, offers annual cohorts in Malayalam literature, traditional agriculture,

digital literacy, civic engagement, and micro-enterprise development, responding directly to the 25 per cent of respondents who indicated interest in business development and the 12.5 per cent seeking digital literacy support.

- **Information Access, Dignity, and Institutional Accountability as Planning Outcomes:** The Thrissur Vayojana Connect programme (CI1) and the RespectAge Initiative (RSI1) respond to two of the study's most alarming findings: zero Elderline awareness across all 383 respondents, and the systematic exclusion of elderly women from public and civic spaces. Vayojana Connect deploys multilingual information boards at all 55 ward offices, digital literacy kiosks at every Pakalveedu, and a sustained Elderline 14567 awareness campaign through auto-rickshaw stickers, ward-level nuisance boards, and ASHA and Kudumbashree outreach networks a channel-diversified approach explicitly designed for low-digital-literacy audiences. RespectAge establishes a formal institutional accountability mechanism: a mayoral declaration of zero tolerance for elder neglect and abuse, a ward-level grievance channel linked to Elderline 14567, and a direct referral pathway to the District Legal Services Authority for reported violations of elder rights.

6.3 Future Scope

The present study establishes a baseline framework, a measurable monitoring toolkit, and a set of spatial and institutional proposals that are intentionally designed for replicability and incremental expansion. Three research and policy directions offer the most significant potential for building on this work.

First, the domain-indicator framework and the twelve-indicator self-assessment toolkit developed in Section 5.11 are designed for direct adoption by other mid-sized Kerala municipalities particularly Kannur, Palakkad, and Kollam, which share comparable demographic profiles, institutional ecosystems, and decentralised governance structures and for formalisation by the Kerala Institute of Local Administration (KILA) as part of a statewide Age-Friendly Kerala programme. Extending the framework to rural panchayats

within Thrissur district would produce an urban–rural comparative baseline, test whether the WHO eight-domain model holds equal validity in lower-density settlement contexts, and generate evidence for integrated district-level age-friendly planning rather than the current city-only focus. Second, the baseline primary survey data collected in this study (N = 383, 2025) provides a statistically consistent platform for a longitudinal cohort-tracking study at five-year intervals. Such a study would measure incremental changes in walkability ratings, digital inclusion, Pakalveedu coverage, and elderly quality-of-life scores as the proposed interventions are implemented and, critically, would track the current 45–59 cohort as they transition into old age over the next decade, a population that is entirely invisible in the current study’s data and whose mobility patterns, digital habits, and health expectations may differ substantially from those of the current 60+ generation. Third, the identification of substantial untapped productive capacity among Thrissur’s elderly 87.5 per cent willing to contribute, with documented skill assets in agriculture, community leadership, and traditional crafts provides an empirical foundation for a formal economic valuation study of the city’s Silver Economy potential. Such a study would quantify the economic contribution of structured elder volunteering, mentoring, and micro-enterprise to local GDP, estimate social welfare savings from reduced institutional care demand, and calculate the return on investment of age-friendly urban spending reframing age-friendly city investment not as a welfare obligation but as a measurable development dividend. Together, these three directions position the Thrissur Age-Friendly City Framework as a living instrument capable of contributing to national urban ageing policy, Kerala’s subnational planning practice, and the global evidence base for the WHO Age-Friendly Cities and Communities Programme.

6.4 Study Limitations

Every research study operates within constraints that shape the scope and applicability of its findings. Transparent disclosure of these limitations is essential to responsible academic practice and to the appropriate interpretation and application of the study’s results. The following five limitations are acknowledged:

- **Survey Administration Confined to Accessible Public Spaces:** The primary survey of 383 respondents was administered at accessible public gathering points parks, places of worship, markets, and community halls rather than through a systematic, randomised household survey covering all 55 wards of Thrissur Municipal Corporation. This convenience sampling approach means that the most immobile, homebound, institutionalised, and socially isolated elderly residents arguably those with the greatest need for age-friendly intervention are systematically underrepresented in the data. The findings, therefore, likely present a more optimistic picture of mobility and access than a representative household survey would generate. A stratified random household survey, as recommended in the monitoring framework proposed in Section 5.11, should be conducted as the foundation for the first five-year review of the framework’s implementation.
- **Outdated and Structurally Incomplete Secondary Data:** The secondary data underpinning the spatial and infrastructure analysis is significantly outdated. The Basic Local Level Statistics (BLLS) dataset used for ward-level facility mapping, housing stock assessment, and social infrastructure analysis dates from 2015–16 a decade prior to the study. Demographic projections rely on Census of India 2011 data. Most critically, no dedicated administrative data system for Thrissur’s elderly population exists: ward-level elderly counts, health conditions, living arrangements, and economic status are not systematically compiled or published by Thrissur Municipal Corporation. This data vacuum means that spatial targeting of interventions is based on estimation and GIS-based proxy analysis rather than current, verified administrative records an institutional gap that the monitoring framework and proposed ward-level data collection protocols in Chapter 5 are explicitly designed to address.
- **Significant Gender Skew in the Survey Sample:** The survey sample is heavily skewed towards male respondents: 87.5 per cent male (335 respondents) and 12.5 per cent female (48 respondents). This imbalance is a direct consequence of the survey administration method elderly women are far less present in accessible public gathering spaces than their male counterparts in Thrissur’s socio-cultural

context, particularly in parks and market spaces. As a result, all gender-disaggregated findings must be interpreted with caution. The particularly stark findings attributed to female elderly residents 100 per cent rating their neighbourhood as unsuitable for walking, 100 per cent living in homes with no age-friendly features, and 100 per cent reporting full financial dependence on family are derived from a sub-sample of just 48 women and may reflect both genuine structural conditions and a sampling artefact of the data collection method. These findings should be understood as indicative and directional rather than statistically definitive. Future research must employ targeted household-based data collection methods specifically designed to reach homebound and socially constrained female elderly residents.

- **Absence of Monitoring and Impact Evaluation Data from Comparative Case Studies:** The case studies from Kozhikode (Samanwaya Model) and Kochi (CEDAC Model), which informed the comparative learning and proposal design in Chapter 3, are drawn primarily from programme descriptions, published organisational reports, and institutional websites rather than from independent evaluations or rigorous impact assessments. No systematic monitoring data, outcome evaluations, cost-effectiveness analyses, or replication assessments for these programmes were accessible at the time of the study. Consequently, the transferable lessons extracted from the Kerala case studies are grounded in programme design logic and reported outputs rather than verified outcomes. This limits the strength of comparative claims and reinforces the importance of the monitoring framework proposed in Chapter 5, which specifically includes provisions for documenting programme outcomes at regular intervals.
- **Sampling Universe Built on Projected Estimates; Future Elderly Cohort Entirely Absent:** The primary survey sampling universe was constructed by applying the 45-and-above age distribution from the 2011 Census to the Thrissur Municipal Corporation 2011 population and projecting forward to 2025 to estimate the current 60+ elderly population at approximately 1,04,266 persons. This proxy methodology, necessitated by the total absence of a current elderly population dataset for the corporation, introduces estimation error of an unknown magnitude

into the sampling frame. More fundamentally, the study design captures only the currently elderly cohort (aged 60 and above in 2025) and entirely excludes the future elderly: the current 45–59 age group, who will constitute the next wave of senior citizens over the coming decade. Their mobility patterns, housing conditions, digital literacy levels, health profiles, and service expectations which may differ substantially from those of the current 60+ cohort given significant generational shifts in education, economic participation, and technology use are entirely unrepresented in this study’s findings. This represents a structural planning blind spot for medium-term age-friendly investment and is identified as the most important gap to be addressed in the recommended longitudinal follow-up study.

6.5 Ethical Considerations

The conduct of this research was guided throughout by principles of respect for persons, voluntary participation, confidentiality, and academic integrity, in accordance with the ethical norms of social science research involving human participants. The following safeguards were embedded in the design, data collection, and reporting phases of the study:

- **Informed Consent and Voluntary Participation:** Prior to the administration of each survey, the respondent or their caretaker where the elderly person was unable to respond directly was informed of the academic and strictly non-commercial purpose of the research. Participation was entirely voluntary. The right to decline participation, skip any individual question, or withdraw from the survey at any point without consequence was communicated clearly at the commencement of each interaction. No respondent was pressured, incentivised, or compensated in exchange for participation. Where caretakers responded on behalf of elderly persons with mobility or cognitive limitations, this was accepted without requiring the elderly person to confirm responses, in recognition of their physical and cognitive circumstances.

- **Anonymity and Confidentiality of Personal Data:** The survey questionnaire was designed to collect only the minimum information necessary to meet the research objectives. Respondents' names were an optional field (Question 2, Section A) and were not used in any analysis or reporting. All survey data were aggregated and are reported exclusively at the population level: no individual respondent is identifiable in any table, figure, or finding presented in this report. Questions on income, disability, living arrangements, and experience of elder abuse were framed with appropriate response categories to minimise personal exposure and the risk of distress. All survey forms and digital records were maintained securely and used solely for the purposes of this academic study.
- **Dignity and Sensitivity in Engagement with Elderly Respondents:** Several survey questions on elder abuse awareness, financial dependence, emergency preparedness, and health limitations touch on sensitive dimensions of Senior citizens' lives. Care was taken throughout the survey design and administration process to frame questions respectfully, non-judgementally, and in plain Malayalam or Hindi where English proficiency was limited. The survey instrument was pre-tested for cultural appropriateness, clarity, and sensitivity before field administration, with revisions made under the guidance of the thesis supervisor. Enumerators were briefed on the importance of patience, respectful body language, and sensitivity in interactions with elderly respondents, including those with hearing or mobility impairments.
- **Academic Institutional Oversight and Scope of Data Use:** This study was conducted as part of the Planning Studio Thesis programme at the Department of Architecture and Planning, Maulana Azad National Institute of Technology (MANIT) Bhopal, under the supervision of Dr. Charumitra Kapshe. The research design, questionnaire instrument, and field methodology were reviewed and approved at the departmental level as an integral part of the academic process. The study does not involve clinical trials, medical procedures, therapeutic interventions, or any form of physical contact with participants; no institutional review board approval beyond departmental academic oversight was therefore required. The data collected are used exclusively for the academic purpose of informing urban

planning proposals and are not shared with, sold to, or used by any commercial, governmental, or third-party organisation.

- **Transparency, Data Integrity, and Responsible Use of Secondary Sources:** All secondary data sources used in this study including the BLLS 2015–16, the Census of India 2011, and programme documentation from the Kozhikode and Kochi case studies are publicly available government and institutional sources, cited with full references in the bibliography. All primary research findings are presented with transparent disclosure of sample composition, methodology, and limitations, enabling informed interpretation by readers. No data has been fabricated, omitted selectively, or presented in a manner designed to misrepresent the evidence base of the research. The study’s limitations are acknowledged fully in Section 6.4 and are treated as an integral part of the scholarly record of this work.

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Annexure 1: Questionnaire

Planning for an Age-Friendly City Thrissur

Community Survey Questionnaire Elderly & Caretakers

Department of Architecture and Planning, MANIT Bhopal | Planning Studio Thesis, 2025–26

Instructions: This survey is for academic research only. All responses are confidential. Please tick (✓) the most appropriate answer(s) or write in the space provided. If the respondent is unable to respond, the caretaker may answer on their behalf.

SECTION A RESPONDENT PROFILE

Q1. Is this questionnaire being answered by:

- ☐ The elderly person themselves
- ☐ Caretaker / family member on behalf of elderly person

Q2. Name of respondent (optional):

Name: _____

Q3. Ward No. / Area / Locality within Thrissur Municipal Corporation:

Ward / Area: _____

Q4. Age of the elderly person:

- ☐ 60–69 years
- ☐ 70–79 years
- ☐ 80–89 years
- ☐ 90 years and above

Q5. Gender of the elderly person:

- ☐ Male
- ☐ Female
- ☐ Transgender / Other

Q6. Educational qualification of the elderly person:

- ☐ No formal education
- ☐ Primary school (up to Class 5)
- ☐ Secondary school (Class 6–10)
- ☐ Higher Secondary / Pre-degree
- ☐ Graduate and above

Q7. What is the elderly person's current living arrangement?

- ☐ Living alone
- ☐ With spouse only
- ☐ With family (children / relatives)
- ☐ In a government old age home
- ☐ In a private old age home / Sayamprabha / Assisted Living
- ☐ *Other:*

Answer: _____

Q8. Does the elderly person have any disability?

- ☐ No disability
- ☐ Physical / Mobility-related
- ☐ Visual impairment
- ☐ Hearing impairment
- ☐ Cognitive / Intellectual
- ☐ Multiple disabilities
- ☐ *Other:*

Answer: _____

SECTION B MOBILITY, OUTDOOR SPACES & BUILT ENVIRONMENT

Q9. Does the elderly person use any mobility aid?

- ☐ No moves independently
- ☐ Yes Walking stick or walker
- ☐ Yes Wheelchair

- Yes Other:

Answer: _____

Q10. Does the elderly person step out of their home independently on a regular basis?

- Yes, regularly and independently
- Sometimes, only with assistance
- No, rarely or never goes outside

Q11. How far can the elderly person travel on their own without difficulty?

- Less than 100 metres
- 100–300 metres
- 300–500 metres
- More than 500 metres

Q12. Which places does the elderly person visit most often? (Tick all that apply)

[Multiple choice]

- ☐ Temple / Mosque / Church / Place of worship
- ☐ Park / Open space
- ☐ Hospital / Clinic / Pharmacy
- ☐ Market / Shop
- ☐ Work / Training centre
- ☐ Community centre / Pakal Veedu / Sayamprabha Home
- ☐ Friends' or relatives' homes
- ☐ Other:

Answer: _____

Q13. Is the elderly person's neighbourhood suitable for walking, including for those who use wheelchairs or walking aids?

- Yes, fully suitable
- Partially suitable some areas are good
- No, mostly unsuitable
- Not applicable person does not go outside

Q14. Are public spaces and buildings in the neighbourhood accessible for persons with limited mobility, vision, or hearing?

- ☐ Yes, most are accessible
- ☐ Some are accessible, some are not
- ☐ No, most are not accessible
- ☐ Not sure

Q15. What are the major challenges faced while going outside? (Tick all that apply) [Multiple choice]

- ☐ Uneven roads or broken footpaths
- ☐ No ramps or lifts in public buildings
- ☐ No railings or handrails
- ☐ Stairs without support
- ☐ Lack of accessible / clean public toilets
- ☐ No resting places / benches along routes
- ☐ Poor lighting at night
- ☐ Traffic / unsafe road crossings
- ☐ Fear of crime or feeling unsafe
- ☐ Other:

Answer: _____

Q16. Are there any public spaces the elderly person feels excluded from due to design or inaccessibility?

- ☐ Yes
- ☐ No

 **Note:** If Yes, please specify which space and why:

Space / Reason: _____

Q17. Does the elderly person feel safe in their neighbourhood?

- ☐ Yes, always feels safe
- ☐ Usually safe, with occasional concerns
- ☐ Sometimes feels unsafe
- ☐ Often feels unsafe

Q18. Rate the overall accessibility of the area around the home (ramps, railings, non-slip flooring, tactile paths):

1 (Very Poor/Strongly Disagree)	2	3 (Neutral)	4	5 (Very Good/Strongly Agree)
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

SECTION C TRANSPORTATION

Q19. How does the elderly person usually travel to destinations? (Tick all that apply) *[Multiple choice]*

- ☐ Walks independently
- ☐ Walks with help from family/caretaker
- ☐ Bicycle
- ☐ Private vehicle (car / two-wheeler owned by family)
- ☐ Auto-rickshaw / Taxi / Cab
- ☐ Public bus (KSRTC / City service)
- ☐ Motorised wheelchair / mobility scooter
- ☐ Does not travel outside the home

Q20. Are public transport vehicles (buses) physically accessible for persons with limited mobility, vision, or hearing?

- ☐ Yes, easily accessible
- ☐ Somewhat accessible manageable with effort
- ☐ No, difficult to use
- ☐ Does not use public transport

Q21. Are public transport stops (bus stops) accessible and safe for the elderly person?

- ☐ Yes has shelter, seating, and is well-lit
- ☐ Partially some features missing
- ☐ No bare stop without facilities
- ☐ Does not use public transport

Q22. If the elderly person drives or is driven, is there adequate designated parking near frequently visited places?

- ☐ Yes, adequate designated spaces available
- ☐ Available but poorly designed or far
- ☐ No designated spaces available
- ☐ Not applicable

SECTION D HOUSING & HOME ENVIRONMENT

Q23. Rate the overall comfort and suitability of the current living situation for the elderly person:

1 (Very Poor/Strongly Disagree)	2	3 (Neutral)	4	5 (Very Good/Strongly Agree)
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

Q24. Is the current home adapted or can it be adapted to support the elderly person as they age?

- ☐ Yes, already fully adapted
- ☐ Partially adapted some modifications done
- ☐ Not yet adapted but can be
- ☐ No cannot be adapted (e.g., rented, structural issues)

Q25. Is housing in the neighbourhood affordable for elderly persons on a fixed income or pension?

- Yes, affordable
- Somewhat affordable manageable
- No, too expensive
- Not sure

Q26. Does the home have basic elderly-friendly features? (Tick all that apply)

[Multiple choice]

- ☐ Grab bars / handrails in bathroom or toilet
- ☐ Non-slip flooring
- ☐ Step-free or ramped entrance
- ☐ Adequate lighting in all rooms
- ☐ Accessible toilet on ground floor / same level
- ☐ Emergency call device / panic button
- ☐ None of the above

SECTION E HEALTH & HEALTHCARE SERVICES

Q27. Does the elderly person regularly visit a hospital or health centre?

- Yes, regularly (at least once a month)
- Yes, occasionally (a few times a year)
- No, rarely or never

Q28. What is the approximate distance to the nearest healthcare facility (hospital / clinic / PHC)?

- Less than 500 metres (walking distance)
- 500 metres – 1 km
- 1 – 3 km
- More than 3 km

Q29. Are personal care or assistance needs of the elderly person currently being met through formal services (home nurse, ASHA worker, NGO, etc.)?

- Yes, fully met through formal services
- Partially met some formal, some informal help

- ☐ Met only by family / informally
- ☐ Needs are not adequately met

Q30. Is the elderly person a beneficiary of any government healthcare scheme?

- ☐ Yes
- ☐ No
- ☐ Not sure

 **Note:** If Yes, please specify the scheme name(s) (e.g., Karunya Health, Aaswasakiranam, Vayoraksha, Vayomithram, Vayomadhuram, Mandahasam, etc.):

Scheme name(s): _____

Q31. Does the elderly person receive Ayurvedic or palliative care services at home or in a facility?

- ☐ Yes at home
- ☐ Yes at a facility (e.g., old age home, Vayo Amrutham)
- ☐ No
- ☐ Not needed

SECTION F ECONOMIC SECURITY & FINANCIAL SUPPORT

Q32. Is the elderly person a beneficiary of any government pension scheme?

- ☐ Yes
- ☐ No

 **Note:** If Yes, please specify the name of the scheme:

Scheme name: _____

Q33. Approximately, what monthly monetary benefit does the elderly person receive from government schemes (pension + other schemes combined)?

- ☐ None
- ☐ Up to ₹500 per month
- ☐ ₹501 – ₹1,500 per month
- ☐ ₹1,501 – ₹3,000 per month

- ☐ More than ₹3,000 per month
- ☐ Prefer not to say

Q34. Over the past 12 months, has the elderly person had sufficient income to meet basic daily needs without depending entirely on family or charity?

- ☐ Yes, income is adequate
- ☐ Mostly adequate occasional shortfall
- ☐ No, frequently insufficient
- ☐ Completely dependent on family / others

SECTION G SOCIAL PARTICIPATION, RESPECT & INCLUSION

Q35. In the past week, did the elderly person participate in any social, cultural, religious, or recreational activity?

- ☐ Yes, once
- ☐ Yes, more than once
- ☐ No wanted to but could not (barrier)
- ☐ No not interested

Q36. Does the elderly person participate in group physical activities (yoga, walking groups, exercises) in their leisure time?

- ☐ Yes, regularly
- ☐ Occasionally
- ☐ No, but would like to
- ☐ No, not interested or not able to

Q37. Does the elderly person feel respected and socially included in their community?

- ☐ Yes, always
- ☐ Mostly yes
- ☐ Sometimes feels excluded or disrespected
- ☐ Often feels excluded or disrespected

Q38. Would the elderly person use a community hub / day care centre if it offered accessible design, health services, and social activities?

- ☐ Yes, definitely
- ☐ Possibly
- ☐ No
- ☐ Already uses such a facility

 **Note:** Which services would be most important? (e.g., health checkups, yoga, counselling, meals, social activities):

Preferred services: _____

SECTION H CIVIC PARTICIPATION, EMPLOYMENT & VOLUNTEERING

Q39. Is the elderly person involved in any volunteering activity (in the past month)?

- ☐ Yes, at least once in the past month
- ☐ No, but would be interested
- ☐ No, not interested or not able

Q40. Does the elderly person have opportunities for paid employment suited to their age and ability?

- ☐ Yes, currently employed part-time or full-time
- ☐ Not employed but opportunities are available
- ☐ No opportunities available
- ☐ Not interested in employment

Q41. Is the elderly person involved in decision-making on important issues in the community (ward sabha, resident meetings, etc.)?

- ☐ Yes, actively participates
- ☐ Occasionally participates
- ☐ No would like to but not given opportunity
- ☐ No not interested

Q42. Is the elderly person enrolled in any education or training (formal or non-formal) in the past year? (e.g., School of Seniors, digital literacy, skill training)

- ☐ Yes
- ☐ No, but would be interested
- ☐ No, not interested

SECTION I COMMUNICATION, INFORMATION & DIGITAL ACCESS

Q43. Does the elderly person know whom to contact if they need information about health concerns or relevant services in the community?

- ☐ Yes, knows clearly
- ☐ Somewhat knows a few contacts
- ☐ No, unsure whom to contact

Q44. Does the elderly person have access to the internet at home?

- ☐ Yes uses independently
- ☐ Yes uses with help from family
- ☐ No internet access at home
- ☐ Has access but does not use it

Q45. Is the elderly person aware of the Elderline helpline (14567) for senior citizens?

- ☐ Yes, aware and has used it
- ☐ Yes, aware but has not used it
- ☐ No, not aware

SECTION J EMERGENCY PREPAREDNESS & SAFETY

Q46. In the past year, did the elderly person participate in any emergency response training or community disaster drill?

- ☐ Yes
- ☐ No
- ☐ Not sure

Q47. In case of a medical emergency or fall at home, is there a clear plan for who to call and how to get help quickly?

- ☐ Yes, a clear plan is in place
- ☐ Partially some arrangement exists
- ☐ No plan in place

SECTION K OVERALL QUALITY OF LIFE

Q48. How would you rate the elderly person's overall Quality of Life?

1 (Very Poor/Strongly Disagree)	2	3 (Neutral)	4	5 (Very Good/Strongly Agree)
☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

Q49. What single change would most improve the elderly person's day-to-day outdoor life?

Answer: _____

Q50. Which facilities or services do you most wish to see improved or introduced in your area? (Tick top 3) [Multiple choice max 3]

- ☐ Better pavements and footpaths
- ☐ More accessible public toilets
- ☐ Better public transport
- ☐ More parks / accessible green spaces

- ☐ More community / social centres (Sayamprabha / Pakal Veedu)
- ☐ Better healthcare access / mobile clinics
- ☐ More employment / volunteering opportunities
- ☐ Better information and awareness about government schemes
- ☐ Digital literacy / technology support for elderly
- ☐ Other:

Answer: _____

Q51. Any additional comments, suggestions, or concerns you would like to share:

Comments: _____

Answer: _____

Answer: _____

Thank you for participating in this survey.

All data collected is strictly for academic purposes and will remain confidential.

Researcher: Ahad Mohammed E M | MANIT Bhopal | Guided by: Dr. Charumitra Kapshe

Annexure 2: Indicators in WHO checklist

EQUITY INDICATORS

- **DIFFERENCE BETWEEN POPULATION AVERAGE AND HIGHEST ATTAINABLE LEVEL OF OUTCOME** The difference between the population average and the level of outcome achieved by a subgroup which has the best outcome or the highest socioeconomic position in the population of interest.
 - **DIFFERENCE BETWEEN TWO REFERENCE GROUPS** The magnitude of difference in a specific outcome between two reference subgroups in the population.
-

ACCESSIBILITY OF THE PHYSICAL ENVIRONMENT

- **NEIGHBOURHOOD WALKABILITY** Proportion of streets in the neighbourhood that have pedestrian paths which meet locally accepted standards. *(Self-report: Proportion of older people who report that their neighbourhood is suitable for walking, including for those who use wheelchairs and other mobility aids.)*
- **ACCESSIBILITY OF PUBLIC SPACES AND BUILDINGS** Proportion of new and existing public spaces and buildings that are fully accessible by wheelchair. *(Self-report: Proportion of older people who report that public spaces and buildings in their community are accessible for all people, including those who have limitations in mobility, vision or hearing.)*
- **ACCESSIBILITY OF PUBLIC TRANSPORTATION VEHICLES** Proportion of public transport vehicles with designated places for older people or people who have disabilities. *(Self-report: Proportion of older people who report that public transport vehicles are physically accessible for all people, including those who have limitations in mobility, vision or hearing.)*

- **ACCESSIBILITY OF PUBLIC TRANSPORTATION STOPS** Proportion of housing within walking distance (500 m) to a public transportation stop. *(Self-report: Proportion of older people who report that public transportation stops are accessible.)*
 - **AFFORDABILITY OF HOUSING** Proportion of older people who live in a household that spends less than 30 per cent of their equalized disposable income on housing. *(Self-report: Proportion of older people who report that housing in their neighbourhood is affordable.)*
-

INCLUSIVENESS OF THE SOCIAL ENVIRONMENT

- **POSITIVE SOCIAL ATTITUDE TOWARD OLDER PEOPLE** Number of reported cases of maltreatment of older persons as a proportion of the total number of older people. *(A lower number can be indicative of a society in which the dignity and respect of older persons are protected.) (Self-report: Proportion of older people who report feeling respected and socially included in their community.)*
- **ENGAGEMENT IN VOLUNTEER ACTIVITY** Proportion of older people in local volunteer registries. *(Self-report: Proportion of older people who report engaging in volunteer activity in the last month on at least one occasion.)*
- **PAID EMPLOYMENT** Proportion of older people who are currently unemployed. *(A lower unemployment rate is indicative of greater availability of paid employment opportunities for older people.) (Self-report: Proportion of older people who report having opportunities for paid employment.)*
- **ENGAGEMENT IN SOCIO-CULTURAL ACTIVITY** Proportion of Senior citizens among all reported visitors to local cultural facilities and events. *(Self-report: Proportion of older people who report participating in socio-cultural activities at their own discretion at least once in the last week.)*
- **PARTICIPATION IN LOCAL DECISION-MAKING** Proportion of eligible older voters who actually voted in the most recent local election or legislative

initiative. *(Self-report: Proportion of older people who report being involved in decision-making about important political, economic and social issues in the community.)*

- **AVAILABILITY OF INFORMATION** Availability of local sources providing information about health concerns and service referrals, including by phone. *(Self-report: Proportion of older people who report that they know whom to call if they need information about their health concerns and relevant services in their community.)*
- **AVAILABILITY OF SOCIAL AND HEALTH SERVICES** Proportion of older persons who have personal care or assistance needs that are receiving formal (public or private) home- or community-based services. *(Self-report: Proportion of older people who report having their personal care or assistance needs met in their home or community through the use of formal (public or private) services.)*
- **ECONOMIC SECURITY** Proportion of older people living in a household with a disposable income above the risk-of-poverty threshold. *(Self-report: Proportion of older people who report having had enough income to meet their basic needs over the previous 12 months without public or private assistance.)*
- **QUALITY OF LIFE** Healthy life expectancy at birth. *(Self-report: Proportion of older people who self-rate their overall Quality of Life as 'very good (5)' or 'good (4)' on a scale ranging from 'very poor (1)' to 'very good (5)'.)*

SUPPLEMENTARY INDICATORS

- **ACCESSIBILITY OF PRIORITY VEHICLE PARKING** Proportion of priority parking spaces at new and existing public facilities that are designated for older people or people with disabilities. *(Self-report: Proportion of older people with a special parking permit for older or disabled drivers who report that designated priority parking spaces are adequately designed and available.)*

- **ACCESSIBILITY OF HOUSING** Proportion of new and existing houses that have wheelchair-accessible entrances (i.e. sufficient width, ramp). *(Self-report: Proportion of older people who report that their house is adapted, or can be adapted, to their needs to facilitate ageing at home.)*
- **PARTICIPATION IN LEISURE-TIME PHYSICAL ACTIVITY IN A GROUP** Proportion of older people who are a member of a self-organized or institutionalized leisure-time physical activity group. *(Self-report: Proportion of older people who report participating in group physical activities in their leisure time.)*
- **ENGAGEMENT IN LIFE-LONG LEARNING** Proportion of older people who were enrolled in education or training, either formal or non-formal, in the past year. *(Self-report: Proportion of older people who report being enrolled in education or training, either formal or non-formal, in the past year.)*
- **INTERNET ACCESS** Proportion of older people living in a household with internet access at home. *(Self-report: Proportion of older people who report having access to internet at home.)*
- **PUBLIC SAFETY** Reported rate of crimes (per year) committed against older people. *(Self-report: Proportion of older people who report feeling safe in their neighbourhood.)*
- **EMERGENCY PREPAREDNESS** Proportion of employees of local government agencies, community organizations, and service providers who participated in an emergency response training or drill in the past year which addressed the needs of older residents. *(Self-report: Proportion of older people who report participating in an emergency response training or drill in the past year which addressed the needs of older residents.)*