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WORKING PAPER

Understanding the mobility of care in Indian cities

Learnings from Bengaluru

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Highlights

- Mobility of care (MoC) refers to trips supporting household-sustenance activities, such as escorting dependents, household provisioning, and errands.
- Despite shaping everyday mobility, MoC is neither explicitly measured nor taken into account during mobility planning in India, limiting caregivers' and dependents' access to essential services and opportunities.
- This study, among the first city-scale analyses of MoC in India, draws on data from a household survey of 6,522 individuals; 18 focus group discussions covering women, men, and transgender persons of varying age and income levels; and spatial mapping of care trips in Bengaluru.
- One-fifth of trips in the sample are made for care purposes, such as household purchases and escorting. Women, largely non-earning homemakers in the 19-45 years age group, dominate care travel in the sample, accounting for 76 percent of all care trips. Women in the low income category undertake three times more care trips than those in the high income category.
- Walking dominates care travel, followed by two-wheelers; intermediate public transport (IPT) and buses have negligible shares.
- Care trips are short, averaging 2 kilometres (km) as compared to 5 km for non-care trips, and are typically made once or twice a week.
- Only 14 percent of trips in the sample are chained, and care trips account for 38 percent of these, mostly on two-wheelers.

Executive summary

Context

Mobility of care (MoC), despite being central to everyday life, is not explicitly measured in transport planning. Care-related travel is part of the continuum of unpaid domestic and care work (UDCW) that sustains households and communities, including household purchases, errands, and escorting, and constitutes a significant share of adults' everyday travel (Sánchez de Madariaga 2010). In urban Bihar, MoC accounts for one-third of trips for individuals in the 18-45 years age group (Shah and Rajiv 2020).

In Bengaluru, 40 percent of non-workers who step out of home report making at least one shopping or errand trip daily (Manoj and Verma 2015). Care trips are not explicitly measured in national and local statistics due to the traditional focus on "mandatory trips", that is, trips for work and education; consequently, there has been limited research on them (Sánchez de Madariaga 2013).

Limited understanding of, and lack of planning for, care travel can result in inequalities in access to services and opportunities. Carers can experience greater physical strain due to unresponsive infrastructure and incur higher costs where fare policies penalise trip-chaining patterns (Borker 2022; ITDP 2021). Women bear the highest burden of UDCW, three times that of men in India (MoSPI 2025a), especially those from resource-poor households (Mitra and Ramesh 2025). When caregivers face restricted mobility, dependents such as children or older adults also experience reduced access to education, healthcare, and social participation, reinforcing cycles of exclusion for the household (Visakha et al. 2022).

Care travel in India may differ from that in Europe and the Americas, where most research has originated. It is shaped by distinct gender norms, larger household sizes, lower female labour force participation, and a diverse mobility landscape. Women in India undertake a larger share of UDCW than those in other regions (OXFAM India 2020), implying that their mobility may be more closely enmeshed with care travel. Larger household sizes may create a greater demand for UDCW (Mitra and Ramesh 2025; Sengupta 2016). Finally, the mode of care trips in India walking, two-wheelers, and IPT, in contrast to walking and cars in Europe and the Americas (Manoj and Verma 2015; Ravensbergen et al. 2023). These distinctions suggest that care-responsive transport systems in India will need to incorporate contextual strategies when adapting concepts and approaches from elsewhere. Greater time spent on unpaid care work and MoC is also key to understanding women's low participation in the Indian labour force.

Bengaluru, a megapolis, demonstrates the fissures in urban mobility and planning frameworks faced by larger Indian cities. It ranked third globally on TomTom's 2024 congestion index, and motorisation continues to surge (TomTom 2024). By early 2025, Bengaluru had over 12 million registered vehicles, including 722,000 additions in FY2024–25 (Siddiqui 2025). As mobility crises intensify, conversations on solutions have accelerated across media, civil society, and policy discourse. However, the persisting focus on work-related travel results in the continued under-representation of care-related travel.

Foregrounding care-related mobility is essential to ensure that long-term planning decisions do not reinforce the existing existing inequities. Bengaluru's evolving efforts in ward-level planning and budgeting offer practical entry points for building care-responsive neighbourhoods.

About this working paper

This paper draws on the travel diaries of 6,522 individuals across 16 neighbourhoods of Bengaluru as part of a larger household survey dataset under the MobiliseHER project.[1] The paper aims to understand

- who performs care trips, by gender, age, individual and household income, and occupation;
- how care trips are performed, in terms of distance, time, mode, cost, and trip chaining;
- how focus group discussions (FGDs) and geospatial mapping explain mode choice, route choice, and trip chaining behaviour; and
- their implications for care-responsive neighbourhood planning.

Using Bengaluru as a case, this study offers one of the few city-level empirical analyses of care mobility in India, addressing key evidence gaps in urban and transport planning, including lack of data, limited representation of diverse user groups, and implications for city planning. The recommendations provide actionable entry points for creating care-responsive cities and a transferable approach for Indian cities to better understand MoC. The scope of this study excludes trips by gig workers providing home services and deliveries.

Key findings

Care trips constitute around one-fifth of trips made in Bengaluru. Homemakers, primarily non-earning women in the 19-45 years age group, undertake 76 percent of such trips. Low income women (earning below ₹20,000 per month [US$232 per month]) undertake five times more care trips than middle-income women (earning ₹20,000–₹40,000 per month [$232–$464 per month]).

Care trips are short, averaging 2 km, with 1.8 km for household purchases. However, escorting trips are 1.5 times longer than those for household purchases because essential services are not always available within the immediate neighbourhood. The FGD participants described travelling farther to access schools and healthcare services with better quality schools and healthcare, indicating that service quality, rather than proximity, determines escorting distances.

Walking is the dominant mode of care trips, which is threatened by two-wheelers in neighbourhoods. Walking constitutes 60 percent of all care trips, representing 2.3 times two-wheelers' share. Despite vehicle access, around 25 percent of women still walk, pointing to structural barriers in household vehicle use and the importance of proximity to services. Travel for care involves carrying bags and ensuring dependents' safety. The convenience of managing these, along with affordability, may compel carers to use two-wheelers.

Care trips in Bengaluru are direct; only 38 percent are chained. India's larger household size (~4.4 versus ~2.3 in the European Union [EU]) increases daily chores and time burdens, making trip chaining less feasible. The FGDs revealed that care trips are mostly unchained because caregivers must return home to fulfil time-sensitive responsibilities.

Recommendations for Bengaluru's city planning systems

Bengaluru needs to explicitly capture care travel in its mobility datasets. The city's Comprehensive Mobility Plan 2020 (CMP 2020) subsumes caregiving trips under broad categories such as 'shopping' or 'others', obscuring their frequency and purpose in origin-destination surveys. Transport experts note that this standardised CMP process limits such understanding across cities. Recognising and tagging caregiving trips in mobility surveys would reveal their scale and enable care-responsive, data-driven planning (Sánchez de Madariaga 2013). Although the Time Use Survey (NSO 2024) provides insights into unpaid domestic and caregiving work, including related travel, the sample size is insufficient to inform city-scale decisions.

In Bengaluru, improving the quality and co-location of neighbourhood services is essential to shorten care trips and reduce their frequency. The FGDs revealed that caregivers often travel farther for reliable schools, healthcare, and markets due to either the absence or poor quality of local amenities. Although India's urban planning frameworks set standards for amenity provision, they overlook service quality and co-location. Bengaluru's Revised Master Plan 2015 promotes compact, mixed-use development but lacks guidance on these aspects. Officials of Bruhat Bengaluru Mahanagara Palike and the Department of Women and Child Development highlighted the need for stronger interdepartmental coordination to ensure that facility upgrades are complemented by improvements to access routes. Embedding care-responsive strategies within Ward Development Plans and Transit-Oriented Development Zone Plans can help integrate them at the neighbourhood scale. This approach is relevant across Indian cities due to similar planning regimes.

Increased frequency of neighbourhood public transport (PT), along with upgraded internal and access streets, could reduce dependence on two-wheelers in Bengaluru. Neighbourhood streets and PT systems in Bengaluru remain poorly equipped to support short, multipurpose caregiving trips. The FGDs revealed that unsafe footpaths, lack of crossings, and poorly lit streets make walking with dependents difficult, forcing reliance on two-wheelers, even for short distances. Caregivers avoided PT due to poor connectivity, low service frequency, and difficulty in carrying belongings. A neighbourhood mobility plan combining pedestrian improvement with local PT options, such as minibuses or vans, can address these challenges, enabling safer, more efficient short trips.

Although grounded in Bengaluru's context, these findings highlight broader gaps in how Indian cities measure, plan, and address mobility needs. Since most cities follow similar planning and data practices, MoC remains largely unaccounted for. Addressing these gaps calls for deeper research and policy action to integrate care-related travel into mainstream urban and transport planning.

Introduction

The importance of domestic and care work, paid and unpaid, in the social reproduction of households and society received increased attention during the COVID-19 pandemic, including who bears the burden. Although travel for care is an intrinsic part of care work, it has been rendered invisible in transport planning despite being central to everyday life. The term mobility of care (MoC) was coined by Sánchez de Madariaga (2008) to identify and measure everyday care trips undertaken to sustain households and communities (Sánchez de Madariaga 2013). Research demonstrates that care travel constitutes a significant share of all trips in cities: 29 percent in Madrid for the population aged 30-45 years (Sánchez de Madariaga and Zucchini 2019), 28–32 percent of adults' daily mobility (25–60 years) in Montreal (Ravensbergen et al. 2023), and 49 percent of all trips in Guiuan (Philippines) (Vasquez and Castro 2023). Research from India, although limited, indicates a similar substantial role. Care travel constituted one-third of all trips among adults aged 18–45 years in urban Bihar (Shah and Rajiv 2020). In Bengaluru, 40 percent of non-working individuals made at least one caregiving trip daily (Manoj and Verma 2015).

Urban transport systems, however, have traditionally been designed to serve "compulsory mobility" such as education and employment (Borker 2024). Care trips, often confused with leisure trips (Sánchez de Madariaga 2013), are not explicitly measured in national time use surveys (NSO 2024) and city-level transport plans. For example, Comprehensive Mobility Plans (CMPs) in India have prioritised commuting

for work and education, overlooking the short, chained trips that sustain households (Kapoor 2020). A review of regional strategies across South and Southeast Asia found the same pattern: everyday care travel remains under-recognised (Sil et al. 2024).

The neglect of MoC in planning translates into suppressed mobility for carers, higher out-of-pocket costs, and risks of missed healthcare or services (Peters 2013; Tacoli 2012). Carers also experience stress because they juggle paid and unpaid responsibilities, with commuting time adding to the burden (Fong and Atiyya Shaw 2024; Gilow 2020; Roberts et al. 2011; Sersli et al. 2020). When services are infrequent, unsafe, or inaccessible, care travel becomes more time-consuming, expensive, and risky, with implications for carers' physical and mental health. The long-standing ban on open strollers in Washington, DC Metrobuses, lifted only in May 2023, illustrates how caregiving needs can be treated as "non-standard" travel (Passman et al. 2024; WMATA 2023).

Much of the existing MoC research, which has been undertaken in the context of the Global North, cannot be extrapolated to India. Differences in household structure, gender norms, and mobility systems warrant context-specific analysis. India's average household size (4.4) is almost double that of the European Union (2.3) (Eurostat 2021; IIPS and ICF 2021). Gender norms in India may result in women shouldering a larger share of unpaid domestic and care work (UDCW) and reducing their workforce participation, implying that their mobility may be more densely interwoven with caregiving. Time use surveys show that Indian women spend five times more hours on UDCW than Indian men (NSO 2024).

Mode choices also differ: in the Americas and Europe, care trips are predominantly undertaken either on foot or in private cars. School escort trips mainly use cars in the United States and United Kingdom, with walking reserved for shorter distances (Lenhoff and Speroni 2025; Department for Transport 2023). Studies in Montreal further confirm this predominance of walking and car use (Ravensbergen et al. 2023). In India, however, the mobility landscape is more diverse. Walking and two-wheelers may play a greater role in care trips, along with intermediate public transport (IPT) modes such as shared auto-rickshaws and electric rickshaws. Although IPT may offer flexibility in managing short, multipurpose errands, it also introduces challenges: safety, informality, and weak regulation (Joshi et al. 2023; Pucher et al. 2005). Indian cities may need to address the impact of two-wheelers and improve walking environments and IPT services to cater to care trips, rather than focusing primarily on reducing car reliance as in the Americas and Europe.

Planning for MoC in Bengaluru: The need and opportunity

Bengaluru, Karnataka's capital, is India's third-largest city. In 2025, the average one-way commute reached 63 minutes for 19 km, a 16 percent year-on-year increase signalling slow and unreliable travel (Chaudary 2025; MoveInSync 2025). Walking infrastructure remains inadequate, with just 8 percent of Bengaluru's 3,500 km of footpaths in good condition and 233 pedestrian deaths reported in 2024 (Khanna 2025; Mandyam 2025). As congestion pushes everyday mobility to the forefront of discussions across civil society, media, and the government, it becomes critical for planning frameworks to also recognise routine caregiving trips, an essential but largely invisible component of daily mobility.

This invisibility is not incidental; it is produced by how current planning instruments define and measure travel. In Bengaluru, three frameworks significantly shape how the city is planned: the Revised Master Plan 2015 (RMP 2015), which guides land use and service locations; the CMP 2020, which prioritises travel demand and transport investments; and the Transit Oriented Development (TOD) Policy 2022, which promotes densification and walkability around transit nodes. Despite their influence on Bengaluru's development, none of these frameworks explicitly accounts for care-related mobility.

The RMP 2015 encourages mixed-use development, service provisioning, and strategic location. However, it lacks clear mechanisms to ensure the implementation, accessibility, and quality of amenities. The CMP 2020 prioritises work and education trips; everyday care trips are subsumed under broad categories such as "shopping" or "others", limiting visibility of their scale and needs. The TOD Policy 2022 emphasises compact, walkable, and mixed-use development near transit nodes, which can reduce travel times. However, without specifying the types of services that must be co-located or how caregivers navigate these environments, caregiving needs may be overlooked.

These gaps make Bengaluru a compelling case for examining how MoC is experienced and negotiated in a rapidly growing Indian metropolis. Bengaluru exemplifies the pressures of growing Indian cities where transport networks struggle to keep pace with rapid population growth and urban expansion (WBCSD and TERI 2011). Neighbourhood-level planning is gaining importance through annual Ward Development Plans and TOD Zone Plans introduced under the Greater Bengaluru Governance Act 2023 and the TOD Policy 2022. These mechanisms create new opportunities to embed neighbourhood-scale caregiving needs.

Building on prior methodological advances, this study provides one of the first few empirical analyses of MoC. Using Bengaluru as a case, it examines two interlinked aspects of care mobility:

- The distribution of care trips across people and households; who undertakes care-related travel; and how participation and intensity vary by gender, age, income, occupation, household composition, and vehicle access
- The performance of care trips and how care-related travel is undertaken in terms of distance, time, mode, cost, and trip chaining

The study also maps caregiving routes to assess how neighbourhood form, land-use mix, and service accessibility shape these patterns. It includes underrepresented groups, including persons with disabilities (PwDs) and transgender (TG) persons.

By combining quantitative, spatial, and qualitative analyses, the study documents care mobility in Bengaluru, laying the groundwork for future efforts to recognise and address these needs across Indian cities.

Understanding MoC concepts

Understanding MoC requires tracing how care work and care-related travel have been defined and analysed across disciplines. This section reviews the key literature that has shaped the conceptual foundations of care work and care mobility within transport research.

Definitions of care work and care travel

Care work and care travel emerged in early feminist critiques in the 1980s, which drew attention to the invisibility of much of women's work. This included unpaid care work, which sustains families and communities (Duffy et al. 2013). By the 1990s, transport studies began to frame caregiving mobility through the concept of household-serving trips, recognising that daily travel often included short, local journeys linked to family and household responsibilities (Mauch and Taylor 1997). In 2008, the term "MoC" was coined to include trips for escorting dependents, running errands, and making household purchases (Sánchez de Madariaga 2013).

The COVID-19 pandemic further underscored the centrality of the care economy, which includes the labour of domestic workers, health workers, and delivery workers and the unpaid care work performed within households for sustenance (AIIB and UN Women 2025; Carpenter et al. 2022). The concept of care has also been extended to self-care (MoSPI 2025b; Sinha et al. 2024). A consolidated set of definitions on care work is provided in Appendix A, Table A-1.

Socio-economic variables impacting care travel

MoC is shaped by a complex interplay of determinants (Table 1). Gender is a significant factor, with women performing a disproportionate share of care trips (Fong and Atiyya Shaw 2024; Murillo-Munar et al. 2023). Care travel is also influenced by work status and income (Duffy et al. 2013; Goel 2023; Middleton and Samanani 2021; Murillo-Munar et al. 2023), with low-income women shouldering a heavier burden. Drawing from research in Brussels, Gilow (2020) observed that mothers belonging to the upper class often often pass some of this work to domestic helpers, usually women from not clear what 'this' refers to or racialised backgrounds. Parenting status and age affect care mobility patterns. Older adults may be carers and require caregiving. Research from China indicates that over 35 percent of elderly migrants relocated specifically to assist with childcare, while in Singapore, nearly half of all families caring for frail seniors hire foreign domestic workers to provide caregiving and transport support (Huong et al. 2018; Tam et al. 2018; Yeoh et al. 2023).

Understanding care-related travel behaviour

This section highlights the diversity in care travel patterns across various cities, emphasising that these patterns are context-dependent (Table 2). Care trips are often short, frequently less than 1 km, lasting for short durations, often less than 15 minutes (Sánchez de Madariaga 2013). However, evidence from Nairobi suggests that care trips could also be longer (Sánchez De Madariaga and Arroyo 2019) due to the urban structure and the location of housing, services, and employment. Trip modes vary by context, access to a vehicle, and the type of care trip. In India, walking and PT are often the main modes for caregiving trips, especially among lower-income households or those lacking private vehicles (Goel et al. 2021). On the other hand, the dominant mode of care travel in the Netherlands is the car, even in cycle-friendly context (Laugen 2024). Trip chaining is a defining feature of care mobility, underscoring the multitasking nature of caregiving (Laugen 2024; Sánchez De Madariaga and Arroyo 2019).

Table 1 | **Understanding gender, income, and occupation status in MoC**

CITY/COUNTRY	STUDY	PATTERNS OF CARE TRAVEL
Bogotá	Murillo-Munar et al. 2023	▪ 11% of women's trips vs. 6% of men's; women are 54% more likely to make care trips. ▪ Low-income women make nearly twice as many care trips as high-income women (16% vs. 8%) and spend more time on them (1.9 vs. 1.2 hours). Men's care trips remain steady across strata (~6%), with little variation in time (0.6–0.7 hours). ▪ Homemakers, retirees, or the unemployed undertake more care trips and spend more time on caregiving. Homemakers and retirees have the most chained care trips.
Nairobi	Sánchez De Madariaga and Arroyo 2019	▪ 8% of women's *matatu*[a] journeys (vs. 5% for men) are for care-related travel matatu. ▪ Women make more daily trips, often adding third or fourth trips beyond men's typical home–work–home pattern.
Montreal	Ravensbergen, Fournier, and El-Geneidy 2023	▪ Care trips account for 32% of women's daily trips vs. 25% of men's. ▪ In households earning $60,000 or less, women make 50% more care trips than men; this gap falls to 22% in households earning $150,000 or more. ▪ Care trips rise from 38% in households with one child to 45% in those with two children, with a slight increase for three or more children.
The Netherlands	Laugen 2024	▪ Care trips account for 40% of women's daily trips vs. 33% of men's across income groups. ▪ Across income levels, women spend about 3–5 minutes more per day on care travel than men. ▪ Those with at least one child under 18 devote 40% of trips to care, about 7% more than those without children.
Bengaluru	Manoj and Verma 2015	▪ Non-workers (retirees, homemakers, non-working/non-school-going) from larger households are less likely to participate in shopping and recreation. Among non-workers, homemakers are most likely to undertake shopping trips. Those from households with school-going children and older adults are more likely to undertake complex trip chains.

Note: MoC = mobility of care.

a. A matatu is a privately owned minibus that functions as a shared taxi plying on fixed routes.

Source: WRI India and The Urban Catalysts (TUC) authors.

Table 2 | **Care travel patterns in various cities**

CITY/COUNTRY	STUDY	PATTERNS OF CARE TRAVEL
Bogotá	Murillo-Munar, Gómez-Varo, and Marquet 2023	▪ 66% of care trips take under 30 minutes and nearly 38% under 15 minutes. ▪ Half of care trips are on foot (49%), with the rest distributed across private (23%) and PT (23%) modes, with marginal cycling (4%).
Nairobi	Sánchez de Madariaga and Arroyo 2019	▪ Women's trips showed greater chaining, whereas men's were more linear and homebound.
Montreal	Ravensbergen, Fournier, and El- Geneidy 2023	▪ By car, care trips average 16 minutes vs. 25 minutes for non-care trips. Care trips are mainly made either by car or on foot, with walking being more than twice as common as for commuting (10% vs. 4%). ▪ Trip chaining is common (~60%), and women's work trips are more often chained with care trips than men's (16% vs. 12%).
The Netherlands	Laugen 2024	▪ Care trips range from 7.7 to 9.6 minutes in duration and cover 16.5–26.7 km. ▪ 50% or more of care trips are by car. ▪ 73%–80% of care trips are chained, compared to only 15%–20% of work or leisure trips. ▪ Care trips are made from 7 AM to 6 PM.
Bengaluru	Manoj and Verma 2015	▪ Non-workers spend an average of 7–8 minutes on shopping and pick-up/drop-off (PU/DO) trips. ▪ Walking dominates PU/DO (69%) and shopping (52%) trips. Two-wheelers account for 22% of PU/DO and 11% of shopping trips. Buses and auto-rickshaws account for 15% and 13%, respectively, of all shopping trips. ▪ PU/DO trips involve more stops than other activities, with homemakers more likely to chain them. ▪ Shopping and PU/DO trips cluster during 8AM-10AM (24% and 32%) and 4AM-6PM (22% and 24%).

Note: PT = public transport.

Source: WRI India and The Urban Catalysts (TUC) authors.

Methodologies to understand care travel and gaps

In Madrid and Nairobi, caregiving trips were explicitly classified as a separate umbrella category that was used to identify care-related trip subcategories, enabling more accurate measurement. Neutral wording and trained enumerators helped avoid bias and capture care trips systematically (Sánchez de Madariaga and Zucchini 2019). Studies in Montreal and Bogotá have employed exploratory and multivariate analysis and activity-based modelling to account for trip chaining and short-distance travel, producing granular patterns in care travel (Murillo-Munar et al. 2023; Ravensbergen et al. 2023).

Despite such progress globally, significant methodological and data gaps persist in India. India lacks a systematic baseline on MoC. Existing studies offer only fragmented insights, examining non-work trips or women's travel patterns without explicitly focusing on care-related purposes or the lived experiences of caregivers. Limited household surveys, qualitative evidence, and disaggregated travel data constrain the measurement of care mobility. Moreover, perspectives of marginalised groups, such as TG persons and PwDs, on care-related travel are almost absent from both datasets and the transport literature (Ivanova and O'Hern 2024).

The need for this research

The responses of transport and city planning systems to care travel have been inadequate. In areas with sparse IPT, carers face higher out-of-pocket expenditures and heightened physical strain in meeting daily care obligations (Goel 2023). These gaps are also observed in Bengaluru, where care mobility remains largely invisible in official planning instruments such as the Comprehensive Traffic and Transportation Plan 2007, CMP 2020, or RMP 2031.

These gaps in mobility are felt not only by carers but also by those they support. When trips become costly, unsafe, or time-consuming, dependents—particularly children, the elderly, and PwDs—experience reduced access to education, healthcare, and social participation. The burden falls most heavily on women in lower-income and resource-constrained households, who absorb the unmet mobility needs of their dependents (Borker 2022; Goel 2023). They may be compelled to seek employment near their home, sacrificing economic opportunities to reduce travel distance and costs (Anand and Tiwari 2006). Women's limited access to vehicles, lower rates of licence ownership, and cultural restrictions on the use of bicycles and two-wheelers constrain their mobility options (Anand and Tiwari 2006; Buehler and Goel 2022), including for care trips. These constraints can exacerbate time poverty by extending travel time for everyday care tasks.

Research methodology

A mixed-methods approach was adopted, combining household surveys to quantify travel patterns, frequencies, and mode choices; focus group discussions (FGDs) to capture lived experiences and mobility barriers; spatial analysis to assess how neighbourhood form and service accessibility shape care travel; and key informant interviews (KIIs) to understand policy and institutional perspectives. Together, these methods link city-level travel patterns with neighbourhood-level realities, offering a comprehensive view of caregiving mobility in Bengaluru.

Household surveys

Household surveys with detailed trip diaries were conducted to measure MoC at the city scale (Appendix A). This was an ad hoc survey designed specifically to measure MoC through detailed trip-diary questions. Care-related trips were identified for household purchases, errands, and escorting, while self-care, community care, and delivery trips were excluded. Data were collected from residents across diverse neighbourhoods in Bengaluru.

To ensure broad representation, 16 of the 225 administrative wards under the Bruhat Bengaluru Mahanagara Palike (BBMP)[2] were selected, based on three key criteria:

- Distance from the city centre
- Access to PT infrastructure
- Presence of vulnerable population groups (social, economic, and religious minorities)

Selection parameters were informed by city-wide datasets (including PT service data and land-use/slum location layers) and validated through inputs from local civil society organisations. The selected wards span all eight BBMP zones. Quantitative data were collected from all 16 wards, while qualitative data were collected from a representative subset of 8 wards.

A comprehensive mobility survey was conducted through interviews at the respondents' residences, distributed across residential zones within each ward. The survey collected both household- and individual-level information. Household-level information was collected from the main respondent on behalf of all family members. Individual-level information was collected from adults present in the household at the time of the survey. The survey, which was conducted during various time windows from 9 AM to 10 PM over a period of seven days, adequately represented workers, students and homemakers. The following groups were excluded from the individual-level survey:

Table 3 | **Key variables analysed from household survey data**

DATASETS	VARIABLES ANALYSED
Household-level data	▪ Household monthly income ▪ Vehicle ownership
Individual-level data	*Demographic details* ▪ Age ▪ Gender ▪ Occupation ▪ Individual monthly income ▪ Access to a vehicle ▪ Use of smartphones for household bill payments and purchases *Travel details* ▪ Trip purpose ▪ Mode of travel ▪ Trip frequency ▪ Trip distances ▪ Trip time ▪ Trip cost

Source: WRI India and The Urban Catalysts (TUC) authors.

- Drivers engaged in passenger or freight mobility services
- Individuals commuting daily beyond the BBMP limits
- Individuals travelling less than once a week

Table 3 presents the variables used for the analysis.

Overview of the survey dataset

The survey captured detailed trip information from individual respondents, who were asked to recall either all travel undertaken the previous day or, if they had not travelled the previous day, the most recent trip. To ensure comparability, trip-frequency data were normalised[3] to weekly equivalents. Trip purpose was recorded under work, household purchases, education, leisure/recreational, social, health, escorting, and religious. Care trips were identified from the travel diaries as those involving household purchases or escorting dependents. Table 4 presents a summary of the final survey sample and trips analysed.

Pearson's chi-square (χ^2) tests were conducted to examine whether observed differences in care-related travel patterns (share of MoC trips, mode choice) were statistically significant across gender, occupation, and income categories (Table 6).

Table 4 | **Overview of survey respondents and trips analysed**

SURVEY COMPONENT	COUNT
Total respondents surveyed	6,886
Final sample for analysis (364 respondents were excluded due to the unavailability of trip-frequency data)	6,522
Total trips recorded (after normalisation)	39,370 (Women: 34% and men: 66%)
Care-related trips (after normalisation)	7,237 (Women: 82% and men: 18%)

Source: WRI India and The Urban Catalysts (TUC) authors.

FGDs with participatory mapping

FGDs with participatory mapping were conducted to understand neighbourhood-level caregiving-related travel routes and choices. FGDs enabled diverse participants —women, men, older adults, students, TG persons, and PwDs—to articulate caregiving roles, trip organisation, and mobility barriers.

Through participatory mapping, daily caregiving routes to key destinations such as schools, clinics, and markets were traced and digitised in a geographical information system linking lived experiences with spatial diagnostics to show how caregiving mobility is shaped by the built environment.

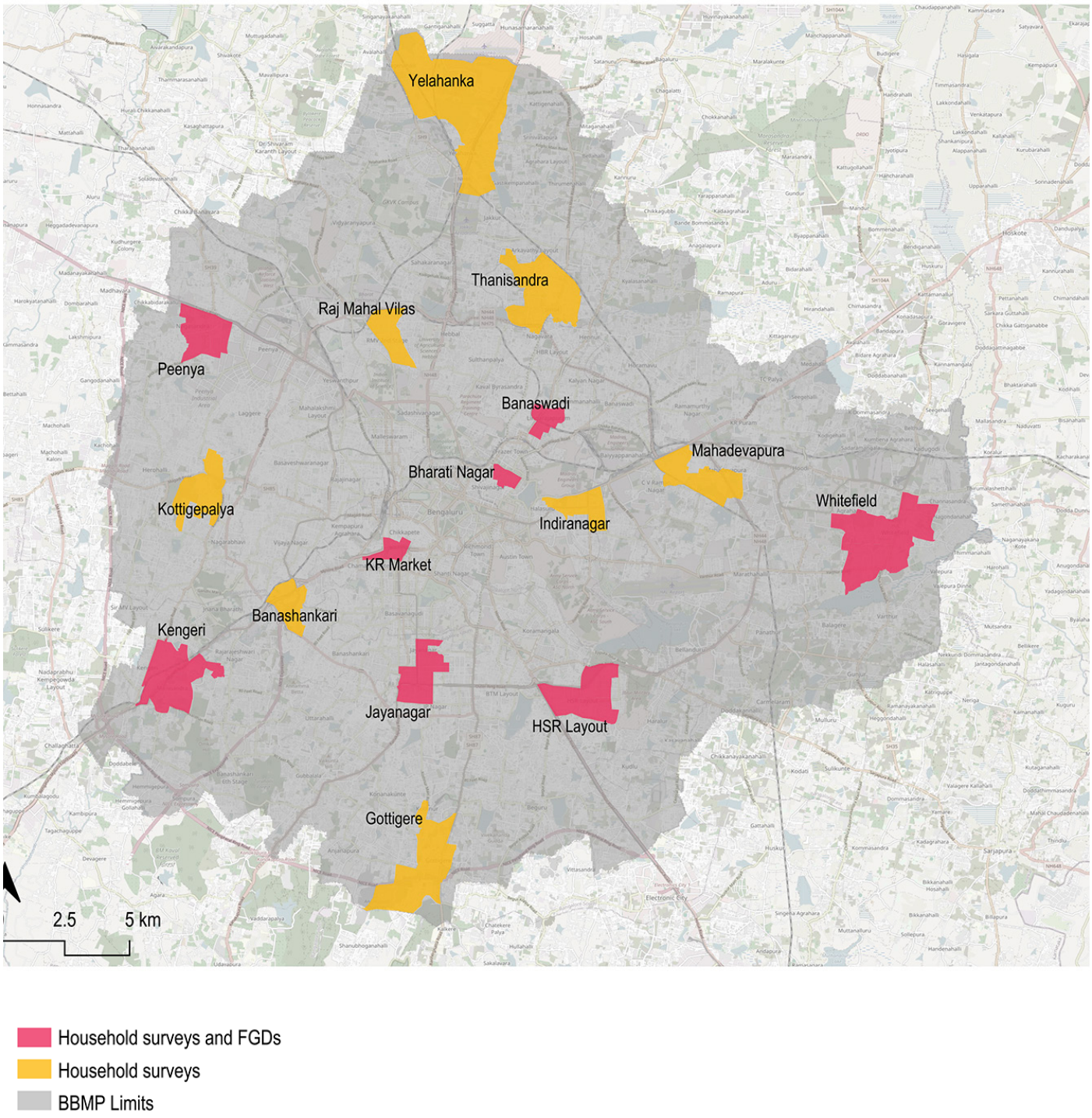
A total of 18 FGDs were held across eight neighbourhoods (Figure 1), involving 108 participants, with 6 participants per discussion (Table 5). Table B-1, Appendix B, and Table C-1, Appendix C, present detailed participant profiles and sample distributions.

Table 5 | **Composition of FGDs conducted across neighbourhoods**

FGD GROUPS	NO. OF PARTICIPANTS
Women's groups (8 neighbourhoods)	48
Men's groups (8 neighbourhoods)	48
PwDs	6
Transgender participants	6
Total	**108**

Note: FGD = focus group discussion. PwD = person with disabilities.
Source: WRI India and The Urban Catalysts (TUC) authors.

Figure 1 | **Neighbourhoods selected for FGDs in Bengaluru**



Note: FGD = focus group discussion.

Source: WRI India and The Urban Catalysts (TUC) authors.

KIIs

KIIs were undertaken to understand how MoC is framed in policy discourse, why caregiving trips are absent from models, and what opportunities exist for integration. A total of 13 experts, including transport specialists, care economy experts, and government officials, were interviewed. Their insights revealed institutional narratives, priorities, and gaps in focus areas, providing the policy context for interpreting the study's findings.

The overall analysis triangulated insights from all data sources. The FGDs helped explain patterns observed in the household survey, while the KIIs contextualised these results within Bengaluru's urban and transport planning frameworks, identifying potential entry points for creating care-responsive cities.

Appendix A gives further details on the study's research design, sampling, and data collection.

Limitations of the study

- The analysis is limited to unpaid care-related travel and excludes trips linked to paid care, community care, and self-care, whose mobility patterns may differ in nature and frequency. Care mobility is shaped by patriarchal norms, with women bearing a disproportionate share of paid and unpaid care work. An examination of these norms or redistribution of UDCW is outside the scope of this paper.
- This paper focuses on illuminating the nuances of care-related travel and does not examine how care mobility data can be integrated into transport models.
- This paper is specific to Bengaluru; its findings are context-dependent and may not be directly applicable to other Indian cities.

Findings

This section presents findings on the nature and scale of MoC in Bengaluru based on household surveys, FGDs, secondary research, and KIIs.

Profile of individuals performing care trips

Among the respondents, 51 percent are women and 78 percent of all respondents are aged between 19-45 years. Almost one-third report no income,[4] reflecting unemployment and economic dependence, with most belonging to middle- and lower-income households.[5] Among women respondents, those in paid work make up the largest category, followed by homemakers (Figures 2A–2C). Among the working group, employment ranges from office work and self employment to domestic or office help, factory work, and other part-time or daily wage roles.

Figure 2A | **Distribution of respondents by age (in years)**

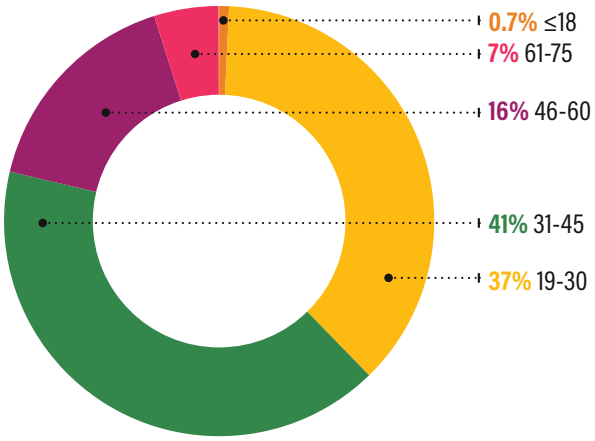
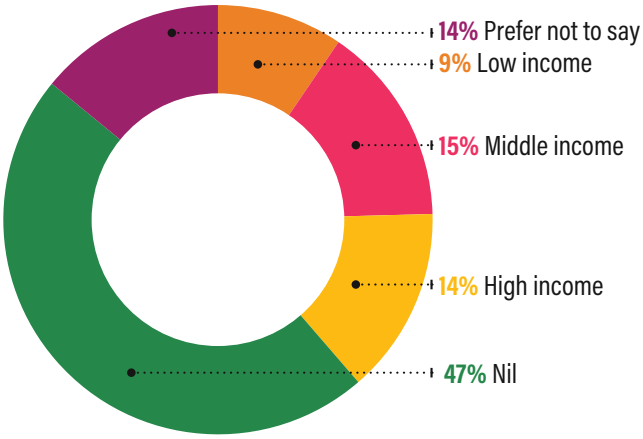
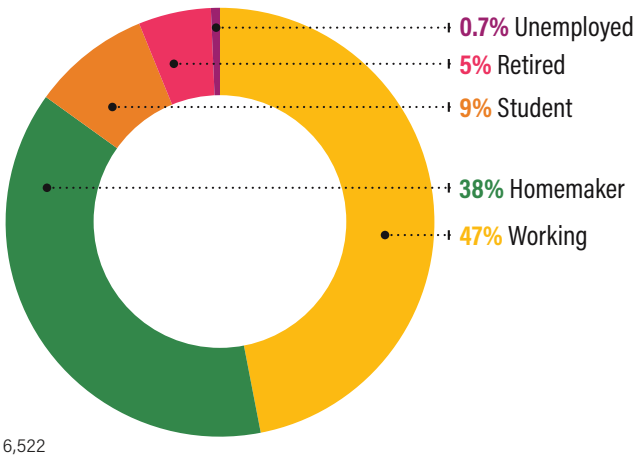


Figure 2B | **Distribution of respondents by individual monthly income**



Note: Income groups for individuals are categorised as follows: Nil (no household income), Low income (below ₹20,000 per month), Middle income (₹20,000 - ₹40,000 per month), High income (above ₹40,000 per month).

Figure 2C | **Distribution of respondents by occupation**



N= 6,522

Source: WRI India and The Urban Catalysts (TUC) authors.

Research has shown that women in urban India make fewer trips and are less mobile outside the home than men (Goel 2023). Our survey reflects a similar pattern in Bengaluru, where women account for only 34 percent of total trips. However, care-related travel shows a different dynamic. From the household survey data analysis, care trips account for 18 percent of all journeys in Bengaluru (Figure 3A), with women making 4.5 times more such trips than men, underscoring their disproportionate responsibility for unpaid domestic mobility. Within care mobility, household purchases dominate (90 percent), and women account for a majority of both household purchases and escorting trips (Figure 3B). The gender difference in MoC is statistically significant, at $p < .001$ (Table 6).

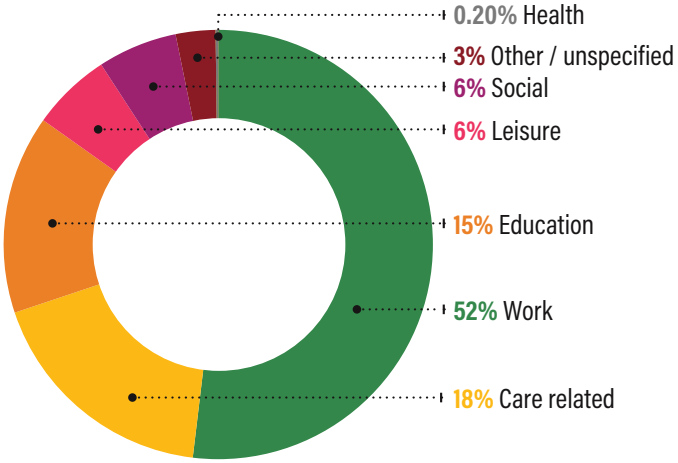
Income-based disparities in care trips are also stark and significant, at $p < 0.001$ (Table 6). Over three-fourths of care trips are made by non-earners (Figure 4A), almost entirely women, showing how those outside the labour force sustain daily caregiving travel. Care trips here include escorting dependents, provisioning, and running errands.

Non-earning women make six times more care trips than middle-income women, with men's participation remaining low, irrespective of income (Figure 4B). FGDs revealed that in high-income households, some redistribution occurs as women offload certain tasks to domestic workers or digital platforms even while they continue to shoulder the majority of household errands.

> *I have two small kids at home, and this [grocery delivery platform] is so useful because it helps me avoid the travel. I find it very helpful and I rely on it; I don't always have the time to go out and purchase everything myself.*
>
> – Homemaker, Jayanagar

> *At times, I ask the house help to purchase items outside, for which I provide her with some additional money to cover the errand.*
>
> – Working woman, Jayanagar

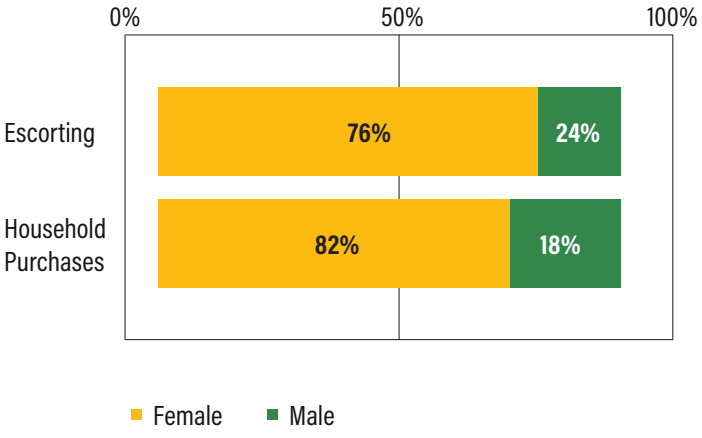
Figure 3A | **Overall distribution of trips by purpose**



N= 39,370 (estimated weekly trips)

Source: WRI India and The Urban Catalysts (TUC) authors.

Figure 3B | **Gendered distribution within care trips**



N = 7,237

Table 6 | **Association between gender and determinants of care trips (chi-square test)**

DETERMINANTS	X^2 VALUE	P VALUE	SIGNIFICANCE
MoC trip purpose	16.58	< .001	Significant
Income	3,575.39	< .001	Significant
Occupation	5,395.46	< .001	Significant
Mode choice	1,443.81	< .001	Significant

Note: MoC = mobility of care.

Source: WRI India and The Urban Catalysts (TUC) authors.

Figure 4A | **Distribution of care trips by income group**

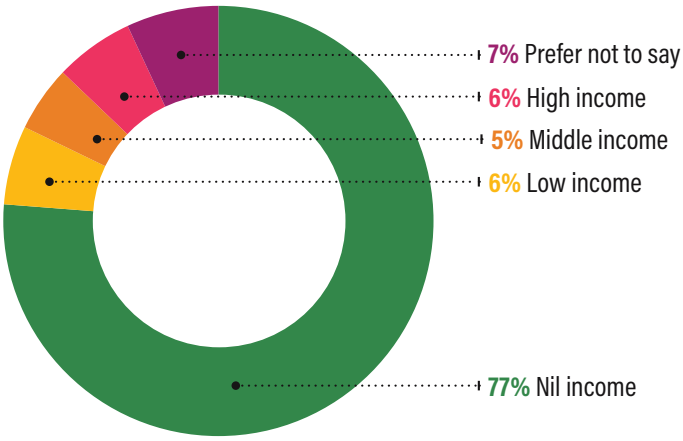
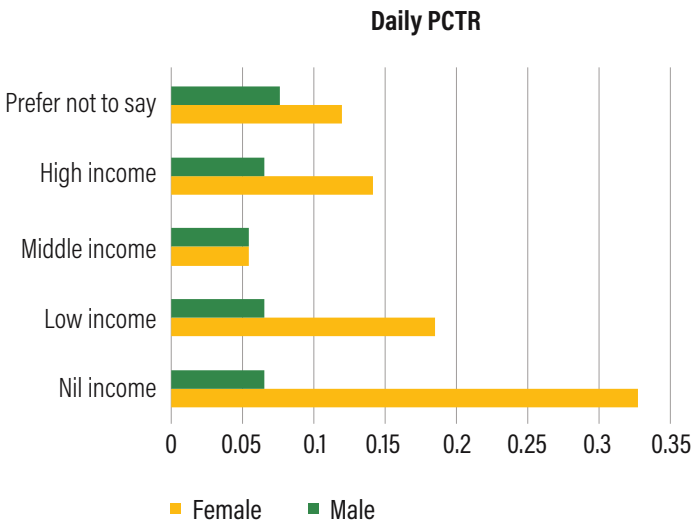


Figure 4B | **Daily PCTR of care trips by gender and income group**



N = 7,237

Note: PCTR = per capita trip rate. Income groups for individuals are categorised as follows: Nil (no household income), Low income (below ₹20,000 per month), Middle income (₹20,000 - ₹40,000 per month), High income (above ₹40,000 per month).

Source: WRI India and The Urban Catalysts (TUC) authors.

Care trips cluster between 19 and 60 year-olds (Figure 5A). Women's participation rises across these age groups, peaking at 46–60, reflecting the dual demands of caring for younger and older dependents (Figure 5B). Men's participation remains lower overall though a modest rise in midlife suggests some shift towards household responsibilities, possibly linked to eldercare. However, the gender gap remains substantial, with women in their 20s undertaking nearly five times as many care trips as men in their 20s, and this disparity persists among older age groups, even even in the 61-75 years age group.

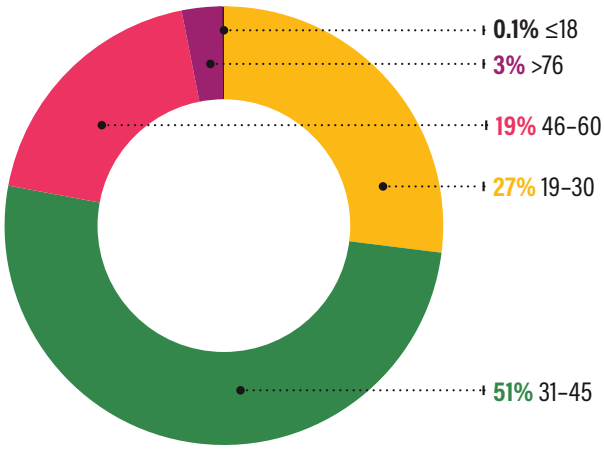
Occupation patterns also reinforce this picture. Homemakers, all of whom were women in our sample, record the highest care trip rates, nearly five times more than working women (Figures 5C and 5D). For working women, care mobility is constrained rather than absent, compressed into fewer trips as they balance paid work with unpaid care. Men's participation, by contrast, appears contingent. Their participation rises only when they are either unemployed or outside the labour force, pointing to a reactive rather than continuous role in caregiving. FGDs add further nuance, with homemakers consistently describing themselves as primary caregivers, responsible for errands and escorting dependents.

Taken together, the survey and FGDs show that MoC is structurally gendered and closely tied to economic dependence and life-course transitions. Women make 4.5 times more care trips than men, and non-earners, predominantly women, account for most care trips, indicating that unpaid care sustains daily mobility demand. International research underscores that gender differences in caregiving mobility emerge gradually with life-course transitions.

In Germany, homemakers and part-time workers made more daily trips than full-time workers (Nobis and Lenz 2005), illustrating how occupation status shapes both frequency and travel purpose. In Barcelona, Montero et al. (2023) found that daily mobility patterns among men and women diverge age 30 onwards, as caregiving and family responsibilities multiply. Whereas women's trips diversify into escorting and provisioning, men's trips remain more linear and work-focused.

In Bengaluru, however, this divergence occurs earlier, with women undertaking more care-related travel from travel age 19 onwards. This shift may be attributed to demographic and social factors. In Karnataka, 84 percent of women marry by the age of 25 and most first births occur between the age of 20 and 29 years (IIPS 2021). Such transitions accelerate women's entry into unpaid caregiving roles, reinforced by patriarchal norms that position them as primary caregivers (Roy 2024). These responsibilities not only reshape women's daily mobility (Craig and van Tienoven 2019; Tiznado-Aitken et al. 2025) but also constrain their participation in the labour force during their prime working years (Chakraborty et al. 2018; Roy 2024).

Figure 5A | **Distribution of care trips by age group**



N = 7,237

Figure 5B | **Daily PCTR of care trips by gender and age group**

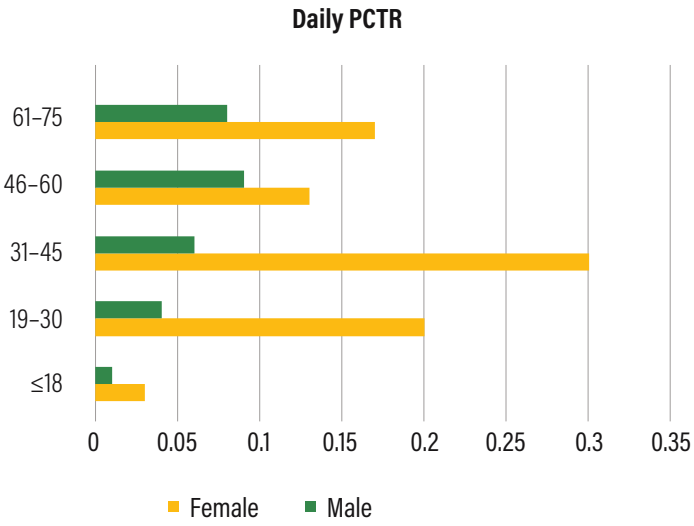
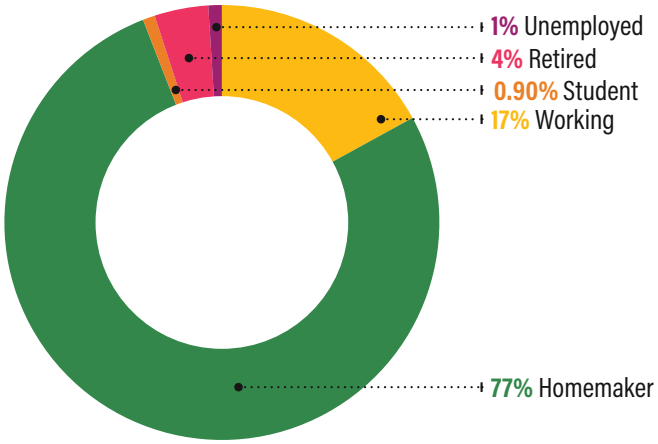
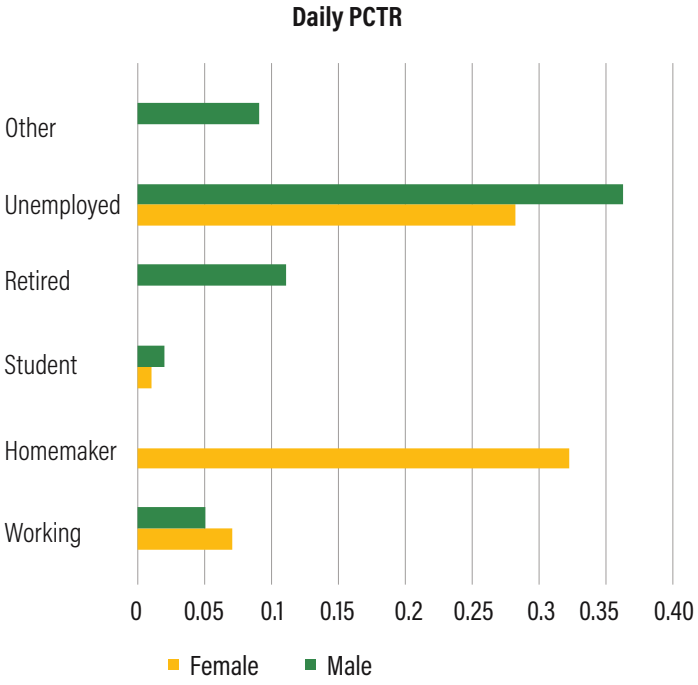


Figure 5C | **Distribution of care trips by occupation group**



N = 7,237

Figure 5D | **Daily PCTR of care trips by gender and age group**



Note: PCTR = per capita trip rate.

Source: WRI India and The Urban Catalysts (TUC) authors.

Characteristics of care trips

This section describes the key variables (Table 3) of care-related travel in Bengaluru.

Travel distance and time

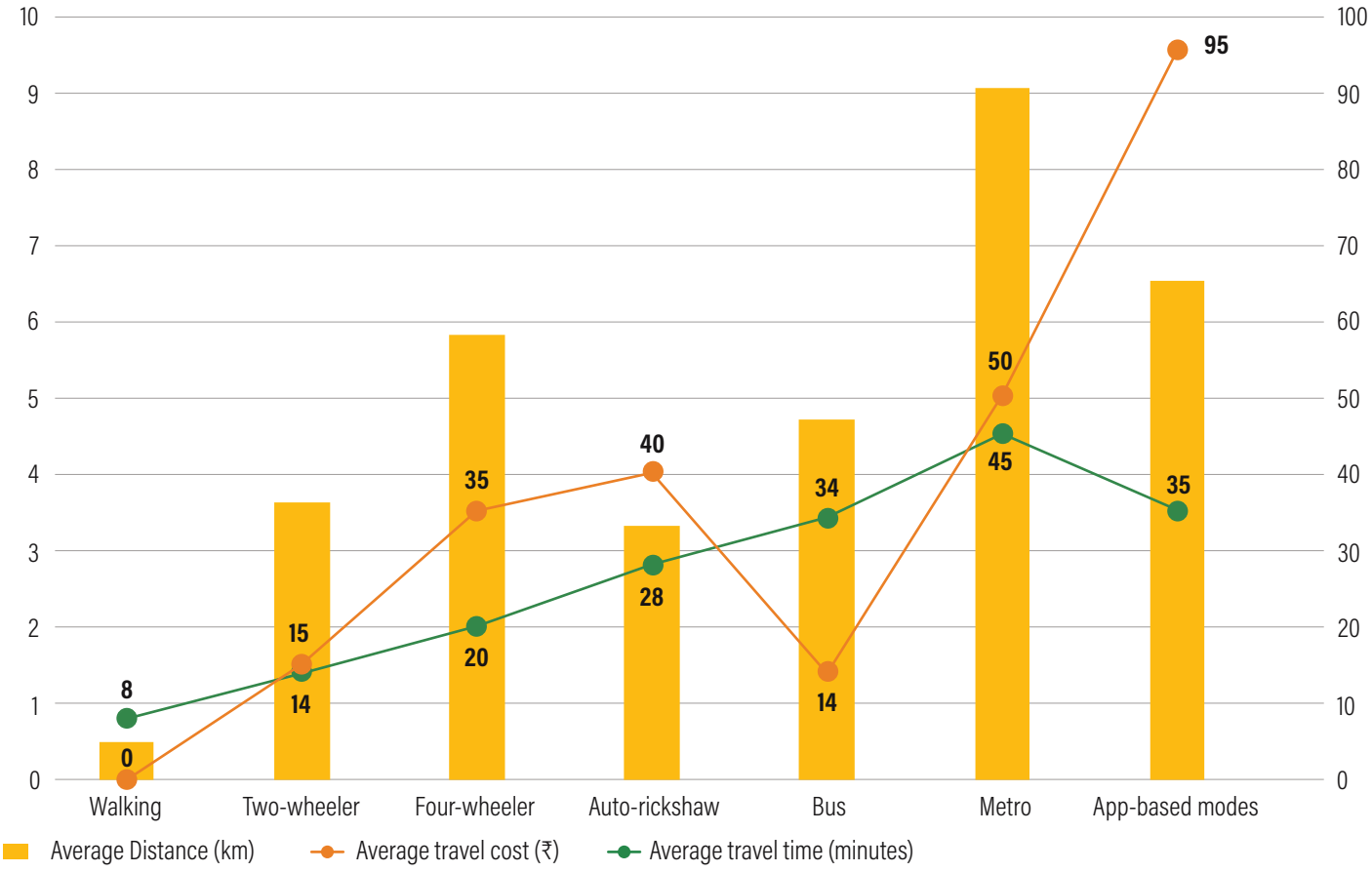
Care trips are shorter and slower than non-care trips, averaging 2 km and 5 km, respectively (Table B-1, Appendix B), largely due to greater reliance on walking. Household purchases and escorting average about 1.8 km and 2.8 km, respectively. Escorting trips are typically longer, reflecting the need to travel beyond the neighbourhood for education, healthcare, or other services that are either perceived as higher quality or unavailable locally. For longer journeys, cars, the metro, and app-based services dominate, while buses are rarely chosen (Figure 6). The FGDs suggest that PT is usually avoided for care-related travel due to limited connectivity, infrastructure design, and comfort.

> *To reach the metro or bus stop, we usually need to take an auto. But autos are expensive and not always available. That's why I avoid public transport, especially when travelling with family, it's just too much of a hassle.*
>
> – Homemaker, Bharati Nagar

> *When travelling with elderly persons or children, walking to the bus stop and boarding the bus becomes difficult. It feels easier to take an auto and reach the destination directly. Buses are crowded, seats are hard to find, and even getting in is a challenge, so we prefer not to use them.*
>
> – Working woman, KR Market

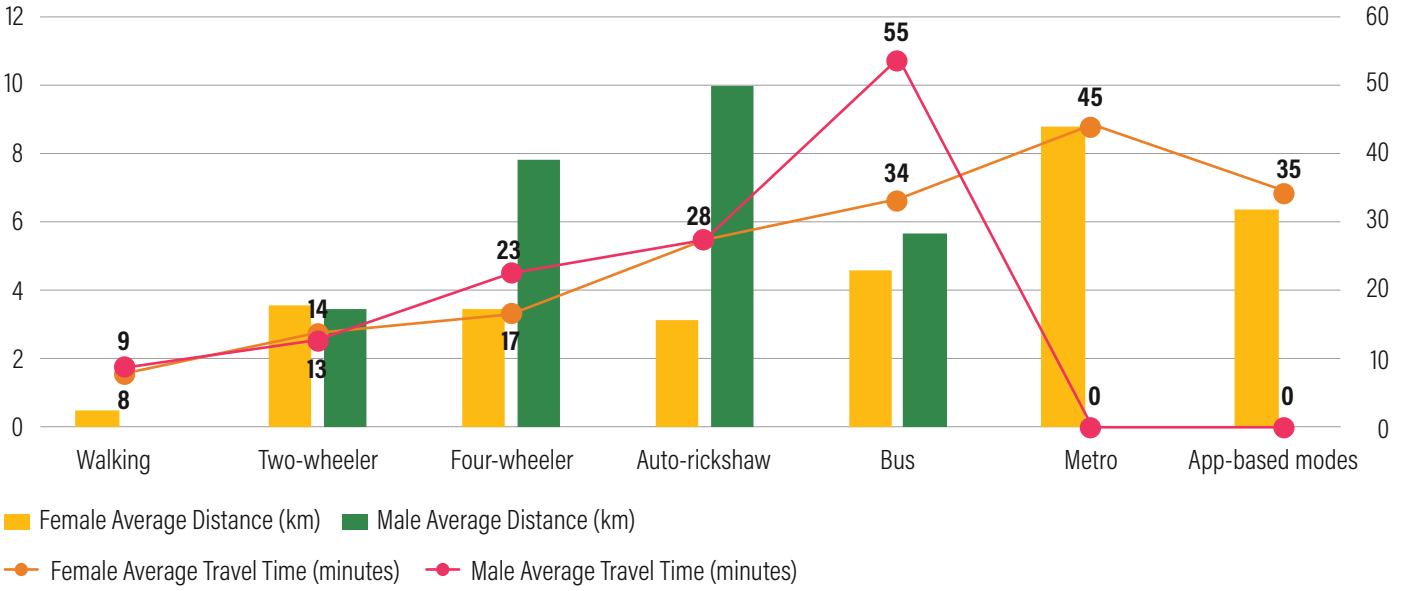
Women's motorised care trips are shorter, while men tend to travel farther on most modes, particularly by car and auto-rickshaw (Figure 7). The difference may be attributed to the time constraints created by household responsibilities and the more localised nature of women's travel (Sánchez de Madariaga 2013; Singh et al. 2025). Women's care trips were also slightly longer than those of men across four-wheelers (Figure 7), likely due to slower and potentially safer driving practices (Pan et al. 2023).

Figure 6 | **Average travel distance (in km), time, and cost for MoC trips, by mode**



Note: MoC = mobility of care. N = 7,237 (distance and time). Costs are expressed only for motorised modes (N = 2,658).
Source: WRI India and The Urban Catalysts (TUC) authors.

Figure 7 | **Average travel distance and time for MoC trips, by mode and gender**



N = 7,237

Note: MoC = mobility of care.

Source: WRI India and The Urban Catalysts (TUC) authors.

Travel frequency

Care mobility is largely periodic, with more than half of the trips occurring 1–2 days per week with almost 91 percent of them made by women and only a small share made daily. Men appear proportionally more concentrated in the 3–5 days per week band, but women outnumber them across all frequencies. Even in daily care travel, women account for over two-thirds of trips, reinforcing the disproportionate burden of care mobility on them, whether routine or occasional.

Travel mode

Care trips are most often made on foot, followed by two-wheelers (Figure 8A). Women account for the majority of care trips across all modes except cycling (Figure 8B). The chi-square test confirms a statistically significant relationship between gender and mode choice ($p < 0.001$) (Table 6). Notably, three-fourths of women's walking trips are made by those without access to a vehicle. Conversely, a quarter of women who do have such access still walk, indicating barriers such as a lack of decision-making authority regarding the use of these vehicles (Balachandran and Desai 2024; Blumenberg et al. 2022). FGDs highlight two-wheelers as a preferred option for their flexibility and carrying capacity.

Figure 8A | **Overall distribution of modes for care trips**

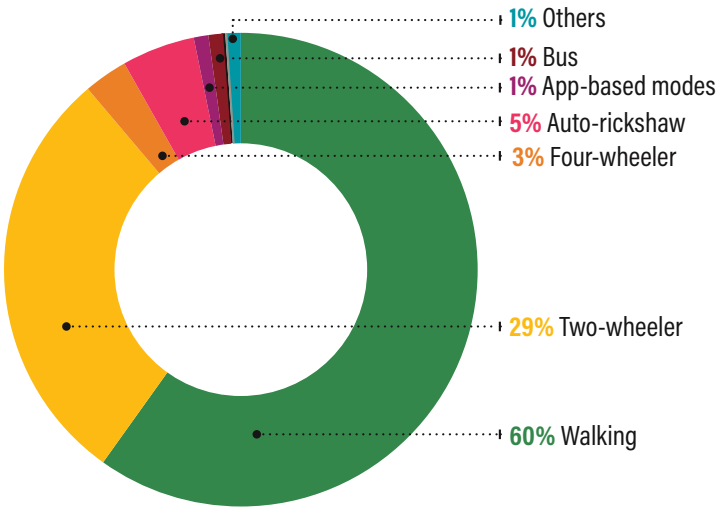
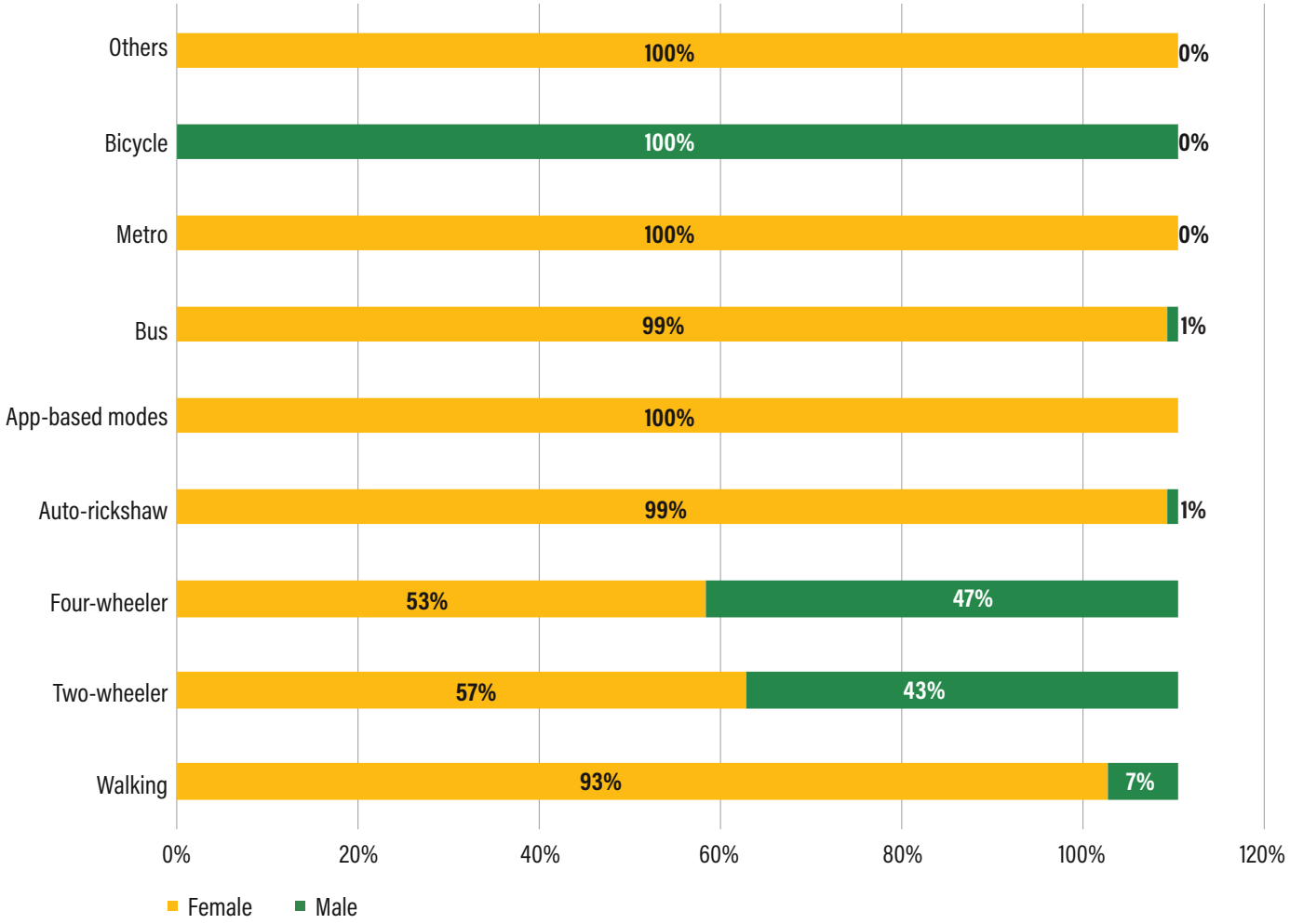


Figure 8B | **Gender-wise variation in mode use**



N = 7,237

Source: WRI India and The Urban Catalysts (TUC) authors.

> *I use the two-wheeler for household purchases and escorting my children because it's faster and makes it easier to carry things.*
>
> – Homemaker, Bharati Nagar

> *For household purchases, I walk, it's close by and manageable. But when I have to drop the kids, I use the two-wheeler. It's faster and easier, especially with their bags.*
>
> – Homemaker, Bharati Nagar

Trip chaining

Most journeys (86 percent) are undertaken as simple onward and return trips, with trip chaining remaining relatively limited. However, within the smaller share of chained travel, care accounts for 38 percent of such trips. Mode choice for chained care trips mirrors overall MoC patterns: two-wheelers dominate, followed by cars for high-income groups and walking for middle- and lower-income groups. Those who reported having no income rely mainly on walking, followed by two-wheelers. FGDs highlighted that trip chaining in household purchases and escorting is frequently combined with either work or leisure. By contrast, health-related escorting stands out as largely independent, reflecting its urgency and focused purpose, which leave little scope for combining them with other activities (Tables C-4 to C-12, Appendix C).

Bengaluru's lower share of chained trips differs from cities such as Madrid and Montreal, where trip chaining is a prominent feature of daily mobility, especially for women (Ravensbergen et al. 2023; Sánchez de Madariaga and Zucchini 2019). FGDs with women who identified as homemakers highlight a key insight: care trips in Bengaluru are shaped by, and scheduled around, the demands of care work at home. This may also be read in the context of household structures in India, where the average household size remains relatively high at 4.4 persons (IIPS and ICF 2022), female-headed households remain a minority, and female-headed households tend to be smaller than male-

headed households, as indicated by Census-based analysis (MoSPI 2018; Chandramouli 2013). Together, these patterns suggest a context in which women's unpaid domestic responsibilities may be embedded within relatively larger, predominantly male-headed households although household size alone should not be treated as a direct measure of care burden. Time-bound household responsibilities and spatially dispersed services leave limited scope to combine errands. This is further constrained by mode choices because reliance on walking makes multi-stop travel difficult and, at times, unsafe, particularly when carrying groceries or accompanying dependents. By contrast, private car use in many Western cities provides the capacity and convenience needed for multi-stop travel. FGDs revealed that many women, especially homemakers, undertake single-purpose care trips because other household or caregiving responsibilities require separate journeys.

> *I have small kids at home, and since my husband leaves for work early, I don't get time to combine chores. I step out in the morning for milk, return for housework, and go out later to buy vegetables when I am free.*
>
> – Homemaker, Jayanagar

> *I can't combine trips because everything has to be done at a specific time. My in-laws need tea and coffee on time, and groceries have to be fresh. Since shopping can take time, I buy milk first, then go out again later for the rest.*

– Homemaker, Bharati Nagar

Care travel by PwDs

The FGDs with PwDs in Banaswadi (three male and three female participants) highlighted their role not only as recipients of care but also as caregivers, with their daily mobility shaped by both physical barriers and social stigma. Men and women described regularly escorting children to school and running household errands as part of shared family responsibilities when others were engaged in paid work or elsewhere.

Route choices reflected concerns over safety, physical effort, and the suitability of roads for assistive devices or modified vehicles. Some participants preferred familiar interior streets to reduce effort, whereas others chose wider main roads for easier manoeuvring of modified vehicles despite higher traffic risks. Speeding vehicles, obstructed footpaths, and unsafe crossings posed serious challenges, often while escorting dependents. Beyond these risks, social stigma and name-calling further compounded their vulnerability.

> *Over-speeding and rash driving make walking and crossing the road very unsafe. People also tease or call me names when I go out, which is very upsetting.*
>
> – Male PwD

Buses were the least preferred option. Steep steps, overcrowding, and the reluctance of co-passengers to offer seats made buses physically difficult to use. Derogatory remarks from conductors and co-passengers questioning their right to travel created additional emotional distress. Although several participants emphasised their ability to travel independently, they acknowledged moments of "unavoidable reliance" on others, such as assistance with crossing busy roads.

> *I avoid buses with my family because conductors and passengers make remarks such as, "Why do people like you need children?" or "Why travel outside? Can't you just stay at home?" It is upsetting, so we prefer taking an auto.*
>
> – Female PwD

> *I am not dependent on my family for my travel, but because of my condition, I sometimes need help from other people to cross the road safely*
>
> – Male PwD

These accounts show that for PwDs, care mobility is not an exception but a routine part of household life. Familiar routes and modified vehicles help manage travel, but unsafe conditions and social stigma make it physically and emotionally taxing. Addressing this requires recognising PwDs not only as recipients of care but also as active caregivers and transport users whose needs must be embedded in planning.

Care travel by TG persons

For TG persons, MoC is shaped most strongly by safety concerns and experiences of social exclusion. To avoid harassment, many choose longer routes, travel farther for services, or avoid PT altogether, making care trips more time-consuming, costly, and burdensome than for other groups. Women also face the risk of harassment, but TG persons in India are reported to be four to five times more likely to be harassed on PT (Gupta 2023; OMI Foundation 2023). Beyond harassment, verbal abuse, physical assault, and exclusion from public facilities make everyday travel unsafe and distressing (Behal 2022; Ison et al. 2023).

The FGDs in Peenya highlighted how these dynamics shape TG persons' care-related mobility. Participants described undertaking errands and household purchases, often with little family support but occasional help from peers in the TG community. Safety shaped their route choices, with most avoiding secluded interior lanes to reduce the risks of stalking and verbal abuse, even if this meant longer commutes.

> *Some men follow us or pass comments when we take the interior roads. That is why we avoid them and choose the main road instead, even if it is longer, because it feels safer with more people around.*
>
> – TG Person 1, Peenya

> *'I always take the main road. On interior roads, if someone teases or harasses us and we shout, no one comes to help, people just shut their doors. But on the main road, if such things happen, at least there are people around who might help.*
>
> – TG Person 2, Peenya

Two-wheelers are used to carry groceries, shared auto-rickshaws for larger purchases, and walking for nearby errands. Destination choices are influenced by how participants are treated. Many bypass shops or hospitals where they face "ridicule" and chose to travel farther for "respectful service." The TG persons in the study reported that auto-rickshaw drivers frequently refuse rides, overcharge, or ignore them. Public buses, though free with the TG card, are avoided when travelling with family to "protect them from embarrassment or taunts" made by the bus crew or passengers. Metro services, however, were described as comparatively respectful and inclusive.

> *For some purchases or when I need to go to work, I am often unable to hail an auto. Many drivers cancel or refuse to stop when they see me. Even if they agree, they overcharge, knowing we have no other option.*
>
> – TG Person 1, Peenya

> *I use the TG card for free bus travel, but not when I'm with family. People say, "Look how her son has become," or "Why do you need a TG card? You look like a man," which embarrasses my family. I only use the card when I'm alone, so I can explain if the conductor questions me.*
>
> – TG Person 2, Peenya

These narratives show that for TG persons, MoC involves not just running errands but also navigating stigma and exclusion. Addressing these barriers requires transport systems that ensure not only physical access but also social acceptance, dignity, and safety in everyday travel.

Care mobility involves short distances, and the mode is dominated by walking and two-wheelers because public transport is often avoided due to last-mile gaps, crowding, and low comfort. These constraints, along with the need to carry loads and escort dependents, limit trip chaining. For PwDs and TG persons, navigating stigma, refusals, and harassment further increases time and stress. This makes it clear that care mobility is not only about efficiency but also about dignity and rights, especially for marginalised groups.

Spatial patterns of care travel

A spatial mapping exercise was undertaken to trace and understand route choice for care trips (Appendix C).

Care destinations, land-use mix, and street network density

The FGDs indicated that trip distance is not the primary factor shaping care travel destinations. Caregivers consistently prioritised quality, reliability, and trust over proximity. Nearby facilities are bypassed if goods or services are perceived as inadequate. This was evident in household purchases, education, and healthcare-related escorting. In KR Market, proximity to the city-level market kept most household purchase trips within the neighbourhood, whereas in Bharati Nagar, despite the presence of local stores, many residents travelled farther to Russell Market, drawn by greater variety and quality.

> *There are schools nearby, but I put my kids in Bishop Cottons since I studied there myself. There aren't good ICSE[6] schools close by, so I don't mind the distance for better education.*
>
> – Working woman, Bharati Nagar

> *We take my grandmother to a hospital on Bannerghatta Road because the doctor we consult is there. Even though similar hospitals are nearby, we prefer going to him.*
>
> – Working male, HSR Layout

Route choices

The FGDs indicated that the route choice for MoC depends on street-level conditions such, as lighting, people's presence, and perceived safety. Women explained these choices in terms of road safety and personal security, for themselves and for children, preferring interior routes during the day but shifting to main roads after dark for better lighting and the presence of people. Men, by contrast, often used internal roads as shortcuts to avoid traffic, signals, or police checks. Care trips in the study areas occurred both on wider main roads, where key destinations such as schools, grocery stores, and pick-up/drop-off points were located, and on narrower internal streets,

often used as shortcuts or connectors within neighbourhoods. When disaggregated by width, the majority of trips occurred on roads wider than 12 metres (m), followed by internal streets (6–12 m) (Table C-3, Appendix C).

> *When I'm dropping and picking up my kids from school, I avoid the main road because of heavy traffic. Even if the internal road is longer, it feels safer as the kids can walk more freely.*
>
> – Homemaker, Kengeri

> *I prefer internal roads on my two-wheeler because they're faster and I can avoid signals and fines for not wearing a helmet.*
>
> – Working male, KR Market

These patterns underscore that access to services depends not only on where facilities are located but also on the safety and usability of the streets that connect them.

Overall, the spatial analysis indicates that care access is shaped by the interaction of service quality and street usability.

Caregivers may travel farther for trusted services, but whether such trips are feasible, especially when escorting dependents or carrying loads, depends on safe, navigable routes.

Care-related travel in planning instruments and institutions

This subsection, which draws on KIIs and secondary reviews, summarises how care-related travel is currently integrated in planning.

The KIIs with transport experts revealed that city-level transport planning instruments, such as CMPs, classify trips under broad purposes such as work, education, or shopping. They neither explicitly recognise MoC nor report data on it.

At the national level, the Time Use Survey (NSO 2024; TUS 2024) captures how individuals allocate time over a 24-hour period, offering insights into UDCW. Although the TUS provides insights into unpaid domestic and caregiving work, including related travel, the number of samples is insufficient to inform city-scale decisions.

The 15-minute city framework advocates embedding everyday services within walkable catchments; however, critiques highlight that households often bypass nearby options unless services are reliable (Mouratidis 2024; Pozoukidou and Chatziyiannaki 2021). Our findings reflect this tension. Although care trips in Bengaluru are generally short, averaging around 2 km, escorting trips are longer than trips for household purchases, indicating that essential destinations such as schools and healthcare are not always available or preferred within the immediate neighbourhood. A Bengaluru-based study on 15-minute neighbourhoods found that limited availability and accessibility of essential services compel residents to travel long distances for daily needs (Sarvadevabhatla et al. 2025).

Urban planning frameworks in India, such as the Urban and Regional Development Plans Formulation and Implementation (URDPFI) Guidelines 2014, the National Building Code 2016, and the Standardized Development and Building Regulations 2023, outline standards for amenity provision and development controls within residential layouts. The URDPFI Guidelines recommend locating primary schools, health centres, local markets, and childcare centres within a 5- to 15-minute walking distance (300–800 m) from residential areas. They recognise that women who shoulder a disproportionate share of care responsibilities are particularly impacted by poor accessibility (MoUD 2014). However, although these frameworks define minimum norms for providing amenities, they neither adequately address service quality, including reliability, functional adequacy, and users' ability to access trusted facilities nearby, nor emphasise the co-location of related services that could reduce care-related travel burdens.

At the city scale, Bengaluru's RMP 2015 reflects similar limitations. Although it promotes compact, mixed-use development supported by PT, it does not offer clear guidance on service quality, including the reliability and functional adequacy of amenities. Additionally, KIIs with officials from BBMP and Department of Women and Child Development indicate that urban service improvements by departments are often implemented in isolation. Safe access routes to facilities such as *anganwadis*,[7] schools, or health centres may not be improved when they are upgraded or constructed.

Conclusion

This empirical research aimed to classify, measure, and map care travel in Bengaluru, a megapolis in a low-to-middle-income country in Asia. It combined quantitative, qualitative, and spatial analyses to provide a baseline for the city. Care trips constitute around one-fifth of Bengaluru's trips, with clear gender, age, income, and occupation dynamics. Women in the low-income group and non-earning homemakers, largely within the main working-age population, are predominantly responsible for care trips. The average trip distance is 2 km, with the quality of amenities shaping the destination choice. Walking is the predominant mode of transport, followed by two-wheelers, with negligible shares of IPT and public buses. This has important implications for creating care-responsive cities.

MoC needs to be viewed as part of the continuum of UDCW performed by carers, predominantly women, between their domestic and public spheres. This impacts their life choices in terms of either seeking employment close to home or staying

out of the labour force. Simultaneously, travel for care brings the well-being of household members in focus, compelling us to look at public health, education, and social amenities not as land use in city master plans but as essential infrastructure.

By combining quantitative, qualitative, and spatial analyses, this study has produced an empirical baseline for Bengaluru and demonstrated the gendered and socio-economic dimensions of MoC. The findings extend the scope of planning for MoC into transport, urban planning, and infrastructure design.

Recommendations for integrating MoC in planning frameworks

Bengaluru's planning is nested within state and national planning frameworks and databases. Recommendations are proposed simultaneously at the national and local scales.

Integrate care-related mobility data into transport and planning databases. For Bengaluru, future CMP iterations should design household survey instruments to explicitly measure care-related travel by trip purpose. This will enable an understanding of how care and non-care trips are performed and their distinctive needs. In reports, MoC indicators should be routinely disaggregated by disability status and TG identity using inclusive sampling and accessible data-collection protocols. Mobility linked to household services such as delivery and gig work should also be measured, given its role in supporting household functioning. To strengthen institutional accountability, agencies should integrate MoC indicators into CMP and service performance monitoring and align related investments through gender-responsive budgeting in transport. To extend the provision-based approach to quality- and care-oriented planning, lessons can be drawn from global and national experiences. Bogotá's manzanas del cuidado (care blocks) offer an example of integrated, care-oriented service clustering for lower-income women caregivers although access to these hubs remains uneven across the city (Lampoon 2025; OPSI 2022). Sweden's family centres similarly illustrate integrated service provision though the accessibility benefits of such models depend on their coverage, siting, and transport connectivity (Lindgren and Puskás 2024). In India, Odisha's Rooptola Care Cluster integrates an anganwadi, a children's library, a park, and a space for a women's self-help group within a single locality (UNDP 2024).

In Bengaluru, planning instruments such as the TOD Zone Plans and the Ward Development Plans mandated under the Bengaluru TOD Policy 2022 and the Greater Bengaluru Governance Act 2023, respectively, provide avenues to embed neighbourhood-level care-responsive planning. Participatory mapping of local needs and strategic co-location of services can operationalise this approach. An immediate opportunity lies in leveraging Bengaluru One Centres, which function as one-stop citizen service hubs (GoK 2025b). Integrating complementary facilities, such as child and eldercare centres, skilling programmes, and wellness spaces, could transform these centres into localised care blocks, reducing the need for multiple trips.

Develop inclusive and affordable local PT services. The FGDs revealed that PT in Bengaluru is often avoided for care-related travel due to limited connectivity, poor last-mile access, and inadequate comfort. Participants also noted that reaching a bus stop or metro station requires an intermediate auto-rickshaw trip, which is costly and unreliable. Network-based research in Bengaluru found that 51 percent of the city's population, particularly in peripheral areas, exhibits a high-to-very-high need for PT, but these areas have the weakest network connectivity (Ghosh et al. 2022).

Frequent zone-based PT services (minibuses, vans) integrated with mainline radial and ring routes can be explored for short trips as a credible alternative to two-wheelers. The design of vehicles should consider space for bags and accessibility. Fare-free services or fare integration (along with physical and information integration) would be key to ensuring affordable services. Delhi's DEVI buses offer a useful Indian example of neighbourhood-level interconnector services introduced to improve local access and last-mile connectivity (Dutta 2025).

Prepare neighbourhood-level plans to create secure walking environments and regulate two-wheeler use. Internal and access streets form the backbone of everyday household travel, enabling short, local trips that remain largely invisible in city-scale transport planning. FGD participants reported that residents frequently used these streets as shortcuts to save time, but safety considerations, particularly among women, compelled them to take longer routes.

Nearly 43 percent of Bengaluru's road network has a right of way below 10 m (DULT and BMRCL 2020). If the travel demand along these streets is inadequately addressed by sustainable modes that are secure, accessible, and convenient for carers, use of personal motor or electric vehicles and traffic congestion may increase and quality of life may further decrease. Secure walking environments are critical for caregiving mobility and reducing conflicts with two-wheelers. A neighbourhood-level mobility plan can directly serve walking trips and regulate two-wheeler use through a mix of urban design and PT measures. It can be created within the overall purview of a ward-level plan and incorporated within the ward or zonal budget.

Investigations of MoC have largely remained confined to transport research. This paper extends its relevance to urban transport and city planning in Bengaluru. It highlights the need to build a consistent evidence base on MoC in Indian cities and demonstrates a methodology adaptable to megacities such as Bengaluru.

Future research should extend the scope of research to paid service providers, self-care travel, and men's caregiving mobility, including the norms that keep care work feminised and unpaid. Together, these steps can help Indian cities make care travel visible in data and actionable in design, aligning everyday mobility systems with the needs of caregivers and the dependents they support.

Appendix A. Definition of care

Table A1 | **Terms for understanding care travel**

TERMINOLOGY	DEFINITION
Care (Sánchez de Madariaga 2013)	Paid and mostly unpaid work performed by adults for children, the elderly, and the sick, and for household functioning. The provision of what is necessary for health, welfare, maintenance, and protection. It includes early childhood education, long-term care, and healthcare and distinguishes between care recipients and caregivers and between paid and unpaid care.
Care work (ILO 2018; Plana 2022)	Historically and culturally performed mainly by women; vital for family and societal development yet neglected in urban planning. The provision of direct or indirect care without remuneration, typically within the household, and includes tasks such as caring for children, elderly, and sick individuals, as well as household chores.
Caregiving and unpaid care work (Sinha et al. 2024)	Includes physical care tasks such as feeding, personal care, and medical needs; unpaid domestic work such as cleaning and cooking.
Self-care and maintenance (MoSPI 2025b; NSO 2024)	Activities related to basic biological needs such as eating, sleeping, personal hygiene, and associated travel.
Care (Duffy et al. 2013; Esquivel and Kaufmann 2017; Middleton and Samanani 2021)	Care first appeared as an analytical dimension in economic studies from the perspective of feminist criticism. It focused on the recognition of unpaid domestic work, which is disproportionately carried out by women.
Domestic work as care (Benería 1999; Werner et al. 2011)	Positioned care as an extension of domestic work, emphasising the unequal workload borne by women.
Expanded dimensions of care (CARE 2014; Carrasco Bengoa 2007)	Advanced the study of care by including activities and spheres of action beyond domestic work and home management and emphasised the importance of quantifying care.
Broad definition of care (Conradson 2010)	Defined care activities as all activities necessary to guarantee the well-being and development of people, whether provided by the state, institutions, private providers, or family members without remuneration.
Household-serving trips (Mauch and Taylor 1997)	Linked to family and household responsibilities.
Mobility of care (MoC) (Sánchez de Madariaga 2013)	Trips necessary for sustaining households and communities, including escorting to school, healthcare visits, food shopping, and errands.
Domestic mobility work (DMW) (Gilow 2020)	Escorting dependents, running errands, and making household purchases, conceptualised as unpaid work.
Velo-mobilities of care (Ravensbergen et al. 2020)	Care trips carried out on bicycle.
Typologies of care (paid and unpaid) (Araujo and Hirata 2020; Murillo-Munar et al. 2023)	Paid care performed as a profession; unpaid care performed as an obligation.
Community care	Care provided as "help" mainly among low-resource groups who cannot pay for professional services and where it is not provided within families.
Unpaid care work (Duffy et al. 2015)	Highlighted the invisibility of unpaid domestic and care labour, mostly performed by women, as central to household and societal functioning.
Care work (Folbre 2006; ILO 2018)	Defined care work as activities that develop human capabilities through direct or indirect care, including childcare, eldercare, healthcare, and education; emphasised its devaluation due to its feminised and often unpaid nature.
Care economy (Ilkkaracan 2018)	Defined as paid and unpaid work involved in caring for others and sustaining households—includes domestic workers, health workers, delivery workers, and unpaid household labour.
Care economy (ILO 2018)	Encompasses all forms of paid and unpaid care work necessary for the well-being of people across the life course in homes, communities, and institutions.
Care work (India) (MoSPI 2025b; NSO 2024)	Defined unpaid care and domestic services as time spent on household maintenance and caring for children, elders, and dependents, excluding paid employment.

Survey data collection and analysis

Quantitative data

The selection of locations for data collection was designed to capture the full spectrum of Bengaluru's socio-economic diversity, as well as the spatial dynamics of neighbourhood location and access to public transport. Administrative wards, as defined by the Bruhat Bengaluru Mahanagara Palike (BBMP) in 2023, served as the primary unit of analysis. At the time of the study, the city comprised 225 wards, each with a comparable population size.

To ensure representation across varied urban contexts, wards were selected based on three key characteristics:

- **Proximity to the city centre**
  Using Shivajinagar/MG Road as the Central Business District (CBD), as identified in the Comprehensive Mobility Plan of Bengaluru, wards were classified according to their distance from the CBD.
- **Access to public transport services**
  Catchments of 500 m, 1 km, and 2 km around bus stops and metro stations with service frequencies of 10 min or less were mapped. Wards were then categorised as having high, medium, or low access to public transport, based on the proportion of their area falling within these catchments.
- **Presence of vulnerable population groups**
  Locations of notified slums, as per the Revised Master Plan 2015 (RMP 2015), were mapped. In addition, informal indicators, such as local markets and residential concentrations of social, religious, and gender minorities, were identified through consultations with local civil society organisations, including non-governmental organisations (NGOs) and resident welfare associations. Wards containing these markers were selected to represent the vulnerable groups.

Given that certain vulnerable groups, such as persons with disabilities (PwDs) and members of the transgender (TG) community, are dispersed throughout the city, interviews with these individuals were conducted at locations convenient to them. Thus, their mobility patterns may not be fully representative of all neighbourhoods.

[A] INDIVIDUAL-LEVEL DETAILS

1. Are you willing to take part in survey? (Yes/ No)
2. **Demographic details:**
   a. Member's gender (Male/ Female/ Transgender/ Prefer not to say)
   b. Age
   c. What is your last completed education level?
   d. Your current earning status
   e. If 'working', nature of work
   f. If not 'working',
      i. Do you have any monthly earnings from part-time work or pension? (Yes/ No)
      ii. What is your average earning per month?
   g. Do you use a smartphone?
      i. Do you do any of these activities online? (Purchases for the household/ Bill payment or booking repairs or other services)
3. **Travel preferences:**
   a. Which of these do you personally know to ride/ drive? Bicycle, Two-wheeler, Car, None
   b. Which of these is available to you whenever you need? Bicycle, Two-wheeler, Car, None
4. **Detailed Travel Diary** (please recall all the travel you undertook yesterday, or the last day you stepped outside your home in the past week)
   a. Trip Purpose for this leg
   b. How frequently do you travel for this purpose? (Reported for the first leg)
   c. Trip Start Time (Reported for two legs)
   d. Mode Of Transport
   e. Time Taken for travel by this mode
   f. Waiting Time for this mode
   g. Travel Cost for this mode
   h. Origin
   i. Destination
   j. Did you travel with someone? (Child, elderly, other family member, friends/ colleagues, alone)

Note:

- The average household size in the survey sample is 2.72, as compared to 3.7 for Bengaluru (DULT & BMRCL, 2020), which may result in lower number of care trips due to fewer dependents. In terms of workforce participation, 43% of the population in the sample is working as compared to 46% for urban Bengaluru (Census, 2011).
- In the study, care trips are defined as each trip leg recorded in the travel diaries that involve either household purchase or escorting activities.
- Since frequency of travel is recorded only for the first trip leg, it is assumed to be consistent for all other trip legs. The travel frequency is normalised using following assumptions:
  - Every day: 6.5
  - 3-5 Days in a Week: 4
  - 1-2 Days in a Week: 1.5
  - Once in 15 Days: 0.5
  - Once in a Month: 0.25
- Income groups for individuals are categorised as follows: Nil (no income), Low income (below ₹5,000, ₹5,000–₹10,000, and ₹10,000–₹20,000), Middle income (₹20,000–₹40,000), High income (above ₹40,000).
- Chi-square tests are conducted for the descriptive statistics and reported.

Survey Questionnaire

[i] ADMINISTRATIVE ENTRIES – FOR ENUMERATORS ONLY

S. NO.	FOR ENUMERATORS ONLY
1	HH Code: _____
2	Address: a. (Locality/ Ward) : _____ b. (Main Rd/ Cross Rd) : _____ c. (Nearest landmark/ bus stop name): _____
3	Building type ☐ Slum/ temporary shelter Skip to next section ☐ Independent house/ row house/ houses with shared walls Skip to next section ☐Tenement (a unit in a 2-4 floor building) Skip to next section ☐ PG accommodation/ hostel ☐ Government quarters (police/ customs etc.) ☐ Government allocated housing (LIG/ EWS housing) ☐ (Flat/ Apartment) ☐ Gated community/ Apartment complex) ☐ Other: _____
4	Name of apartment/ housing quarters/ gated community/ PG: _____

[A] HOUSEHOLD LEVEL DETAILS

S. NO.	FOR ENUMERATORS ONLY
1	How many members live in this household? _____
2	Member profile: Member no. 1 (main respondent)
3	Member's gender ☐ Male ☐ Female ☐ Other
4	Member's age : ____
5	Earning Status ☐ Student ☐ Working ☐ Home maker ☐ Searching for job ☐ Retired ☐ Other (please specify) _____

S. NO.	FOR ENUMERATORS ONLY
6	Does member go out of the house for any purpose at least once a week? ☐ Yes ☐ No
7	Purpose of travel ☐ Education/ learning-related ☐ Work/ work-related ☐ Escorting family members ☐ Household Purchase/ maintenance ☐ Medical ☐ General health/ leisure/ recreation ☐ Visit family/ friends ☐ Religious visit ☐ Other (please specify): _____
8	Main trip distance (km) one way _____
9	Is this inside BBMP limit? ☐ Yes ☐ No ☐ I don't know
10	Most used mode for this travel ☐ *Walk* ☐ *Bicycle* ☐ *Dropped by other* ☐ *Driving 2-wheeler* ☐ *Driving own auto* ☐ *Driving own car* ☐ *Company bus/ shuttle/ cab* ☐ *Bus* ☐ *Metro* ☐ *Auto* ☐ *App-based auto/ Cab/ taxi/ bike taxi etc.* ☐ *Other (please specify):*
11	**Does this person have any disability?** ☐ None ☐ Physical ☐ Visual ☐ Hearing ☐ Speech ☐ Mental ☐ Multiple/ other ☐ Prefer not to say
12	Is there another member in the family? ☐ *Yes* ☐ *No* Go to Q13 of this section

S. NO.	FOR ENUMERATORS ONLY
2.2	**Member profile: Member no. 2/ 3/ 4....**
2.3	Relationship with main respondent: ☐ Spouse (Wife/ Husband) ☐ Parent (Mother/ Father) ☐ Child (Daughter/ Son) ☐ Sibling (Sister/ Brother) ☐ Grandparent (Grandmother/ Grandfather) ☐ Grandchild (Granddaughter/ Grandson) ☐ Parent of spouse (Mother-in-law/ Father-in-law) ☐ Spouse of child (Daughter-in-law/ Son-in-law) ☐ Other (please specify): _____
2.4	Member's gender ☐ Male ☐ Female ☐ Other
2.5	Member's age
2.6	Earning Status ☐ Student ☐ Working ☐ Home maker ☐ Searching for job ☐ Retired ☐ Other (please specify) _____
2.7	Does member go out of the house for any purpose at least once a week? ☐ Yes ☐ No
2.8	Purpose of travel ☐ Education/ learning-related ☐ Work/ work-related ☐ Escorting family members ☐ Household Purchase/ maintenance ☐ Medical ☐ General health/ leisure/ recreation ☐ Visit family/ friends ☐ Religious visit ☐ Other (please specify): _____
2.9	Main trip distance (km) _____
2.10	Is this inside BBMP limit? ☐ Yes ☐ No ☐ I don't know

S. NO.	FOR ENUMERATORS ONLY
2.11	Most used mode for this travel ☐ Walk ☐ Bicycle ☐ Dropped by other ☐ Driving 2-wheeler ☐ Driving own auto ☐ Driving own car ☐ Company bus/ shuttle/ cab ☐ Bus ☐ Metro ☐ Auto ☐ App-based auto/ Cab/ taxi/ bike taxi etc. ☐ Other (please specify):
2.12	**Does this person have any disability?** ☐ None ☐ Physical ☐ Visual ☐ Hearing ☐ Speech ☐ Mental ☐ Multiple/ other ☐ Prefer not to say
2.13	**Is there another member in the family?** ☐ Yes (repeat 2.2 to 2.13) ☐ No Go to Q13 of this section
13	**What is the average monthly income of your family?** ☐ Below ₹2,000 ☐ ₹2,000 - ₹5,000 ☐ ₹5,000 - ₹10,000 ☐ ₹10,001 - ₹20,000 ☐ ₹20,001 - ₹40,000 ☐ ₹40,001 - ₹60,000 ☐ ₹60,001 - ₹80,000 ☐ ₹80,001 - ₹1 lakh [Note: 1 lakh = 100,000] ☐ ₹1,00,001 - ₹1.25 lakh ☐ ₹1,25,001 - ₹1.5 lakh ☐ ₹1,50,001 - ₹2 lakh ☐ Above ₹2 lakh ☐ N/A ☐ Prefer not to say

S. NO.	FOR ENUMERATORS ONLY
14	**What was the most important reason for living in this location?** *(Read out all options – select only 3)* ☐ Ancestral property ☐ Housing or rental price ☐ Close to the place of work ☐ Close to school/ college ☐ Close to amenities like market, bank, hospitals etc. ☐ Close to bus stops/ metro stations ☐ Close to religious places, parks, restaurants etc. ☐ Close to our relatives or friends ☐ Other (Please Specify)) : _____
15	Number of vehicles in your household (2-wheeler) _____ (4-wheeler) _____ Other (please specify) _____
16	**Is there anyone in your family who cannot travel alone outside the home?** ☐ None ☐ Self ☐ Child ☐ Elderly ☐ Other household members

[B] INDIVIDUAL LEVEL DETAILS

[B1] GENERAL DETAILS

S. NO.	FOR ENUMERATORS ONLY
1	**Member no. 1 (main respondent)**
2	Member's gender ☐ Male ☐ Female ☐ Transgender ☐ Other (please specify) _____ ☐ Prefer not to say
3	Marital status ☐ Unmarried ☐ Married ☐ Widowed ☐ Divorced ☐ Separated ☐ Prefer not to say

S. NO.	FOR ENUMERATORS ONLY
4	What is your last completed education level? ☐ Not gone to school ☐ Literate without formal schooling ☐ Below Primary school ☐ Primary school ☐ Middle School ☐ Secondary School ☐ Higher Secondary School/ Pre-university ☐ Diploma/ certificate course ☐ Graduate college ☐ Post graduation or higher ☐ Prefer not to say ☐ Any other, please specify _____
5	Your current earning status ☐ Working (employer) Go to question 6 of this section ☐ Working (employee) Go to question 6 of this section ☐ Working (family business) Go to question 6 of this section ☐ Student Skip to question 7 of this section ☐ Homemaker Skip to question 7 of this section ☐ Searching for job Skip to question 7 of this section ☐ Retired Skip to question 7 of this section ☐ Other (Please specify) _____ Skip to question 7 of this section
6	Nature of work? (Go to Q8 of this section after this) ☐ Domestic/ office helper ☐ Daily wage ☐ Part time ☐ Business-owner/ self-employed ☐ Factory worker ☐ Office worker (government/ private) ☐ Other (please specify)
7	Do you have any monthly earnings from part-time work or pension? ☐ Yes ☐ No Skip to question 9
8	What is your average earning per month? ☐ Below ₹2,000 ☐ ₹2,000 - ₹5,000 ☐ ₹5,000 - ₹10,000 ☐ ₹10,001 - ₹20,000 ☐ ₹20,001 - ₹40,000 ☐ ₹40,001 - ₹60,000 ☐ ₹60,001 - ₹80,000 ☐ ₹80,001 - ₹1 lakh ☐ ₹1,00,001 - ₹1.25 lakh ☐ ₹1,25,001 - ₹1.5 lakh ☐ ₹1,50,001 - ₹2 lakh ☐ Above ₹2 lakh ☐ N/A ☐ Prefer not to say

S. NO.	FOR ENUMERATORS ONLY
9	Do you use a smartphone? ☐ Yes ☐ No
9.1	Do you do any of these activities online? (select all that apply) ☐ Household purchases (milk, groceries, vegetables, etc.) ☐ Home maintenance (bank-related work/ bill payments/ booking maintenance services etc.) ☐ Neither
10	Since when have you been living in Bengaluru? ☐ less than 6 months ☐ 6months – 1 yr ☐ 1-6 yrs ☐ 7-9yrs ☐ 10-14yrs ☐ 15yrs and above

[B2] BASIC TRAVEL DETAILS

S. NO.	FOR ENUMERATORS ONLY
1	Do you use a bus pass? ☐ Yes ☐ No Skip to Q3 of this section
2	What type of bus pass? ☐ Student Pass ☐ Regular Day Pass ☐ Vajra Gold Day Pass ☐ Regular Monthly Pass ☐ Senior Citizen Regular Monthly Pass ☐ Vajra Gold Monthly Pass ☐ Vajra Student Monthly Pass ☐ Vayu Vajra Gold ☐ Bus Pass for Persons with Disabilities ☐ If there is any other type, pass cost _____
3	Do you use a metro pass/ card? ☐ Yes ☐ No Skip to Q5 of this section

S. NO.	FOR ENUMERATORS ONLY
4	Type of metro pass/ card ☐ 1-Day Pass ☐ 3-Day Pass ☐ 5-Day Pass ☐ If it is a card, average monthly recharge amount: _____
5	Which of these do you personally know to ride/ drive? ☐ 2W ☐ Car ☐ Bicycle (for adults)
6	Which of these are available to you whenever you need? ☐ 2W ☐ Car ☐ Bicycle (for adults)
7	Do you use a 2 Wheeler or Car for travel? ☐ Yes ☐ No Skip to Q9 of this section
8a	If you use a 2-wheeler or car, please share the following details for the vehicle you use regularly Type of fuel: ☐ Petrol ☐ Diesel ☐ Electric
8b	Monthly expenditure on fuel: ₹ _____
9	How often do you take the bus in Bengaluru? ☐ Daily Skip to question 11 of this section ☐ Weekly Skip to question 11 of this section ☐ Monthly ☐ Rarely ☐ I don't travel by metro
10	Why do you not use bus more often? (Select all that apply – DO NOT read out the options) ☐ My destination is close by ☐ Crowding ☐ Bus stops are far away ☐ No direct bus ☐ High waiting time ☐ High travel time ☐ Bus not punctual ☐ No safety in bus ☐ Don't know routes ☐ Don't know Kannada ☐ Poor behaviour of staff ☐ Other (please specify) _____

S. NO.	FOR ENUMERATORS ONLY
11	How often do you take the metro in Bengaluru? ☐ Daily Skip to question 13 of this section ☐ Weekly Skip to question 13 of this section ☐ Monthly ☐ Rarely ☐ I don't travel by metro
12	Why do you not take the metro more often? (Select all that apply – DO NOT read out the options) ☐ My destination is close by ☐ No metro connection to my destination ☐ Metro stations are far away ☐ Difficult to reach metro station ☐ Don't know how to use metro ☐ Entry procedures take long time ☐ Metro cost is high ☐ Crowding ☐ No safety in metro ☐ Other, please specify _____
13	Tell us about the walking conditions in this neighbourhood. a.Do most of the roads have usable footpaths? ☐ Yes ☐ No b.Is the walking space obstructed by garbage, parking or shops? ☐ Yes ☐ No c.Do you feel safe while crossing the roads? ☐ Yes ☐ No d.Are there good streetlights? ☐ Yes ☐ No
14	What are the 3 main improvements your neighbourhood needs? ☐ More parking space ☐ More space for walking ☐ Better streetlights, CCTV and police patrolling ☐ Improving lighting, seating and shelter at bus stands ☐ Local share auto or small bus routes to major locations around your area ☐ More bus/metro services (increased frequency)

[C] TRAVEL DIARY

S. NO.	FOR ENUMERATORS ONLY
1.1	Where did you start from? ORIGIN (Address & landmark/ bus stop/ metro station name): _____
1.2	What time did you start from here? _____ am/pm
1.3	Where did you go? DESTINATION (Address & landmark/ bus stop/ metro station name): _____
1.4	How long did it take to reach there? _____min
1.5	How did you reach this place? ☐ Walk ☐ Bicycle ☐ Dropped by other (family/friend/colleague) ☐ Driving own 2-wheeler ☐ Driving own car ☐ Company bus/shuttle/cab ☐ Bus ☐ Metro ☐ Auto ☐ App-based cab/taxi/bike taxi etc. ☐ Other (please specify): _____ Instruction: If mode used is Bus, Metro, Auto, App-based or Company bus/cab, continue to Q1.6; else go to Q1.8
1.6	How long did you have to wait for it? _____min
1.7	How much did this trip cost? ₹ _____
1.8	For what purpose did you make this trip? ☐ Education/learning-related ☐ Work/work-related ☐ Escorting family member(s) ☐ Household purchase/maintenance ☐ Medical ☐ General health/leisure/recreation ☐ Visit family/friends ☐ Religious visit ☐ Other (please specify): _____
1.9	Did you travel alone or with someone else? ☐ Alone — Skip to Q1.11 ☐ With child ☐ With elderly ☐ With other family member ☐ With friend/colleague/others

S. NO.	FOR ENUMERATORS ONLY	
1.10	Did the person you accompany have any disability?	
	☐ Yes	
	☐ No	
1.11	What was the next place you went to?	
	☐Home	*Repeat 1.1*
	☐ Other	*Repeat 1.1*
	☐ No other	*Move to next family member*

Qualitative and spatial data

Focus group discussions

To capture neighbourhood-level perspectives, focus group discussions (FGDs) were conducted in 8 purposively selected neighbourhoods, chosen from an initial pool of 16. Selection criteria included variation in income levels (proxied by property prices), access to frequent public transport, and spatial distribution across Bengaluru. This ensured representation across the city's socio-economic and geographic diversity.

Each FGD comprised six participants and purposively included elderly residents, students, TG persons, and PwDs. This diversity enabled the study to capture the intersection of gender, age, and ability in shaping care-related travel.

The analysis consisted of two complementary components:

- **Qualitative Assessment:** Thematic analysis of FGD transcripts to identify perceptions, constraints, and behavioural patterns in undertaking care trips, with attention to differences between gender groups.
- **Spatial Assessment:** A mapping exercise was integrated into each discussion. Participants traced their regular caregiving routes and destinations (schools, markets, healthcare centres, recreational spaces). These were digitised into a geographical information system (GIS) and analysed through four diagnostics.
  - **Land Use Mix (Entropy Index):** Diversity of land uses within an 800-m buffer of routes/origins
  - **Neighbourhood Connectivity (Intersection Density):** Degree ≥ 3 nodes per square kilometre (km^2), representing network permeability
  - **Street Width Typology:** Care routes classified by right of way into 6–9 m, 9–12 m, and >12 m categories, disaggregated by gender to capture preferences
- **Trip Distance Profiles:** Network distances computed for varying care purposes (household purchases, education escorting, medical access), compared across gender groups

The integration of qualitative narratives with mapped trip analysis allowed not only identification of what trips were made and by whom, but also where and how they unfolded within neighbourhood spatial structures. A summary of neighbourhood-wise indicators, together with land-use mix and intersection density maps, is provided in Appendix C.

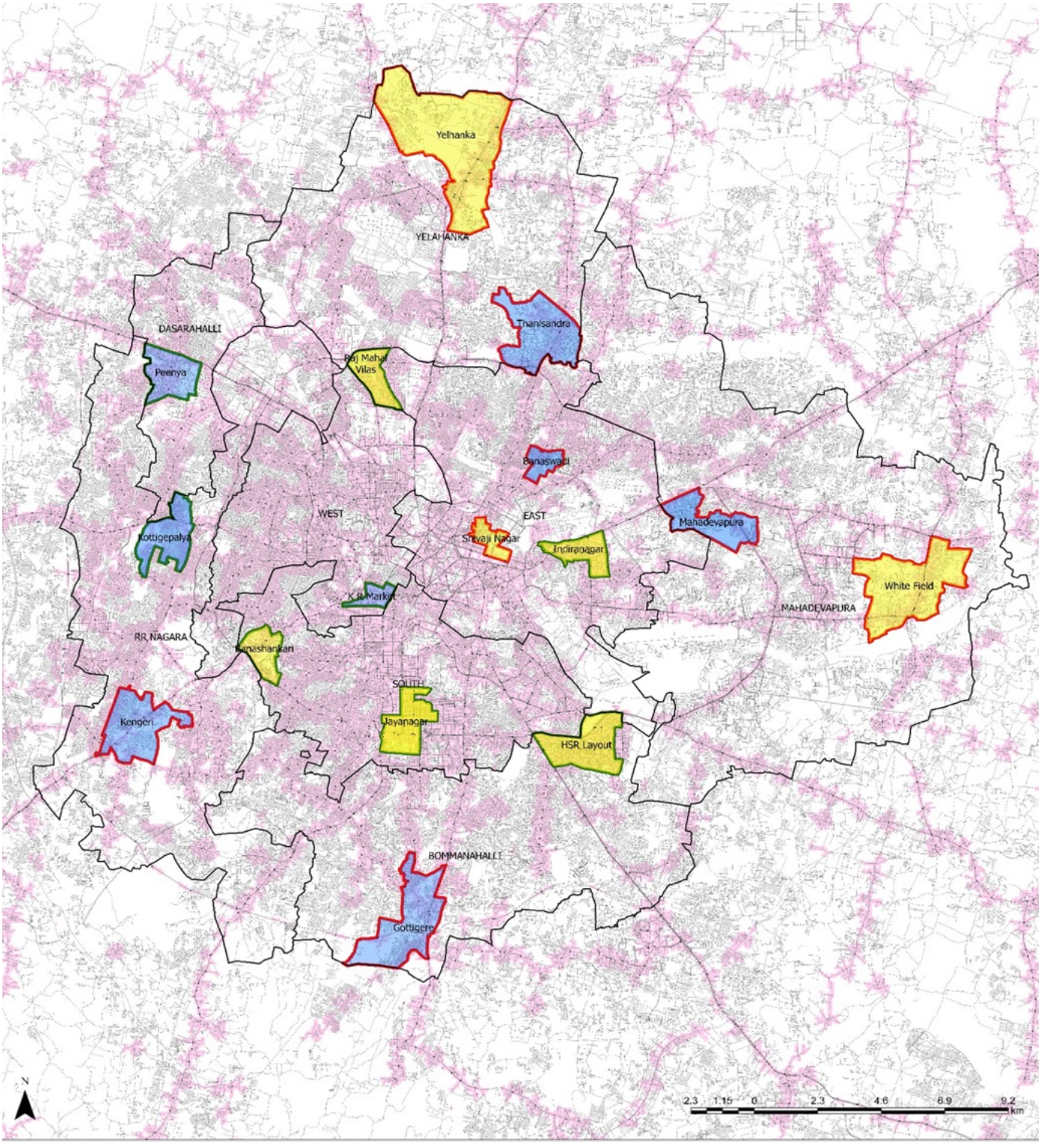
Methodology for FGDs

The FGDs aimed to gain insights into care-related travel behaviours and challenges. Initially, 16 neighbourhoods were identified, based on their proximity to public transport, distance from the CBD, the proportion of women employed in factories and other formal occupations, and the presence of notified slums. From this initial pool, a more focused selection of eight neighbourhoods was achieved through stratified sampling, considering socio-economic indicators, access to frequent public transport, and spatial distribution across the city to ensure comprehensive geographic representation. As shown in Table A-2, socio-economic status was proxied by property prices taken from the MagicBricks website for 2024, with neighbourhoods scoring 1 for below-average prices (≤₹10,141/sq. ft) and 2 for above-average prices. Access to public transport was evaluated by the percentage of the area within 500 m of frequent services (≤10-minute frequency), with scores of 1 for low (≤50 percent) and 2 for high (>50 percent) accessibility. Spatial distribution further guided the selection to include both core (West, East, South) and peripheral (Mahadevapura, Dasarahalli, RR Nagara, Bommanahalli, Yelahanka) areas. By integrating qualitative narratives with spatial considerations, this robust neighbourhood selection strategy is designed to yield actionable recommendations for enhancing care accessibility and mobility within Bangalore.

The FGDs utilised trip diaries collected from participants, detailing their care-related travel on the previous working day. Participants engaged in route mapping using tools such as Google My Maps. This allowed for a detailed discussion of their routes, challenges, and accessibility issues.

Data analysis involved a multimodal approach. Qualitative data from FGD transcripts underwent thematic analysis to identify key themes related to mobility challenges, accessibility barriers, caregiving experiences, and coping strategies. Simultaneously, spatial data from the route mapping were digitised and analysed to identify common routes, destinations, areas with varying public transport accessibility, and safety concerns. Finally, the study integrated the qualitative and spatial analysis findings through triangulation to provide a richer understanding of MoC patterns and determinants.

Figure A1 | **Neighbourhood categorisation**



Source: WRI authors.

Table A2 | **Land-use characteristics of the selected neighbourhoods**

	SELECTED NEIGHBOURHOOD	LAND-USE CHARACTERISTICS
Central	KR Market	Predominantly commercial. Low- to lower-middle-income groups
	Banaswadi	Residential neighbourhoods. Upper-middle income.
	Jayanagar	Predominantly residential. Commercial areas located on main roads and near TTMC. Middle- and upper-middle-income groups.
	Bharati Nagar	Mixed-use neighbourhood with commercial areas along the road.
Periphery	Peenya	Predominantly industrial (small-scale to medium-scale industries), with some residential and commercial areas. Low- and middle-income groups.
	Kengeri	Residential with commercial areas along main roads. Lower to middle income groups.
	HSR Layout	Residential with commercial areas along main roads. High-rise apartments in some areas. Upper-middle- and high-income groups
	Whitefield	Commercial and residential. IT parks are located in the area. Upper-middle to high-income groups, including information technology (IT) professionals and entrepreneurs.

Source: WRI India and The Urban Catalysts (TUC) authors.

KIIs

The interviews aimed to contribute to the study's overall research questions by providing expert perspectives on the characteristics of mobility of care (MoC) trips within Bengaluru and on the methodological challenges involved in studying care-related travel in the Indian context. All interviews and discussions were audio-recorded, transcribed, and supplemented with detailed notes, following ethical protocols including informed consent and participant confidentiality.

KIIs were conducted with a diverse set of stakeholders, including transport experts from development banks, international organisations, and academic institutions, as well as care economy specialists and representatives from government agencies such as public transport authorities, BBMP, and the Department of Women and Child Development.

A core set of guiding questions structured the discussions, with adaptations made to reflect the expertise of each stakeholder group. These questions explored the following:

- The importance of recognising care-related travel and its rationale for inclusion in planning discourse
- The structural limitations of existing transport models, including why care trips are often excluded and the implications of this for infrastructure design and service provision
- Comparative perspectives between Indian and international contexts
- Potential methods and existing data sources for strengthening the evidence base
- Expectations from the research in terms of its contributions to planning, policy, and implementation

A structured inductive analysis was conducted to identify recurring patterns and insights. These were used to understand the implications of MoC for transport planning (e.g., service design, non-motorised transport [NMT], safety, data) and for urban planning (e.g., neighbourhood design, service siting, and co-location of services). In this way, the KII findings formed an integral input into the overall analysis and recommendations of the study.

Appendix B. Comparison of MoC and non-MoC trips

Table B1 | **Comparison of MoC and non-MoC trips on various parameters**

PARAMETERS	MoC TRIPS		NON-MoC TRIPS	
Mode share	Walking	60%	Walking	24%
	2-wheeler	29%	2-wheeler	58%
	4-wheeler	3%	4-wheeler	9%
	Auto	5%	Auto	2%
	App-based modes	1%	App-based modes	2%
	Bus	1%	Bus	3%
	Metro	0.01%	Educational bus	0.4%
	Cycle	0.01%	Company vehicle	1%
	Others	1%	Metro	0.2%
			Cycle	0.4%
			Other	1%
Average distance (km)	2		5	
Average journey time (min)	11.95		18.47	
Average travel cost (₹)	2-wheeler	14.5	2-wheeler	21.3
	4-wheeler	31.5	4-wheeler	37.7
	Auto	39.5	Auto	30
	App-based modes	94	App-based modes	130
	Bus fare	13	Bus fare	15
	Metro fare	50	Metro fare	55
Percentage of chained trips (%)	38		62	

Note: MoC = mobility of care.

Source: WRI India and The Urban Catalysts (TUC) authors.

Appendix C. Spatial analysis from FGDs

Sample size

Table C1 | **FGD sample size**

		NUMBER OF PARTICIPANTS			
Classification	**Neighbourhood**	**Men**	**Women**	**TG**	**Total**
High Income	Jayanagar	6	6	-	12
	Bharathi Nagar	6	6	-	12
	HSR Layout	6	6	-	12
	Whitfield	6	6	-	12
Low Income	KR Market	6	6	-	12
	Kengeri	5	6	-	11
	Banaswadi	6	6	-	12
	Peenya	6	7	-	13
	Banaswadi (PwD)	3	3	-	6
	Peenya (TG)	-	-	6	6
Total number of participants					**108**

Note: FGD = focus group discussion.
Source: WRI India and The Urban Catalysts (TUC) authors.

Table C2 | **FGD participant profiles**

MEN	#	WOMEN	#	TRANSGENDER	#
Working	2	Working	2	Working	6
Student	2	Homemaker	2	-	-
Elderly	2	Student	1	-	-
		Elderly	1	-	-
Total	**6**	**Total**	**6**	**Total**	**6**

Note: FGD = focus group discussion.
Source: WRI India and The Urban Catalysts (TUC) authors.

Computed spatial metrics

Table C3 | **Computed values of spatial indicators (entropy, intersection density, and road width)**

INCOME GROUPS	NEIGHBOURHOOD			STREET WIDTHS			
		Land-use mix (based on the entropy formula)[a]	Intersection density (intersections/sq. km)	Road width ranges (m)	Men (%)	Women (%)	Trans gender/ PwD (%)
Higher-income neighbourhoods	Jayanagar	0.6	196	<6	0	0	0
				6–9	10	17	0
				9–12	7	4	0
				>12	83	79	0
	Bharti Nagar	0.65	348	<6	0	0	0
				6–9	46	29	0
				9–12	54	55	0
				>12	0	16	0
	HSR Layout	0.46	217	<6	0	0	0
				6–9	4	0	0
				9–12	18	7	0
				>12	78	93	0
	Whitefield	0.37	81	<6	0	0	0
				6–9	24	28	0
				9–12	5	1	0
				>12	71	71	0
Lower-income neighbourhoods	K R Market	0.75	276	<6	1	2	0
				6–9	4	13	0
				9–12	3	2	0
				>12	93	82	0
	Banaswadi	0.59	407	<6	0	0	0
				6–9	64	35	35
				9–12	15	25	25
				>12	21	41	41
	Peenya	0.79	199	<6	8	9	1
				6–9	49	52	39
				9-12	21	17	18
				>12	22	22	42
	Kengeri	0.66	170	<6	0	0	0
				6–9	6	16	0
				9–12	36	25	0
				>12	59	58	0

Source: WRI India and The Urban Catalysts (TUC) authors.

Note:

a. For the entropy analysis, the Proposed Land Use (PLU) of the 2015 Master Plan was used as the base dataset. This choice was primarily guided by data availability and reliability. Since the Master Plan 2031 has been retracted and the 2041 Plan is yet to be prepared, the 2015 PLU remained the latest accessible and consolidated citywide land-use dataset. Although it may not fully reflect on-the-ground developments, it provides a structured representation of how the planning framework envisioned future land-use distribution, making it the most appropriate dataset currently available for spatial analysis.

Source: WRI India and The Urban Catalysts (TUC) authors.

Illustrative maps of care trips and road width: Whitefield neighbourhood

Figure C1 | **Care trips by road width, Whitefield (men)**

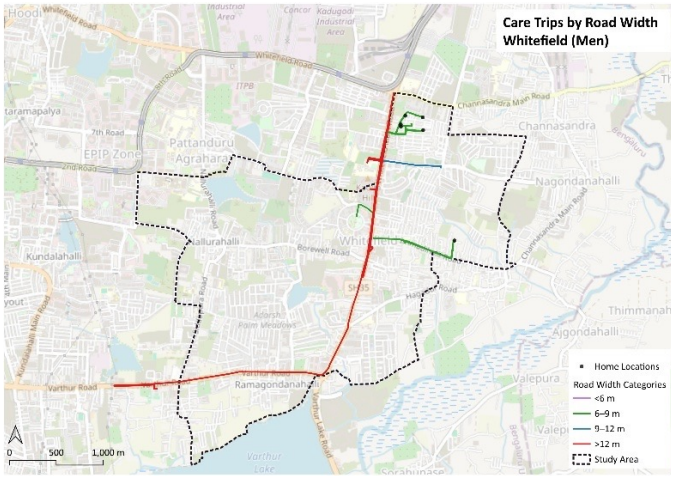
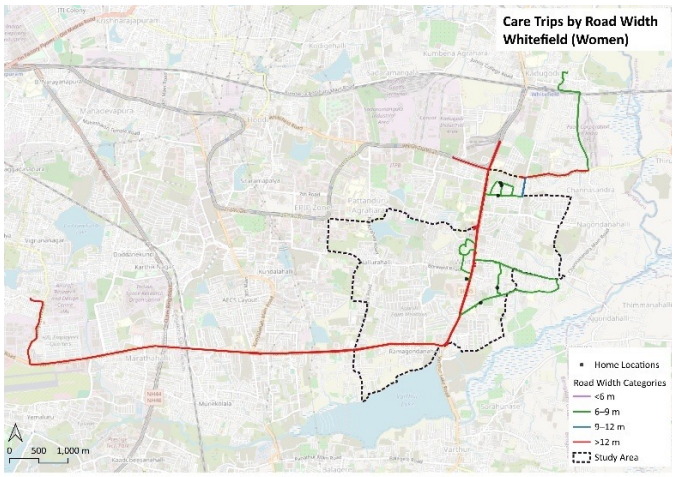


Figure C2 | **Care trips by road width, Whitefield (women)**



Source: WRI India and The Urban Catalysts (TUC) authors.

Neighbourhood maps indicating land-use mix and intersection density

Figure C3 | **Neighbourhood map indicating land-use mix: HSR Layout**

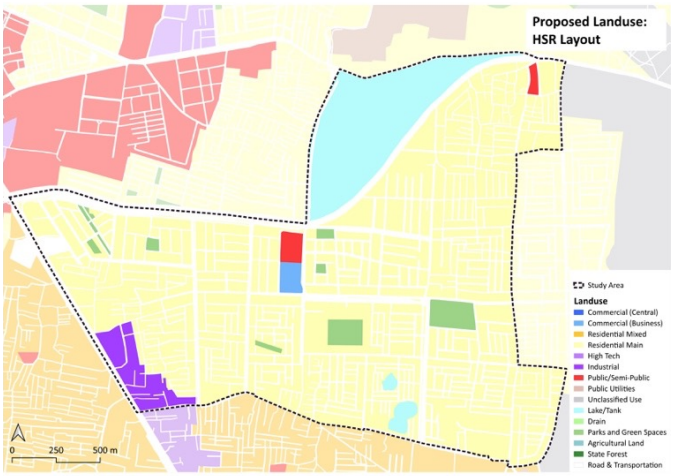


Figure C4 | **Neighbourhood maps indicating intersection density: HSR Layout**

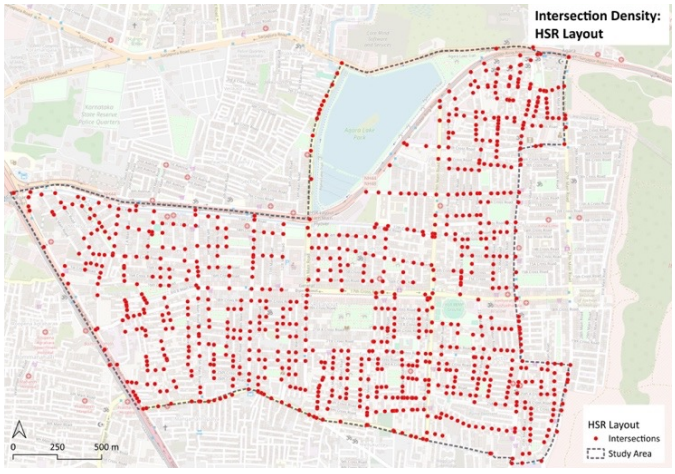


Figure C5 | **Neighbourhood map indicating land-use mix: Jayanagar**

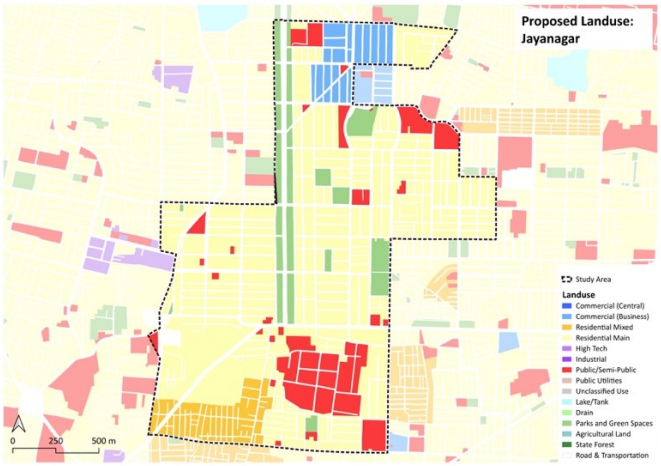


Figure C6 | **Neighbourhood maps indicating intersection density: Jayanagar**

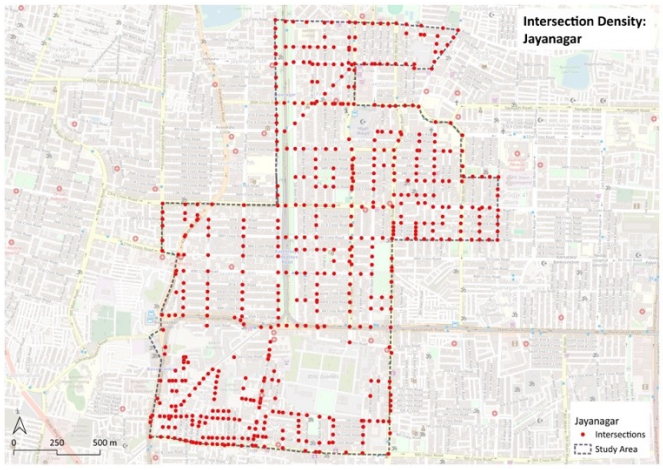


Figure C7 | **Neighbourhood map indicating land-use mix: Banaswadi**

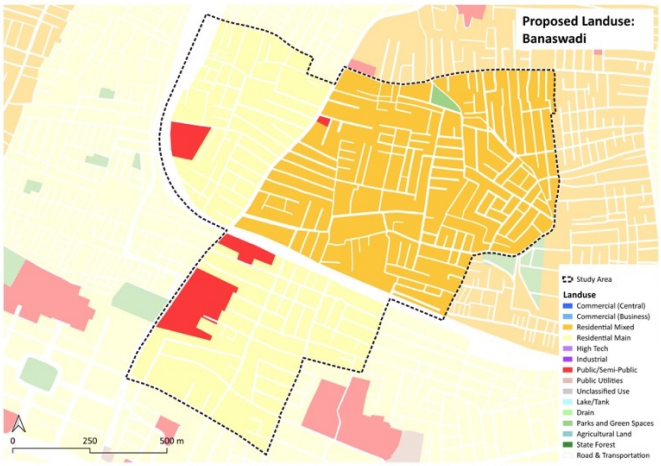


Figure C8 | **Neighbourhood maps indicating intersection density: Banaswadi**

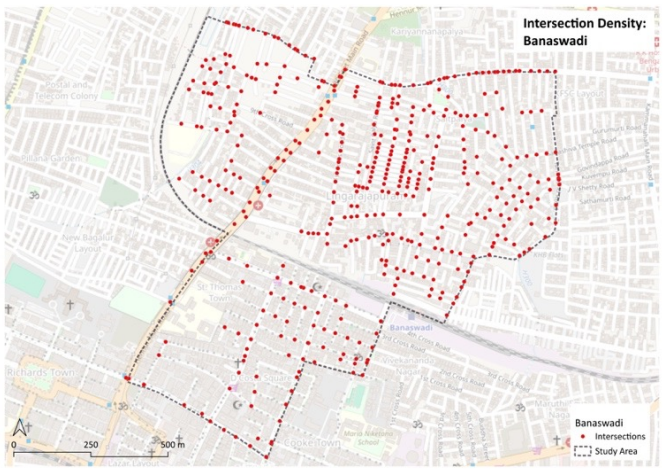


Figure C9 | **Neighbourhood map indicating land-use mix: Kengeri**

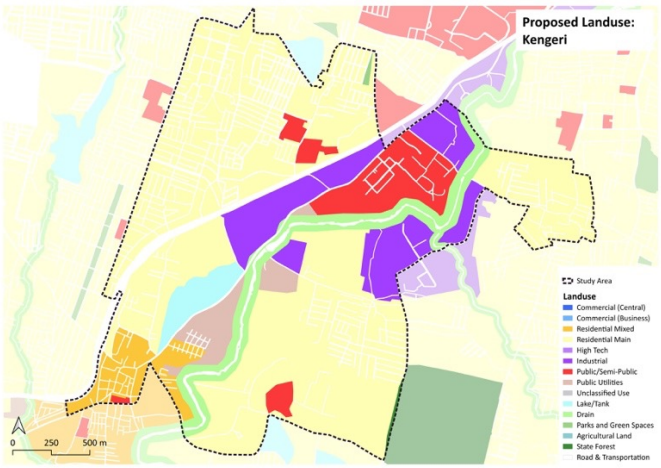


Figure C10 | **Neighbourhood maps indicating intersection density: Kengeri**

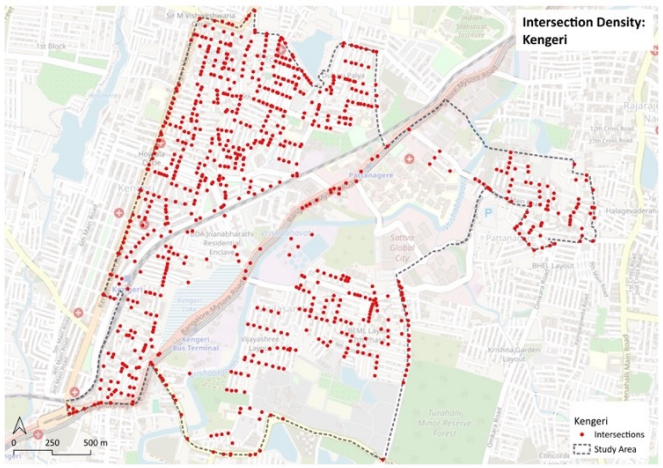


Figure C11 | **Neighbourhood map indicating land-use mix: KR Market**

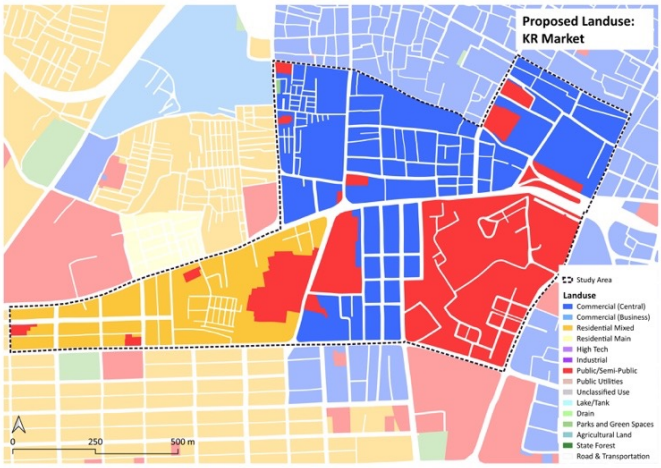


Figure C12 | **Neighbourhood maps indicating intersection density: KR Market**

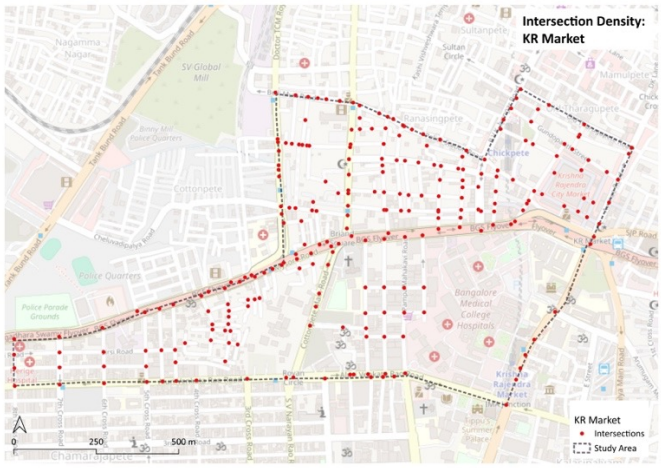


Figure C13 | **Neighbourhood map indicating land-use mix: Peenya**

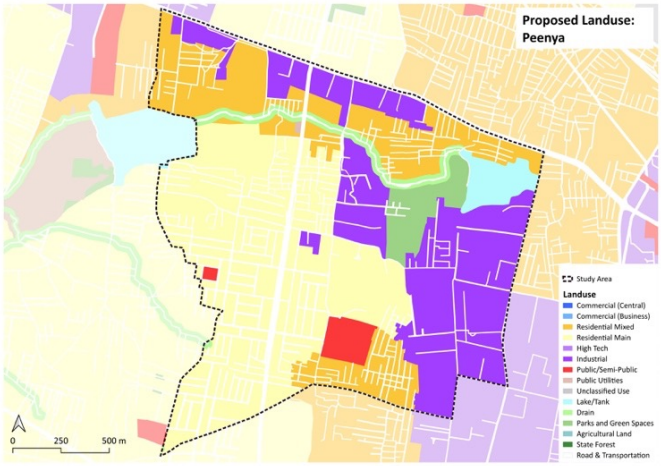


Figure C14 | **Neighbourhood maps indicating intersection density: Peenya**

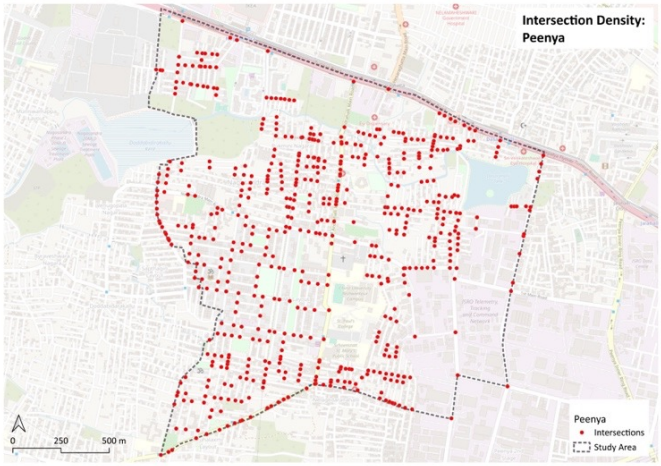


Figure C15 | **Neighbourhood map indicating land-use mix: Whitefield**

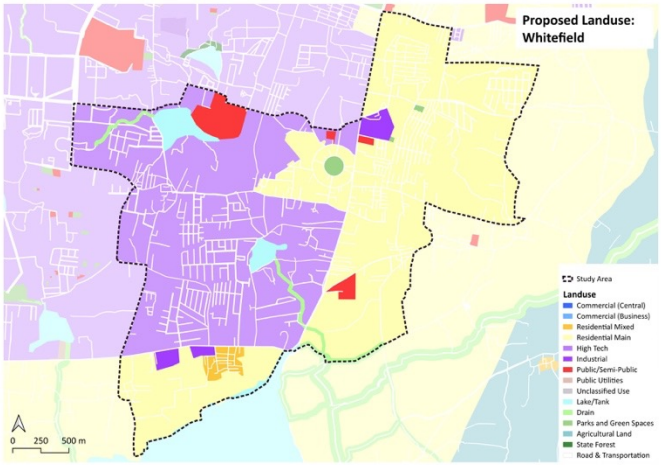


Figure C16 | **Neighbourhood maps indicating intersection density: Whitefield**

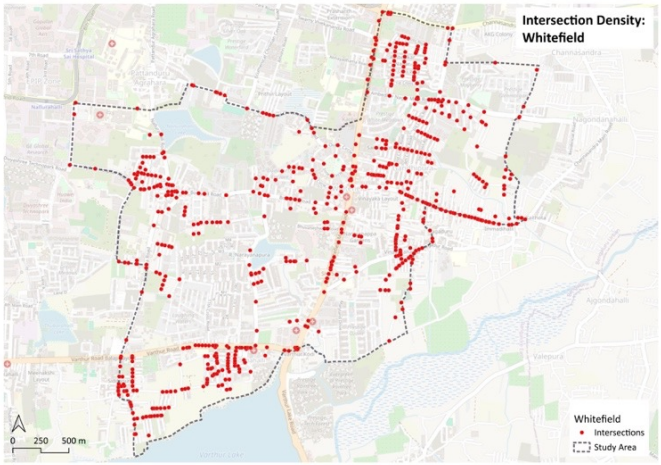


Figure C17 | **Neighbourhood map indicating land-use mix: Bharati Nagar**

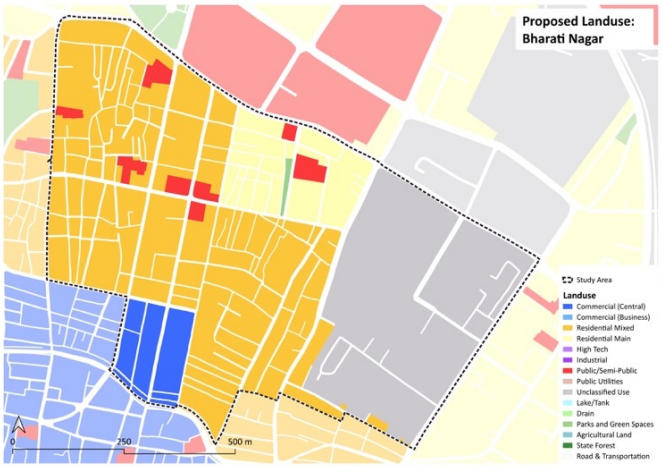
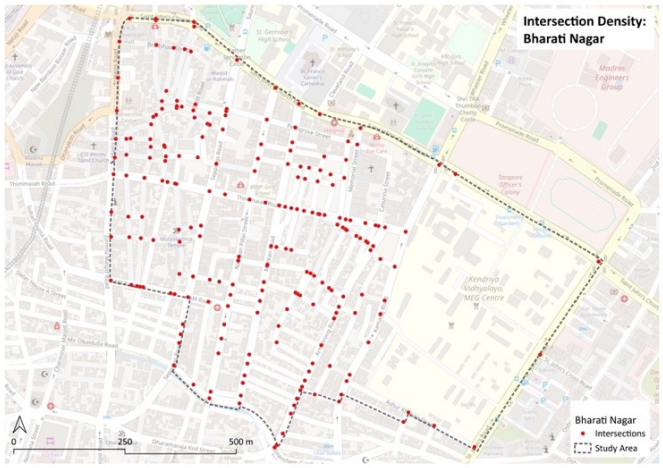


Figure C18 | **Neighbourhood maps indicating intersection density: Whitefield**



Source: WRI India and The Urban Catalysts (TUC) authors.

Distribution of trips by purpose and length across neighbourhoods

Peenya

Table C4 | **Distribution of care and non-care trips by purpose, trip length, and gender (Peenya)**

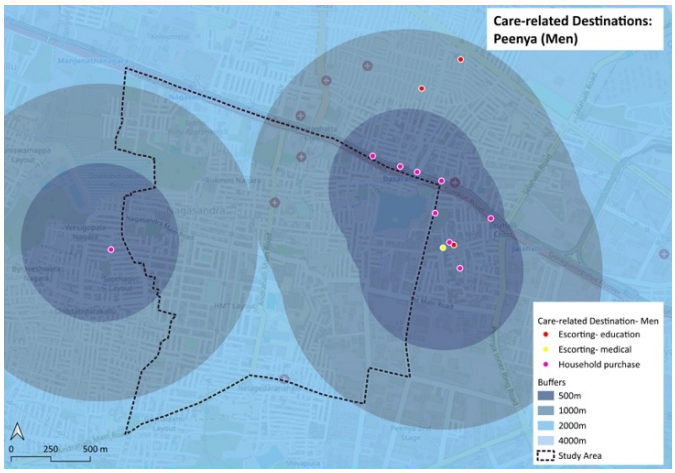
TRIPS	<500 M	500-1,000 M	1,000-2,000 M	2,000-4,000 M	>4,000 M	GRAND TOTAL
Men	**19**	**6**	**5**	**9**	**5**	**44**
Care-related	**13**	**2**	**3**	**4**	**1**	**23**
Escorting for education	4		2	3		9
Escorting for medical visit	2					2
Household purchases	7	2	1	1	1	12
Chained		**1**	**1**	**2**		**4**
Escorting for education and household purchases						
Leisure and household purchases		1				1
Work and household purchases			1	1		2
Non-care	**6**	**3**	**1**	**3**	**4**	**17**
Education					4	4
Leisure	2	3				5
Work	4		1	3		8
Women	**16**	**7**	**7**	**6**	**10**	**46**
Care-related	**10**	**2**	**6**	**3**	**3**	**24**
Escorting for education	4	1	5	2	3	15
Escorting for leisure	2					2

Table C4 | **Distribution of care and non-care trips by purpose, trip length, and gender (Peenya) (Cont)**

TRIPS	<500 M	500-1,000 M	1,000-2,000 M	2,000-4,000 M	>4,000 M	GRAND TOTAL
Household purchases	4	1	1	1		7
Chained	**1**	**3**		**3**		**7**
Escorting for education and household purchase				2		2
Leisure and household purchase	1	3				4
Work and household purchase				1		1
Non-care	**5**	**2**	**1**		**7**	**15**
Education					2	2
Leisure	5	2	1			8
Work					5	5
Grand total	**35**	**13**	**12**	**15**	**15**	**90**

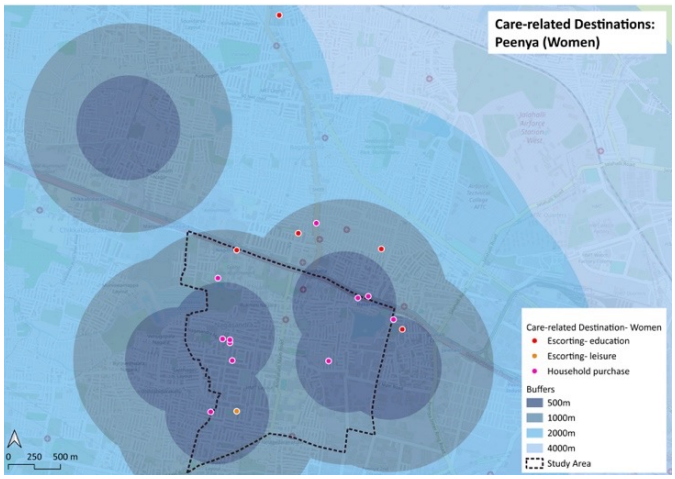
Source: WRI India and The Urban Catalysts (TUC) authors.

Figure C19 | **Care-related destinations, Peenya (men)**



Source: WRI India and The Urban Catalysts (TUC) authors.

Figure C20 | **Care-related destinations, Peenya (women)**



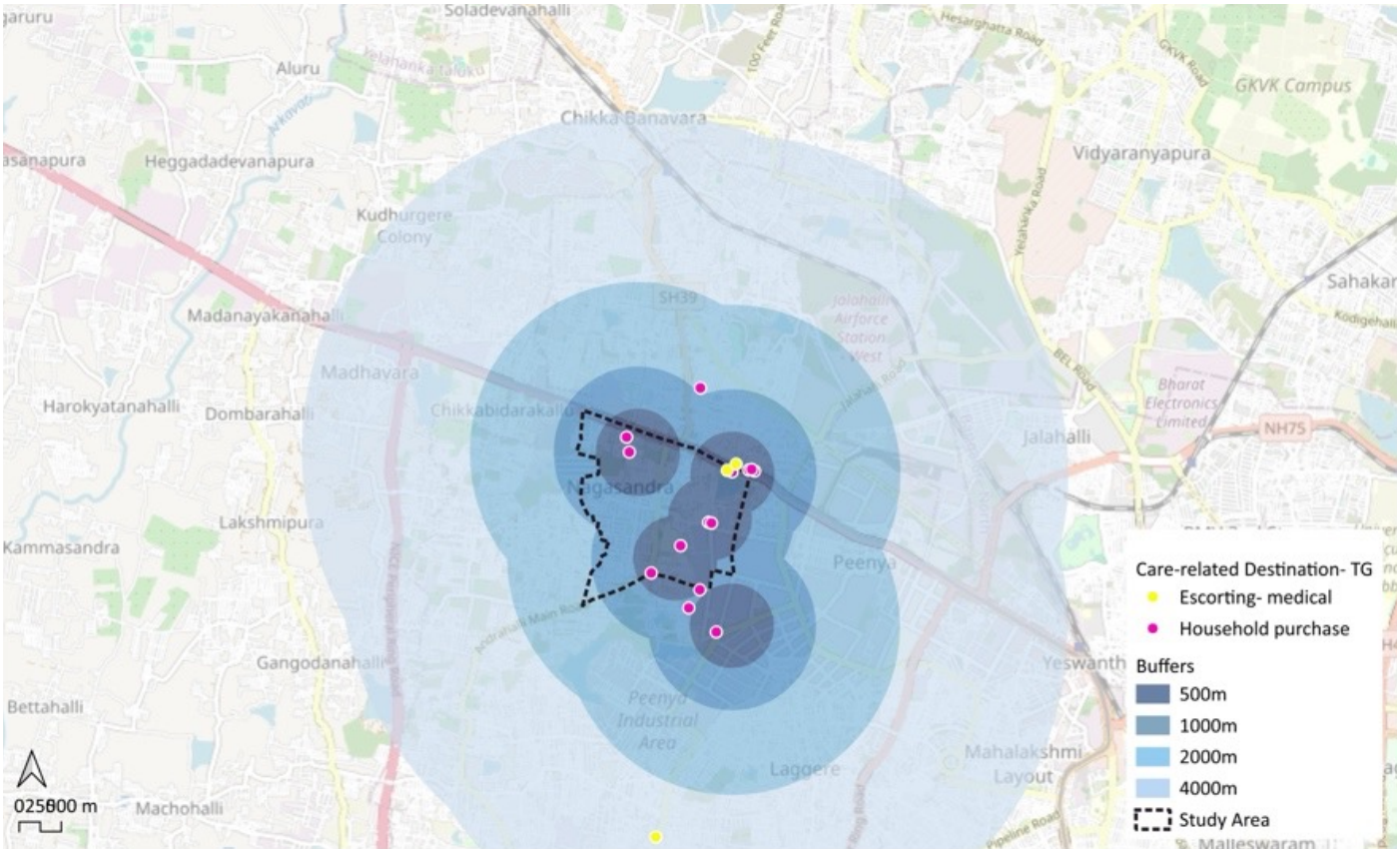
Peenya: TG persons

Table C5 | **Distribution of care and non-care trips by purpose and trip length for TG persons, Peenya**

TRIPS	<500 M	500-1,000 M	1,000-2,000 M	2,000-4,000 M	>4,000 M	GRAND TOTAL
Transgender	**18**	**4**	**8**	**6**	**4**	**40**
Care-related	**18**	**4**	**6**	**4**	**2**	**34**
Escorting for medical visit	2		2	2		28
Household purchases	16	4	4	2	2	28
Chained		**1**	**1**	**2**		**4**
Work and household purchases				1	1	2
Non-care			**2**	**1**	**1**	**4**
Work			2	1	1	4
Grand total	**18**	**4**	**8**	**6**	**4**	**40**

Source: WRI India and The Urban Catalysts (TUC) authors.

Figure C21 | **Care-related destinations: Peenya (TG)**



Source: WRI India and The Urban Catalysts (TUC) authors.

Kengeri

Table C6 | **Distribution of care and non-care trips by purpose, trip length, and gender: Kengeri**

TRIPS	<500 M	500–1,000 M	1,000–2,000 M	2,000–4,000 M	>4,000 M	GRAND TOTAL
Men	**19**	**6**	**5**	**9**	**5**	**44**
Care-related	**8**	**4**	**1**	**1**	**1**	**15**
Escorting for education	6		1	1	1	9
Escorting for work	2					2
Household purchases		4				4
Chained		**3**	**3**	**1**	**1**	**8**
Escorting for education and household purchases			1			1
Escorting for education and work		2		1		3
Leisure and household purchases			1			1
Work and household purchases		1	1		1	3
Non-care	**4**	**1**	**6**		**2**	**13**
Leisure	4		1			5
Work		1	5		2	8
Women	**15**	**24**	**2**	**6**	**3**	**50**
Care-related	**9**	**21**	**2**	**3**	**3**	**38**
Escorting for education	1	15		2		18
Escorting for leisure	2	2				4
Escorting for medical visit		2				6
Escorting for religious visit				1	1	2
Household purchases	6	2				8
Chained	**1**	**2**		**1**		**4**
Escorting for education and household purchases		1		1		2
Leisure and household purchases	1					1
Work and household purchases		1				1
Non-care	**5**	**1**		**2**		**8**
Education				2		2
Leisure	5					5
Work		1				1
Grand total	**27**	**32**	**12**	**8**	**7**	**86**

Source: WRI India and The Urban Catalysts (TUC) authors.

Figure C22 | **Care-related destinations: Kengeri (men)**

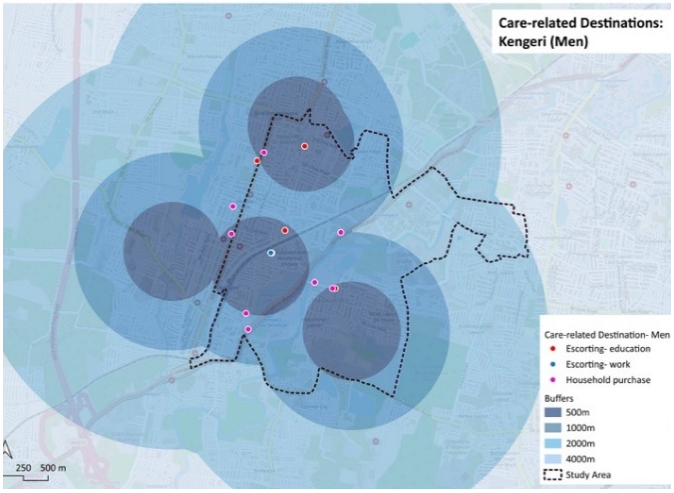
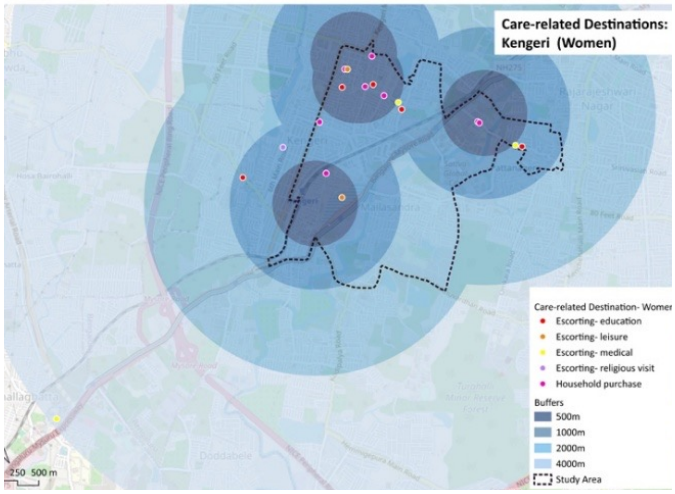


Figure C23 | **Care-related destinations: Kengeri (women)**



Source: WRI India and The Urban Catalysts (TUC) authors.

HSR Layout

Table C7 | **Distribution of care and non-care trips by purpose, trip length, and gender: HSR Layout**

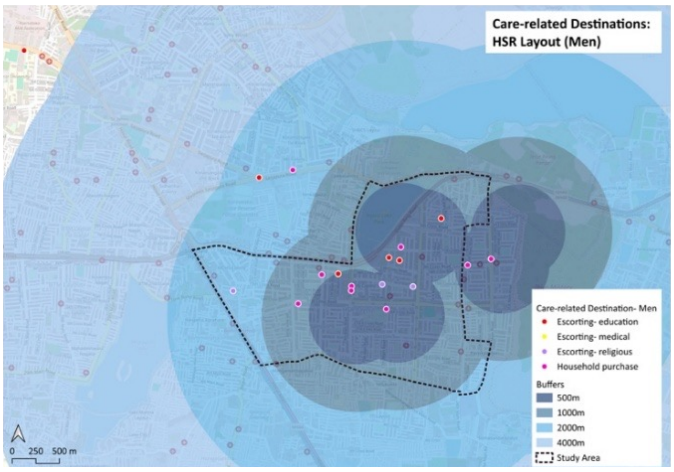
TRIPS	<500 M	500-1,000 M	1,000-2,000 M	2,000-4,000 M	>4,000 M	GRAND TOTAL
Men	**9**	**6**	**15**	**5**	**12**	**47**
Care-related	**5**	**5**	**10**	**4**	**8**	**32**
Escorting for education	1		4	3	4	12
Escorting for medical visit					2	2
Escorting for religious visit		4	3	1	2	10
Household purchases	4	1	3			8
Chained	**1**	**1**	**3**		**2**	**7**
Education trip and escorting other for education					1	1
Escorting for education and household purchases		1	2		1	4
Leisure and household purchases	1		1			2
Non-care	**3**		**2**	**1**	**2**	**8**
Leisure	3		1			4
Work			1	1	1	3
Work and Leisure					1	1
Women	**17**	**4**	**15**	**5**	**3**	**44**
Care-related	**13**	**2**	**13**	**3**	**1**	**32**
Escorting for education	9		9			18
Escorting for leisure	2					4
Household purchases	2	2	3	3		10

Table C7 | **Distribution of care and non-care trips by purpose, trip length, and gender: HSR Layout (Cont)**

TRIPS	<500 M	500-1,000 M	1,000-2,000 M	2,000-4,000 M	>4,000 M	GRAND TOTAL
Chained	**2**	**1**	**2**	**2**	**1**	**8**
Education trip and escorting other for education					1	1
Escorting for education and household purchases			1	1		2
Escorting for education and leisure	2					2
Escorting for education and work				1		1
Leisure and household purchases		1				1
Work and household purchases			1			1
Non-care	**2**	**1**			**1**	**4**
Education					1	1
Leisure	2	1				3
Grand total	**26**	**10**	**30**	**10**	**15**	**91**

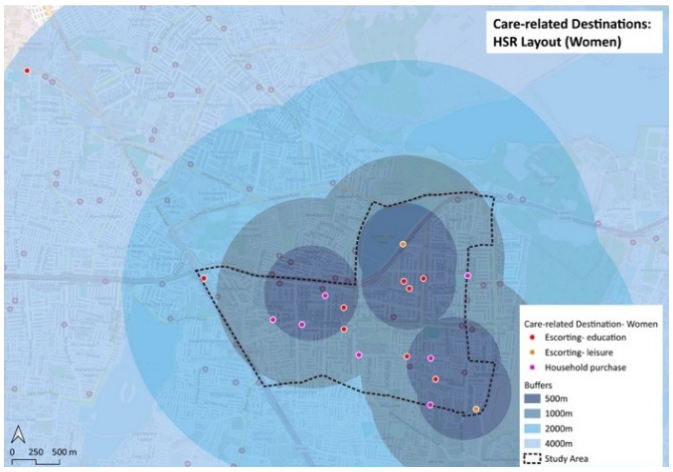
Source: WRI India and The Urban Catalysts (TUC) authors.

Figure C24 | **Care-related destinations: HSR Layout (men)**



Source: WRI India and The Urban Catalysts (TUC) authors.

Figure C25 | **Care-related destinations: HSR Layout (women)**



KR Market

Table C8 | **Distribution of care and non-care trips by purpose, trip length, and gender: KR Market**

TRIPS	<500 M	500-1,000 M	1,000-2,000 M	2,000-4,000 M	>4,000 M	GRAND TOTAL
Men	**8**	**4**	**11**	**11**	**12**	**46**
Care-related	**8**	**2**	**7**	**1**	**1**	**19**
Escorting for education	2	2	2			6
Escorting for medical visit	2					2
Household purchases	4		5	1	1	11
Chained		**1**	**1**	**2**	**6**	**10**
Education trip and escorting other for education					2	2
Escorting for education and household purchases				1		1
Escorting for education and work			1		1	2
Leisure trip and escorting other for leisure trips					1	1
Leisure and household purchases		1		1	2	4
Non-care		**1**	**3**	**8**	**5**	**17**
Education				3	1	4
Leisure		1	2	5	1	9
Work			1		3	4
Women	**16**	**4**	**7**	**3**	**6**	**36**
Care-related	**13**	**3**	**5**	**1**		**22**
Escorting for education	5	3				8
Escorting for leisure			2			2
Household purchases	8					12
Chained	**1**	**1**	**1**	**2**	**2**	**7**
Escorting for education and household purchases	1	1		2		4
Escorting for education and work					1	1
Escorting for medical visit and work					1	1
Leisure and escorting for education			1			1
Non-care	**2**		**1**		**4**	**7**
Education					2	2
Leisure	2		1			3
Work					2	2
Grand total	**26**	**10**	**30**	**10**	**15**	**91**

Source: WRI India and The Urban Catalysts (TUC) authors.

Figure C26 | **Care-related destinations: KR Market (men)**

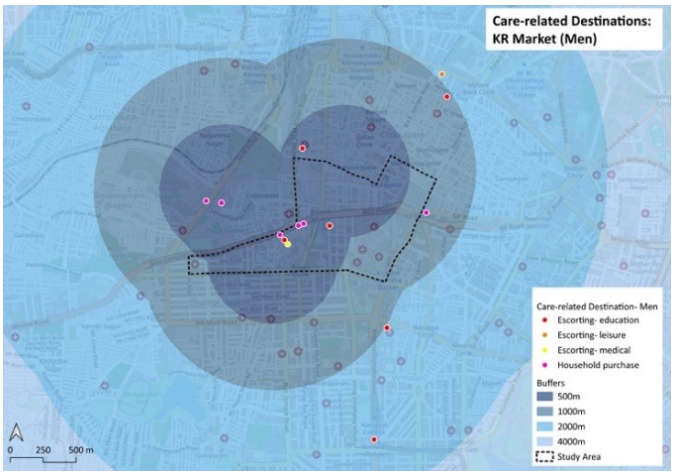
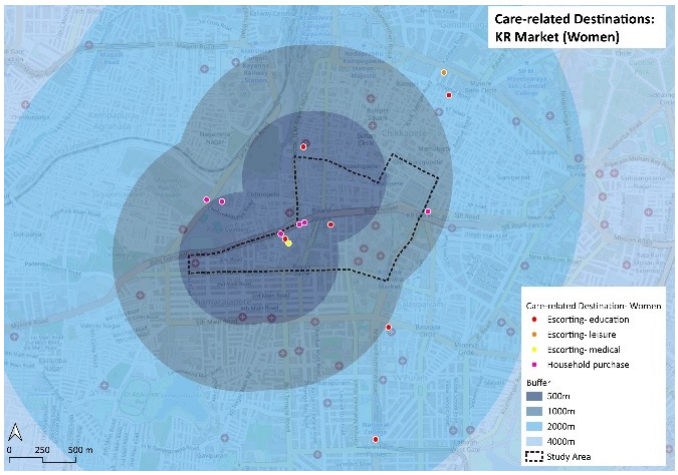


Figure C27 | **Care-related destinations: KR Market (women)**



Source: WRI India and The Urban Catalysts (TUC) authors.

Bharati Nagar

Table C9 | **Distribution of care and non-care trips by purpose, trip length, and gender: KR Market**

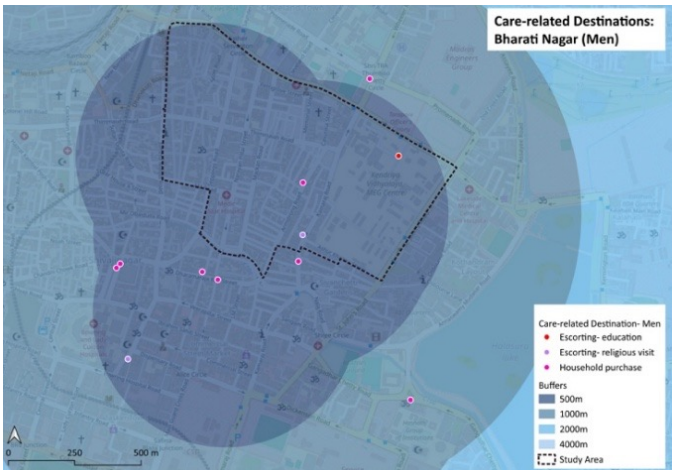
TRIPS	<500 M	500-1,000 M	1,000-2,000 M	2,000-4,000 M	>4,000 M	GRAND TOTAL
Men	**18**	**13**	**5**	**2**		**38**
Care-related	**6**	**12**	**2**	**1**		**21**
Escorting for education		2		1		3
Escorting for religious visit		3	1			4
Household purchase	6	7	1			14
Chained		**1**	**1**	**2**	**6**	**10**
Escorting for education and religious visit				1		1
Leisure and household purchases			1			1
Non-care	**12**	**1**	**2**			**15**
Leisure		1	2			3
Work	12					12
Women	**15**	**9**	**6**	**2**	**6**	**38**
Care-related	**11**	**5**	**5**	**2**	**5**	**28**
Escorting for education	4		3	2	3	12
Escorting for leisure					2	2
Escorting for religious visit	2	2	3	3		10
Household purchases	3	5	2			10

Table C9 | **Distribution of care and non-care trips by purpose, trip length, and gender: KR Market (Cont)**

Chained		**2**	**1**		**1**	**4**
Escorting for education and household purchases			1		1	2
Leisure and household purchases		2				2
Non-care	**4**	**2**				**6**
Leisure		2				2
Work	4					4
Grand total	**33**	**22**	**11**	**4**	**6**	**76**

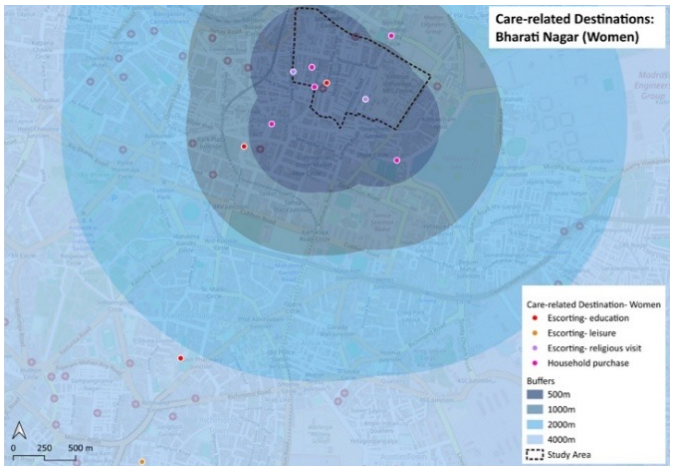
Source: WRI India and The Urban Catalysts (TUC) authors.

Figure C28 | **Care-related destinations: Bharati Nagar (men)**



Source: WRI India and The Urban Catalysts (TUC) authors.

Figure C29 | **Care-related destinations: Bharati Nagar (women)**



Jayanagar

Table C10 | **Distribution of care and non-care trips by purpose, trip length, and gender: Jayanagar**

TRIPS	<500 M	500–1,000 M	1,000–2,000 M	2,000–4,000 M	>4,000 M	GRAND TOTAL
Men	**7**	**5**	**15**	**9**	**4**	**40**
Care-related	**4**	**3**	**11**	**8**		**26**
Escorting for education	2		2	6		10
Escorting for leisure		1	1			2
Escorting for medical visit			2			2
Escorting for religious visit				2		2
Household purchases	2	2	6			10
Chained	**1**	**1**	**1**	**1**	**1**	**5**
Education trip and escorting other for education				1		1
Escorting for education and leisure			1			1
Leisure and household purchases	1	1				2
Work and household purchases					1	1
Non-care	**2**	**1**	**3**		**3**	**9**
Education			1		2	3
Leisure	2	1	2			5
Work					1	1
Women	**13**	**14**	**8**	**7**	**5**	**47**
Care-related	**8**	**10**	**3**	**3**		**24**
Escorting for education	2	5	2			9
Escorting for leisure		3				3
Escorting for religious visit		2				2
Escorting for work				2		2
Household purchases	6		1	1		8
Chained	**2**	**2**	**4**	**1**	**2**	**11**
Escorting for education and household purchases		1	1			2
Escorting for education and leisure			1			1
Escorting for education and work					1	1
Escorting for leisure and household purchases	1					1
Household purchases and escorting for education				1		1
Leisure and household purchase	1	1	2			4
Work and escorting for education					1	1

Table C10 | **Distribution of care and non-care trips by purpose, trip length, and gender: Jayanagar (Cont)**

TRIPS	<500 M	500–1,000 M	1,000–2,000 M	2,000–4,000 M	>4,000 M	GRAND TOTAL
Non-care	**3**	**2**	**1**	**3**	**3**	**12**
Education					2	2
Leisure	3	2	1	2		8
Work				1	**1**	2
Grand total	**20**	**19**	**23**	**16**	**9**	**87**

Source: WRI India and The Urban Catalysts (TUC) authors.

Figure C30 | **Care-related destinations: Jayanagar (men)**

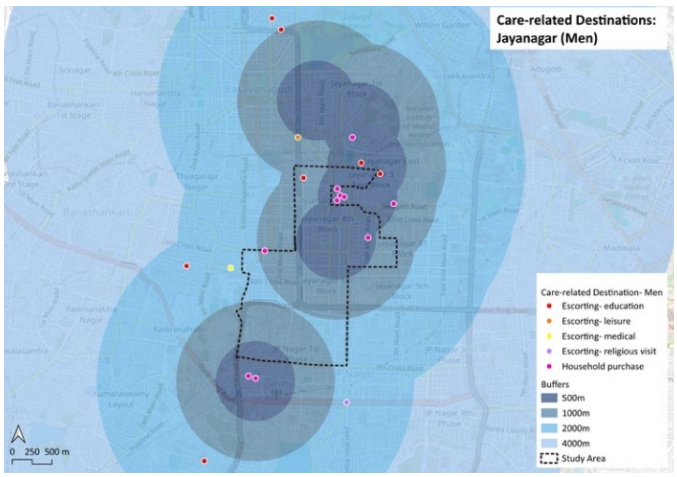
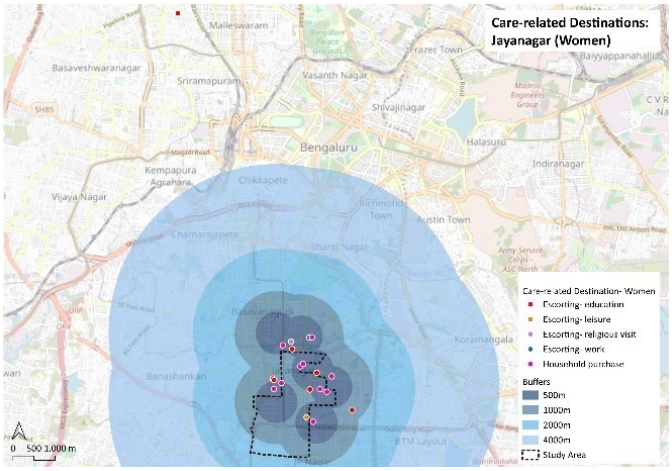


Figure C31 | **Care-related destinations: Jayanagar (women)**



Source: WRI India and The Urban Catalysts (TUC) authors.

Banaswadi

Table C11 | **Distribution of care and non-care trips by purpose, trip length, and gender: Banaswadi**

TRIPS	<500 M	500-1,000 M	1,000-2,000 M	2,000-4,000 M	>4,000 M	GRAND TOTAL
Men	**23**	**7**	**3**	**4**	**4**	**41**
Care-related	**19**	**3**	**2**	**1**	**2**	**27**
Escorting for education	4	1			2	7
Household purchases	15	2	2	1		20
Chained	**1**	**1**		**1**		**3**
Escorting education and household purchases	1					1
Escorting for education and work		1		1		2
Non-care	**3**	**3**	**1**	**2**	**2**	**11**
Education	1	1				2
Work	2	2	1	2	2	9
Women	**18**	**4**	**2**	**10**	**4**	**38**
Care-related	**18**	**1**	**2**	**6**	**2**	**29**
Escorting for education				4	2	6
Household purchases	18	1	2	2		23
Chained		**1**		**1**		**2**
Education trip and escorting other for education				1		1
Escorting for education and household purchases		1				1
Non-care		**2**		**3**	**2**	**7**
Education					1	1
Leisure		2				2
Work				3	1	4
Grand total	**41**	**11**	**5**	**14**	**8**	**79**

Figure C32 | **Care-related destinations: Banaswadi (men)**

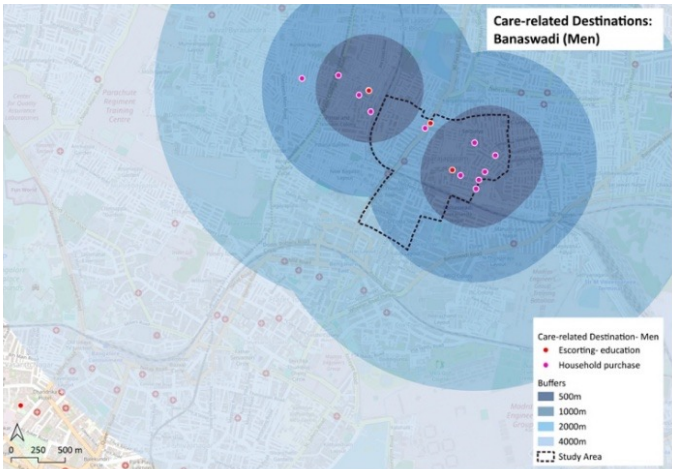


Figure C33 | **Care-related destinations: Banaswadi (PwDs, men)**

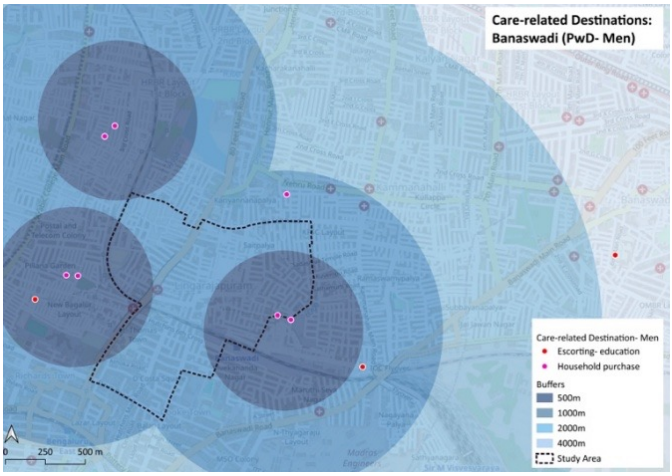


Figure C34 | **Care-related destinations: Banaswadi (women)**

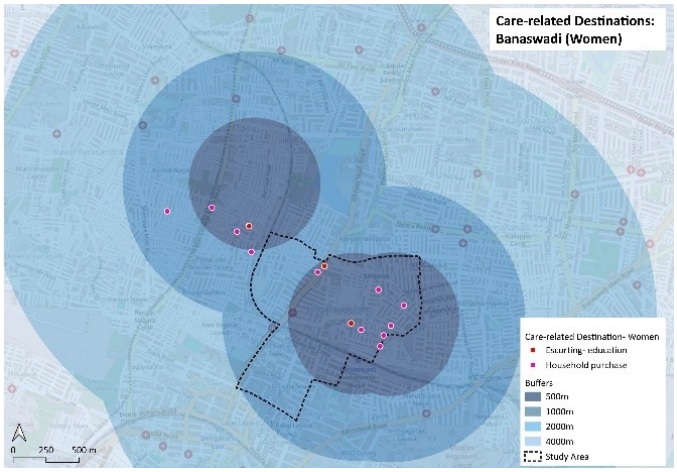
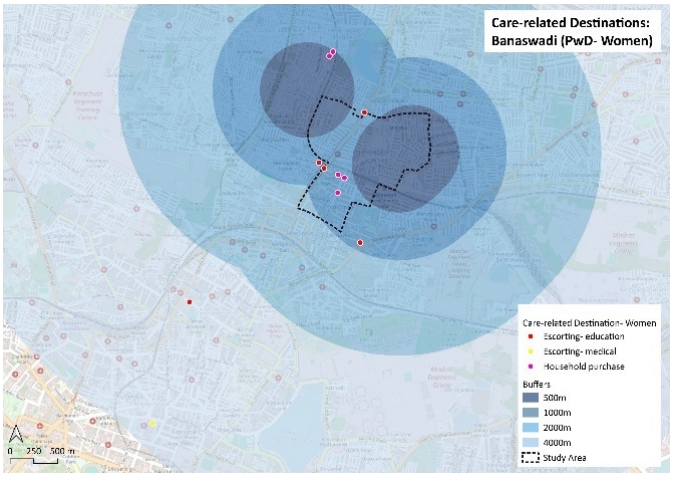


Figure C35 | **Care-related destinations: Banaswadi (PwDs, women)**



Source: WRI India and The Urban Catalysts (TUC) authors.

Whitefield

Table C12 | **Distribution of care and non-care trips by purpose, trip length, and gender: Whitefield**

TRIPS	<500 M	500-1,000 M	1,000-2,000 M	2,000-4,000 M	>4,000 M	GRAND TOTAL
Men	**20**	**5**	**12**	**2**	**9**	**48**
Care-related	**16**	**5**	**12**		**2**	**35**
Escorting for education		3	4			7
Escorting for household purchase					2	2
Escorting for leisure	2		4			6
Escorting for religious visit			2			2
Escorting for work			2			2
Household purchase	14	2				16
Chained				**1**	**1**	**2**
Escorting education and household purchases	1					1
Escorting for education and work		1		1		2
Non-care	**4**			**1**	**6**	**11**
Education	1	1				2
Work	2	2	1	2	2	9
Women	**6**	**10**	**12**	**10**	**8**	**46**
Care-related	**6**	**10**	**10**	**6**	**6**	**38**
Escorting for education		4	2	4	2	12
Escorting for leisure	2	2	2			6
Escorting for medical visit					4	4
Escorting for religious visit			3	1		4
Escorting for work			1	1		2
Household purchase	4	4	2			10
Chained				**1**		**1**
Escorting for education and education				1		1
Escorting for education and household purchases		1				1
Non-care			**2**	**3**	**2**	**7**
Education					1	1
Leisure		2				2
Work				3	1	4
Grand total	**26**	**15**	**24**	**12**	**17**	**94**

Source: WRI India and The Urban Catalysts (TUC) authors.

Figure C36 | **Care-related destinations: Whitefield (men)**

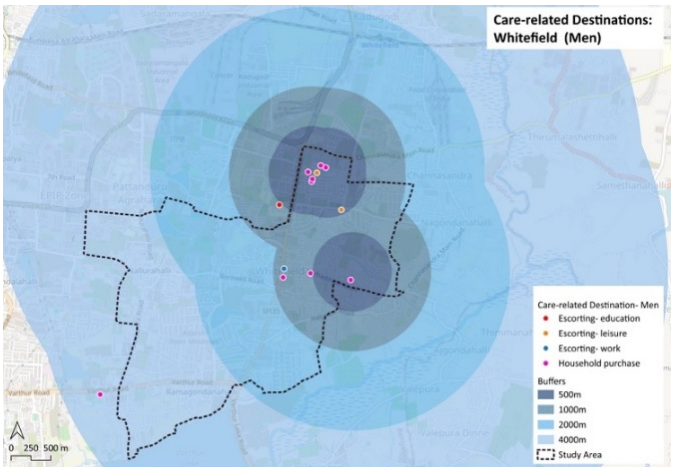
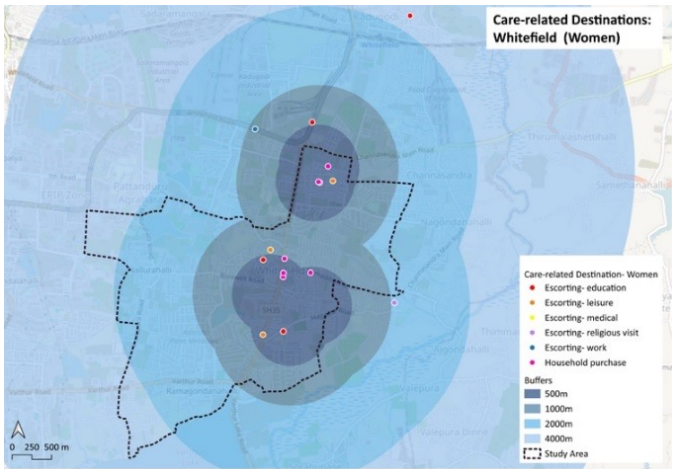


Figure C37 | **Chained care trips: Whitefield (women)**



Source: WRI India and The Urban Catalysts (TUC) authors.

Illustrative maps of care trips and trip distance: Whitefield neighbourhood

Figure C38 | **Care trips (non-chained) by distance: Whitefield (men)**

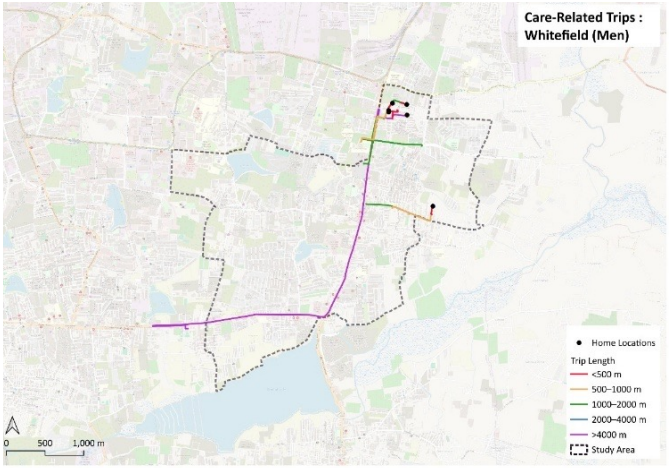
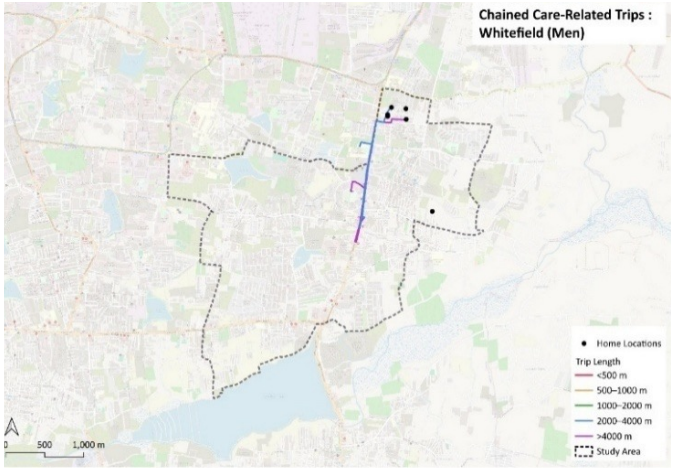


Figure C39 | **Chained care trips by distance: Whitefield (men)**



Source: WRI India and The Urban Catalysts (TUC) authors.

Figure C40 | **Care trips (non-chained) by distance: Whitefield (women)**

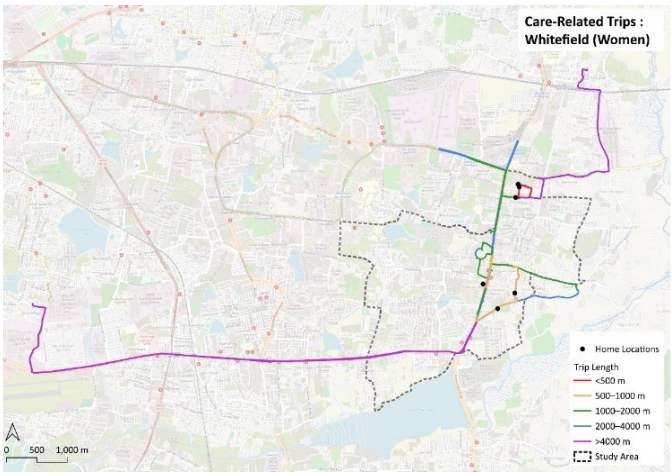
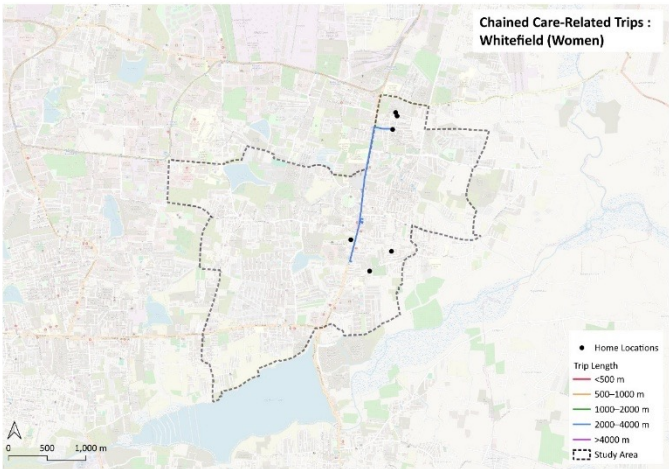


Figure C41 | **Chained care trips by distance: Whitefield (women)**



Source: WRI India and The Urban Catalysts (TUC) authors.

Endnotes

1. MobiliseHER is a three-year project, co-funded by EuropeAid, to enable gender-responsive urban mobility and create more accessible and inclusive infrastructure and services, undertaken in partnership with Urban Electric Mobility Initiative (UEMI), WRI India, CEPT Research and Development Foundation (CRDF), and Participatory Research in Asia (PRIA) India.
2. The city of Bengaluru is now governed by the Greater Bengaluru Authority, which was established in June 2025 (GoK 2025a).
3. Since the frequency of travel is recorded only for the first trip leg, it is assumed to be consistent for all other trip legs. The travel frequency is normalised using the following assumptions: Everyday – 6.5; 3–5 days/week – 4; 1–2 days/week – 1.5; once in 15 days – 0.5; once a month – 0.25.
4. Individual monthly income groups were classified as follows: Nil (no income), low income (below ₹5,000, ₹5,000–₹10,000, and ₹10,000–₹20,000), middle income (₹20,000–₹40,000), and high income (above ₹40,000).
5. Household monthly income groups were categorised as follows: low income (below ₹50,000), middle income (₹50,000–₹1,50,000), and high income (above ₹1,50,000) (MoHUA 2024). The data collection spanned seven months. The average exchange rate in that duration was US$1 = ₹86.27.
6. The ICSE or Indian Certificate of Secondary Education curriculum is popularly considered to align more closely with global education standards (https://www.deccanherald.com/education/why-state-board-isnt-a-preferred-choice-3747178).
7. Anganwadi centres are child and maternal care centres in India that also serve as community hubs to combat malnutrition and promote early childhood education (Source: https://icds.tn.gov.in/icdstn/anganwadi_centers.html).

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