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Evaluating Public Transportation in Sulaymaniyah City: Current Challenges and Opportunities from Stakeholders' Perspectives

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Executive Summary

Globally, urban public transport (PT) providers are increasingly focused on developing sustainable transportation systems to decrease reliance on private vehicles (PVs) and mitigate traffic-related problems like air pollution, congestion, and accidents. This drive is particularly salient in developing countries, including Iraq and specifically the Kurdistan Region, where cities like Sulaimaniyah grapple with rapid urbanization and its associated transport challenges.
For PT providers and decision-makers worldwide, the crucial task now lies in both retaining existing PT users and attracting PV users to adopt public transit. Achieving these dual objectives necessitates a thorough understanding of user preferences across different transport modes (PT/PV), making public transport service quality (SQ) assessment a vital area of study.

Against this global and regional backdrop, this evaluation focuses specifically on Sulaymaniyah City, Iraq. Employing focus group discussions and open-ended questionnaires as key methodological approaches to gather rich qualitative data, this study examines the current state of the city's public transportation system. It pinpoints key challenges and identifies opportunities for improvement by directly engaging with diverse stakeholders, including current PT users, PV owners, transport operators, experts, and local authorities, to understand their perspectives and experiences. Currently, public transport in Sulaymaniyah faces considerable obstacles, such as limited route coverage, an aging and often informal vehicle fleet, unreliable scheduling, and a lack of integrated infrastructure. These shortcomings contribute to low ridership, exacerbate traffic congestion, and create accessibility issues, particularly for vulnerable segments of the population.
Despite these challenges, Sulaymaniyah has significant potential for transformative growth in its PT sector.

The insights gleaned from focus group discussions reveal a strong demand for a more dependable, safe, and efficient system. Key opportunities include harnessing technological advancements for optimized routes and enhanced passenger information, formalizing and regulating the existing informal transport sector, investing in modern and accessible infrastructure (such as dedicated bus lanes and improved bus stops), and implementing integrated ticketing systems. Moreover, fostering strong collaboration among government bodies, private operators, and community representatives, informed by the direct feedback obtained through focus group discussions, will be essential for formulating and implementing sustainable and user-focused public transportation strategies. Addressing the identified challenges and capitalizing on these opportunities will be critical for enhancing urban mobility, fostering economic development, and ultimately improving the quality of life for the residents of Sulaymaniyah City.

1.Background

In the last decades, many actions have been taken to tackle traffic external problems, such as: (1) implementation of real time traffic light control; (2) road space rationing by traffic restriction for cars based on the last digits of their license plate, depending on the day; (3) congestion charging and (4) improvements to public transportation. According to the literature, the first two actions were not proper to reduce traffic congestion and encourage more people to use public transport [1]. On the other hand, the users of private vehicles (PV) are keen to use their cars because it is more accessible for door to door and faster [2]. Another research concluded that most private drivers enjoy the car and feel that it offers more privacy than PT [3].

In order to promote public transportation, it is widely agreed that providing rules for using PV and, more importantly, improving PT service quality can significantly change the behavior of people to use more PT than PV [1, 5, 6, 7]. Therefore, encouraging dedicated car users to switch to public transport requires substantial effort, as they often perceive it as inferior to their private vehicles. To address this, policies should focus on diminishing the functional, psychological, and cultural appeal of car ownership while simultaneously enhancing the performance and attractiveness of public transport and other environmentally friendly travel options in these areas [5].

Understanding public transport (PT) service quality requires context-specific analysis that includes both user and provider perspectives. Yet, service providers often emphasize infrastructure expansion over user comfort, overlooking the importance of aligning technical goals with passenger needs. A balanced, comprehensive definition of service quality is crucial for effective, user-focused service delivery [8].

In many developing countries, bus transport services are largely operated by private entrepreneurs with minimal government support [9]. This lack of public investment has contributed to rising private car use, particularly for commuting. To address this, transport authorities must prioritize funding for sustainable and accessible public transport, especially bus systems, which are more cost-effective than rail, particularly in low-density urban areas. For instance, Australia's investment in bus infrastructure, including service reorganization and improved frequency, led to significant ridership growth. Notably, Bus Rapid Transit (BRT) systems have shown strong corridor-level impacts, attracting 40% of new users from car drivers and significantly reducing car dependency. For developing countries, targeted investment in bus systems can be a critical step toward equitable, efficient, and sustainable urban mobility [1, 10].

It is essential to synthesize individual responses into a global opinion to inform policymaking. Participatory planning, as defined by Smith (1973), involves including individuals, groups, or communities in planning.

Terms like'public participation, engagement, and involvement' all refer to efforts to gather public input on transportation systems. Involving the public brings practical insights that can improve planning efficiency, fairness in resource distribution, environmental protection, and economic development [11].
Public participation enhances decision legitimacy, fosters creativity, and builds interpersonal skills [12]. However, it can also slow down decisions when participation is limited or biased. Cartenì et al. (2020) [13] identify two key stages for public involvement: before/after and during decision-making. Authorities are encouraged to segment participants into stakeholder groups to reflect diverse opinions, especially in large projects. While economic impacts remain central, social factors are gaining importance [14]. Listening to public opinions doesn't mean adopting the majority view. Agencies and the public often have different priorities. Mutual understanding can help reframe negative perceptions as trade-offs for long-term benefits. Public support is crucial; even technically sound projects can fail without it. Trust and collaboration foster stronger support [15, 16].

In public transport (PT) planning, users of PT and PV have differing perceptions. Captive (dependent) and choice (voluntary) PT users may value similar attributes, but these influence their decisions differently. Non-captive users, such as regular car drivers, are important to study because they may not be familiar with PT or may hold biased views [17, 18]. Traditional urban transport planning typically assumes a stable division between private vehicles and public transit. However, the emergence of mobility-on-demand (MoD) services like Uber and Lyft has introduced a hybrid mode that challenges this binary framework [19].

At the same time, technology is transforming PT by enhancing efficiency, reliability, and user experience. Tools such as real-time tracking, mobile ticketing, and integrated journey planners improve accessibility and convenience. Additionally, data analytics, AI, and Intelligent Transport Systems (ITS) help optimize operations and manage traffic flow, contributing to higher service quality and ridership [20, 21]. According to Chirakkal (2024) [20], the successful adoption of smart mobility in public transport depends on coordinated development plans, targeted technology investments, and active government involvement. The study stresses the importance of resolving key challenges to boost operational efficiency and ensure long-term competitiveness.
In line with efforts to make PT more sustainable, green public procurement (GPP) has emerged as a strategic tool for promoting environmental goals and the adoption of renewable technologies. A comparative study of two Swedish regions illustrates how GPP can be applied differently: one region uses it strategically to build a local biofuel market, which requires strong political support, knowledge-sharing, and willingness to bear higher costs. The other adopts a more pragmatic approach, focusing on cost-effective biofuel adoption with fewer demands on procurement processes. These findings underscore the importance of local context and strategic alignment in shaping the outcomes of green procurement initiatives. Strategic improvements to bus services, such as better network design, increased frequency, bus priority lanes, and enhanced passenger information, are crucial because they significantly boost ridership [22].

Underscores the limited research in developing countries on implementing high-quality, direct bus services designed to shift demand from private cars to public transport. While many systems in these regions prioritize capacity, often resulting in overcrowded Bus Rapid Transit (BRT) networks with multiple transfers, the study in Belo Horizonte, Brazil, demonstrates that offering "Executive buses" with enhanced comfort, direct routes, and shorter travel times can significantly attract car users. Notably, many commuters are willing to walk up to 500 meters to access these services, and the demand is not highly sensitive to price, allowing room for strategic fare management.

Urban sprawl and rising private vehicle use in developing countries have led to congestion and emissions. To promote sustainable public transport, a review analyzed 104 studies on bus usage since 2000. It identifies key factors influencing service quality and user satisfaction, namely safety, comfort, reliability, and accessibility, especially during first- and last-mile travel. Both practical and social factors shape public transport attitudes, highlighting the need for more research and informed policymaking, particularly in developing countries [9].

Drawing from this case, the current study aims to fill a similar research gap in Sulaimani city, where no such practical assessments exist. By engaging focus groups and transport decision-makers, this study will evaluate the present challenges and opportunities in the city's public transport system. The goal is to provide actionable recommendations that support evidence-based improvements for both policymakers and operators, potentially making public transport a more attractive alternative to private car use.

In order to achieve the main objective of this study, we addressed the following objectives:

1. To investigate the current challenges and critical issues affecting public transport service delivery in Sulaymaniyah, including regulatory, operational, and infrastructural limitations.
2. To assess stakeholder perspectives, citizens, practitioners, and local authorities on priority areas for improving the public transport system and the role of inclusive planning in supporting effective service delivery.
3. To explore the role of technology, including mobile applications and Intelligent Transportation Systems (ITS), in improving the efficiency, accessibility, and user experience of public transport services.
4. To examine how urban planning and design, along with citizen engagement and institutional collaboration, can contribute to the development of a more sustainable and responsive public transport system in Sulaymaniyah.

2. Methodology

This study investigates the challenges and potential improvements in the public transportation (PT) system of Sulaymaniyah City through a qualitative approach. This qualitative analysis provides a comprehensive view of the PT landscape in Sulaymaniyah. It underscores the importance of inclusive governance and context-specific reforms [23].

Using a combination of focus group discussions and open-ended questionnaires, insights were gathered from 48 participants representing various demographics, institutions, transport providers, private sectors, and professional backgrounds. The focus groups facilitated open dialogue among participants, allowing for the identification of shared concerns and context-specific issues. Key themes emerging from these discussions included: inconsistent and infrequent bus schedules, inadequate coverage across urban and peri-urban areas, poor vehicle conditions, a lack of digital tools such as real-time apps, and concerns over safety and comfort, particularly for women and older passengers. The research aimed to explore key themes surrounding service quality, policy effectiveness, user experience, and technological integration, guided by seven core research questions. The research questions that directed our analysis focused on identifying the challenges experienced by users of the existing public transport system and non-users, gathering recommendations for potential improvements, and examining how technology and digital platforms can support greater engagement with PT. Accordingly, the in-depth focus discussion was structured around the following key questions:

1. How do current transportation rules and regulations support the improvement of public transport in Sulaimani?
2. What are the main challenges facing Sulaimani's public transport system?
3. Which areas of the transport system require the most urgent improvements?
4. How can citizens actively contribute to improving public transport, and how can local authorities benefit from their involvement?
5. How does the lack of apps and Intelligent Transportation Systems (ITS) affect public transport usage and user experience?
6. How can urban planning and design be improved to enhance PT and mobility in the city?
7. Are there any additional issues or suggestions related to public transport that stakeholders would like to share?

Table 1 describes the number of participants and their sociodemographic characteristics, including age, gender, occupation, and their roles in the city.

Table 1: Number of participants and their sociodemographic characteristics

Participant (Pi)	Gender	Age	Occupation	Location/Role
P1	male	45-64	Engineer	Member of the master plan
P2	male	45-64	Laws of traffic	Private sector
P3	male	45-64	Investor	Sulaymaniyah Governorate
P4	male	45-64	Transport Engineering	University lecture
P5	male	34-45	Survey engineer	Director of Geo Map
P6	male	34-45	Architecture engineer	Project assistant
P7	male	34-45	Director	Meed foundation
P8	female	34-45	Engineer	Project Manager/ View Pioneer Company
P9	female	34-45	Lecturer & Researcher	City planning department coordinator
P10	male	34-45	Lawer	Ministry of planning
P11	Male	65 above	Writer	Expert on transportation aspects
P12	Male	46-55	Media	Traffic officer
P13	Male	56-65	Dean of college	University of Sulaimani
P14	Male	46-55	Engineer	Private sector
P15	Male	46-55	Traffic certificate	Private sector
P16	Female	46-55	Director	Sulaymaniyah Governorate
P17	Male	46-55	Physician	Dean of college
P18	Male	46-55	General director	Directorate of roads, reconstruction & housing of Sulaimanyah
P19	Male	65 above	Lecturer	University of Sulaimani
P20	Female	34-45	Researcher	Institution for Strategic Studies and Scientific Research Kurdistan
P21	Male	46-55	Lecturer	Sulaimani Polytechnic University
P22	Male	56-65	Dean	The head of Sulaymaniyah traffic police
P23	Male	46-55	Communicator	Qaiwan city
P24	Female	20-34	Student	Sulaimani Polytechnic University
P25	Female	20-34	Student	Sulaimani Polytechnic University
P26	Female	20-34	Student	Sulaimani Polytechnic University
P27	Female	20-34	Student	Sulaimani Polytechnic University
P28	Female	20-34	Student	Sulaimani Polytechnic University
P29	Female	20-34	Student	Sulaimani Polytechnic University
P30	Female	20-34	Student	Sulaimani Polytechnic University

P31	Female	20-34	Student	Sulaimani Polytechnic University
P32	Female	20-34	Student	Sulaimani Polytechnic University
P33	Female	20-34	Student	Sulaimani Polytechnic University
P34	Male	46-55	Employed	Sulaimani
P35	Male	34-45	Employed	Sulaimani
P36	Male	34-45	Education	Sulaimani Polytechnic University
P37	Male	34-45	Employed	Sulaimani
P38	Female	20-34	Student	Sulaimani Polytechnic University
P39	Male	20-34	Student	Sulaimani Polytechnic University
P4	Male	20-34	Student	Sulaimani Polytechnic University
P41	Female	20-34	employee	Sulaimani
P42	Male	20-34	Student	Sulaimani Polytechnic University
P43	Male	20-34	Student	Sulaimani Polytechnic University
P44	Male	56-65	Mayor of the city	Head of the Sulaymaniyah district center
P45	Male	45-55	Duty of mayor	Sulaymaniyah governate
P46	Male	45-55	Journalist	Traffic police Sulaymaniyah
P47	Male	34-45	Civil engineer	Ministry of Planning
P48	Male	34-45	Transport engineer	Erbil Governorate

3.Results and discussion

3.1 The Result of the Focus Group Discussion

This section presents a comprehensive analysis of the qualitative data collected during the study. The existing master plan, developed in 2013, outlines several strategies for traffic management and mobility improvement in Sulaimani city, with Intelligent Transport Systems (ITS) identified as a key component. However, the implementation of the plan faces several major challenges, including financial limitations, inadequate infrastructure, and an oversupply of public buses and independent drivers (P1), which can be solved by introducing an intelligent transport system (ITS) (P4).

Traffic rules that grant bus priority lanes, signal priority, or exclusive right-of-way reduce delays and make public transport more attractive by improving speed and reliability. P2 added that in Europe, transport regulations have played a significant role in promoting the use of public transport (PT) and improving accessibility while also implementing restrictions on private vehicle (PV) usage. These laws have supported economic sustainability by encouraging a shift toward PT through incentives such as discounted fares for sustainable travel modes.

Transport rules ensure that drivers are qualified, buses are maintained, and service frequencies and coverage meet standards, contributing to a more dependable and safe system (P2). Rules like parking restrictions, congestion zones, and enforced no-stopping areas help minimize road conflicts, reduce congestion, and allow public buses to move more smoothly (P2).

The absence of a central decision-making authority to coordinate and oversee transport improvements. There is also a lack of institutional support from the Directorate of Investment, which has hindered the execution of small-scale initiatives aligned with the master plan. Additionally, legal frameworks that would allow private sector involvement in public transport development are lacking, also a general lack of public awareness about the benefits of public transport (P11, P16, P47).

Planning was available, but we had some problems: no real statistics and different contexts in different cities. We did not have local expertise. Similarly, we need to know the local context and the needs of people, the population, and the budget, long-term plan to have a better result (P47).

One of the major challenges is securing adequate budget allocations for public transportation improvements. Additionally, it is crucial to develop context-specific solutions tailored to the unique characteristics of Sulaymaniyah, rather than simply replicating international models that may not be suitable. The lack of technological infrastructure further hampers progress, particularly in areas such as digital ticketing and real-time information systems. Moreover, effective marketing strategies are essential to raise public awareness and promote the use of the bus system (P4, P16, P47).

The poor condition of public buses is a key factor deterring public transport use (P18, P3). Despite this, approximately 350,000 residents in Sulaimani depend on bus services, yet authorities have not made meaningful progress in upgrading or expanding public transport systems (P3, P4, P11).

Although the city operates 28 bus routes, organizational and managerial shortcomings have left some neighbourhoods without adequate service (P2, P4, P12). All routes converge in the city centre, exacerbating congestion. Moreover, the absence of formal bus stops results in buses stopping based on passenger requests, further reducing efficiency (P4).

In addition, many residents remain indifferent or skeptical about efforts to improve the system (P44). The lack of coordinated collaboration among local authorities, experts, and relevant sectors further impedes progress (P9, P7, P12, P13, P16). For example, while the media has the potential to play a crucial role in promoting public transport, these efforts have been minimal (P12).

Street design in Sulaimani favours private vehicle use over sustainable alternatives such as buses, cycling, and walking (P48, P20). Narrow, obstructed sidewalks—often occupied by shop owners—discourage walking and push people toward private car use (P20). A general mistrust between the public and government agencies also hinders transport reforms (P44, P45). Key areas such as Qula Raisi and the University of Sulaimani lack bus services entirely, compelling residents to rely on private cars. Moreover, the absence of a consistent bus timetable further deters usage (P2, P11, P12). Based on the above discussion, the majority of participants agreed that an urgent reform needed for the bus system is the provision of higher-quality, more reliable vehicles to improve passenger comfort and service efficiency.

3.2 The open-ended questionnaire Results

To complement the focus group findings derived from the qualitative method, this study incorporated an open-ended questionnaire to gain deeper insight into the factors influencing the low frequency of public transportation (PT) usage. This approach aimed to capture a more nuanced understanding of user perceptions and challenges.

The survey analysis utilized responses from participants who had also identified the five primary reasons for infrequent PT use. The open-ended responses were analyzed to explore variation in individual experiences and opinions. As illustrated in Figure 1, the most frequently cited reason by 60% of participants was that public transport does not adhere to schedules or timetables. This was closely followed by concerns that PT journeys take too long to complete (57.5%). Additionally, 47.5% of respondents expressed dissatisfaction with the overall comfort and quality of service, citing issues such as poor cleanliness, excessive noise, overcrowding, and inadequate temperature control. A similar proportion (47%) also reported that transfers between services are inefficient or inconvenient. Furthermore, 45% of participants indicated that public transport options were unavailable in their area. In addition to that, most of the participants (40%) selected that there are no public transport options, such as micromobility, and other PT modes in their route.

In contrast, only a small minority, 7.5%, stated that they required a private car for their specific travel purposes or were unaware of the PT services available in their vicinity. Similarly, only 10% of respondents perceived the cost of PT as high or unaffordable.

Interestingly, two additional factors were identified by 35% of participants: a preference for using private vehicles and the inadequacy of existing services for their travel routes (e.g., too many stops, extended route lengths, etc.). Technological shortcomings also emerged as a notable concern. Specifically, 30% of respondents highlighted the absence of mobile applications and intelligent transportation systems (ITS) in the bus network as contributing factors to their reduced PT usage. The same proportion (30%) pointed out that the distance between their residence or destination and the nearest bus stop also discouraged them from using PT regularly.

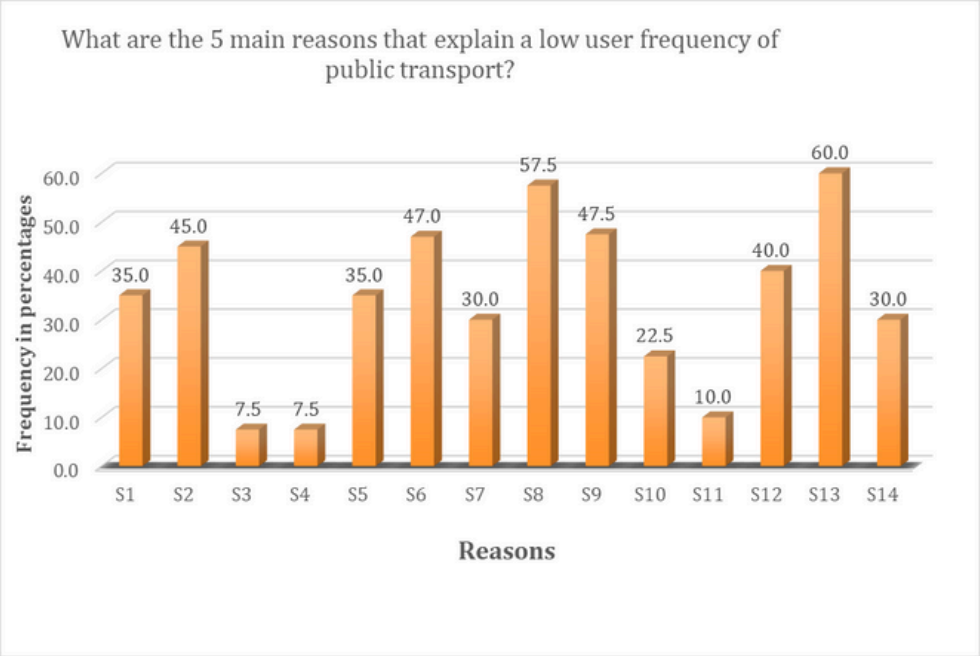

Figure 1: Number of participants who chose the five reasons for the low frequency of PT

Table 2 below presents the codes and descriptions of 14 key reasons why individuals regularly do not use public transportation in the city.

Table 2: Description statement for all codes.

Code	Description
S1	prefer to use the car
S2	There is no public transport
S3	I don't know the service
S4	I need the car to run my errands, take the children to school, etc.
S5	There is no adequate service for my route (many stops, route length, etc.)
S6	The transfers don't work well
S7	The stops are far from my starting point or destination
S8	Takes a long time to get there
S9	It's uncomfortable, it's dirty, too much noise, a lack of space, and inadequate temperature.
S10	It's unsafe (i.e., annoying by people, crime, robbery, health issues)
S11	Expensive/ the price is not good
S12	No public transport options
S13	Public transport does not work on a schedule or timetable.
S14	Lack of apps and Intelligent Transportation Systems (ITS) in the Bus system.

4. Conclusion

Public transportation is a cornerstone of sustainable urban mobility, offering an efficient means of reducing traffic congestion, minimizing environmental externalities, and ensuring equitable access to employment opportunities and essential urban services. However, critical shortcomings in the public transportation system of Sulaimani city are obvious.

Regarding this issue, this study aimed to explore the challenges and solutions for advancing efficient public transport in Sulaymaniyah, Iraq. The findings from the focus group discussion highlight the need to improve PT service quality and decide on an urgent structure for a new PT strategy to benefit the broader transport sector. Despite having a master plan since 2013 that emphasizes Intelligent Transport Systems (ITS), implementation remains weak due to financial constraints, lack of institutional coordination, and outdated infrastructure. Public dissatisfaction is widespread, particularly concerning the poor quality of buses, the absence of reliable schedules, and limited route coverage. Additionally, urban design favors private cars, further reducing the appeal of public transport. There is a strong need for political will, legal reforms, and greater public engagement to improve the system effectively.

Based on the results from the open-ended survey, public transport usage in Sulaymaniyah city is low due to unreliable scheduling, long travel times, poor service quality, limited coverage, and lack of supporting technologies. Many residents also noted the absence of diverse transport options and inadequate route design, with relatively few citing cost or car dependency as major barriers.

The study found systemic, infrastructural, and operational issues in Sulaymaniyah's PT. Localized reform is needed under the KRG's decentralized yet fragmented urban governance model. The following policy actions should be targeted and sequenced:

1. Create the Sulaymaniyah Local Urban Transport Authority (LUTA):

- Create LUTA, a multi-agency coordination body, under the Sulaymaniyah Governorate with guidance from the KRG Ministry of Municipalities and the Ministry of Transportation.
- LUTA should plan, regulate, collect data, monitor services, and collaborate with public and private operators of transport.
- Coordination between municipal, traffic police, urban planning, and investment boards. Why it matters: Using existing staff and mandates, LUTA provides a cost-effective administrative first step in Sulaymaniyah without a central authority.

2. Prioritize Low-Cost, High-Impact Pilots: Use scalable pilots instead of system overhauls:

- Tested fixed-route bus services on major corridors (city center to university zone).
- Simple pop-up bus stops with shelters and signage. Simple mobile apps or Telegram bots provide real-time bus schedules and pilot tracking. Why it matters: Small-scale pilots generate public interest in Sulaymaniyah, which has limited funds.

3. Use affordable technology

- Make scheduling, bus location, and service updates easy with a mobile web app or chatbot.
- Add basic GPS trackers to buses and integrate with LUTA's central system. It applies because modular tools are cheaper and scalable than ITS. Local universities or startups can aid development.

4. Formalize informality:

- Create a public-private partnership to encourage informal minibus/taxi operators to adopt regulated contracts.
- Register fleets, set minimum standards, assign routes, and provide operators with loans and fuel subsidies. Since Sulaymaniyah's informal sector dominates mobility, this approach avoids conflict and integrates actors.
- Citizens should be involved in decision-making to support public buses. A mutually beneficial agreement must be reached to ensure smooth integration and long-term cooperation among all parties involved.

5. Upgrade selected fleets

- Choose 30-50 modern buses for a core BRT-lite corridor over citywide fleet replacement.
- LUTA manages leased, donor-funded, or operated performance-based private contracts.
- For high-demand corridors, prioritize low-floor, air-conditioned, accessible buses.
- Upgrading and replacing old buses with modern, comfortable ones is key to increasing ridership, and they should operate frequently with minimal idle time. Relevance: Reduces costs and improves quality. Focused investment helps citizens and the government.

6. Support Transit with Urban Design and Regulations

- Remove illegal parking and obstacles from sidewalks for safer bus stops. Additionally, stricter parking policies, such as higher parking fees and limited parking availability for private vehicles in busy areas, can further discourage private car use and promote public transport adoption.
- Create bus and microtransit loading zones in congested Bazary Nwe, Raparin, and Salim Street.
- Give bus signals priority at key junctions (Sarchinar, Malik Mahmood Ring Road).
- Public bus services should be extended to newly developed and residential areas in Sulaimani City. These improvements should be guided by integrated urban planning and design strategies that prioritize sustainable mobility, connectivity, and accessibility for all users. Why it matters: Public space redesign is cheap and within municipal authority; it promotes sustainable transport.
- Local authorities could implement regulations such as allowing vehicles with odd-numbered license plates to access certain streets on specific days, while even-numbered plates are permitted on alternate days.

7. Spread Awareness, Change Behavior

- Promote transit to students, professionals, and women with local media, universities, and civil society organizations.
- Promote public transit's financial, environmental, and safety benefits.
- Give students, employees, persons with disabilities, and low-income individuals free ride weeks to try. Public resistance is a cultural context. Any model applied should reflect Sulaymaniyah unique climate and topography. Awareness campaigns and trials can change attitudes without laws.

8. Long-term financial and institutional reform

- Encourage the KRG Ministry of Planning and Investment Board to include urban transport in future development plans.
- Ask donors like UN-Habitat, GIZ, and the World Bank for technical assistance, feasibility studies, and capacity improvement. Why it matters: Sulaymaniyah needs external support and policy integration to sustain large-scale changes.

The following Table (3) outlines the proposed strategies for improving public bus services in Sulaymaniyah city. Local authorities need to take immediate action in a small-scale pilot to address the current issues in Sulaymaniyah's public transport system.

Table 3: Summary of proposed actions

Strategy	Timeline	Stakeholders	Funding Needs
Create LUTA	0-6 months	Governorate, KRG ministries	Minimal
Pilot fixed routes	6-12 months	Municipality, private operators	Low to moderate
Formalize minibuses	12-18 months	Traffic police, minibus unions	Moderate
Digital tools (basic)	6-12 months	Local startup, universities	Moderate to high
Targeted fleet upgrade	1-2 years	Private sector, donors	Low
Awareness campaigns	6-12 months	Media, NGOs, universities	Low
Long-term policy reform	2-5 years	KRG ministries	Medium

In summary, this revised policy roadmap reflects Sulaymaniyah's fiscal limits, decentralized governance, informal transport dominance, and capacity constraints. Rather than proposing an idealized transport model, it offers a practical sequence of reforms that can generate public support, political feasibility, and incremental improvements in service delivery.

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