Chapter 5: Output 2 (Examination of an Integrated Public Transport System in NMA)

5.1 Outline

(1) Benchmarks in PDM

For Output 2, the five objectively verifiable indicators set in the PDM are as follows:

2-1 Existing trip demand data and vehicle operation information are obtained. 2-2 Current traffic situation is examined, and future public transport passenger demand is estimated. 2-3 Integrated public transport network plan is developed. 2-4 Public transport operation plan and fare policy are examined. 2-5 Integrated public transport development strategies are formulated.

(2) Summary

The traffic demand forecasts prepared in 2013 was updated based on the obtained data, and future traffic demand was estimated for five scenarios. A series of lectures on traffic demand forecasts were conducted. Based on the demand forecast, a public transport development plan was formulated, including bus network restructuring and transport hub improvement.

5.2 Meeting List

Meetings held for Output 2 activities are shown in **Table 5.2.1**. The activities of Output 2 were mainly carried out by WG2, but there were overlaps with the activities of WG3 which was responsible for Output 4. Therefore, some activities were carried out jointly by WG2 and WG3.

Table 5.2.1 Meeting List for Output 2

Date	Main Attendees	Major Topic	With WG3
10 Feb 2023	NaMATA	• How to proceed • Appointment of WG members	-
17 Feb 2023	NaMATA	• How to proceed • Work Plan (Demand Forecast, Feeder Route in BRT Line 2)	-
15 Mar 2023	NaMATA	• Reviewing progress of WG2 • Confirming the progress of data collection necessary for Feeder route study	-
21 Mar 2023	NaMATA	• Lecture from JICA Expert Team ➢ Obtaining of existing trip demand data and vehicle operation information ➢ Bus business in Japan	Yes
4 Apr 2023	NaMATA, KURA, NTSA	• Lecture from JICA Expert Team ➢ Indicators to Evaluate Existing Public Transport Network • Confirming the progress of data collection necessary for Feeder route study	Yes
21 Jun 2023	NCCG	• Request for provision of public transport policy	Yes
22 Jun 2023	Kiambu County	• Request for provision of public transport policy	
12 July 2023	NaMATA	• Lecture from JICA Expert Team ➢ Socio-economic indicators for traffic demand forecasting	Yes

Date	Main Attendees	Major Topic	With WG3
		➢ Traffic surveys for developing traffic demand forecasting models	
23 Aug 2023	NaMATA	• Lecture from JICA Expert Team dal split model and SP survey	Yes
19 Sep 2023	NaMATA	• Lecture from JICA Expert Team ➢ Utilization of General Transit Feeding Specification	Yes
2 Oct 2023	NaMATA	• Discussion on the traffic survey coverage	
5 Oct 2023	NaMATA	• Lecture from JICA Expert Team ➢ Household Interview Survey	Yes
20 Feb 2024	NaMATA	• Report of Traffic Survey	Yes
22 Feb 2024	Machakos County	• Request for information provision on socio-economic indicators, cities and transport projects for traffic demand forecasting	
27 Feb 2024	Kiambu County	• Request for information provision on socio-economic indicators, cities and transport projects for traffic demand forecasting	
21 May 2024	NaMATA	Lecture from JICA Expert • Additional items for future demand forecasting	Yes
28 May 2024	Muranga County	• Request for information provision on socio-economic indicators, cities and transport projects for traffic demand forecasting	
30 July 2024	NaMATA	Lecture from JICA Expert: • Updating Traffic demand forecasting model (1st) ✧ Introduction	Yes
7 Aug 2024	NaMATA	Lecture from JICA Expert • Updating Traffic demand forecasting model (2nd) ✧ Review on urban trip characteristics based on the survey	Yes
9 Aug 2024	NaMATA	Lecture from JICA Expert • Updating traffic demand forecasting model (3rd) ✧ Outline of the updated demand forecasting model	Yes
14 Aug 2024	NaMATA	Lecture from JICA Expert • Updating traffic demand forecasting model (4th) ✧ Development of Socio-economic Framework ✧ Development of future OD table	Yes
16 Aug 2024	NaMATA	Lecture from JICA Expert • Updating traffic demand forecasting model (5th) ✧ Development of transport network ✧ Assignment parameter files	Yes
13 Nov 2024	NaMATA	Lecture from JICA Expert • Updating traffic demand forecasting model (6th) ✧ Outline of Transit Assignment ✧ Digitalization of public transport network	Yes
15 Nov 2024	NaMATA	Lecture from JICA Expert • Updating traffic demand forecasting model (7th) ✧ Significance of project evaluation ✧ Financial evaluation ✧ Economic evaluation ✧ Items of economic benefit	Yes
11 Nov 2024	Metro Trans	• Formulating public transport network around Ngong Road for Phase 2. • Bus operator restructuring	
15 Nov 2024	Enabled		
19 Nov 2024	Super Metro		

Source: JICA Expert Team

5.3 Description of Output 2 Activities

5.3.1 Activity 2-1: Obtain Existing Trip Demand Data and Vehicle Operation Information

Activity 2-1 is summarized in **Table 5.3.1**.

Table 5.3.1 Summary of Activity 2-1

Activity	Achievement	Note
2-1 Obtaining of existing trip demand data and vehicle operation information		
2-1-1 To collect and review existing traffic survey data and traffic demand forecast data.	Completed	➢ Data on traffic demand from NIUPlan, on BRT, and related studies was obtained.
2-1-2 To collect current bus operation information.	Completed	➢ Information on current bus routes and others were collected.
2-1-3 To carry out the traffic survey to update traffic demand forecast model.	Completed	➢ The survey was carried out. ➢ Traffic demand forecasting model was updated based on collected information and survey results.
2-1-4 To organize the collected data.	Completed	➢ Data for the traffic demand forecast was submitted to NaMATA.

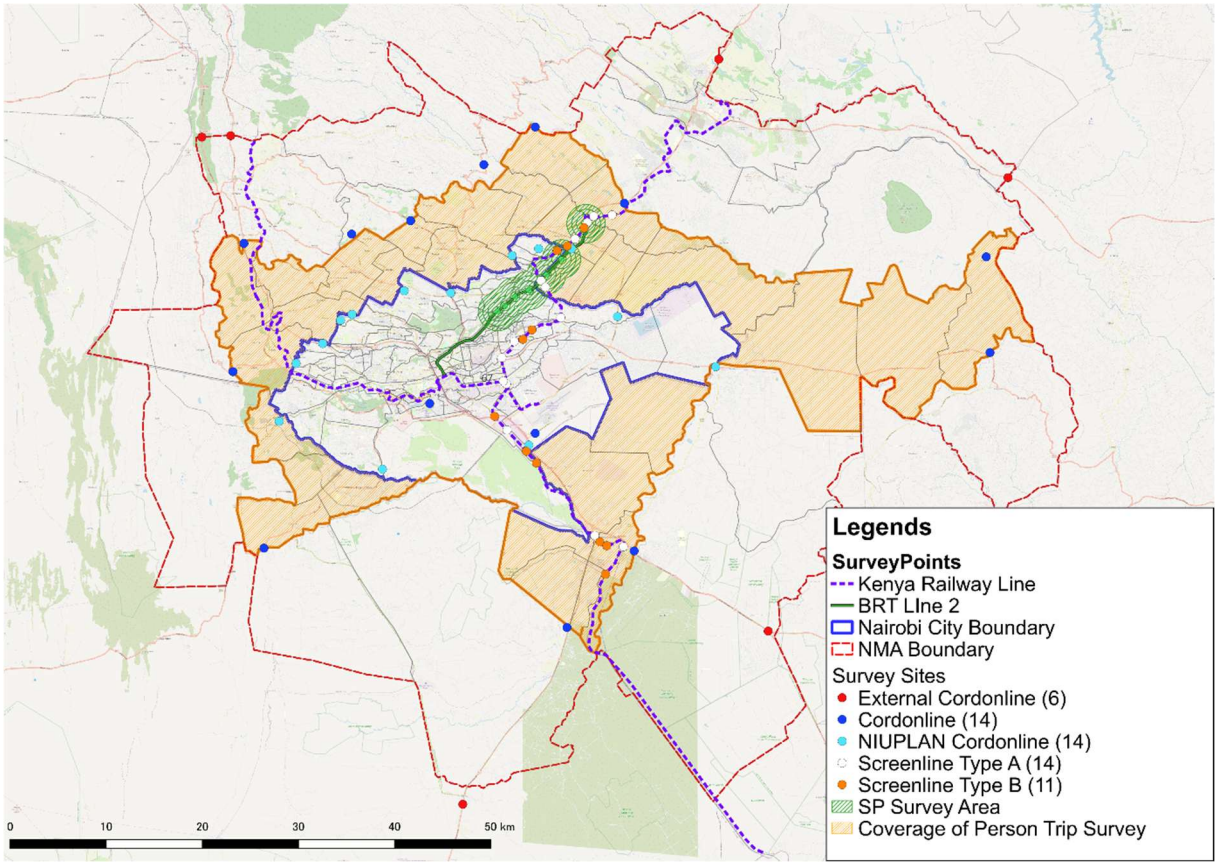
Source: JICA Expert Team

Five BRT lines under different stages of implementation were planned with support from various development partners and were expected to become the backbone of public transport in the NMA. NMA is expanding alongside economic development and population growth. However, since the NIUPLAN was formulated in 2013, a traffic demand forecast covering the entire transport network, including BRT lines, in the region has not been conducted. In this JICA project, that transport demand forecast was updated to prepare a public transport development plan.

With respect to the review of existing traffic survey data under Activity 2-1-1, while NIUPLAN conducted a comprehensive traffic survey which included a Household Interview Survey (HIS), it did not fully address the ever-expanding NMA and its results need to be updated based on actual metropolitan conditions.

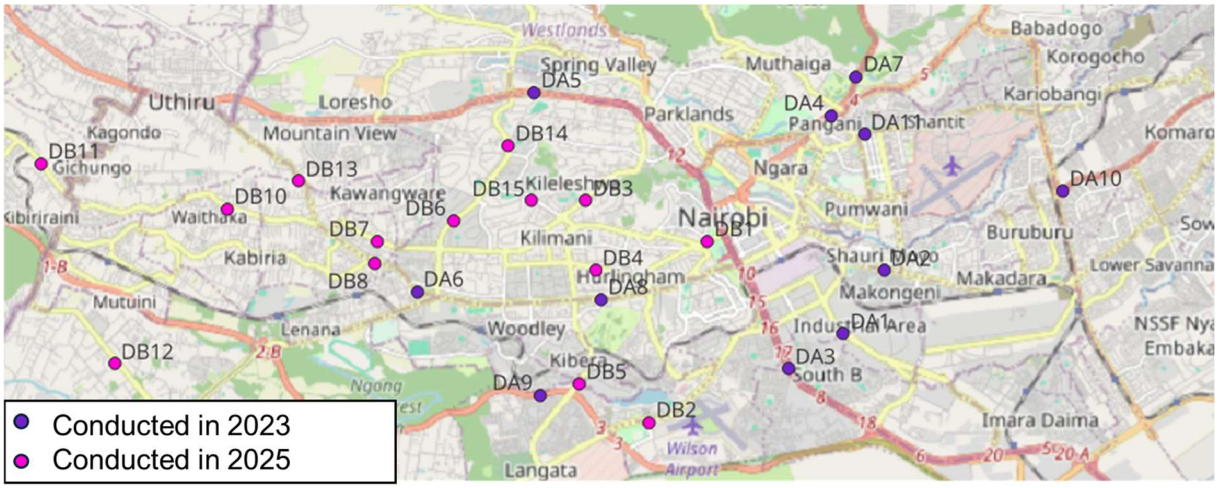
Therefore, the cordon and screen line surveys were redefined in this project based on the actual traffic zones within the metropolitan area, and a person trip survey was conducted in parallel, targeting 5,000 households, which is 1% of 500,000 households within the area. For calibration purposes, traffic counts were conducted on the cordon lines used in the NIUPLAN (referred to as inner cordon line in this project) and on major corridors. Furthermore, traffic counts were also conducted at the NMA boundary to accommodate NaMATA's request (referred to as external cordon line).

To calibrate the origin–destination (OD) tables, results of the traffic counts conducted on the external and inner cordon lines were compared with the assigned traffic volumes, which were estimated from the HIS OD tables. Survey stations were categorized into Type A (used in 2023) and Type B (used in 2023 and 2025 along Ngong Corridor). Type A involved a 24-hour traffic count, whereas Type B involved a 16-hour traffic count. The location of the survey stations are shown in Figure 5.3.1 and Figure 5.3.2.



Source: JICA Expert Team

Figure 5.3.1 Location of Traffic Count Stations, 2025



Source: JICA Expert Team

Figure 5.3.2 Location of Traffic Count Stations, 2023 and 2025

Table 5.3.2 Traffic Surveys conducted to Update the 2013 Traffic Demand Forecast Model

Survey	Purpose	Survey Point (tentative)	Content
Outer Cordon Line	To understand the volume of traffic and trip characteristics inside the metropolitan area	6	・ Traffic count
Inner Cordon Line	To compare with the traffic volume in NIUPLAN and update it	14	・ Roadside OD interview ・ Traffic count
Screen Line	To calibrate results of 2025 traffic survey	25	・ Traffic count ・ Passenger count
Traffic Count	To compare with the traffic volumes in NIUPLAN and update it	14 (2023) + 11 (2025)	・ Traffic count
Person Trip	To understand the transport characteristics in the metropolitan area outside Nairobi City	5,000 household （outside Nairobi City）	・ Face-to-face interview
SP Survey	To understand the preferred mode of people along the BRT corridor	1,000 households (along BRT corridor)	・ Face-to-face interview

Source: JICA Expert Team

5.3.2 Activity 2-1: Examine Current Traffic Situation and Estimate Future Public Transport Passenger Demand

Activity 2-2 is summarized in **Table 5.3.3**.

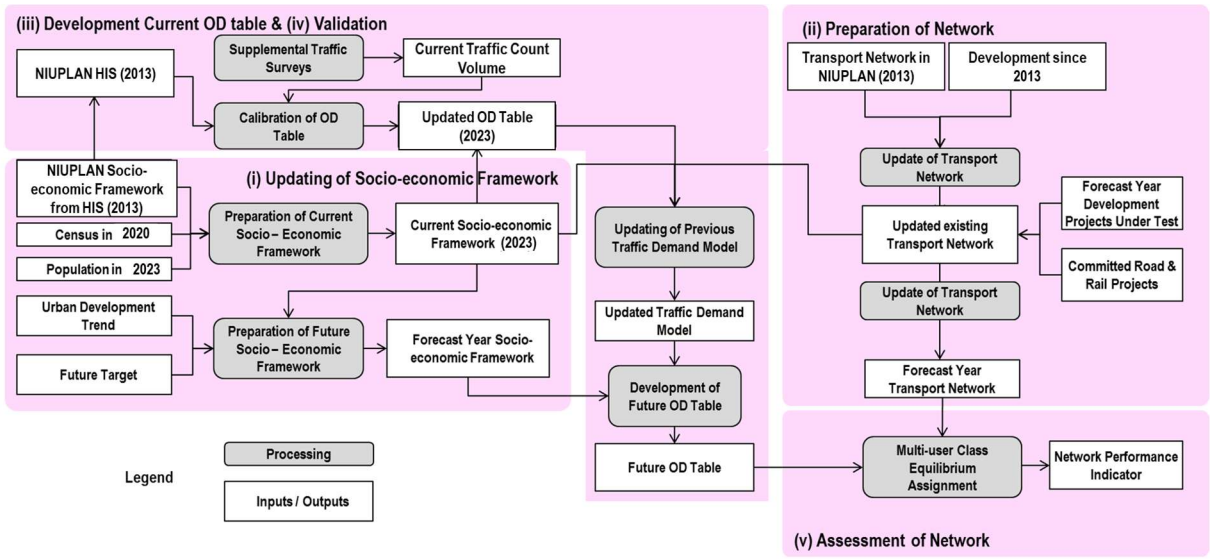
Table 5.3.3 Summary of Activity 2-2

Activity	Achievement	Note
2-2 Examination of Current Traffic Situation and Estimation of Future Public Transport Passenger Demand		
2-2-1 To update the traffic demand forecast model.	Completed	➢ The NIUPLAN (2013) traffic demand forecast model was reviewed. ➢ Based on the latest traffic survey results (see Activity 2-1), the 2023 OD table was updated. ➢ The socio-economic framework in 2023 was updated. ➢ Based on the updated OD table and socio-economic framework, the draft traffic demand forecast model was developed.
2-2-2 To set the target year and the socio-economic framework for the public transport plan.	Completed	➢ The plan for NMA was reviewed and the socio-economic framework by traffic analysis zones was estimated. ➢ Future transport projects are reviewed and reflected on the demand forecasting network.
2-2-3 To estimate existing and future public transport passenger demand and modal shares in NMA.	Completed	➢ Overall network performance in NMA and the performance of the proposed BRT lines were estimated, and further development scenarios were proposed.

Source: JICA Expert Team

(1) Updating of the Traffic Demand Forecast Model

Based on the data collected in Activity 2-1 and the traffic survey results, the traffic demand forecasts prepared in NIUPLAN were updated to show current and future traffic demand including the expanded area of the NMA. The demand forecasts were used to create a public transport development plan for the NMA and for the technical trainings for the counterparts. A framework for updating the traffic demand forecasting model is shown in Figure 5.3.3.



Source: JICA Expert Team

Figure 5.3.3 Framework for Updating Traffic Demand Forecasts in the Project

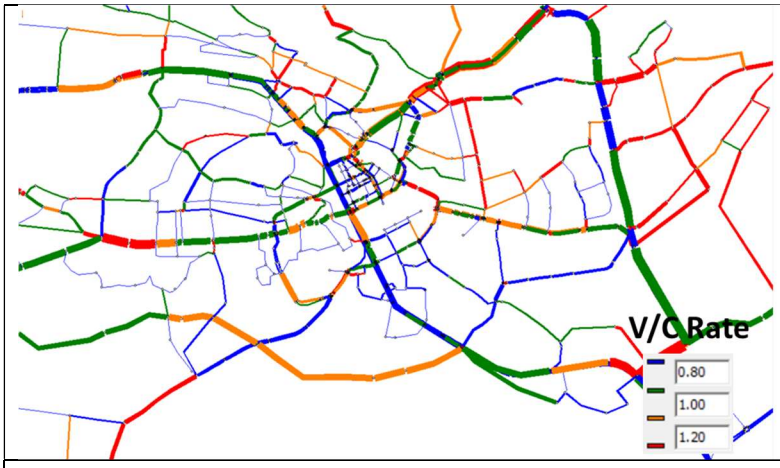
The 2023 OD table was updated using the traffic survey results, and current traffic conditions were simulated by assigning traffic on the current transport network. The primary performance indicators from the traffic analysis for the baseline network (2023)—compared with NIUPLAN case (2013)—are summarized in Table 5.3.4. Traffic assignment is shown in Figure 5.3.4. Traffic volume, expressed in passenger-car-unit-kilometer (PCU-km), and average volume-to-capacity (V/C) ratio both increased since 2013. A comparison between the current estimates and results of the traffic count surveys conducted under this project (Figure 5.3.5) yielded an r-squared value of 0.948 for the PCU correlation.

The traffic demand forecasting model—comprising trip generation/attraction, trip distribution, modal split, and assignment—was updated based on traffic demand data and socio-economic indicators such as population, number of workers and students, and private car ownership by traffic zone.

Table 5.3.4 Overall Transport Network Performance in NMA, 2013 and 2023

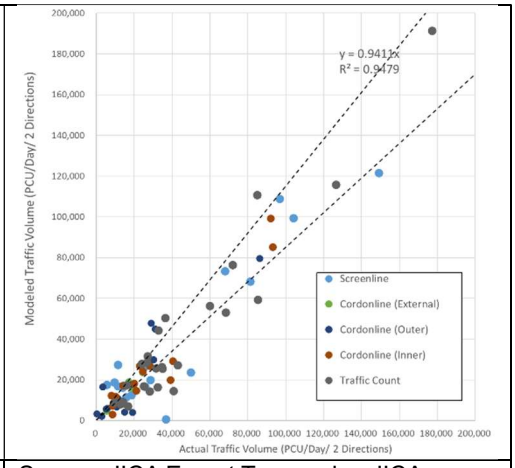
		2013 (NIUPLAN)		2023	
		Nairobi City	NMA	Nairobi City	NMA
Traffic Volume	000 PCU-km	10,960	17,780	16,280	27,978
Average Volume / Capacity Ratio (V/C)		0.69	0.54	0.82	0.72
Average Travel Speed (km/h)*	Average	40.0	40.0	21.2	24.9
	Peak	27.5	29.7	8.3	10.6

* $〖BPR\ Function(\ Time〗\_V= 〖Time〗\_(free-flow)\ (1+\alpha\ 〖V/C〗\ ^\beta)$). In NEWPLAN, α=0.48, β=2.82 are applied. In this project, α=2.0, β=3.0 were used.
Source: JICA Expert Team using JICA STRADA Highway Reporter.



Source: JICA Expert Team using JICA STRADA Highway Reporter

Figure 5.3.4 Baseline (2023) Traffic Assignment Results

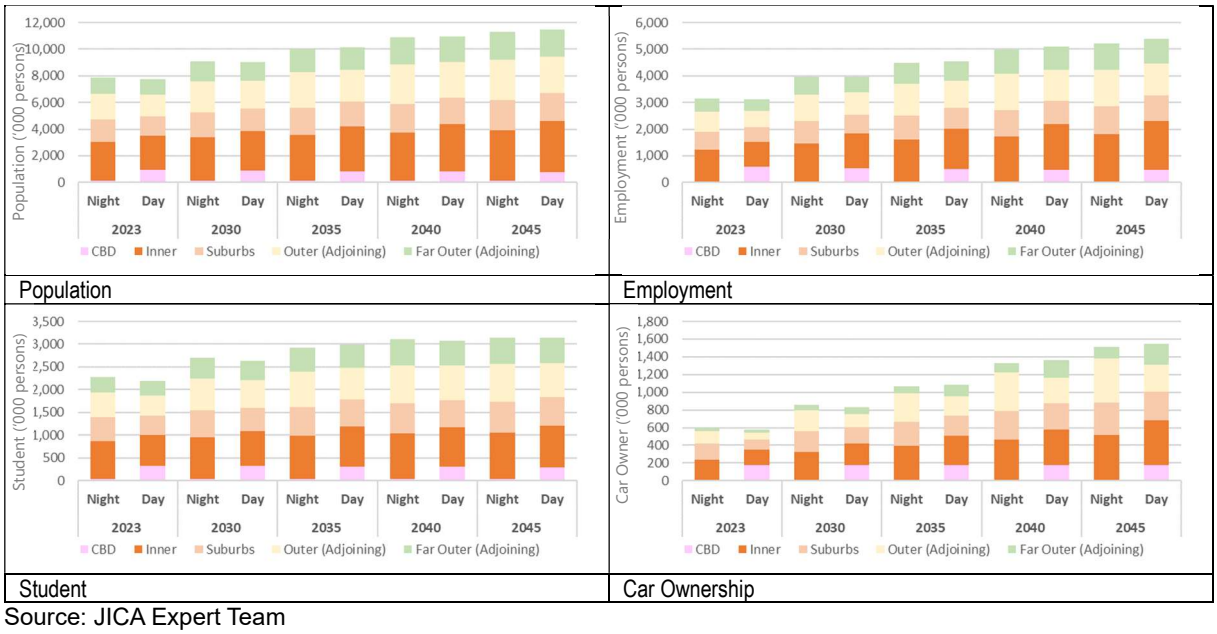


Source: JICA Expert Team using JICA STRADA Highway Reporter

Figure 5.3.5 Comparison between Modeled and Actual Traffic Volumes

(2) Set the Target Year and Socio-Economic Framework for the Public Transport Plan

To estimate the future trip demand in the NMA, the socio-economic framework, including population, daytime and nighttime population of workers and students, and vehicle ownership, was projected for each target year (i.e., 2030, 2035, 2040, and 2045). Figure 5.3.6 summarizes the socio-economic characteristics by area. It was projected that the CBD would is already saturated, and the growth of the socio-economic framework is active in the surrounding areas.



Source: JICA Expert Team

Figure 5.3.6 Projected Socio-economic Characteristics in the NMA

(3) Estimate Existing and Future Public Transport Passenger Demand and Modal Shares in NMA

1) Potential Network Performance of Proposed Mass Transit

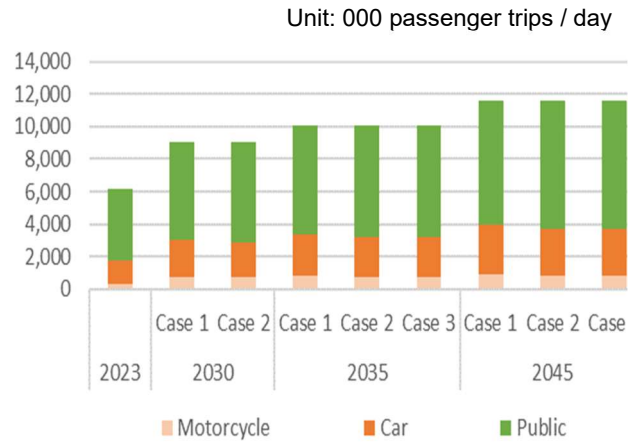
Based on the future traffic demand developed using the updated traffic demand forecasting models, traffic assignment was conducted to estimate the future passenger demand for public transport under various scenarios (listed in Table 5.3.5).

Table 5.3.5 Tested Cases for the Traffic Assignment

Case	Summary	2023	2030	2035	2045
Case 1	Do nothing (Existing network only)	○	○	○	○
Case 2	Existing transport network plan including 5 BRT lines		○	○	○
Case 3	Case 2 plus upgrading of commuter rail lines			○	○
Case 4	Case 3 plus construction of new roads				○
Case 5	Case 4 plus operation of a new UMRT				○

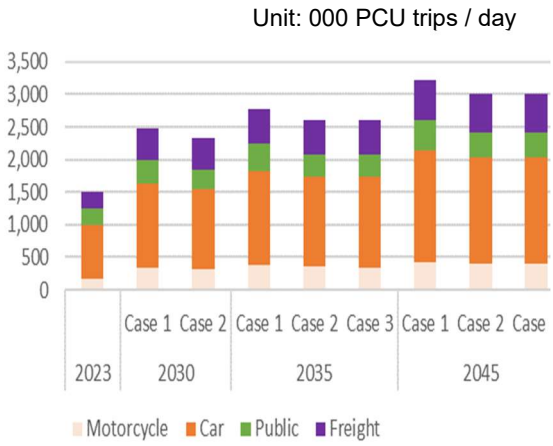
Note: "○" indicates the years for which traffic assignment was conducted.
Source: JICA Expert Team

The future traffic demand in the NMA is visualized in Figure 5.3.7 and Figure 5.3.8. Trips by public transport will maintain a high share in the person-trip base. In the PCU-trip base, meaning the presence in the road space, private vehicles are projected to be dominant.



Source: JICA Expert Team

Figure 5.3.7 Future Traffic Demand in the NMA in Passenger Trips

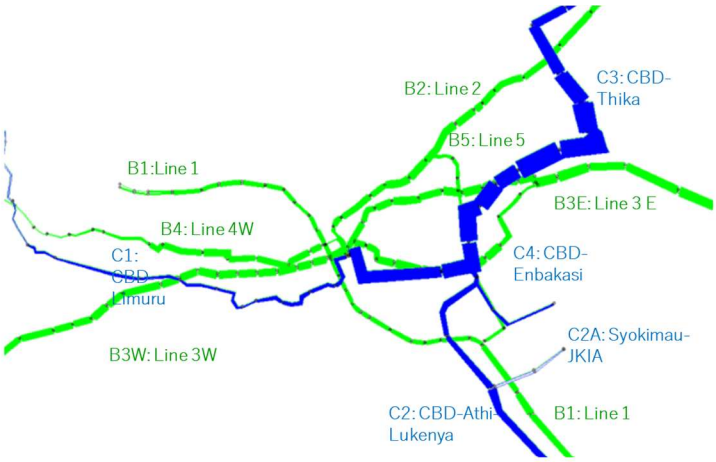


Source: JICA Expert Team

Figure 5.3.8 Future Traffic Demand in the NMA in PCU Trips

Figure 5.3.9 shows the performance indicators of the proposed UMRT (Case 3) in 2035. Although a commuter rail line has a higher capacity than a BRT line, the latter is projected to have enough demand even after the commuter rail lines have been upgraded due to high public transport demand. Under the "without capacity limit case" for both BRT and UMRT, BRT Lines 3 and 4 show higher demand than the CBD-Limuru (C1) line.

Case				Length (km)	Pax-km (000/day)	PPHPD	Pax-km/km
With Capacity Limit Case	BRT	B1	Line 1	57.7	4,457	6,188	77
		B2	Line 2	22.8	4,159	10,208	182
		B3W	Line 3 (West)	21.0	3,429	9,217	163
		B3E	Line 3 (East)	57.9	8,388	11,529	145
		B4W	Line 4(West)	21.9	2,086	10,335	95
		B4E	Line 4 (East)	12.5	1,779	11,177	143
		B5	Line 5	11.2	857	5,651	77
			Subtotal	205	25,155	-	123
	Commuter Rail	C1A	CBD-Limuru (to Dagoretti)	19.4	1,291	5,055	67
		C1B	CBD-Limuru (DGR-LMR)	24.2	387	1,027	16
		C3	CBD-Thika	49.2	19,746	27,418	401
		C2	CBD-Athi-Lukenya	45.9	5,584	8,943	122
		C2A	Syokimau-JKIA	4.0	7	84	2
		C4	CBD-Embakasi	12.9	511	2,140	39
			Subtotal	156	27,526	-	177
Without Capacity Limit Case	BRT	B1	Line 1	57.7	4,835	6,973	84
		B2	Line 2	22.8	6,360	16,584	279
		B3W	Line 3 (West)	21.0	3,726	10,632	177
		B3E	Line 3 (East)	57.9	12,058	26,147	208
		B4W	Line 4(West)	21.9	2,543	13,215	116
		B4E	Line 4 (East)	12.5	1,619	12,004	130
		B5	Line 5	11.2	1,364	8,255	122
			Subtotal	205	32,505		159
	Commuter Rail	C1A	CBD-Limuru (to Dagoretti)	19.4	806	3,132	14
		C1B	CBD-Limuru (DGR-LMR)	24.2	306	699	13
		C3	CBD-Thika	49.2	15,564	23,101	316
		C2	CBD-Athi-Lukenya	45.9	5,279	8,170	115
		C2A	Syokimau-JKIA	4.0	7	84	2
		C4	CBD-Embakasi	12.9	310	1,259	24
			Subtotal	156	22,272	-	143



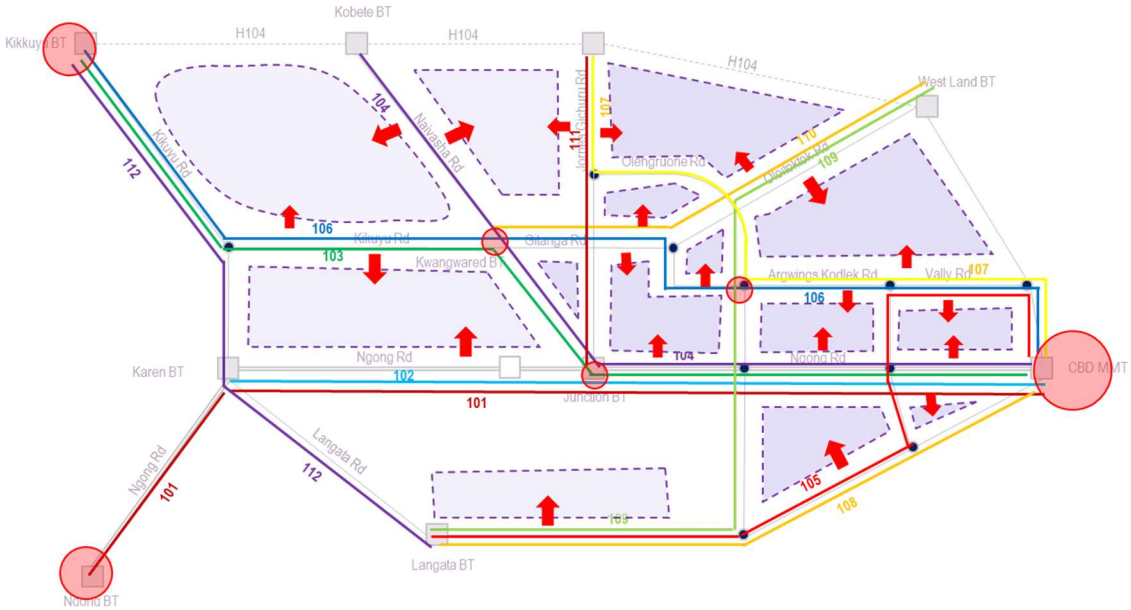
Source: JICA Expert Team

Figure 5.3.9 UMRT Performance Indicators (Case 3 in 2035)

2） Demand Analysis for Western Nairobi

JET conducted a case study to explore the restructuring of the existing bus route network in western Nairobi. This area extends up to 20 km from the CBD and includes suburban regional centers such as Karen, Kikuyu, and Ngong. While the main commercial and business activities are concentrated in the CBD, several subcenters, such as the Junction and Kawangware, also serve as important activity nodes. The current public transport network is heavily CBD-oriented. It is characterized by intense competition among operators, the presence of touts, and inadequate safety measures for boarding and alighting.

As a proposed solution, the JICA Expert Team recommended the introduction of trunk bus routes to form the backbone of the city's public transport system. These routes would provide high-capacity and high-frequency services, connecting major hubs including the CBD, residential areas, and railway stations. Local movements within neighborhoods would continue to be served by matatus (see Figure 5.3.10).

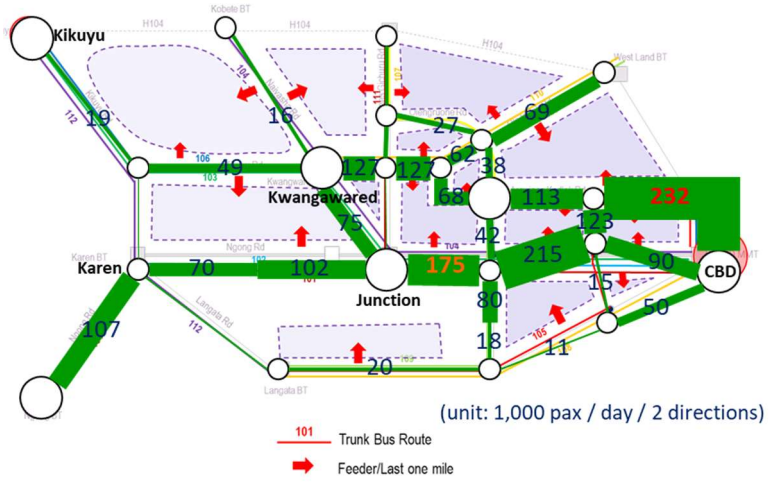


Source: JICA Expert Team

Figure 5.3.10 Proposed Trunk Bus Route Network in Western Nairobi

Figure 5.3.11 presents the transit assignment results, and Table 5.3.6 summarizes the major performance indicators of the proposed 12 bus routes. With the assumption that all public passenger demand was assigned to these proposed bus routes, the major findings are as follows:

- High passenger demand was observed along certain sections, indicating the potential for introducing a mass transit system such as BRT or MRT.
- Excessively high service frequency—exceeding one trip per minute—may lead to bus congestion near stops. Shifting from smaller vehicles to larger-capacity buses could help alleviate this issue.
- Based on major performance indicators (e.g., ridership and PPHPD), route-based operating rights could be considered to enhance service efficiency and coordination.



Source: JICA Expert Team

Figure 5.3.11 Results of Sectional Transit Assignment

Table 5.3.6 Performance Indicators of the Trunk Bus Routes

#	km	Rider-ship	PPH PD	Pax-km	km/ Trip
101	20.8	196,403	4,509	1,475,339	7.5
102	13.7	74,934	1,840	354,303	4.7
103	22.5	174,940	3,536	676,191	3.9
104	14.0	143,227	3,132	459,364	3.2
105	14.8	173,499	4,735	314,287	1.8
106	10.4	147,845	2,740	624,848	4.2
107	9.2	115,503	2,426	306,372	2.7
108	12.1	205,458	5,697	260,814	1.3
109	14.6	169,875	4,195	342,470	2.0
110	8.4	78,811	2,613	427,625	5.4
111	6.8	60,884	1,024	126,884	2.1
112	20.7	37,017	433	127,765	3.5

Source: JICA Expert Team

(4) Training of Counterparts

Based on activities related to traffic demand forecasting, training for the counterparts was provided as listed in Table 5.3.7. The training sessions were conducted in a hybrid format (face-to-face and online) for sessions 1 to 5) and fully online for sessions 6 and 7, with archived videos uploaded to YouTube (links are shown below).

Session 1: https://www.youtube.com/playlist?list=PL_Cs1IY1on6szyIpRAskoLn6DsmH4ec8j
Session 2: https://www.youtube.com/playlist?list=PL_Cs1IY1on6sDNFR7BnzXMGOzmJiy4EOL
Session 3:https://www.youtube.com/playlist?list=PL_Cs1IY1on6tDfprIiJICokC-pKKp5UiO
Session 4: https://youtube.com/playlist?list=PL_Cs1IY1on6uhl4G2Zpv-iwO_yYQJQtVf&si=HZDNRiCjdFqWu1WN
Session 5: https://www.youtube.com/playlist?list=PL_Cs1IY1on6vyoFHKDtJK5FGO9c9mxoqV
Session 6: https://www.youtube.com/playlist?list=PL_Cs1IY1on6tsL_e6SSg90EdEDuO3pjsU
Session 7: https://www.youtube.com/playlist?list=PL_Cs1IY1on6uI2sclMS9jEyFFxsjWRxsf

Table 5.3.7 Training Program for the Counterparts

No	Date (Lecturer)	Topic	
1	30 Jul 2024	**Introduction** ・ How to Install STRADA (3.5 / 4.0) ・ How to Operate Assignment Program ・ User Equilibrium Assignment ・ Incremental Assignment	**Explanation of Each File** ・ Network File (.INT) ・ Parameter File (.PAR) ・ OD Table (AOD) ・ How to Read the Assignment Result (.IRE)
2	7 Aug 2024	**Review of Urban Transport Characteristics based on the Surveys** ・ Review of HIS & How to develop Baseline OD ・ Cordon line Survey	・ Screen line Survey and Adjustment ・ Traffic Count Survey ・ OD-Calibration ・ Network-Calibration
3	9 August 2024	**Outline of Trip Demand Modeling** ・ Trip Generation / Attraction ・ Trip Distribution ・ Modal Split Model (from SP Survey)	
4	14 Aug 2024	**Socio-economic Framework Development** ・ Population ・ Workers (@Night / @ Day) ・ Students (@Night / @Day)	・ How to refer to the local development plan ・ Car Ownership Rate
		Development of Future OD Table	
5	16 Aug 2024	**Development of Network** ・ Vmax ・ Qmax ・ QV Type ・ Direction Flag ・ Fare / Toll Flag ・ User Flag	・ Parameters ・ Value of Time ・ Load Factor ・ Passenger Car Unit Factors ・ Others
		Traffic Assignment ・ Type of Assignment Methods ・ Demand Assignment ・ Incremental Assignment	・ User Equilibrium Assignment ・ How to Read the Assignment Result (.IRE)
6	13 Nov 2024	**Project Evaluation** ・ Outline of Project Evaluation ・ Financial Evaluation ・ Social Discount Ratio ・ Sensitivity analysis ・ Ramp-up Profile	・ Economic Evaluation ・ Economic Evaluation Item ➢ Travel Time Cost ➢ Vehicle Operating Cost ➢ How to collect the Vehicle Operating Cost by Vehicle Type
7	15 Nov 2024	**Transit Assignment** ・ Read Transit Network File ・ Read Transit Parameter File	・ Conduct Transit Assignment ・ Check Transit Assignment Result ・ How to prepare the Digitalized Transit Database

Source: JICA Expert Team

The contents of the training were summarized in the Technical Report: Demand Forecasting as part of the project deliverables.

Activity 2-3: Develop an Integrated Public Transport Network Plan

Activity 2-3 is summarized in **Table 5.3.8**.

Table 5.3.8 Summary of Activity 2-3

Activity	Achievement	Note
2-3 Development of Integrated Public Transport Network Plan		
2-3-1 To confirm pre-conditions of future transport plan (BRT routes, commuter railways, economic framework, others).	Completed	➢ The plan for the NMA was reviewed and the socio-economic framework by traffic analysis zones was estimated (see Activity 2-2-2).
2-3-2 To make a feeder route plan for BRT Line 2.	N/A	➢ The feeder route plan for BRT Line 2 was outside the scope of this project, as it was to be implemented by another donor (France).

Activity	Achievement	Note
2-3-3 To make a public bus network plan.	Completed	➢ Based on discussions with the counterparts, a public transport network plan was drafted.
2-3-4 To make a bus terminal development plan.	Completed	➢ The terminal development plan in western Nairobi was proposed.

Source: JICA Expert Team

Through discussions with related organizations, current issues were identified and the direction for the future public transport system in the NMA was summarized as shown in **Table 5.3.9** bellow.

Table 5.3.9 Current State of Public Transport in the NMA and Future Direction

Key Issue	Current State	Direction
Public Bus Network	・ Radiated bus network configuration. ・ Lack of a functional network. Inappropriate operations cause inefficiency in transport.	・ Common targets of public transport will be shared with related organizations. ・ A public transport network plan will be prepared based on land use, demand, target modal shares, and other data.
Multi-modal Transport Terminal	・ Difficult to know departure point, direction, departure time. ・ Waiting space is scarce. ・ Other transport modes are not available at bus terminals.	・ Authority is in charge of the public transport network will be involved in multi-modal transport terminal planning and development. ・ A multi-modal transport terminal development plan will be prepared based on the public transport network plan and the terminal operation plan.
Urban Amenity	・ In CBD, urban space has been occupied by buses. ・ Safe and smooth walking is obstructed by crowds of passengers and conductors.	・ An urban amenity plan will be prepared; cooperation with organizations involved in public transport will be needed to establish public transport terminals, operations management, and others. ・ Revitalization of urban amenities based on restructuring the public transport system in Nairobi CBD will be studied, prepared, and implemented.
Bus Information	・ Bus users cannot obtain bus information such as bus routes, destination, timetable, and arrival time.	・ Authorities responsible for managing operators will facilitate this, since the cooperation of operators is necessary to integrate information.
Fare System	・ Current bus/matatu fares are relatively high. ・ Bus/Matatu users need to pay for each ride, and buses are not integrated with other transport modes.	・ Authorities which are in charge of setting fares will regulate the actual fare system. ・ Affordable fares for users and profitable fares for operators will be studied based on data such as household income and expenses, bus operating costs, and others.

Source: JICA Expert Team

(1) Formulation of a Long-Term Public Transport Network Plan

Based on the discussions with the counterparts, the public transport network plan was drafted as visualized in Figure 5.3.12.

The planned five (5) BRT lines are expected to accommodate an adequate share of passenger demand. On the other hand, the BRT system alone cannot handle the demand from a projected 10 million population in the NMA by 2035. To accommodate the expected passenger demand, the following projects were proposed:

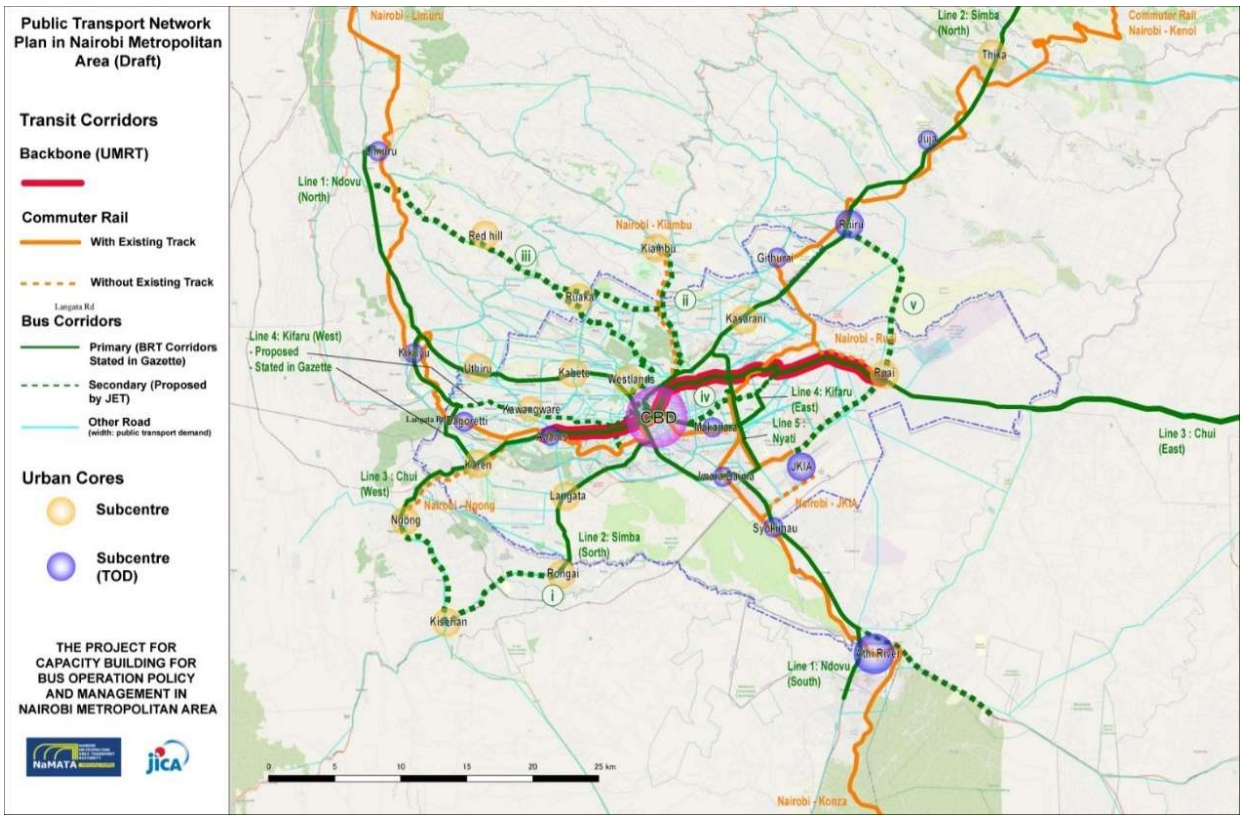
・ Upgrade the commuter rail lines (CBD from Thika, Rimuru, Lukenya, and Ngong);

・ Develop a UMRT including upgrading the BRT; and,

・ Formulate an inner transit network that is integrated with the proposed railway projects in the city (Figure 5.3.13).

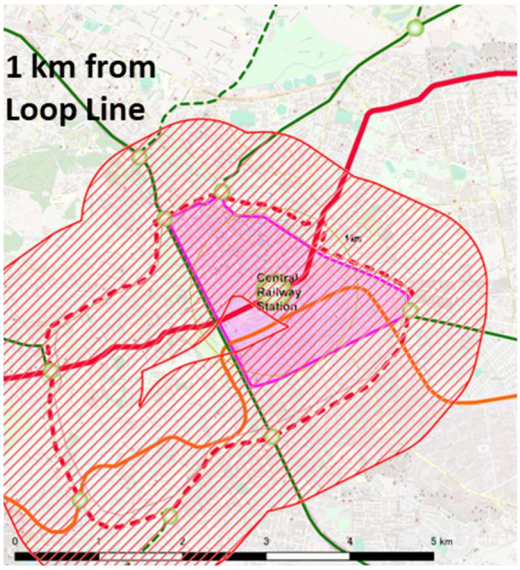
Additionally, the road network in the NMA is expected to be saturated by 2045, even if more roads are developed. To mitigate the expected problems, introducing soft measures, such as TSM / TDM,

and adjusting the metropolitan area's spatial structure, to promote commuting were discussed. JET proposed appropriate projects to help achieve this.



Source: JICA Expert Team

Figure 5.3.12 Draft Public Transport Network Plan for the NMA



Source: JICA Expert Team

Figure 5.3.13 Proposed Inner Transit Network around NMA's CBD

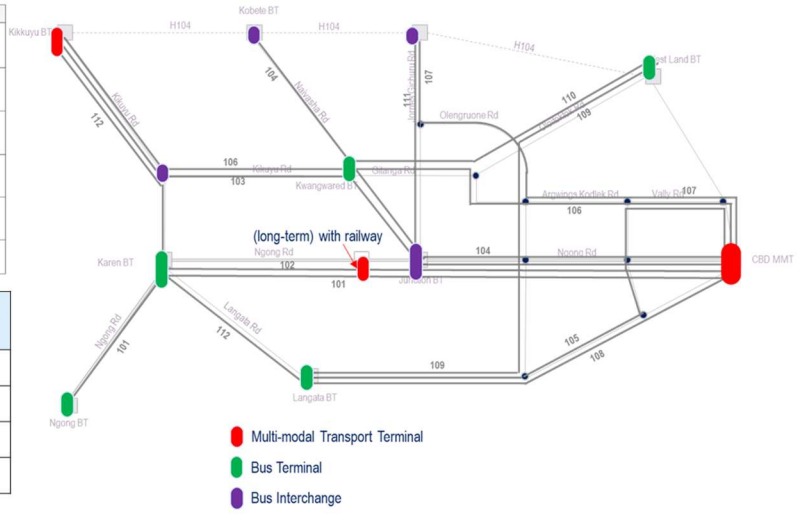
(2) Restructuring of the Bus Network and Formulation of a Short-Term Terminal Development Plan

While a mass transit network was proposed to accommodate future public transport passenger demand, the most immediate priority is to expand and modernize the existing bus system. This includes not only the potential introduction of a BRT system but also broader improvements to bus services. Also, the bus network design must align with the urban structure. In the NMA, although the development of sub-centers has been envisioned, the current urban structure remains mono-centric and heavily concentrated around the CBD. The existing bus network is oriented toward the urban core, characterized by a lack of hierarchical organization and significant route duplication. Given the flexibility of bus-based transport, JET has recommended the development of a hierarchical public bus network, consisting of trunk and feeder routes across the NMA.

As shown in section 5.3.2 (3)-2), the required number of trips and vehicles for trunk routes in the western Nairobi has been estimated. In case the procurement of high-capacity buses becomes challenging, the use of medium-sized vehicles can be considered, although this may not sufficiently ease congestion caused by bus traffic. As part of the analysis, a conceptual terminal development plan was proposed (see Figure 5.3.14). The current public transport infrastructure, including terminals and roads, is undeveloped, contributing to traffic congestion and urban degradation. One of the major components of the proposed reform is the development of supporting infrastructure, especially transport terminals and bus stops.

Type	Description
Multi-modal Terminal	– Intersection of multiple transport modes (e.g., bus, rail, light rail, metro)
Bus Terminal	– Point of departure and transfer for buses – May have ticketing offices and waiting areas
Railway Station (Terminal Station)	– Starting, ending, or major transfer point for trains – Often integrated with commercial facilities
Park and Ride Facility	– Intersection of multiple transport modes (e.g., bus, rail, light rail, metro)
Airport Transport Terminal	– Base for buses and trains serving airports – Includes services like airport express and limuise buses
Bus Interchange	– Point of departure and transfer between bus services

Multi-modal Terminals	Bus Terminals	Bus Interchanges
Nairobi CBD	Westland	Junction
Kikuyu (w/ KRC)	Kawangware	others
	Karen /Lamgata	
	Ngong (existing)	



Source: JICA Expert Team

Figure 5.3.14 Proposed Transport Terminals in Western Nairobi

5.3.3 Activity 2-4: Examine the Public Transport Operation Plan and Fare Policy

Activity 2-4 is summarized in **Table 5.3.10**.

Table 5.3.10 Summary of Activity 2-4

Activity	Achievement	Note
2-4 Examination of Public Transport Operation Plan and Fare Policy		
2-4-1 To study current bus operation plan, management system, operating costs, and revenues.	Completed	➢ It was almost impossible to obtain actual operating costs and revenues, as vehicle owners and operators receive a fixed amount from drivers and conductors, and

		the balance from the fare collected is kept by the drivers and conductors.
2-4-2 To study current income levels and calculate affordable fares.	Completed	➢ Almost none of the operators prepare business accounts, making it difficult to ascertain their actual situation.
2-4-3 To study operating costs and calculate profitable fares.	Completed	➢ For the target bus route for the pilot project, a distance-based fare system based on the current fare system was initially planned based on the revenue and expenditure data from operators involved in the pilot project; however, sufficient data was not provided. Instead, JET proposed a fare structure that considered both full-cost pricing and social impacts.
2-4-4 To propose a fare policy.	Completed	

Source: JICA Expert Team

It is a universal goal for bus operators to operate bus services efficiently and cost-effectively while maximizing user service. Buses and matatus compete with each other in the NMA. Each operator does not have a specific operations plan, and daily operation is made based on the decision of the drivers and conductors in accordance with a free economy. Interviews with some operators revealed that they could not instruct drivers and conductors because their orders would affect overall earnings. Therefore, the PT operations management system is extremely weak. It is necessary for operators to develop operating plans that meet passenger demand. Through network planning activities under this project, it was expected that NaMATA personnel and those in related organizations would have acquired the necessary technical skills and know-how to help operators prepare operating plans for better PT services. Technical transfer from JET to counterpart personnel was conducted through activities in the pilot project under Output 4.

In addition, buses and matatus are operating on the same routes and currently charge different fares depending on the day of the week, time of day, weather (e.g. raining or not), type of vehicle (e.g., those with loud music and TVs), forcing users to negotiate fares with conductors on a case-by-case basis. Furthermore, comparing the income levels in Nairobi, bus fare prices are considered relatively high. Interviews with bus drivers revealed that their incomes are only sufficient for daily living, demonstrating the difficulties of operating public transport that lacks government subsidies, thereby contributing to high fares compared to other countries. It is necessary for operators to prepare income and expenditure reports, verify business profitability based on these reports, and apply the fully distributed cost method to calculate appropriate prices for public bus service while proposing fares based on the balance between operating costs and fare revenues. In addition, although transfers between buses and matatus are frequent and high, especially within the CBD, there are no transit discounts, imposing a heavy burden on passengers. Therefore, the introduction of a discounted fare system and other services need to be considered in parallel.

During the pilot project (described in Activity 3), the participating operators agreed to submit their revenue and expenditure data during the implementation period. However, only financial models were submitted by one operator; therefore, the detailed costs for each operator could not be analyzed. Moreover, during the pilot project period, it was difficult to obtain information from crews, resulting in limited data collection. In response, JET presented the counterparts with examples of fare regimes based on the commonly used full cost pricing system and fare structures that consider social impacts, such as the standard of living.

5.3.4 Activity 2-5: Formulate Integrated Public Transport Development Strategies for NMA

Activity 2-5 is summarized in **Table 5.3.11**. The sub-activities for Activity 2-5 were carried out under Activity 2-2.

Table 5.3.11 Summary of Progress of Activity 2-5

Activity	Achievement	Note
2-5 Formulation of Integrated Public Transport Development Strategies for NMA		
2-5-1 To set the criteria for the evaluation of the future public transport plan (congestion, emission, others).	Completed	Conducted under Activity 2-2.
2-5-2 To evaluate the public transport plan.	Completed	Conducted under Activity 2-2.
2-5-3 To formulate short, medium, and long-term public transport development plans.	Completed	Conducted under Activity 2-2.

Source: JICA Expert Team

Kenya has ratified the Paris Agreement, the intergovernmental climate change agreement of the United Nations Framework Convention on Climate Change, which aims to reduce CO_2 emissions by 30% by 2030. For Kenya to achieve this goal, it is essential to improve the efficiency of its transport system by promoting a BRT system, reconstructing the public transport network, and implementing mitigation measures against traffic congestion. Specifically, a modal shift from private to public transport and the promotion of electric vehicles should be considered. Prioritizing the use of public transport should remain a top objective. In Activity 2-2, demand forecasts were developed for multiple scenarios, including proposals for both previously planned and newly identified projects. Additionally, as outlined in the activities for Output 3, a sustainable public transport policy for the future NMA was needed to include recommendations for an improved administrative management system and organizational structure of transport operators.

Chapter 6: Output 3 (Formulation of Sustainable Administrative Management System for Public Transport Services)

6.1 Outline

(1) Benchmarks in the PDM

For Output 3, the four objectively verifiable indicators set in the PDM are as follows:

3-1 Steering Committee for sustainable administrative management system is held, 3-2 Distinct roles and responsibilities both for regulator and operator in the public bus transport business are examined, 3-3 Governance and institutional system of the public bus operators are proposed. 3-4 A platform for an administrative management system for public transport services is formulated.

(2) Summary

A Steering Committee (SC) was established, and three times of SC meetings were held during the project period to present proposals developed through the project activities. Based on the analysis of relevant regulations related to Output 1, as well as the outcomes of interviews and consultations, proposals were made regarding the division of roles between government agencies and bus operators, as well as the corporatization of bus operations.

The SC outlined a policy to transition NaMATA from an entity established under Legal Notice No. 18 of 2017 to one approved by Parliament. Measures to strengthen its authority as a platform for administrative management were also considered, leading to the decision to proceed with finalizing the draft act and draft regulations.

6.2 Meeting List

Meetings for Output 3 activities are shown in **Table 6.2.1**.

Table 6.2.1 Meeting List for Output 3

Date	Organization	Major Topic
27 Feb 2023	NaMATA, NTSA, MoT, NCCG	• Explanation of the activities • Training schedule • Preliminary assignment for case studies • Approach to sustainable system improvement • Explanation of exercises for Activity 3
23 Jun 2023	NTSA	• Modified organization self-analysis
23 Jun 2023	NCC	• Modified organization self-analysis
22 Sep 2023	NaMATA（WG4）	• Direction and activity onward
27 Sep 2023	NaMATA（WG4）	• Joint WG
27 Sep 2023	NaMATA, NTSA, MoT, NCCG	• Explanation on contract types
21 Nov 2023	NaMATA（WG4）	• Direction and activity onward • Content of the training in Japan
29 Nov 2023	NaMATA（WG4）	• Direction and activity onward • Content of the training in Japan

Date	Organization	Major Topic
18 Apr 2024	NaMATA	• Instruction materials to be prepared for implementing the mandates
19 Apr 2024	NaMATA	• Critical Analysis of Existing Laws for Role Integration of Regulators
22 Apr 2024	NaMATA（WG4）	• Confirmation on overall WBS for implementation program about enhancing vehicle safety and passenger capacity of the vehicle(profitability)
2 May 2024	NaMATA（Joint WG）	• Program of pilot project
11 May 2024	NaMATA	• Discussion Paper: on a Organization Structure of a Model Nairobi Metropolitan Transport Authority
17 Oct 2024	NaMATA	• Metropolitan Transport Authority Act: Draft Version 3 • Draft Regulatory Framework for the Metropolitan Public Transport Operating Standards Authority
11 Nov 2024	Metro Trans	• Bus operator restructuring
11 Nov 2024	Enabled	
11 Nov 2024	Super Metro	
19 Mar 2025	NaMATA	• Understanding of administrative system
22 Apr 2025	SDOT	• Role demarcation among the regulators
24 Apr 2025	NTSA	• Role demarcation among the regulators
25 Apr 2025	NCCG	• Role demarcation among the regulators

Source: JICA Expert Team

6.3 Description of Output 3 Activities

6.3.1 Activity 3-1: Launch a Steering Committee for Sustainable Administrative Management System

Activity 3-1 is summarized in **Table 6.3.1**.

Table 6.3.1 Summary of Activity 3-1

Activity	Achievement	Note
3-1 Launch a Steering Committee for Sustainable Administrative Management System		
3-1-1 To draft a member list for the SC.	Completed	➢ Coordination with relevant organizations was completed.
3-1-2 To discuss the candidates and finalize the members with related organizations.	Completed	➢ The members were selected.
3-1-3 To launch the SC.	Completed	➢ SC meetings were held thrice.

Source: JICA Expert Team

Discussions with NaMATA centered around the roles of the JCC and the SC. It was mutually agreed upon that the JCC would be responsible for overseeing the progress of the project, deliberating on crucial matters and making decisions consistent with the project's goals. After discussions with NaMATA about the purpose and composition of the SC, it was launched on 30 November 2023 chaired by PS Transport. The SC's role and responsibilities are described in Chapter 3.

6.3.2 Activity 3-2: Examine the Distinct Roles and Responsibilities of Regulators and Operators in the Public Bus Transport Business

Activity 3-2 is summarized in **Table 6.3.2.**

Table 6.3.2 Summary of Progress of Activity 3-2

Activity	Achievement	Note
3-2 Examination of Distinct Roles and Responsibilities of Regulators and Operators in the Public Bus Transport Business		
3-2-1 To prepare a draft of the roles and responsibilities of regulators and operators.	Completed	➢ Their roles and responsibilities were delineated and presented to the SC during its 2nd meeting.
3-2-2 To confirm provisional demarcation of roles and responsibilities of regulators and operators	Completed	➢ Proposed demarcation of roles and responsibilities was confirmed in the 2nd SC meeting.

Source: JICA Expert Team

(1) Organizational Self-Analysis

An organizational self-analysis was conducted by three organizations: NaMATA, NTSA, and NCC, for the 11 items listed below. Item 11 “The Challenge Level” was based on a functional self-evaluation of the organizational unit. A five-point score was then used for the evaluation, the results of which were considered as indicators for capacity development.

1. Department
2. Person in Charge
3. Regulation and Standards
4. Specific Procedure of Activities
5. Operation Manual
6. Financial Source
7. Human Resources
8. Equipment
9. Specific Output
10. Current Status and Critical Issues
11. Challenge Level

NaMATA’s roles and responsibilities are defined in the NaMATA Order, 2017, which lists its 18 tasks.

Table 6.3.3 NaMATA’s 18 Tasks

No.	Letter	Task Specified in the Executive Order
1	(a)	Develop a sustainable integrated public transport strategy for the metropolitan area;
2	(b)	Develop a sustainable urban mobility plan for the metropolitan area derived from the strategy;
3	(c)	Formulate and oversee the development of a sustainable, evidentially based, integrated mass rapid transit system strategy;
4	(d)	Plan, regulate and co-ordinate the supply of adequate and effective mass rapid transit system;
5	(e)	Formulate and implement programs and policies for the overall improvement of public transportation systems within the metropolitan area;
6	(f)	Provide an enabling environment for orderly and structured development of the mass transit system, including both bus rapid transit and commuter rail within the metropolitan area;
7	(g)	Coordinate with other government agencies and other parties for the development and operation of transport infrastructure, facilities and works necessary for the discharge of the functions of the authority;
8	(h)	Develop an inventory and undertake continuous evaluation of the declared road network status within the metropolitan area;
9	(i)	Formulate strategies to ensure overall improvement in traffic flow, planned and programmed traffic engineering and traffic management works within the metropolitan area;
10	(j)	Ensure optimal utilization of intermodal means of transport including air, road, rail and non-motorized transport and any other modes targeting mass movement within the metropolitan area; Kenya Subsidiary Legislation, 2017 77

No.	Letter	Task Specified in the Executive Order
11	(k)	Assist in poverty alleviation by increasing economic efficiency through lower transport costs and prices within the metropolitan area;
12	(l)	Improve the environmental sustainability of the transport system in the metropolitan area;
13	(m)	Facilitate the integration of transport and land use planning in the metropolitan area;
14	(n)	Make better use of existing road space for all modes and reduce the need for the construction of new roads within the metropolitan area;
15	(o)	Regulate both on- and off-street parking on declared corridors and impose fees and penalties with respect thereto;
16	(p)	Conduct studies and research for, amongst other things, identification of the mass rapid transit system routes, corridors, network and service levels;
17	(q)	Develop appropriate and sustainable funding mechanisms to achieve the objectives of the authority; and
18	(r)	Perform any other functions vested upon the authority under this order

Source: The State Corporations Act (Cap. 446), The Nairobi Metropolitan Area Transport Authority Order, 2017

For the NTSA, its 17 tasks as indicated in the NTSA Act are listed below.

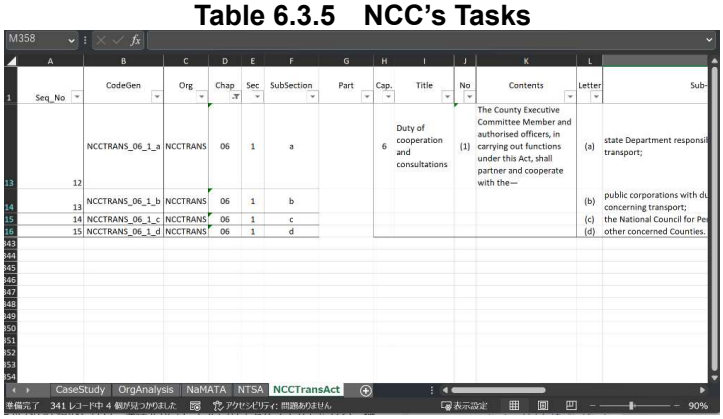
Table 6.3.4 NTSA's 17 Tasks

	No.	Letter	Task
1	(1)	(a)	Advise and make recommendations to the Cabinet Secretary on matters relating to road transport and safety;
2	(1)	(b)	Implement policies relating to road transport and safety;
3	(1)	(c)	Plan, manage and regulate the road transport system in accordance with the provisions of this Act;
4	(1)	(d)	Ensure the provision of safe, reliable and efficient road transport services; and
5	(1)	(e)	Administer the Act of Parliament set out in the First Schedule and any other written law.
6	(2)	(a)	Register and license motor vehicles;
7	(2)	(b)	Conduct motor vehicle inspections and certification;
8	(2)	(c)	Regulate public service vehicles;
9	(2)	(d)	Advise the government on national policy about road transport system;
10	(2)	(e)	Develop and implement road safety strategies;
11	(2)	(f)	Facilitate the education of the members of the public on road safety;
12	(2)	(g)	Conduct research and audits on road safety;
13	(2)	(h)	Compile inspection reports relating to traffic accidents;
14	(2)	(i)	Establish systems and procedures for, and oversee the training, testing and licensing of drivers;
15	(2)	(j)	Formulate and review the curriculum of driving schools;
16	(2)	(k)	Coordinate the activities of people and organizations regarding road safety; and
17	(2)	(l)	Perform such other functions as instructed by the Cabinet Secretary or by any other written law.

Source: National Transport and Safety Authority Act 2012

The NCC has 69 tasks broken down into 341 detailed tasks based on the 2020 law (The Nairobi City County Transport Act, 2020). Since there are many tasks, the Excel filtering function was added to the table to manage the analysis and evaluation work.

Table 6.3.5 NCC's Tasks



Source: JICA Expert Team

The self-organization analysis was, however, not carried out due to the lack of cooperation from the counterparts in this activity. Consequently, JET created the document titled "Instructional Materials to Prepare for Implementing the Mandates" for NaMATA (Attachment “Chapter 6 Instruction Materials to be Prepared for Implementing the Mandates”). This document explains the 21 administrative tools (manuals and guidelines) that NaMATA should develop in the future. Using this document as a reference, NaMATA formulated its five-year strategic plan.

Table 6.3.6 Instructional Materials to Prepare for Implementing NaMATA’s Mandates

Category	Instructional Material	Key Focus Area
Strategic Planning	Public Transport Strategy and Urban Mobility Planning Guide	Sustainable, integrated public transport strategy; multimodal systems; accessibility; sustainability
	Legislative Guide for Expanding Transport Authority Functions	Legislative measures to extend the authority’s operational scope
Infrastructure	Integrated Mass Rapid Transit System Planning Guide	MRT implementation strategy; emphasis on sustainability and evidence-based planning
	Land Acquisition and Infrastructure Development Policy Guide	Policies for land acquisition and infrastructure project development
	Transport Infrastructure Development and Coordination Framework	Strategies for inter-agency collaboration and infrastructure planning
Technology Integration	GIS and Real-Time Monitoring Implementation Guide	Use of GIS and real-time monitoring for managing road networks
	Advanced Traffic Management Solutions Guide	Intelligent traffic systems to reduce congestion and optimize road use
Maintenance	Road Quality Assessment and Maintenance Schedule Manual	Procedures for assessing and maintaining road conditions
Sustainability	Guide to Implementing Green Transport Initiatives	Adoption of electric vehicles; emission reduction strategies
	Environmental Impact Assessment Guide for Transport Projects	Tools and methods for evaluating environmental impacts of transport initiatives
Financial Strategies	Public Transit Subsidy Program Development Guide	Frameworks for subsidies and financial support for transit systems
	Funding and Financial Strategies for Public Transport	Financing options including public-private partnerships and international funding
Integration and Accessibility	Intermodal Transport Coordination Strategy	Seamless integration of buses, trains, and non-motorized transport
	Non-Motorized Transport Infrastructure Enhancement Guide	Infrastructure for pedestrians and cyclists
Research and Development	Research and Development Guidelines for Public Transport	Encouraging innovation and data-driven solutions for transport systems
	User-Centric Design and Engagement Guide	Public participation, accessibility, and communication strategies

Source: JICA Expert Team

(2) Existing Roles of the Public Sector and Private Operators

Table 6.3.7 shows the planning and regulatory functions of various public transport organizations. NaMATA handles strategic and service planning, infrastructure development, and comprehensive regulation, including licensing and compliance. NTSA shares similar planning roles with NaMATA and oversees vehicle and operational licensing, along with compliance monitoring. NMA counties focus on local transport planning and regulatory tasks within their areas. Operators and the KRC are involved in route and operations planning, while SDOR/RA is responsible for road infrastructure planning. The table highlights active functions; activities noted with 'Within C' are specific to county jurisdictions. This summary represents the current structure of planning and regulatory functions in public transport in NMA.

Table 6.3.7 Existing Planning and Regulatory Functions of PT Organizations in NMA

Organization	Function	
	Planning	Regulation
NaMATA	・ Strategic Transport & Urban Development Planning ・ Route Network Planning ・ Service Planning for Bus/Railway ・ Integration ・ Public Transport Infrastructure Development Planning	・ Route Licensing and Compliance ・ Operation Licensing ・ Administrative & Technical Standards ・ Minimum Service Standards and Guidelines ・ Fare Policy ・ Service Level Enforcement ・ Penalties and Compliance ・ Operational Audits and Compliance Monitoring
NTSA	・ Route Network Planning Service Planning for Bus/Railway Integration ・ Public Transport Infrastructure Development Planning	・ Vehicle Licensing ・ Operational Licensing ・ Route Licensing and Compliance ・ Administrative & Technical Standards ・ Minimum Service Standards and Guidelines ・ Fare Policy ・ Service Level Enforcement ・ Penalties and Compliance ・ Operational Audits and Compliance Monitoring
NMA Counties	・ Strategic Transport & Urban Development Planning ・ Route Network Planning Service Planning for ・ Bus/Railway Integration ・ Public Transport Infrastructure ・ *Development Planning	・ vehicle Licensing (Within C) ・ Operational Licensing (Within C) ・ Route Licensing and Compliance (Within C) ・ Administrative & Technical Standards (Within C) ・ Minimum Service Standards and Guidelines (Within C)
Operators	・ Route Network Planning ・ Operation Planning	N/A
KRC	・ Route Network Planning Operation Planning ・ Service Planning for Bus/Railway Integration	N/A
SDOR/RA	・ Planning for Road Infrastructure	N/A

Notes: Operators, KRC, SDOR/RA are not included in WG1. The table was prepared for presentation only.
Underlined texts refer to current functions being performed by the organizations. “Within C” means within the county area.
SDoR (State Department of Road)/RA (Road Authorities)
Source: JICA Expert Team

Table 6.3.8 shows the current roles and responsibilities of various organizations within Nairobi's public transport sector. It outlines how each organization, such as NaMATA, NTSA, and the operators, contributes to the broader framework of finance, fare system and marketing, infrastructure development, and asset management. For instance, NaMATA is engaged in financial arrangements for business operations, fare collection system development, and infrastructure projects, emphasizing its central role in coordinating and advancing Nairobi's public transport infrastructure and services. Conversely, the NTSA's absence in direct roles across these functions underscores a more regulatory or oversight position. The table reflects a structured approach to public transport governance, highlighting the division of responsibilities and collaboration necessary to enhance Nairobi's transport system.

Table 6.3.8 Other Existing Functions of PT Organizations in NMA based on EO 2017, NTSA Act 2012, and NCC Transport Act 2020

Organization	Function			
	Finance	Fare System & Marketing	Infra development	Asset Management
NaMATA	・Financial Arrangements for Business Operation ・Financing Fleet Procurement ・Fleet Procurement ・Budgeting for Infrastructure Development	・Fare-Collection System Development (MRT) ・Public Transportation Services Marketing	・Construction and Development of Infrastructure ・Construction Supervision & Technical Inspection ・Inclusion Provisions for Gender/Vulnerable Groups	・Fleet Management (MRT) ・Public Transport Facility Management
NTSA	N/A	N/A	N/A	N/A
NMA Counties	・Budgeting for infrastructure Development ・Land Management	N/A	・Construction and Development of Infrastructure ・Construction Supervision & Technical Inspection	・Land Management ・Public Transport Facility Management
Operators	・Handle Their Own Financial Matters	・Fare Collection ・Public Transportation Services Marketing	・Depot and Operation ・Facility Development	・Fleet Management ・Maintenance Planning
KRC	・Handle Their Own Financial Matters	・Fare Collection ・Public Transportation Services Marketing	・Develop and Maintain Rail Infrastructure	・Rail Fleet and Facilities Management
SDOR/RA	・Financing Road Development	N/A	・Develop and Maintain Intercounty Public Transport Infrastructure	・Road Asset Management

Notes: Operators, KRC, and SDOR/RA are not included in WG1. The table was prepared for presentation only.
Underlined texts refer to current functions being performed by the organizations. SDoR (State Department of Roads), RA (road authorities)
Source: JICA Expert Team

Table 6.3.9 outlines JET's proposed roles in planning and regulation for entities in the public transport sector. It categorizes the responsibilities of NaMATA, the NTSA, county governments, transport operators, KRC, and SDOR/RA. Key functions include NaMATA's comprehensive transport planning and licensing, the NTSA's vehicle registration and inspection, county-level transport management, and specific operational and infrastructural standards by operators, KRC, and SDOR/RA. This framework is designed to streamline and improve public transport services through defined institutional roles.

Table 6.3.9 Proposed Planning and Regulatory Functions for PT Organizations in NMA

Organization	Function	
	Planning	Regulation
NaMATA	Overall NMA Public Transport Panning & Integration of Operators	Route/Operation Licensing (Inter-County) Service Level (Inter-county) fare Policy (Inter-county)
NTSA	N/A	PSV Registration Inspection
NMA Counties	Local (Within the County) Public Transport Services	Route/Operation Licensing (Within County) Service Level (Within County) Fare Policy (Within County)

Operators	Operational (Schedules) Based on Demand	Own Operating Standards
KRC	Rail Based Public Transport Planning	Own Operating Standards
SDOR/RA	Planning For Road Infrastructure	Infra Development Standards

Note: KRC, SDOR/RA are included for presentation purposes; they are not included in WG1.
Source: JICA Expert Team

Table 6.3.10 outlines the roles of key institutions in finance, fare systems, infrastructure development, and asset management within the public transport sector. NaMATA is tasked with funding transport projects, fare integration, and coordination intercounty infrastructure and facilities. NTSA sets fare guidelines, while county governments handle local financial management, fare limits, and local infrastructure. Operators manage their finances and fare collections and may also handle their infrastructure. The KRC oversees its financial operations, fare systems, and rail infrastructure. SDOR/RA is responsible for road development finance and coordination with NaMATA on infrastructure maintenance. This framework establishes the financial and operational responsibilities of each institution in public transport.

Table 6.3.10 Other Proposed Functions for PT Organizations in NMA

Organization	Function			
	Finance	Fare System & Marketing	Infra development	Asset Management
NAMATA	Allocate Resources for Public Transport Projects In NMA/Subsidies and Tex Incentives	Fare Integration within NMA Public Transport Networks	Develop and Maintain Intercounty Public Transport Infrastructure	Planning and Scheduling and Regular Maintenance of Public Transport Facilities
NTSA	N/A	Provide Guidelines on Fare Structures	N/A	N/A
NMA Counties	Managing Local Budgets and Subsidies at Local Level	May Set Fare Limits and Monitor Fare Collection	Plan and Provide Local Infrastructure Such as Bus Stops	Land Management/Use of Land for Transport Services
Operators	Handle Their Own Financial Matters	Responsible For Fare Collection Systems	May Invest and Manage Own Depot	Fleet Management
KRC	Handle Their Own Financial Matters	Manage Commuter Fare System	Provide and Maintain Rail Facilities	Rail Fleet and Facilities Management
SDOR/RA	Financing Road Development	N/A	Develop and Maintain Intercounty Public Transport Infrastructure in Coordination with NaMATA	Road Asset Management

Note: KRC, SDoR/RA are included for presentation purposes only; they are not included in WG1.
Source: JICA Expert Team

(3) Prepare a draft of the demarcation of roles and responsibilities of regulators and operators

1) Examine Planning and Implementation Challenges in Public Transport in Nairobi

(i) Deficiencies in Administrative Procedures and Guidelines

The current legal framework, including the NTSA Act, the Nairobi City County Transport Act, and related presidential orders, reveal significant deficiencies in administrative procedures and implementation guidelines. While the presidential orders define transport corridors, they fail to provide specific provisions for managing intermodal facilities and associated infrastructure. Furthermore, NTSA regulations do not adequately account for the balance between demand and supply when issuing licenses for public transport operators. This gap reflects inadequacies in transport planning and public transport frameworks, adversely impacting bus network planning, including route design and operational efficiency. Additionally, the Nairobi City County Transport Act lacks comprehensive implementation

guidelines, hindering consistent enforcement. These deficiencies in administrative processes contribute to delays in service integration and insufficient management of intermodal facilities. Without a clear and cohesive administrative structure, the intended goals of regulatory reforms remain largely unachieved.

(ii) **Inadequacies in Regional and County-Level Planning**

The current legal framework also suffers from the absence of a unified regional transport plan to guide the development of Nairobi Metropolitan Area. While counties are mandated to prepare land use plans, delays in their preparation have disrupted the consistency of urban development. This delay has exposed vulnerabilities in transport planning, particularly in the comprehensive policies and strategies required for the development of facilities such as bus parks and terminals. The lack of structured planning has delayed the establishment of these facilities, reducing the efficiency of the transport network. The challenges of bus parking in the CBD, in particular, require urgent attention. Additionally, insufficient integration at the regional level prevents transport initiatives from aligning with broader urban and economic development goals. As a result, regional and county plans remain unable to meet the growing demands of Nairobi's rapidly expanding population.

(iii) **The Need for Comprehensive Planning and Integration**

Addressing the challenges faced by Nairobi's public transport system requires comprehensive planning at both the regional and county levels. A metropolitan-wide strategy for transport improvement must be developed to align with projections for population growth and economic activities. Counties must expedite the preparation of land use plans and ensure these plans are integrated into the development of transport infrastructure. Furthermore, priority must be given to the coordination of intermodal facilities to ensure seamless integration of buses, rail, and non-motorized transport modes. A unified strategy that integrates transport and land use planning will help eliminate redundancies, streamline operations, and improve service delivery. This integrated approach is essential to building a sustainable and efficient transport network capable of meeting future demands.

2) Preliminarily Delineate Roles of Regulators and Operators

(i) Propose Initial Roles for Regulators

The proposed roles for regulators aim to create a cohesive framework for oversight and strategic planning. Regulators, including NaMATA, the NTSA, and county governments, will have distinct yet complementary responsibilities. NaMATA will oversee metropolitan strategic planning, including intermodal integration, fare regulation, and service quality monitoring. NTSA will focus on national compliance with safety standards, including driver and vehicle licensing, inspections, and road safety enforcement. County governments will manage local transport routes, terminal infrastructure, and intra-county service planning. By delineating these roles, regulators can ensure that overlapping responsibilities are minimized, enabling efficient, transparent, and accountable public transport governance.

Regulators will be responsible for issuing licenses to public transport operators and ensuring that only qualified operators are allowed to provide services. NaMATA will handle passenger transport licensing at the metropolitan level for key corridors and intermodal transport systems, while the NTSA will oversee national licensing standards, including driver certifications and vehicle registration. Counties will manage localized route licensing and approvals for smaller-scale operators. This tiered licensing structure ensures uniform standards while addressing the unique requirements of metropolitan and local transport systems.

(ii) Propose Initial Roles for Operators

Regulatory bodies will implement a robust compliance monitoring framework to ensure that operators meet safety, operational, and service quality standards. The NTSA will focus on enforcing road safety regulations, such as vehicle roadworthiness, driver fitness, and adherence to traffic laws. NaMATA will monitor compliance with service quality benchmarks, such as punctuality, cleanliness, and fare transparency, particularly for operators on critical metropolitan routes. Counties will oversee compliance at the local level, ensuring that operators adhere to route-specific agreements and infrastructure usage guidelines.

Operators will be responsible for delivering high-quality transport services that meet the needs of passengers while adhering to regulatory standards. This includes managing route schedules, maintaining service frequency, and ensuring reliability in operations. Operators must also provide accessible and equitable services, catering to diverse passenger demographics, including PWDs. The adoption of digital fare collection systems will be mandated to enhance efficiency, reduce revenue leakages, and improve passenger convenience.

Effective fleet management will be a critical responsibility for operators. This includes maintaining vehicles in roadworthy condition, adhering to maintenance schedules, and ensuring compliance with safety standards. Operators will also be required to modernize their fleets by incorporating environmentally friendly vehicles, such as electric or hybrid buses, as part of long-term sustainability goals. Additionally, operators must optimize fleet utilization to match demand, reducing overcrowding and ensuring that resources are allocated efficiently.

(4) Set provisional demarcation of roles and responsibilities of regulators and operators

1) Provisional Roles

The establishment of the provisional roles and responsibilities in Nairobi's public transport system aims to establish a clear division of duties among NaMATA, NTSA, county governments, and operators. This ensures that each entity focuses on its core competencies while collaborating to create an efficient, integrated, and user-centered transport ecosystem. Regulators are tasked with oversight, planning, and compliance enforcement, while operators are responsible for service delivery and adherence to regulatory standards. By addressing safety, environmental sustainability, and infrastructure development, the framework provides a structured approach to managing Nairobi's dynamic transport needs. The following sections elaborate on the specific roles assigned to each entity, highlighting their distinct responsibilities and shared objectives.

2) Establish clear provisional responsibilities

(i) NaMATA: Metropolitan-level Strategic Planning, Intermodal Coordination, and Fare Regulation

NaMATA will take on a leadership role in developing and implementing metropolitan strategies for public transport. This includes long-term planning for intermodal connectivity, such as integrating buses, BRT, rail systems, and non-motorized transport modes to ensure seamless passenger experiences. NaMATA will also oversee fare regulation, ensuring affordability, equity, and transparency across the transport network. By standardizing fare structures and introducing electronic fare systems, NaMATA aims to minimize revenue leakages and streamline passenger payment processes. Additionally, NaMATA will coordinate with county governments and operators to harmonize service delivery across jurisdictions, addressing the challenges of fragmented transport systems.

(ii) NTSA: Safety Standards, Driver and Vehicle Licensing

The NTSA will continue to focus on its mandate of ensuring road safety and compliance with national transport standards. This includes the certification and licensing of drivers and vehicles, vehicle inspection programs, and enforcement of safety regulations such as speed limits and driver fitness. The NTSA will also work closely with NaMATA to ensure that safety standards are integrated into metropolitan transport planning. For example, the NTSA's vehicle roadworthiness requirements will be harmonized with NaMATA's service quality benchmarks to create a unified compliance framework.

(iii) County Governments: Local Route Management and Infrastructure Development

County governments will retain their jurisdiction over local transport routes and infrastructure, such as bus terminals, stops, and road maintenance. They will be responsible for planning and managing intra-county routes, particularly those that act as feeders to metropolitan corridors like BRT lines. Counties will also collaborate with NaMATA on infrastructure projects that cross jurisdictional boundaries, ensuring that local infrastructure development aligns with metropolitan transport strategies. Additionally, counties will oversee the implementation of local transport policies, such as managing congestion in their own CBDs through zoning or parking regulations.

(iv) Operators: Operational Compliance, Data Submission, and Service Quality Standards

Operators will play a critical role in delivering public transport services under the regulatory oversight of NaMATA, NTSA, and counties. Their responsibilities will include adhering to operational compliance requirements such as route schedules, fleet maintenance, and environmental standards. Operators will also be mandated to submit detailed operational and financial data to regulators, including ridership statistics, revenue reports, and vehicle performance metrics. This data will support evidence-based planning and performance monitoring. Furthermore, operators must meet service quality standards that prioritize safety, reliability, and passenger satisfaction. This includes adopting digital fare collection systems, maintaining cleanliness, and providing accessible services for PWDs.

Table 6.3.11 Proposed Provisional Framework for the Roles of PT Organizations in NMA

Responsibility	NaMATA	NTSA	County Government	Operator
Strategic Planning	• Plan metropolitan-level PT	• Harmonize safety standards with metropolitan transport planning	• Plan local transport routes	• Align operations with strategic plans
Intermodal Coordination	• Integrate buses, BRT, rail, and non-motorized transport		• Align feeder system with metropolitan corridors	
Fare Regulation	• Standardize and regulate fare structures			• Implement electronic fare systems
Safety Standards	• Incorporate safety into service benchmarks	• Issue driver and vehicle certification	• Ensure local infrastructure complies with safety standards	• Adhere to safety compliance requirements
Licensing and Compliance	• Oversee metropolitan-level operator licensing	• Issue driver licenses and ensure vehicle roadworthiness	• Issue local route-specific licenses	• Obtain licenses and comply with requirements
Data Submission and Monitoring	• Collect operational data for strategic planning			• Submit operational and financial data
Service Quality	• Monitor service quality benchmarks			• Ensure safety, reliability, and

Responsibility	NaMATA	NTSA	County Government	Operator
				customer satisfaction
Infrastructure Development	• Collaborate on metropolitan infrastructure projects		• Develop and maintain local transport terminals and stops	• Maintain fleet and facilities
Environmental Compliance	• Promote environmentally sustainable practices	• Enforce vehicle emission standards		• Shift to low-emission or electric vehicles

Source: JICA Expert Team

(v) Legal and Regulatory Ambiguities Surrounding NaMATA

NaMATA has an administrative function as a regulatory body under EO 2017. However, its legal foundation remains limited to this executive order, and no detailed legislation or regulatory framework has been enacted to define its roles, powers, and responsibilities comprehensively. As a result, NaMATA's operations and enforcement mechanisms are largely guided by interpretations of the Executive Order, leading to challenges in consistency, operational clarity, and effective collaboration with other institutions.

The primary issue is not one of jurisdictional overlap but rather legal and regulatory ambiguities. For instance, interpretations of NaMATA's operations and enforcement mechanisms create uncertainty about the extent of its authority over public transport operators, potentially leading to conflicts with the NTSA and county governments. Similarly, the strategic planning functions of NaMATA often intersect with the infrastructure development responsibilities of county governments, resulting in delays and coordination challenges in project implementation.

To address these challenges, it is imperative to establish a detailed legal and regulatory framework that clearly defines NaMATA's roles, powers, and scope of responsibilities. This could be achieved through the enactment of a new Metropolitan Transport Authority Act, which would provide the legal basis for NaMATA's regulatory functions, delineate its relationship with the NTSA and county governments, and ensure a cohesive approach to metropolitan transport management.

In addition, memorandums of understanding (MOUs) and regular inter-agency meetings should be introduced to facilitate operational coordination and resolve potential conflicts. These mechanisms would ensure that NaMATA's activities are aligned with the mandates of other stakeholders, while promoting efficiency and accountability in public transport governance.

By addressing the current legal and regulatory ambiguities, NaMATA will be better positioned to fulfill its mandate as an integrated transport authority, thereby enhancing the coherence, effectiveness, and sustainability of Nairobi's metropolitan transport system.

3) Emphasize transitional measures to allow smooth adoption by operators and regulators

Implementing the new framework requires transitional measures to ensure that both regulators and operators can adapt effectively to their updated roles. For regulators, this includes phased implementation of responsibilities, starting with key priorities such as licensing reforms and compliance monitoring on high-demand routes. Capacity-building initiatives, such as training programs and technical support, will equip regulators to manage their expanded roles effectively.

For operators, transitional measures are critical to ease the shift toward compliance with the new regulatory framework. These measures may include grace periods for adopting digital systems, financial incentives for upgrading fleets to meet environmental standards, and

technical support for submitting operational data. Additionally, cooperative models can help integrate informal operators into the formal system, providing a structured pathway to compliance. Phasing in these changes and offering targeted support will ensure a smooth and sustainable adoption of the new framework, thereby reducing resistance to such changes and enhancing overall system readiness.

4) Finalize the provisional framework for inclusion in the legislative discussions in 3-4

The provisional framework must be refined and finalized to serve as a clear and actionable foundation for the legislative drafting process in Activity **3-4**.

(i) **Validate Roles and Responsibilities:** Conduct a comprehensive internal review of the provisional framework to ensure alignment with the existing legal framework, such as the NTSA Act and the Nairobi City County Transport Act. This includes resolving jurisdictional ambiguities and refining responsibilities based on identified operational realities.

(ii) **Incorporate Transitional Measures:** Include detailed transitional measures in the framework to address stakeholder concerns and operational constraints. For example, phased implementation timelines, financial incentives, and technical support for operators should be explicitly defined to ease compliance.

(iii) **Document for Legislative Use:** Prepare the framework in a structured format suitable for inclusion in the legislative process. This includes clearly defining the roles of NaMATA, the NTSA, county governments, and operators, supported by evidence from the foundational analysis and provisional implementation outcomes.

(iv) **Communicate with Stakeholders:** Communicate the finalized framework to all relevant stakeholders, emphasizing how it addresses operational realities and ensures equitable governance. Feedback received during this communication can inform minor adjustments before the framework transitions to formal legislation.

6.3.3 Activity 3-3: Examine Current Situation of Public Bus Business in NMA

Activity 3-3 is summarized in **Table 6.3.12**.

Table 6.3.12 Summary of Activity 3-3

Activity	Achievement	Note
3-3 Examination of Current Situation of Public Bus Business in NMA		
3-3-1 To study appropriate structure of bus operators	Completed	➢ Based on the information obtained from the activities related to Output 1.3, practical approaches based on the cyclic improvement model were discussed
3-3-2 To hold workshops to discuss the structure of bus operators with related organizations	Completed	➢ At the second SC meeting, the proposal for corporatization was discussed. Following consultations with the operators who participated in the pilot project, a seminar was held inviting all bus operators in the NMA, where the proposal was explained and feedback was collected.
3-3-3 To propose governance system and institutional system for public bus operators	Completed	➢ Through the above discussions, the following direction was agreed upon: (1) a healthy competitive environment for bus operators would be created by improving vehicle safety, improving profitability per vehicle by introducing vehicles with lower floor that passenger can stand, and (2) creating a foundation for more involvement of the regulator/authority side. ➢ The SC agreed that bus operators should be in the form of joint stock companies. Further discussions

		were held with the pilot project participants operating along Ngong Road regarding future organizational structures, resulting in a shared understanding of pursuing corporatization in the future, rather than remaining as small-scale entities.

Source: JICA Expert Team

Through the activities related to Output 1-3 in Chapter 4, the following points were confirmed regarding the business status of bus operators:

1. The franchise system is the most used because it is difficult to make a profit with direct management.
2. Franchisees are likely to cut costs to get higher commissions but at the expense of safety.
3. However, bus operators are forced to operate under the current structure to continue their business.

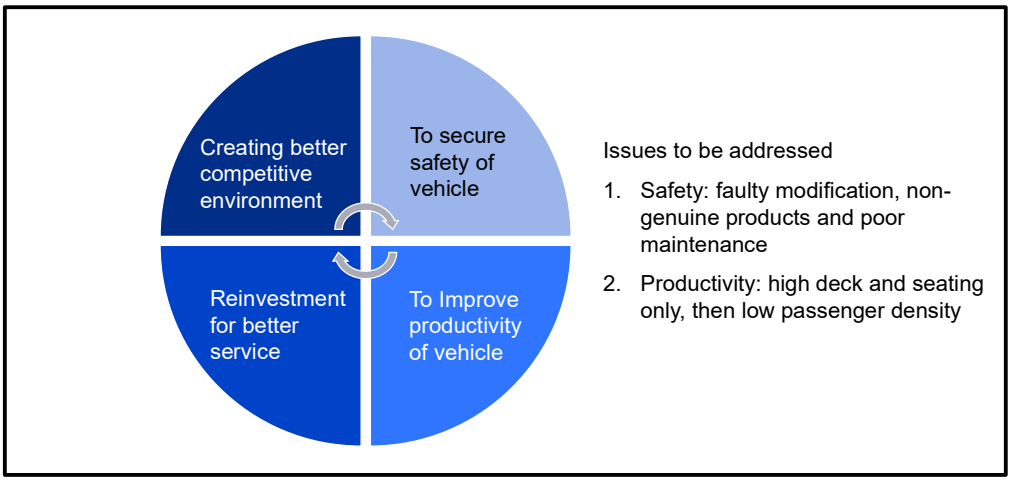
Within the current business environment, it is difficult to end the franchise system and to directly manage operations. It is also unrealistic for the government to create budgets for subsidies and commissions in the short term under the current circumstances. Conversely, the issue on cost-cutting measures that compromise safety, such as the utilization of aging vehicles and substandard, non-genuine products; faulty modifications of spares; and insufficient maintenance, may escalate if left unaddressed, i.e., deferred for future action. Therefore, in the activities related to Output 3-3, JET and key stakeholders decided to prioritize the most pressing issues in current bus operation and identify those that can be started.

Currently, the fundamental and urgent issues in bus operation are to improve vehicle safety and profitability. First, efforts were made in the project activities to introduce safe vehicles and to promote sustainable bus operation by improving profitability per vehicle with low-floor vehicles that would allow passengers to stand. As a result, bus operators would be able to gradually increase their reinvestment capacity to further improve safety, convenience, and profitability. It was also expected that discussion could be held on incentives to encourage bus operators to compete in the quest for better services to drive a continuous improvement spiral. By creating a healthy competitive environment for bus operators and a foundation for increased involvement of authority/regulator side, governance issues related to bus service industry would also be addressed.

The overall WBS for the implementation program to enhance vehicle safety and passenger capacity of the vehicle (i.e., profitability) which is the 1st step of the above-mentioned cyclic improvement model was worked out with NaMATA-WG4.

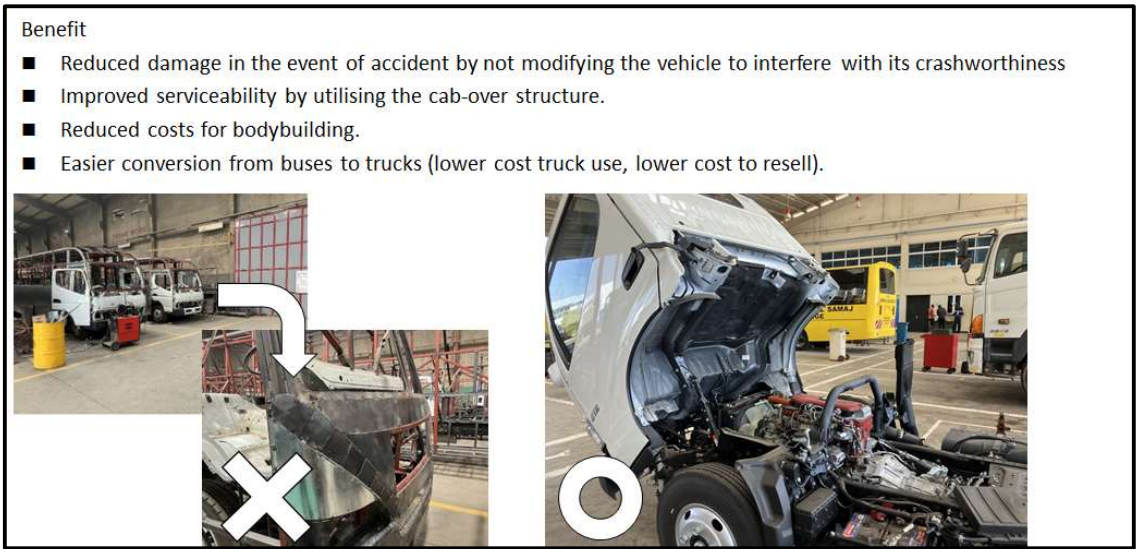
It will be NaMATA's task for NaMATA to conduct continuous discussions with relevant organizations regarding the following items:

- Applicable vehicle specifications (e.g. the Mechanical and Transport Division of MoRT and Kenya Bureau of Standards);
- Design of a practical implementation program (milestones, NAMATA's role, incentives for participants); and,
- Search for partner companies to participate in the program (i.e., coach builder and bus operator).



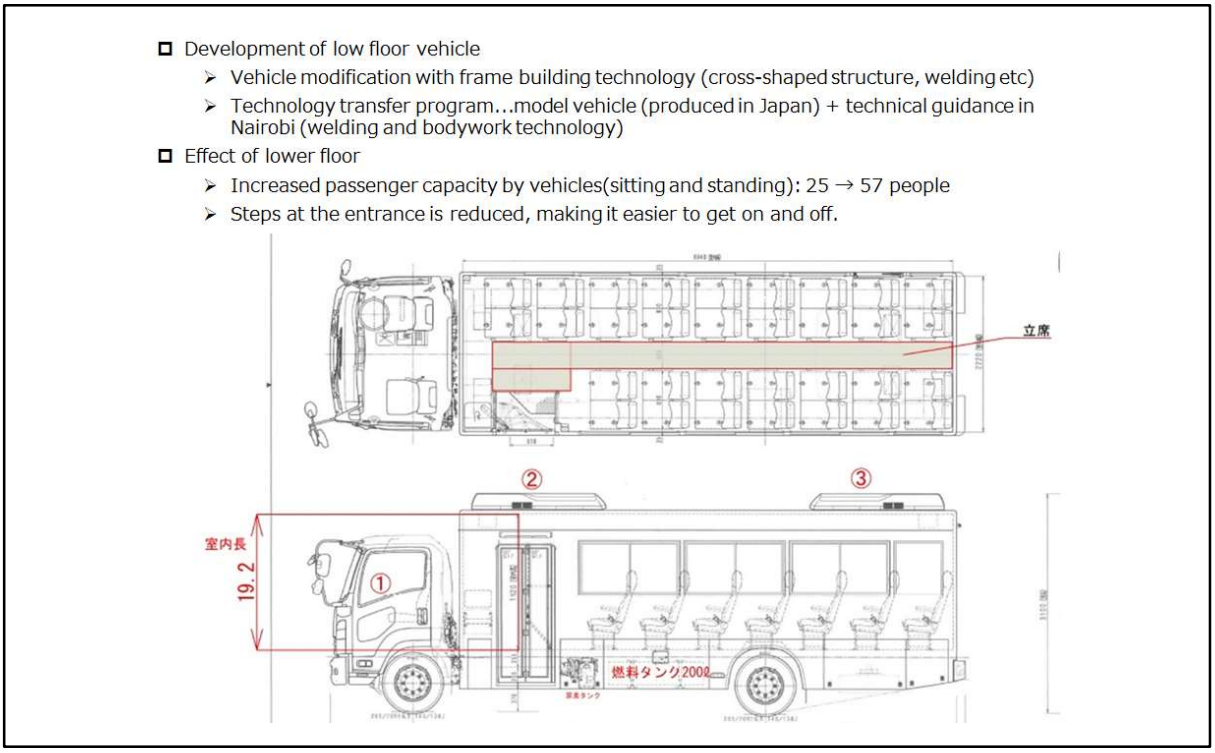
Source: JICA Survey Team

Figure 6.3.1 Diagram of the Cyclic Improvement Model



Source: JICA Survey Team

Figure 6.3.2 Safety Improvement: Image of a Vehicle without Cabin Modification



Source: JICA Survey Team

Figure 6.3.3 Profitability Improvement: Image of a Low-floor Vehicle that can be Manufactured in Kenya

Additionally, to ensure the bus operator's management stability and transparency, as well as to establish a system for effective collaboration with regulatory agencies, the Steering Committee agreed on the possibility of the operator transitioning into a joint stock company in the future.

Table 6.3.13 Comparison of SACCOs and Joint Stock Companies as Bus Operators

CURRENT: SACCOS	PROPOSAL: JOINT STOCK COMPANY
Advantages	
● Non burden on government	● Improved efficiency ● Less burden on government ● Standardized service quality ● Economies of scale ● Regulatory compliance ● Environmental benefits ● Improved market competitiveness
Disadvantages	
■ Financial constraints ■ Regulatory challenges ■ Inconsistent service standards ■ Market competition ■ Operational inefficiencies ■ Environmental impact ■ Limited technological advancement	■ No local company experience in running large metropolitan operations ■ Monopoly risks ■ High Initial costs ■ Regulatory challenges ■ Employee displacement

Discussions were held with the bus operators who participated in the pilot project conducted along Ngong Road, as described in Chapter 7, regarding the future structure of the bus route network along the Ngong Road corridor and the operational framework for bus services following the conclusion of the pilot project. A consensus was reached on transitioning from the current operational arrangements to a more consolidated, company-based structure organized by area. It

has been reported that, prompted by this project, discussions among operators have begun concerning the restructuring of operational systems and addressing various issues.

Additionally, a seminar was held on 9 July 2025, inviting representative bus operators within the NMA to get their feedback on the proposed corporatization of bus operators. A total of 30 participants representing various bus operators attended. While there were both supportive and opposing views on corporatization, many comments focused on requests directed at government authorities. The main points raised were as follows:

Table 6.3.14 Main Comments from Bus Operators about Corporatization

- **Opinions on Corporatization as Companies**
  - It is difficult to realize corporatization. Although corporatization was previously discussed in relation to the introduction of BRT, it has yet to be achieved.
  - Only a small number of operators participated in the pilot project along Ngong Road. It is necessary to gradually increase the number of participating operators—including through training—to build understanding toward joint operations and incorporation.
  - Examples from other countries, including Japan, should be considered to develop a model that is appropriate for Kenya.
- **Other Comments**
  - When revising regulations related to the bus industry, operators should be consulted in advance. There is often a gap between planning and implementation.
  - Although bus operators have vehicle insurance, premiums are high, and the compensation received is insufficient. The government should intervene to improve the environment.
  - There is widespread misconduct among public officials related to the bus industry, which needs to be addressed.
  - The government allows bus operators to compete excessively; this environment should be improved.
  - The government should provide training programs for bus operators.

6.3.4 Activity 3-4: Formulate a Platform for Administrative Management System for the Public Transport Service

Activity 3-4 is summarized in **Table 6.3.15**.

Table 6.3.15 Summary of Activity 3-4

Activity	Achievement	Note
3-4 Collection of case studies from other cities in other countries on the division of roles between administrative bodies and bus operators		
3-4-1 To formulate a platform for administrative management system	Completed	➢ A new organizational structure of NaMATA was proposed ➢ Draft Metropolitan Transport Authority Act. was prepared
3-4-2 To prepare a basic form of regulation for administrative management system for the public bus transport service	Completed	➢ Draft Public Transport Regulations was prepared ➢ Institutional study on methods of consolidating small operators was done

Source: JICA Expert Team

Based on the results of activity 3-2, JET evaluated the functional sufficiency NaMATA. It was found that there were some insufficiencies, and thus, capacity enhancement measures were proposed.

(1) Develop Human Resources and Organizational Structure of NaMATA

EO 2017 outlines the current duties of NaMATA and establishes a preliminary organizational structure, highlighting the need for specific personnel. However, this structure is subject to change to align with the evolving roles and responsibilities. These modifications are necessary to ensure effective planning and coordination, in line with the objectives of the Metropolitan Transport Authority Act (NaMATA Act). Consequently, the executive order will be amended to accurately reflect these proposed changes in roles.

The following table presents a detailed listing of the necessary professional roles for NaMATA. It outlines the diverse expertise needed to fulfil a variety of strategic and operational roles within the metropolitan area's public transport system. From urban planners and transport economists to GIS specialists and legal advisors, the table showcases the wide array of specialists required to devise, oversee, and enhance the urban mobility framework. Each role, ranging from the development of integrated transport strategies to the establishment of sustainable funding mechanisms, signifies the importance of a collaborative and interdisciplinary approach in navigating the complexities of urban transport planning and implementation.

Table 6.3.16 Required Human Resources in NaMATA

No.	Item	Required Professional
a	Develop a sustainable integrated public transport strategy for the metropolitan area.	Urban Planners, Transport Economists
b	Develop a sustainable urban mobility plan for the metropolitan area derived from the strategy.	Urban Planners, Transport Economists, GIS Specialists
c	Formulate and oversee the development of a sustainable, evidentially based, integrated mass rapid transit system strategy.	Transport Engineers, Project Managers
d	Plan, regulate and co-ordinate the supply of adequate and effective mass rapid transit system.	Regulatory and Policy Analysts, Transport Engineers
e	Formulate and implement programs and policies for the overall improvement of public transportation systems within the metropolitan area.	Policy Analysts, Urban Planners
f	Provide an enabling environment for orderly and structured development of the mass transit system, including both bus rapid transit and commuter rail within the metropolitan area.	Project Managers, Transport Engineers, Regulatory and Policy Analysts
g	Coordinate with other government agencies and other parties for the development and operation of transport infrastructure, facilities and works necessary for the discharge of the functions of the authority.	Interagency Coordinators, Project Managers
h	Develop an inventory and undertake continuous evaluation of the declared road network status within the metropolitan area.	GIS Specialists, Infrastructure Auditors
i	Formulate strategies to ensure overall improvement in traffic flow, planned and programmed traffic engineering and traffic management works within the metropolitan area.	Transport Engineers, Urban Planners
j	Ensure optimal utilization of intermodal means of transport including air, road, rail and non-motorized transport and any other modes targeting mass movement within the metropolitan area.	Intermodal Transport Specialists, Transport Planners
k	Assist in poverty alleviation by increasing economic efficiency through lower transport costs and prices within the metropolitan area.	Economists, Environmental Scientists, Sustainability Experts
l	Improve the environmental sustainability of the transport system in the metropolitan area.	Environmental Scientists, Sustainability Experts
m	Facilitate the integration of transport and land use planning in the metropolitan area.	Urban Planners, Transport Economists
n	Make better use of existing road space for all modes and reduce the need for the construction of new roads within the metropolitan area.	Transport Engineers, Urban Planners, Environmental Planners
o	Regulate both on-street and off-street parking on declared corridors and impose fees and penalties with respect thereto.	Regulatory and Policy Analysts, Legal Advisors, Compliance Officers
p	Conduct studies and research for, amongst other things, identification of the mass rapid transit system routes, corridors, network and service levels.	Data Analysts, Researchers, GIS Specialists
q	Develop appropriate and sustainable funding mechanisms in order to achieve the objectives of the authority.	Financial Analysts, Economists, Policy Analysts

Source: JICA Expert Team

(2) Explore Financial Resources

Table 6.3.13 outlines key funding sources for public transport. Government funds, including subsidies, would play a major role, complemented by passenger fares and ticket sales. Advertising and commercial activities within transit facilities add financial support. Public-private partnerships, bonds, and grants aid infrastructure growth and operational finance. Vehicle and fuel taxes, plus real estate value gains from transport enhancements, further support the system. The relevance to Nairobi's situation was discussed in WG1.

Table 6.3.17 Examples of Funding Public Transport

No.	Item	Explanation
1	Government Funding	Typically, the most significant source of financing comes from local, regional, or national government allocations. Includes direct subsidies for operational costs or capital grants for infrastructure projects.
2	Fares and Ticket Sales	Revenue generated from passengers using the public transport system. Includes single-journey tickets, period passes, and discounts for certain groups like students or the elderly.
3	Advertising Revenue	Income from selling advertising space on vehicles, in stations, and on transport authority property, including internal and external adverts and digital advertising.
4	Commercial Activities	Revenue from commercial ventures within the transport infrastructure, such as retail outlets, parking facilities, and real estate development.
5	Congestion Charging and Levies	Charges for vehicle entry into CBDs, or environmental levies on certain vehicles contribute to public transport funding.
6	Public-Private Partnerships (PPPs)	Agreements with private entities providing capital for infrastructure projects, with returns through revenue sharing or fixed payment streams.
7	Bonds and Debt Financing	Raising capital through the issuance of bonds to investors, paid back over time with interest from the authority's revenue streams.
8	Grants and Contributions	Funds received from NGOs, international bodies, or through federal/state grant programs to promote public transportation.
9	Vehicle and Fuel Taxes	Allocation of a portion of vehicle registration fees, fuel taxes, or other levies specifically to fund transportation infrastructure and services.
10	Real Estate Value Capture	Benefiting from increased property values and development potential due to improvements in transport infrastructure.

Source: JICA Expert Team

(3) Discuss Legislative Blueprint

Drafts of the Metropolitan Transport Authority Act (MTA Act) and Public Transport Operators Regulations were prepared (refer to Attachments, ‘Chapter 6 The Metropolitan Transport Authority Act’ and ‘Chapter 6 The Metropolitan Public Transport Operators Standards Act, 2024 (MPTOS Act)’). Designed to comprehensively overhaul and streamline urban transport and public transit systems, these legislative proposals aim to establish robust regulatory frameworks, enhance operational standards, and ensure sustainable and equitable transportation solutions across metropolitan areas. To operationalize these proposed acts and regulations, amendments related to existing acts will also need to be implemented. Points requiring updates to NTSA Act 2012 are outlined below.

(i) Policy Implementation and Advisement (NTSA functions a, b, d): If the MTA Act or the Public Transport Act establishes new bodies or changes existing ones that are also tasked with policy advisement or implementation, then the NTSA's role in these areas may need to be adjusted to prevent redundancy or conflicts.

(ii) Motor Vehicle Registration and Licensing (NTSA function a): Should the new acts create separate licensing bodies or change the regulatory framework, NTSA’s function in vehicle

registration and licensing might need to be amended to reflect these changes.

(iii) Vehicle and Driver Regulation (NTSA functions b, c, i): The NTSA's roles in vehicle inspections, certification, regulation of public service vehicles, and oversight of driver training and licensing might need revision if the MTA Act or the Public Transport Act introduces new standards or bodies responsible for these tasks.

(iv) Road Safety (NTSA functions e, f, g, h): With the potential introduction of new safety standards in the MTA Act and the Public Transport Act, NTSA's functions in developing and implementing road safety strategies and conducting research and audits on road safety could be affected.

(v) Education and Coordination (NTSA functions f, k): If the new acts provide a framework for educating the public and coordinating safety efforts, these functions of NTSA might require amendment to align with the new strategies and organizational structures.

(vi) Regulatory Framework and Standards (NTSA function e): NTSA's role in administering acts and regulations may need to be updated to ensure consistency with any new regulatory frameworks established by the MTA Act and the Public Transport Act.

(vii) Strategic Planning (NTSA function c): The introduction of strategic planning and regional growth considerations in the MTA Act might intersect with NTSA's function of managing and regulating the road transport system, requiring a redefinition of roles.

(viii) Interagency Coordination (NTSA function k, MTA Act Article 14): Coordination between agencies is addressed in both NTSA functions and the MTA Act. The specific roles and mechanisms for this coordination might need to be clarified to ensure efficient collaboration.

(ix) Technology and Innovation (MTA Act Article 12): If the MTA Act mandates specific technology and innovation practices, NTSA's functions may need to be updated.

(4) Formulate a Platform for Administrative Management System

As part of developing a platform for an administrative management system, it is necessary to clarify the organizational structure first. As mentioned earlier, proposals were made to draft the Metropolitan Transport Authority Act and Public Transport Operators Regulations. On the operational side, platform elements include a digital integrated system and service quality and performance monitoring, which were incorporated into the draft public transport regulations as previously noted. An overview of these platforms is provided below.

1) Key Components of the Platform

- Organizational Structure:
    - Outline the roles and functions of NaMATA as the central administrative body.
    - Define relationships among NaMATA, NTSA, county governments, and operators.
- Digital Integration Systems:
    - Develop requirements for implementing real-time data monitoring, electronic fare systems, and centralized reporting platforms.
- Service Quality and Performance Monitoring:
    - Establish benchmarks and indicators for service quality, including reliability, safety, and accessibility.
    - Define mechanisms for enforcing compliance, such as penalties and incentives.

2) Proposed Legislative Framework

- Nairobi Metropolitan Transport Authority Act: Outlines the governance structure, operational responsibilities, and funding mechanisms of NaMATA. In particular, it clarifies its jurisdiction and scope of authority in terms of fare regulation, modal integration, and license issuance.
- Public Transport Operators Regulations: Provide initial operational workflows for route allocation, license issuance processes, and service performance monitoring. They also define communication protocols for reporting and decision-making between NaMATA and other stakeholders.

3) Challenges and Transitional Measures

In developing the platform, potential challenges must be identified, such as stakeholder resistance and limited capacity of implementing agencies. To address these, it is essential to conduct repeated briefings and consultations—both separately and jointly—with administrative agencies and operators to foster mutual understanding. For bus operators in particular, a collaborative implementation framework is required, where their perspectives are incorporated through dialog rather than imposed unilaterally by government authorities. Furthermore, as part of the transition measures, it is important to ensure a phased implementation and provide technical assistance, engaging operators throughout the process.

(5) Prepare a Basic Regulation for Administrative Management System for the Public Bus Transport Service

As a foundational regulatory framework to formalize the roles, responsibilities, and operational standards of public bus transport services, several elements must be clarified. Accordingly, these have been included in the draft public transport regulations as previously mentioned. To achieve effective management of public bus services, it is essential that operations be carried out by bus operators of a certain scale with sound governance structures. As noted earlier, the policy of incorporating bus operators as companies was agreed upon at the SC meeting. Furthermore, service delivery must be monitored during implementation. The key components for the introduction of a public bus service management system are outlined below.

1) Key Elements of the Public Transport Act and Regulations

(i) Licensing and Compliance:

- Define operator licensing requirements, including fleet standards, route allocation, and financial transparency.
- Outline procedures for revoking licenses due to non-compliance.

(ii) Fare Regulation:

- Introduce fare caps, electronic fare systems, and transparent fare adjustment mechanisms.
- Define penalties for fare evasion or operator non-compliance.

(iii) Data Submission Requirements:

- Mandate regular reporting of operational and financial data by operators to the administrative body.

(iv) Environmental Compliance:

- Set emission standards for bus fleets and establish timelines for transitioning to low-emission vehicles.

2) Institutional Measures for Consolidating Small Operators

(i) Consolidation Methods:

- Propose cooperative or franchise models to integrate small operators into the formal transport system.
- Offer incentives, such as financial assistance and technical support, to encourage compliance.

(ii) Training and Capacity Building:

- Introduce mandatory training programs for operators on safety, service quality, and data submission.

3) Compliance Monitoring and Enforcement Mechanisms

- Specify inspection schedules and reporting protocols to ensure adherence to the regulatory framework.
- Define penalties and sanctions for non-compliance, as well as incentives for high-performing operators.

4) Challenges and Measures

To facilitate the introduction of a public bus service management system, public transport regulations must complement the Metropolitan Transport Authority Act and resolve overlaps identified in the NTSA Act and the NCC Transport Act. Until now, none of the relevant institutions have been responsible for managing bus services, and even with the establishment of regulations, there is a risk that implementation may not proceed due to a lack of understanding of how to enforce them. Therefore, developing a monitoring and evaluation mechanism to assess the effectiveness of the regulations and adopting a phased implementation approach, starting with high-priority transport corridors, is proposed. This approach is expected to gradually build understanding of service management among both government agencies and operators, allowing for revisions and improvements as needed throughout the implementation process.

Chapter 7: Output 4 (Strengthening of Capacity for Public Bus Management among Regulatory Organizations and Operators)

7.1 Outline

(1) Benchmarks in the PDM

For Output 4, the four objectively verifiable indicators in the PDM are as follows:

4-1 Knowledge and practical experiences in the public transport policies and planning are strengthened.
4-2 Practical experiences in public transport administrative management are acquired through pilot projects.
4-3 Training programs for operations managers, bus crews, and vehicle inspectors are developed.
4-4 Training based on the program is conducted.

(2) Summary

Capacity building for both government agencies and bus operators was carried out primarily through the planning and implementation of the pilot project along Ngong Road.

7.2 Meeting List

Meetings held for Output 4 activities are shown in **Table 7.2.1**. The activities were mainly carried out by WG3, but there were overlaps with the activities of WG2. Therefore, some meetings were carried out jointly by WG2 and WG3.

Table 7.2.1 Meeting List for Output 4

Date	Main Attendees	Items	With WG2
10 Feb 2023	NaMATA	• How to proceed • Appointment of WG members	-
28 Feb 2023	NaMATA	• How to proceed • Work plan (contents of training and lecture)	-
21 Mar 2023	NaMATA	• Lecture from JICA Expert Team ➢ Obtaining of existing trip demand data and vehicle operation information ➢ Bus business in Japan	Yes
4 Apr 2023	NaMATA, KURA, NTSA	• Lecture from JICA Expert Team ➢ Indicators to evaluate existing public transport network • Confirming the progress of data collection necessary for feeder route study	Yes
21 Jun 2023	NCG	• Request for provision of public transport policy	Yes
12 Jul 2023	NaMATA	• Lecture from JICA Expert Team ➢ Socio-economic indicators for traffic demand forecasting ➢ Traffic surveys for developing traffic demand forecasting models	
23 Aug 2023	NaMATA	• Lecture from JICA Expert Team ➢ Modal split model and SP Survey	Yes
19 Sep 2023	NaMATA	• Lecture from JICA Expert Team	Yes

Date	Main Attendees	Items	With WG2
		➢ Utilization of General Transit Feeding Specification	
25 Sep 2023	NaMATA	• WG3 meeting ➢ Discussion of operation system for the pilot project and crew training manual	
5 Oct 2023	NaMATA	• Lecture from JICA Expert Team ➢ Household interview survey	Yes
1 Dec 2023	NaMATA	• Meeting within Team for pilot project ➢ Discussion of selection of operator and operation plan	
19 Feb 2024	NaMATA, FPTS, KURA, NTSA	• Explanation and discussion of contents of the pilot project • Selection of bus/matatu operators who will be involved in the pilot project	
20 Feb 2024	NaMATA	• Report on traffic survey	Yes
17 Apr 2024	NaMATA	• Confirmation of operation section for the pilot project • Schedule of upcoming meetings	
22 Apr 2024	NaMATA	• Discussion on bus stop facility improvement for the pilot project	
24 Apr 2024	Kenya Police Service	• Explanation and request of cooperation for the pilot project	
26 Apr 2024	KURA/NaMATA	• Discussion on bus stop facility improvement for the pilot project	
6 May 2024	NaMATA	• Cooperation among bus operators for the pilot project	
7 May 2024	NaMATA	• Discussion on the pilot project (budget, procedure in NaMATA、fare payment method、facility improvement plan)	
8 May 2024	NaMATA	• Plenary discussion on the pilot project	
21 May 2024	NaMATA	• Lecture from JICA Expert Team ➢ Additional items for future demand forecast	Yes
22 May 2024	NaMATA	• Regular meeting about the pilot project (conditions for the contract、fare setting etc.)	
28h May 2024	Muranga County	• Interview on road network plan, other relevant plans	
28 May 2024	NaMATA, NCCG, KURA	• Site visit of the bus stop for the pilot project (green park – Karen)	
29 May 2024	NaMATA	• Contents of contract between bus operators and NaMATA for the pilot project, conditions on drivers' work hours	
12 Jun 2024	NaMATA	• Plenary discussion on the pilot project	
12 Jun 2024	NaMATA, NTSA, KURA, NCCG, Kajiado County, Police, FPTS	• Explanation of the pilot project to related organizations • Discussion on the implementation system for the pilot project	
25 Jul 2024	NaMATA	• Plenary discussion on the pilot project	
30 Jul 2024	NaMATA	• Lecture from JICA Expert Team ➢ Update on traffic demand forecasting model (1st) ✧ Introduction	Yes
7 Aug 2024	NaMATA	• Lecture from JICA Expert Team ➢ Update on traffic demand forecasting model (2nd) ✧ Review of urban transport characteristics based on the survey	Yes
9 Aug 2024	NaMATA	• Lecture from JICA Expert Team ➢ Update on traffic demand forecasting model (3rd) ✧ Overview of trip demand model	Yes
14 Aug 2024	NaMATA	• Lecture from JICA Expert Team ➢ Update on traffic demand forecasting model (4th)	Yes

Date	Main Attendees	Items	With WG2
		✧ Socio-economic framework ✧ Creating OD tables	
16 Aug 2024	NaMATA	• Lecture from JICA Expert Team ➢ Update on traffic demand forecasting model (5th) ✧ Network and assignment ✧ Parameter	Yes
22 Aug 2024	NaMATA	• Meeting with bus operators and FPTS about the materials for the pilot project	
26–27 Aug 2024	NaMATA, FPTS, Bus Operators	• Discussion on the establishment of a bus operations company • Explanation of the pilot project	
10–12 Sep 2024	NaMATA, Bus Operators, NTSA, NCCG	• Workshop for bus operators about the pilot project ➢ Roles of NaMATA ➢ Pilot project ➢ Future bus business	
18 Sep 2024	Metro Trans	• Photographing of the crews for the training handbook	
19 Sep 2024	NaMATA, Bus Operators	• Meeting with bus operators about the pilot project ➢ Operation day, crew's shift ➢ Vehicles ➢ Fare setting and payment method ➢ Bus stop at CBD	
27 Sep 2024	NaMATA, Bus Operators	• Meeting with bus operators about the pilot project ➢ Submission of crew and vehicle information ➢ Allocation of supervisor and stage manager ➢ Operations plan ➢ Name of bus stop	
30 Sep 2024	NaMATA	• Confirmation of work for bus operators meeting	
2d Oct 2024	NaMATA	• Implementation schedule of the pilot project	
3 Oct 2024	NaMATA, Bus Operators	• Meeting with bus operators about the pilot project ➢ Roles of supervisor and stage manager ➢ Vehicle dispatch ➢ Submission of business report ➢ Monitoring	
7 Oct 2024	Kajiado County	• Site visit and discussion of the Ngong Bus Park	
9 Oct 2024	NaMATA	• Introduction of fare collection system by system vendor	
15 Oct 2024	NaMATA	• Meeting about the pilot project (CBD terminal, communication strategy)	
16 Oct 2024	Metro Trans	• Fare collection method, financial statements	
17 Oct 2024	NaMATA, Bus Operators	• Meeting with bus operators about the pilot project ➢ Postpone of the pilot project ➢ Location of bus stop at CBD ➢ Submission of business report ➢ Communication strategy	
17 Oct 2024	NaMATA	• Bus stop facility • Training manual (handbook)	
30 Oct 2024	Nairobi City County	• Site visit of bus stop	
5 Nov 2024	NaMATA	• Plenary discussion on the pilot project (confirmation of the progress)	
7 Nov 2024	NaMATA, Bus Operators	• Meeting with bus operators about the pilot project ➢ Status for the selection of vehicles and crews ➢ Bus stop at CBD ➢ Issues for the bus stop improvement (bus shelter)	
15 Nov 2024	NaMATA	• Contents of PR activities for the pilot project	
18 Nov 2024	NaMATA	• Contents and budget of PR activities for the pilot project	
19 Nov 2024	NaMATA	• Plenary discussion on the pilot project (confirmation of progress)	
20 Nov 2024	NaMATA	• Confirmation of PR activities and budget	

Date	Main Attendees	Items	With WG2
21 Nov 2024	NaMATA, Bus Operators	• Meeting with bus operators about the pilot project ➢ Contents of contract between operator and NaMATA ➢ Presentation of fare collection system in each operator	
28 Nov 2024	NaMATA, Bus Operators	• Meeting with bus operators about the pilot project ➢ Contents of contract between operator and NaMATA	
22 Jan 2025	NaMATA	• Confirmation of the progress of the pilot project	
27 Jan 2025	NaMATA	• Proposal of the data collection system by the system vendor	
28 Jan 2025	NaMATA	• Confirmation of the progress of the pilot project	
29 Jan 2025	NaMATA	• Confirmation of the preparation of bus shelter construction (work plan including work schedule)	
30 Jan 2025	NaMATA	• Confirmation of the preparation of bus shelter construction (vendor relocation, interference with related construction)	
3 Feb 2025	NaMATA	• Confirmation of the progress of the pilot project	
4 Feb 2025	NaMATA	• Confirmation of the progress of the pilot project	
5 Feb 2025	NaMATA, KURA	• Discussion on road traffic management during the pilot project	
6 Feb 2025	NaMATA, Bus Operators	• Meeting for the pilot project with bus operator ➢ Contents of contract between operators and NaMATA	
7 Feb 2025	NCCG	• Discussions on bus terminal development for Phase 2	
7 Feb 2025	NaMATA	• Explanation for Phase 2 • Confirmation of the progress of the pilot project	
11–12 Feb 2025	NaMATA, NTSA, Traffic Police, NCCG, Kajiado County	• Training for trainers for crew members of the pilot project	
13 Feb 2025	NaMATA, Bus Operators	• Contract signing ceremony between NaMATA and bus operators	
13 Mar 2025	NaMATA, Bus Operators	• Description of training materials for supervisors / stage managers	
25 Mar 2025	NaMATA	• Confirmation of the progress of the pilot project	
27 Mar 2025	NaMATA, Bus Operators	• Training for supervisor / stage manager	
29–30 Mar 2025	NaMATA, Bus Operators, NTSA, Traffic Police	• Training for crews	
1 Apr 2025	NaMATA	• Preliminary confirmation of pilot project implementation	
2 Apr 2025	NaMATA	• Facility check for the pilot project	
21 Apr 2025	-	• City tour for JICA Headquarter members • Site visit of the pilot project for JICA Headquarter members	
22 Apr 2025	SDoT	• Initiatives for Phase 2 • Discussion on roles among regulators	
23 Apr 2025	Bus Operators	• Interviews with bus operators for the pilot project	
24 Apr 2025	NTSA	• Initiatives for Phase 2 • Discussion on roles among regulators	
25 Apr 2025	NCCG	• Initiatives for Phase 2 • Discussions of roles among the regulators	
25 Apr 2025	NaMATA	• Confirmation of the progress in data collection for the pilot project with ICT team	
3 May 2025	NaMATA, Bus Operators	• Meeting with crew who participated in the pilot project	
21 May 2025	NaMATA, Bus Operators	• Meeting with representatives of the bus operator who participated in the pilot project	

Source: JICA Expert Team

7.3 Description of Output 4 Activities

7.3.1 Activity 4-1: Strengthen Knowledge and Practical Experience in Public Transport Policymaking and Planning

Activity 4-1 is summarized in **Table 7.3.1**.

Table 7.3.1 Summary of Activity 4-1

Activity	Achievement	Note
4-1 Strengthening of Knowledge and Practical Experience in Public Transport Policymaking and Planning		
4-1-1 To prepare a training program on public transport policymaking and planning.	Completed	➢ Through consultations with counterparts, a training program on public transport policymaking and planning was developed.
4-1-2 To prepare materials for the training including manuals on public transport administrative management.	Completed	➢ A manual on operational management was included in the pilot project's training manual, and its necessity was explained.
4-1-3 To implement the training.	Completed	➢ Following the implementation of the pilot project, training (working group) in making fare policies was provided to NaMATA and NTSA in June 2025.

Source: JICA Expert Team

JET provided the following training to Kenyan counterparts to enable them to obtain basic knowledge related to public bus transport.

Table 7.3.2 Themes of Trainings

Implemented Training
➢ Bus business in Japan ➢ Bus operation planning in Japan ➢ Demand forecast ➢ Bus fare system

Source: JICA Expert Team

The main purpose of Activity 4-1 is to provide the counterparts with basic knowledge on public bus policymaking and planning. Lectures by JET and discussions afterward were the main activities. However, the level of understanding of highly technical content was limited, with only some staff members who had relevant technical knowledge appearing to grasp the materials. For the training on fare policy, JET took care in making it interactive, incorporating their input on the fare tables used during the pilot project, as well as the “fair fares” policy proposed by the NTSA for bus operators.

7.3.2 Activity 4-2: Acquire Practical Experiences in Public Bus Transport Administrative Management

Activity 4-2 is summarized in **Table 7.3.3**.

Table 7.3.3 Summary of Progress of Activity 4-2

Activity	Achievement	Note
4-2 Acquisition of Practical Experiences in Public Bus Transport Administrative Management		
4-2-1 To select a pilot site (section / terminal / route).	Completed	➢ Although two pilot project sites were initially considered, JET and the counterparts (C/P) agreed to implement the pilot project at a single location—Ngong Road.
4-2-2 To make operation rules, operational plan, and facility improvement plan for the pilot site .	Completed	➢ The pilot project involved not only NaMATA but also other relevant agencies such as NTSA, NCCG, and the police, in coordination with 10 participating bus operators. Together, an operational plan and facility improvement plan were developed. Contracts, including compensation for operators, were signed between NaMATA and each bus operator.

4-2-3 To implement the pilot project using the prepared manuals.	Completed	➢ The manual developed by JET was revised, incorporating feedback from NaMATA, the police, and NTSA. Operations during the pilot project were carried out in accordance with this manual.
4-2-4 To evaluate results of the pilot project.	Completed	➢ Carried out final compilation of questionnaires and feedback from operators during and after the pilot project implementation.

Source: JICA Expert Team

Discussions with related organizations in the public transport sector showed gaps between the established regulations and the actual situation, as shown in Table 7.3.4.

Table 7.3.4 Gap between Regulations and Reality in Government Agencies

Item	Area	Organization to Address	Actual Condition
Formulating Strategy and Planning	NMA	NaMATA	➢ No strategy or plan for public transport has been developed. ➢ There is also almost no clear strategy or plan for urban development.
	County	County Government	
Infrastructure development (Bus terminal, bus stops, etc.)	Nairobi	NaMATA KURA	➢ Uses general roads in CBD as bus terminals. ➢ Bus stops anywhere along the route.
	County	County Government	
License of Bus Business Operation	Nairobi	Unidentified	➢ Guidelines for licensing bus service operations vary by county. ➢ In many cases, bus operators do not follow regulations and rules after they obtain the necessary licenses.
	County	County Government	
	Inter-County	NTSA	

Source: JICA Expert Team

It was expected that the basic knowledge on public bus policymaking and planning gained from Activity 4-1 would be useful for future public transport management in the NMA.

As a result of the discussions between NaMATA and JET, two pilot projects were proposed to develop new bus services according to Japanese experience in bus business operations and operational planning, as shown below.

1. Integration of the public transport network with BRT Line 2 including feeder routes.
2. Bus operation management on Ngong Road.

However, NaMATA informed JET that the study of feeder routes planned along BRT Line 2 had been canceled, as another development partner took over that component. Therefore, only the pilot project along Ngong Road was selected for implementation.

The pilot project along Ngong Road was initially scheduled for launch in September 2024. However, due to delays in securing the necessary budget within NaMATA and the time required for coordinating with bus operators, the project was postponed three times—to November 2024, February 2025, and finally carried out in April 2025. An overview of the pilot project is provided below.

(1) Implementation
   a) Period: 1 month from 3 April 2025 to 2 May 2025.
   b) Section: CBD (Pioneer: in front of August 7th Memorial Park) - Ngong Bus Park

(2) Purpose
   a) Implementation and evaluation of a bus operations management system with coordination between regulators and operators.
   b) Provision of safe and reliable public transport services.

(3) Details

a) Analyze data and prepare a service plan based on passenger demand.

b) Ensure safe driving and improved reception / hospitality by training and monitoring the bus crew.

c) Develop a reliable bus operation service with a fixed time schedule from the terminus by:

i. Operate a bus/matatu with the schedule issued to each driver.

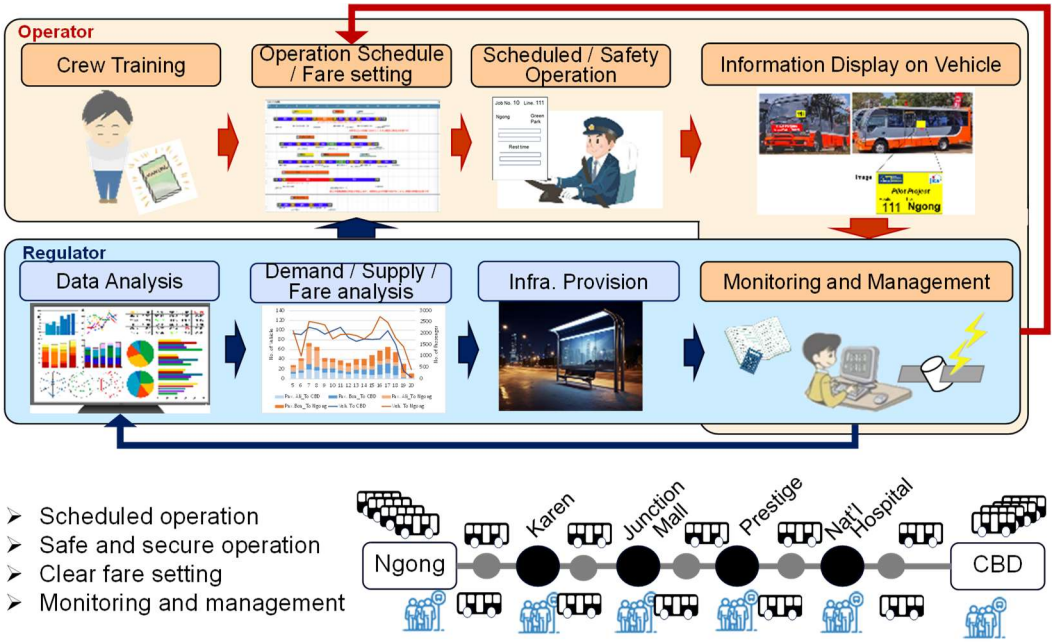
ii. Provide an increased opportunity to board from intermediate bus stops.

iii. Contribute to the concept of future operation planning using the PDCA cycle.

d) Strengthen the roles of operators and regulators

i. Manage daily revenues and actual usage; monitor operation using GPS, fuel, and other expenses.

ii. Manage income and expenses by route and incorporate these into operational and network plans, as well as fare setting in the future.



Source: JICA Expert Team

Figure 7.3.1 Outline of the Pilot Project

(1) Bus Survey along Ngong Road

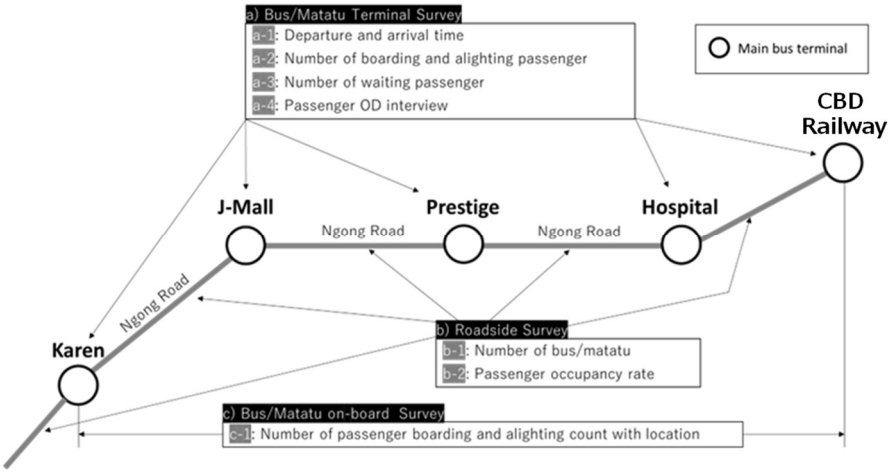
In preparation for implementing the pilot project on Ngong Road, a survey was conducted as shown in **Table 7.3.5**. The purpose of the survey was to determine the status of public bus service between the CBD Railway and Karen as shown in **Figure 7.3.2**.

Table 7.3.5 Details of Bus Survey on Ngong Road

Survey	NOS	Survey Date / Time	Remark
a) Bus/ Matatu Terminal Survey			
a-1: Departure and arrival time	5	18 Oct 2023 (Wednesday) 5:00 a.m.–9:00 p.m. (16 hours)	Main bus terminal
a-2: Number of boarding and alighting passenger	5	18 Oct 2023 (Wednesday) 5:00 a.m. –9:00 p.m. (16 hours)	
a-3: Number of waiting passenger	5	18 Oct 2023 (Wednesday) 5:00 a.m. –9:00 p.m. (16 hours)	
a-4: Passenger OD interview	5	18 Oct 2023 (Wednesday) 5:00 a.m. –9:00 p.m. (16 hours)	
b) Roadside Survey			
b-1: Number of bus/matatu	5	8 Dec 2023 (Friday) 5:00 a.m. –9:00 p.m. (16 hours)	Between main bus terminals

b-2: Passenger occupancy rate	5	18 Oct 2023 (Wednesday) 5:00 a.m. –9:00 p.m. (16 hours)	
c) Bus/Matatu On-board Survey			
c-1: Number of passengers boarding and alighting	-	18 Oct 2023 (Wednesday) 5:00 a.m. –9:00 p.m. (16 hours)	Each bus stop between CBD and Karen

Source: JICA Expert Team



Source: JICA Expert Team

Figure 7.3.2 Location of Bus Survey Stations on Ngong Road

The summary of survey results is as presented below.

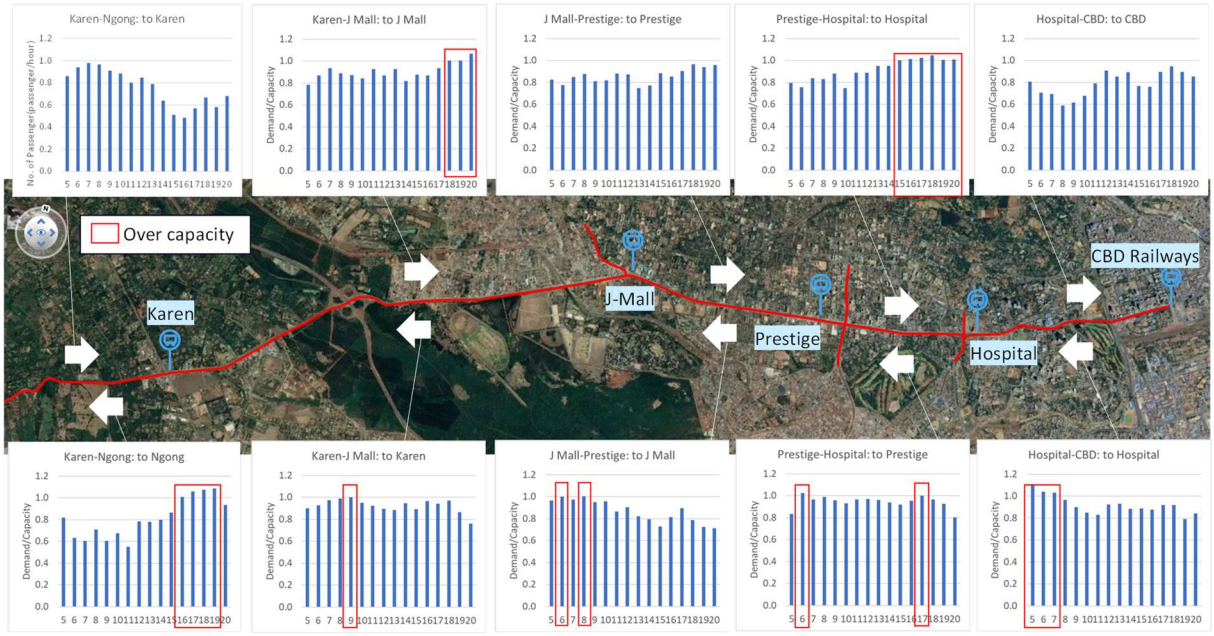
As shown in **Figure 7.3.3**, about 100 buses come and go at the main bus stops along Ngong Road during the morning and evening peak hours. In particular, it was confirmed that buses arrived at the Hospital bus stop in the direction of Ngong at 16:00 with a high frequency of more than 2 buses per minute.

Source: JICA Expert Team

Figure 7.3.3 Number of Buses at Major Bus Stops along Ngong Road

As shown in **Figure 7.3.4**, passenger occupancy rate was high throughout the day, confirming that supply generally matched demand. However, the red boxes indicate time periods when demand

exceeded supply, which are during the morning and evening peak hours when bus supply was insufficient.

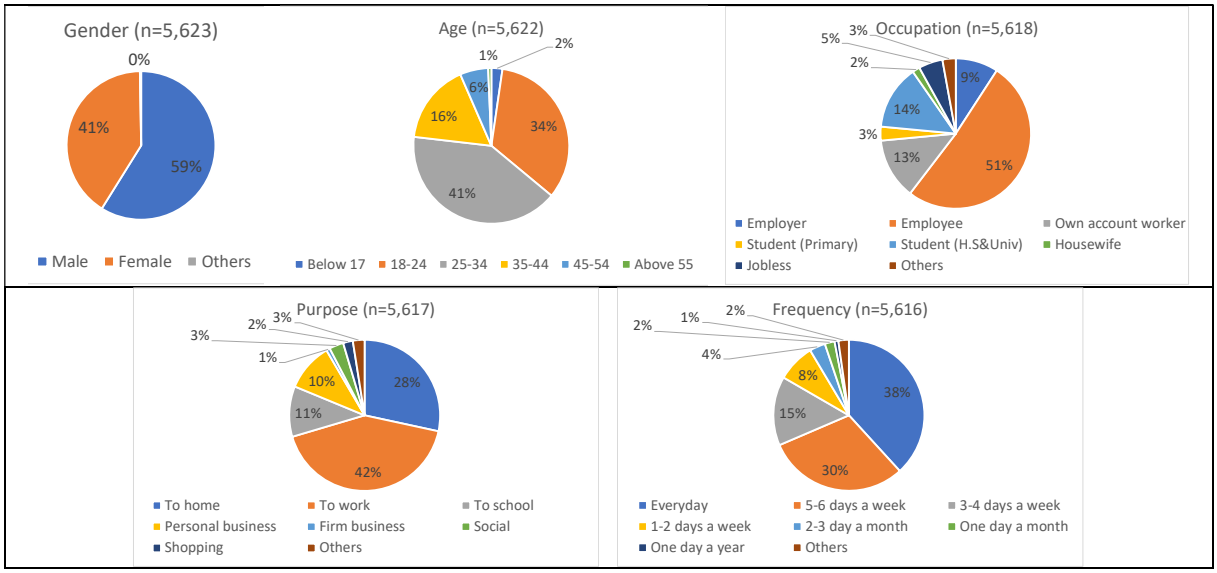


Source: JICA Expert Team

Figure 7.3.4 Passenger Occupancy Rate on Ngong Road

Figure 7.3.5 shows the results of interviews with approximately 5,600 bus users.

- Gender: About 60% of users were male.
- Age: More than 90% of users were between 18 and 44 years old. There were few elderly and young people below 18 years old.
- Work: Employees accounted for more than 50% of users.
- Purpose: Commuting to work or school accounted for more than 50% of trips.
- Frequency: About 38% used the bus every day and 30% used it 5-6 days a week.



Source: JICA Expert Team

Figure 7.3.5 Results of Interviews with Bus Users

Figure 7.3.5 shows the OD estimates of bus passengers boarding and alighting, which were expanded from the OD interview survey results using the number of users at the major bus stops. About 42% was expected to use the bus in the pilot section.

Table 7.3.6 Results of OD Estimates for Bus Users

(Unit: trip/day)

Location	Railway Terminal	**Pilot Section**	Others	Total
Railway Terminal	-	9,352 (9%)	4,151 (4%)	13,503 (13%)
Pilot Section	8,370 (8%)	**44,654** **(42%)**	17,552 (16%)	70,576 (66%)
Others	5,146 (5%)	17,461 (16%)	-	22,607 (21%)
Total	13,516 (13%)	71,467 (67%)	21,703 (20%)	106,686 (100%)

Source: JICA Expert Team

(2) Implementation Plan for the Pilot Project

The items related to Output 4 regarding the pilot project in Ngong Road are as follows:

(1) Participating Bus Operators

Table 7.3.7 Number of Vehicles and Crews in the Pilot Project

Operator	No. of Vehicles.	No. of Drivers	No. of Conductors
Super Metro	9	18	18
Metro Trans	7	14	14
Enabled	5	10	10
NTVRS	5	10	10
Nangkis	5	10	10
MCA	2	4	4
Ngokana	2	4	4
K-Trans	2	4	4
Latema	2	4	4
Raj Safari	1	2	2
TOTAL	40	80	80

Source: JICA Expert Team

(2) Operational Plan

a) Frequency: Weekday peak, every 5 minutes; off-peak, every 10 minutes
Weekend, every 10–20 minutes
b) Travel time: 75 minutes / way
c) Turnaround Time: 15 minutes/ per operation

(3) Operations Management

a) Timetable at the Terminal (First Bus Stop)

This is CBD Bus Stop

Line 111 : For Ngong Bus Park

	Weekday	Saturday and Sunday	
4 am	00 05 10 15 20 25 30 35 40 45 50 55		4 am
5 am	00 05 10 15 20 25 30 35 40 45 50 55		5 am
6 am	00 05 10 15 20 25 30 35 40 45 50 55	00 20 40	6 am
7 am	00 05 10 15 20 25 30 35 40 45 50 55	00 20 40	7 am
8 am	00 05 10 15 20 25 30 35 40 45 50 55	00 20 40	8 am
9 am	00 05 10 15 20 25 30 35 40 45 50 55	00 10 20 30 40 50	9 am
10 am	00 10 20 30 40 50	00 10 20 30 40 50	10 am
11 am	00 10 20 30 40 50	00 10 20 30 40 50	11 am
12 pm	00 10 20 30 40 50	00 10 20 35 55	12 pm
1 pm	00 10 20 30 40 50	10 20 30 40 50	1 pm
2 pm	00 10 20 30 40 50	00 10 20 30 40 50	2 pm
3 pm	00 10 20 30 40 50	00 10 20 30 45	3 pm
4 pm	00 05 10 15 20 25 30 35 40 45 50 55	05 20 30 40 50	4 pm
5 pm	00 05 10 15 20 25 30 35 40 45 50 55	00 10 20 30 40 50	5 pm
6 pm	00 05 10 15 20 25 30 35 40 45 50 55	00 10 20 30 40 50	6 pm
7 pm	00 05 10 15 20 25 30 35 40 45 50 55	00 10 20 40	7 pm
8 pm	00 05 10 15 20 25 30 35 40 45 50 55	00	8 pm
9 pm	00 05 10 15 20 25 30 35 40 45 50 55		9 pm

Source: JICA Expert Team

Figure 7.3.6 Timetable at the Terminal (First Bus Stop)（CBD）

b) Creating Driver Schedule
c) Dispatch of Supervisors
   i. Monitor bus operation and conduct audit to ensure the crews are following rules and regulations.
d) Dispatch of Operations Manager
   i. Ensure crew attendance and dispatch based on job schedule.
   ii. Conduct roll call at the terminal to check crews' health condition and necessary belongings. Also, check the operating status at the terminal.

(4) Vehicles

a) Vehicle: 33-seater buses
b) Number of Buses: 40 buses (Operating: 36 buses and extra 4 buses)

(5) Facility Improvement

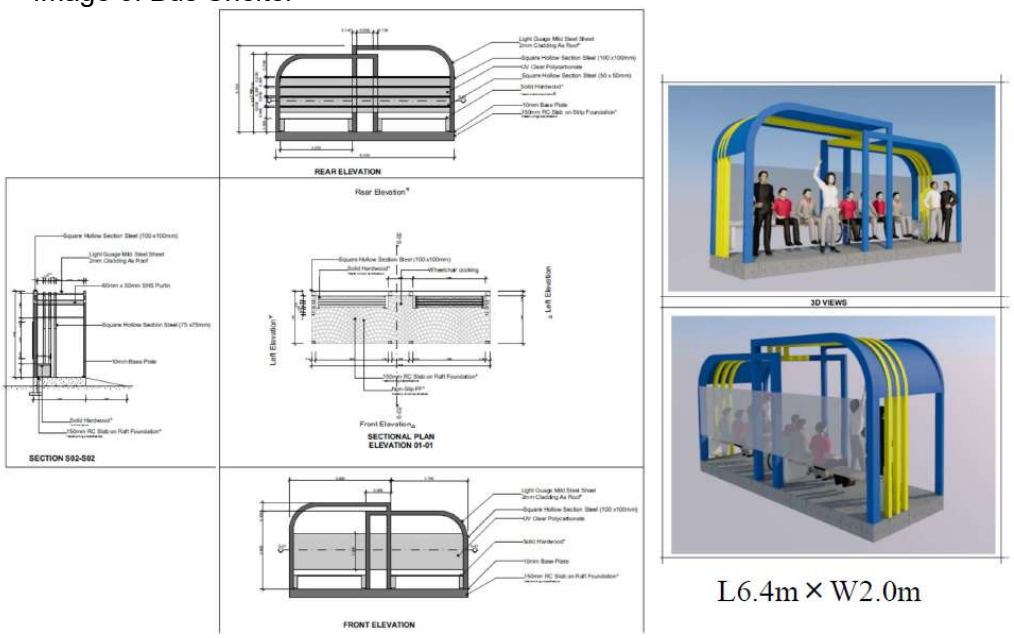
a) Installing Bus Shelter at Bus Stops

Table 7.3.8 Installing Bus Shelter at Bus Stops

Name of Bus Stop	Outbound	Inbound
CBD	-	-
Kenyatta National Hospital (KNH)	○ (KNH and Library)	○ (Police HQs)
Prestige	○	○
Junction Mall	×	○
Karen	○ (Improve Existing Shelter)	○
Ngong	-	○ (Improve Existing Shelter)

Source: JICA Expert Team

b) Image of Bus Shelter

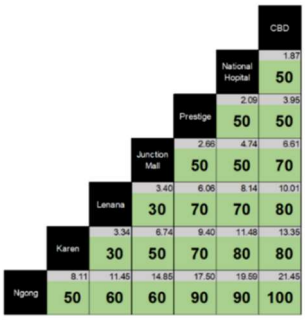


Source: NaMATA, JICA Expert Team

Figure 7.3.7 Image of Bus Shelter

(6) Fare Setting and Fare Collection Management

a) Distanced-based Fare
b) Fixed Fare (All day): Introduce a fare system that is easy for users to understand by eliminating fluctuations based on the day of the week, weather, and time of day, and by posting the fare chart in the bus.



Source: JICA Expert Team

Figure 7.3.8 Fare Chart for the Pilot Project

(7) Evaluation

a) Conduct of user satisfaction surveys
b) Conduct of audit and on-the-road guidance by supervisors (operator) and regulators
c) Data collection on revenues and operation cost during the pilot project

(3) Status of the Pilot Project

The pilot project was implemented from 3 April 2025, using 40 buses operating between the CBD and Ngong Terminal. Prior to the pilot project, buses at both terminals would depart only when full to capacity. During the pilot, stage managers were deployed to oversee bus arrivals and departures, facilitating evenly spaced dispatches and adherence to a fixed schedule.


CBD Terminal

Ngong Terminal


Inside the Bus

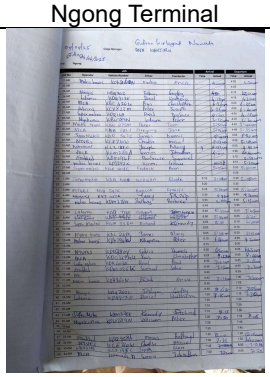

Operating Record by Stage Manager

Figure 7.3.9 Photos of Pilot Project Implementation

(4) Results of the Pilot Project

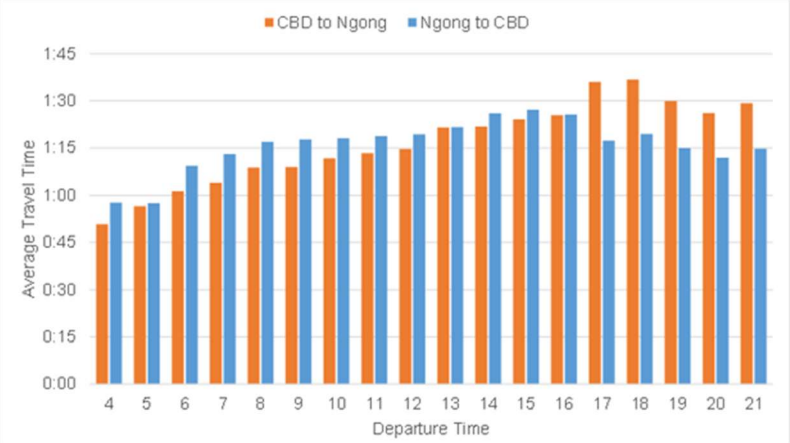
(1) Operators

The list of vehicles and crew members required by the 10 operators was submitted in advance, and they participated in the pilot project as planned.

(2) Operational Plan

Frequency was controlled and maintained by stage managers assigned at the two terminals, which enabled bus dispatch in 5-minute intervals during peak hours and 10-minute intervals during the daytime.

Arrival and departure times were recorded at the terminals which enabled the calculation of travel time. As a result, the time required for each time period was clear, and it was found that it was generally possible to operate within 75 minutes, which was scheduled in the plan, but this was not sufficient for the operation from the CBD to Ngong in the evening peak hours.



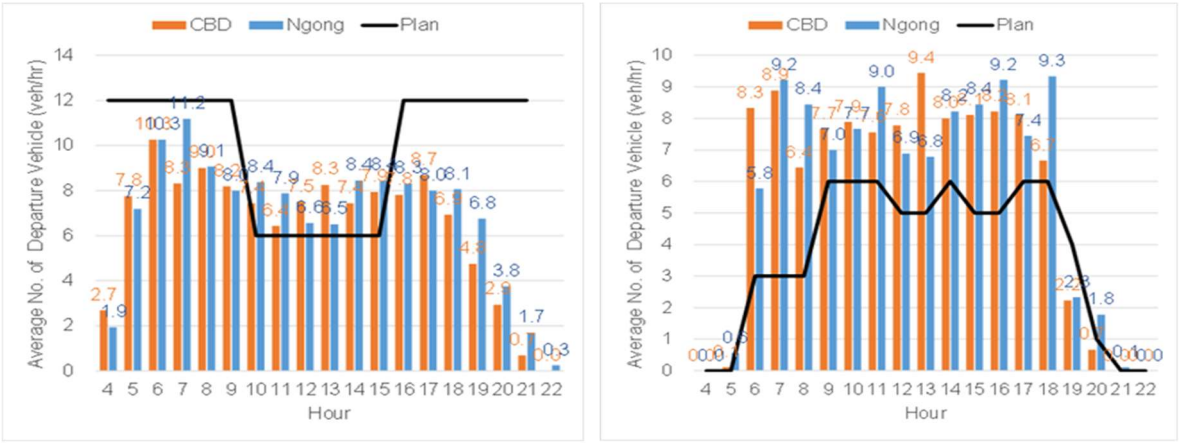
Source: JICA Expert Team

Figure 7.3.10 Travel Time by Departure Time

The high turnaround times established at both terminals resulted in improved working conditions for the crew.

(3) Operations Management

The timetable at the first bus stop was developed based on the operational plan. However, there were less operation especially in the early morning or after 8:00 p.m. This may have been due to the low number of users, pointing to the importance of recognizing the demand when formulating operational plans.



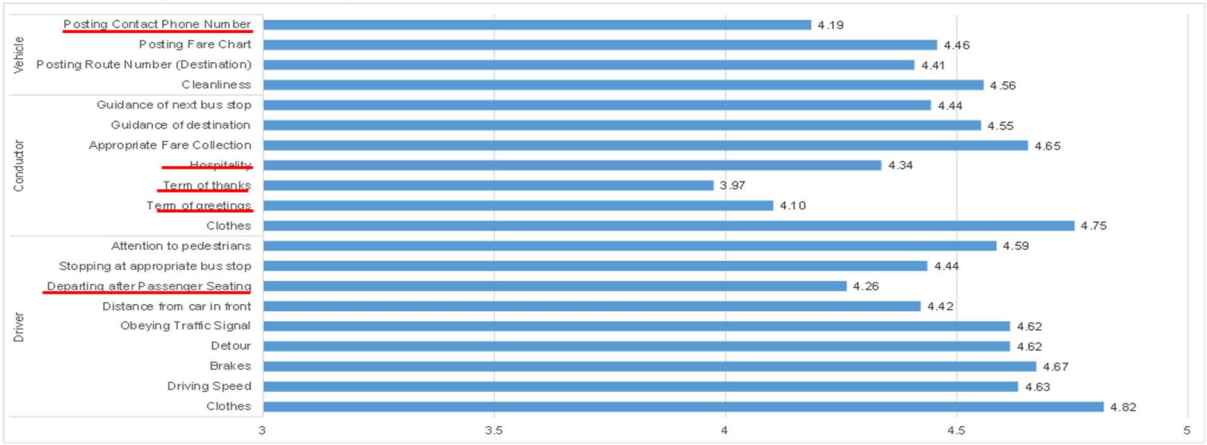
Weekday　　Weekend and Holiday

Source: JICA Expert Team

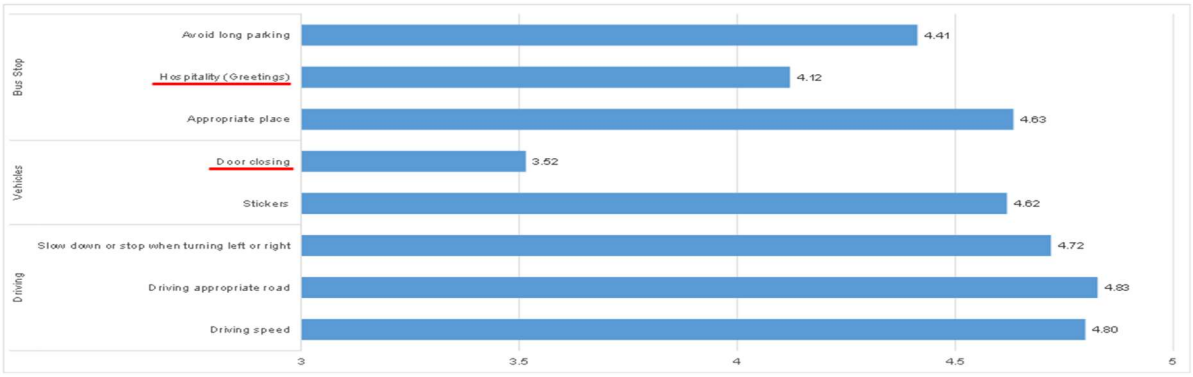
Figure 7.3.11 Number of Vehicles by Departure Time

Although the crew's daily work schedule based on the operation planal was established, it was not possible for the crew to strictly adhere to the work schedule, because they were used to operate following the first-in first-out principle, in which the bus that arrived first would depart first. Also, since the operations manager worked in 5- to 10-minute frequencies, the work schedule was rarely utilized.

Supervisors conducted on-board and on-the-street audits, which generated high marks. However, areas for improvement were identified such as passenger safety, including the use of courteous language toward passengers, confirming that passengers are seated before moving, and operating the vehicle with doors closed.



On-board Audit



On-street Supervision Audit

Figure 7.3.12 Results of On-board and On-street Supervision Audits

The operations managers were generally able to assign crews and conduct arrival and departure checks properly at the terminal. However, they could not conduct face-to-face roll calls when crews arrived at the terminals to start their job; the operations manager only checked whether or not the drivers have their driver's licenses and other documents.

(4) Vehicles

As for the vehicles, they were dispatched as planned. The challenge was that there were many vehicles which broke down due to poor maintenance. Also, the operation of reserved vehicles for use in such emergencies did not function well.

(5) Facility Improvement

Bus shelters were installed as planned.

Source: JICA Expert Team

Figure 7.3.13 Photo of the New Bus Shelter

(6) Fare Setting and Fare Collection Management

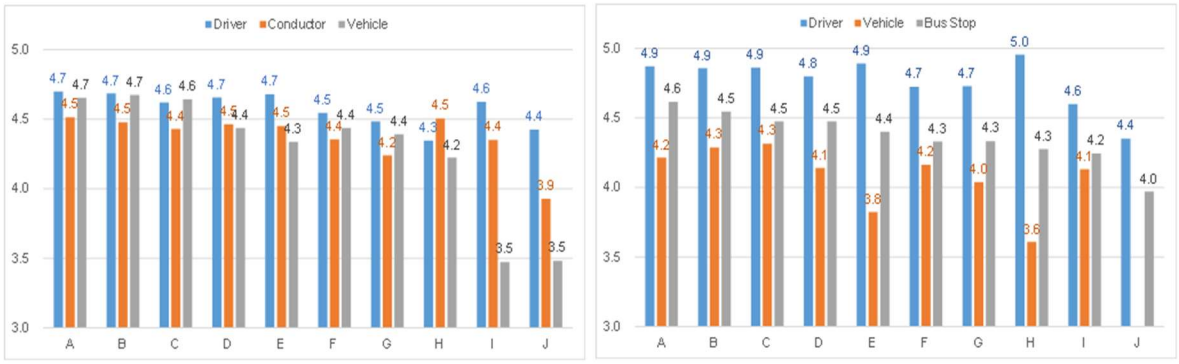
Fares were managed based on the fare chart established for the pilot project. Although the fixed, all-day fares were well recognized, there were some cases where the conductors collected fares at their own discretion due to passenger dissatisfaction, such as higher fares than the existing fares in some sections.

Fare management was conducted by both conductor and enumerator, who was able to determine daily fare revenues but was unable to determine the operating costs on a daily basis.

Since there were different services by operators, users tended to select the operator, resulting in differences in fare revenues among operators.

(7) Evaluation

Audits conducted by supervisors were generally highly positive. On the other hand, differences among operators were evident, corroborating the differences in fare revenues among them. Service levels among different operators are expected to be standardized in the future among different operators.

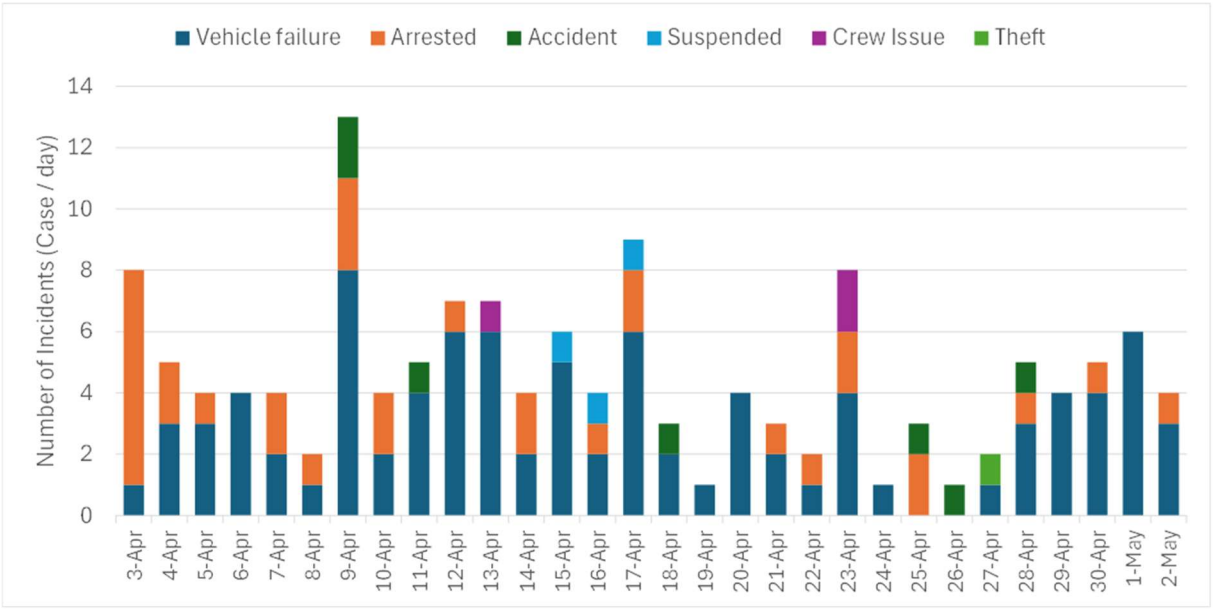


On-board Audit　　On-street Audit

Source: JICA Expert Team

Figure 7.3.14 Audit Results by Operator

During the pilot project, a total of 138 incidents—including accidents, violations, and vehicle breakdowns—were recorded. Of these, 66% were vehicle breakdowns and 24% involved police citations. This equates to an average of 4.6 incidents per day, clearly indicating that such operational disruptions had an impact on passengers.



Source: JICA Expert Team

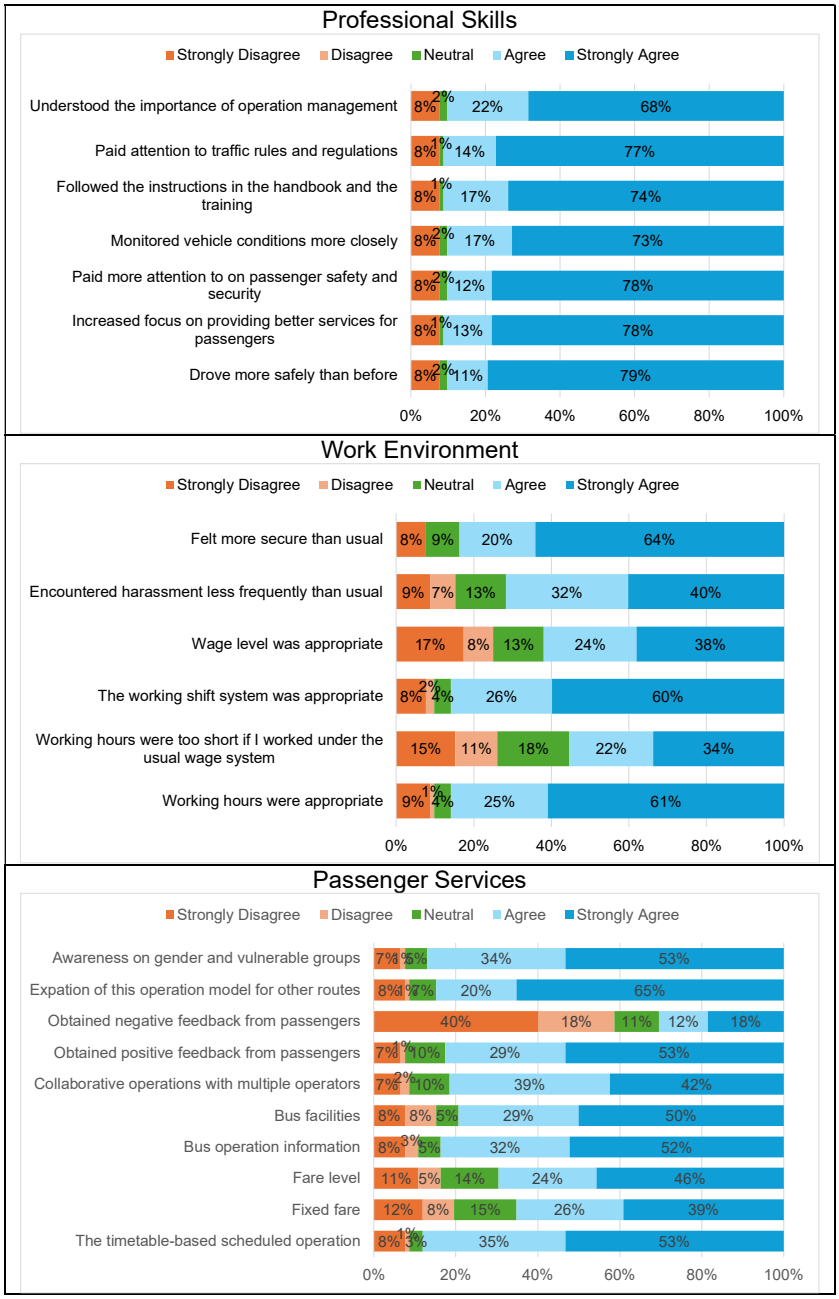
Figure 7.3.15 Incident Records

A crew interview survey conducted immediately after the pilot project revealed the following key findings:

a) Before the pilot project, there was little awareness about passenger service, but during the pilot, crew members became more service-conscious by applying what they learned in the training.
b) Prior to the pilot project, working hours extended from early morning until late at night. However, during the pilot, working hours and time spent on vehicle operation were defined, resulting in shorter working hours and contributing to safer operations.
c) To ensure smooth shift changes among crew members, it was necessary to report to work with sufficient lead time before the scheduled start of duty.

As noted above, initiatives such as crew training, the introduction of duty rosters, scheduled operations, and information dissemination were generally well received. However, the fare

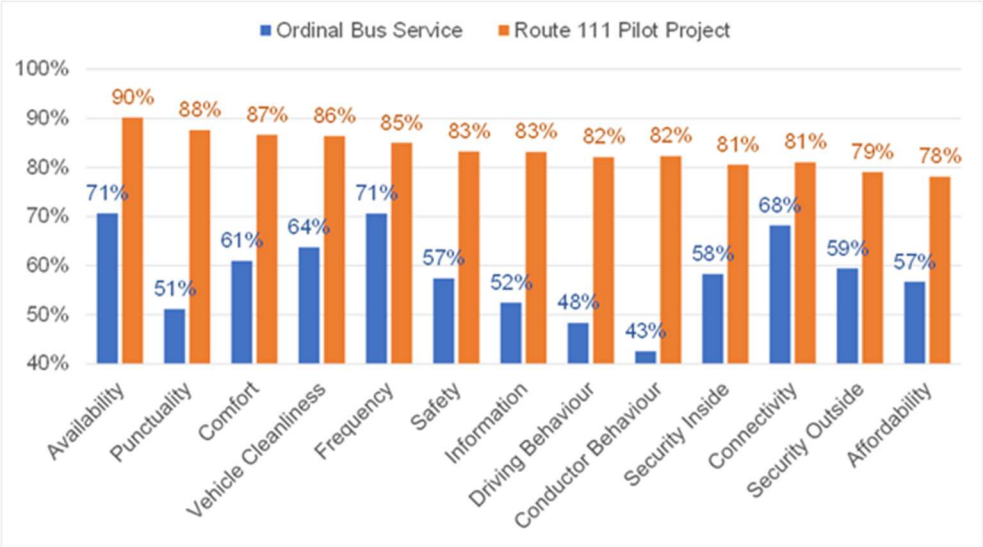
system received relatively lower ratings compared to other aspects, as a flat fare was applied throughout the day, which resulted in higher daytime fares than those of existing buses.



Source: JICA Expert Team

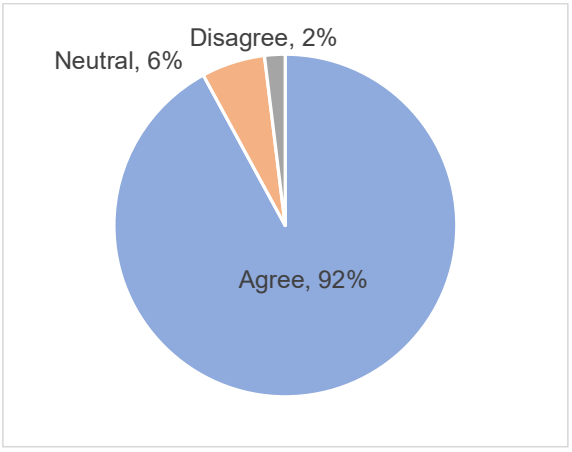
Figure 7.3.16 Questionnaire Results by Drivers (92 respondents)

A user satisfaction survey was conducted over one week from May 2 to May 8 at the Prestige bus stop and Ngong Terminal, collecting a total of 2,442 responses. Among them, 855 responses (35%) were from users of the pilot project buses, while 1,587 responses (65%) were from non-users. When comparing service levels with existing buses, the pilot project showed significantly higher performance (Figure 7.3.17). Furthermore, overall satisfaction with bus services among pilot project users was high, with 92% expressing satisfaction (Figure 7.3.18).



Source: JICA Expert Team

Figure 7.3.17 Passenger Satisfaction Rates by Service Attribute



Source: JICA Expert Team

Figure 7.3.18 Overall Satisfaction Rates with Bus Services among Pilot Bus Passengers

(8) Recommendations

Recommendations to improve bus services in the NMA as learned from the pilot project are shown below.

a) During the pilot project, 10 participating operators collaborated with administrative agencies including NaMATA, NTSA, county governments, and the police. Regular consultations were held between operators and government agencies, as well as among the operators themselves, leading to successful improvements in bus service. This form of consistent communication and coordination will be essential to improve bus services across the NMA in the future. Notably, the project enabled joint service provision by 10 operators who had previously been competitors. To sustain such collaborative efforts, continued support from government agencies will be necessary.

b) The passenger satisfaction survey showed improvements across all 14 measured indicators. Particularly strong results were seen in conductor behavior, driving behavior, and safety—areas that can be improved at no cost, i.e., through increased awareness among crew members. Regular training of drivers and conductors, based on the project's operational manual, can be implemented by each operator. However, to ensure broader adoption, it is recommended that NTSA, the police, and NaMATA—who served

as trainers during the pilot—take the lead in conducting these trainings.

c) Before the pilot, buses would only depart from the terminal when full, limiting access for passengers at intermediate stops. However, the pilot project demonstrated high demand from intermediate stops, as had been shown by prior traffic surveys. Although operators were initially skeptical of interval-based dispatching, this approach was validated through real-world operation. Continuing evenly spaced service is expected to improve accessibility for passengers boarding mid-route and enhance public trust in the transport system. Future operational plans should be informed by such survey data.

d) The project assumed a scheduled travel time of 75 minutes between terminals; however, actual travel time varied significantly depending on the time of day. Since these operation records provide important input for planning, continued data collection and utilization are recommended.

e) The many service interruptions due to vehicle breakdowns revealed a lack of reliability in the current transport service. To address this, the NTSA should conduct more rigorous vehicle inspections. At the same time, operators must shift from reactive maintenance to preventive maintenance by fostering awareness around regular vehicle servicing.

f) In addition to operator-led monitoring, administrative bodies should consider conducting regular on-board and on-street audits to ensure a consistent level of service across operators. However, these audits should serve as guidance rather than punishment and focus on service quality improvement. Introducing a system to recognize and reward crew members who follow the manual and deliver high-quality service could further encourage continuous improvement.

7.3.3 Activity 4-3: Prepare a Training Program for Operations Managers, Bus Crews, and Vehicle Inspectors

Activity 4-3 is summarized listed in Table 7.3.9.

Table 7.3.9 Summary of Activity 4-3

Activity	Achievement	Note
4-3 Preparation of Training Program for Operation Managers, Bus Crews, and Vehicle Inspectors		
4-3-1 To study current crew training system by operators.	Completed	➢ According to interviews with some operators, they provided training for bus crews at the time of hiring and on a regular basis. However, they did not utilize specific training programs or printed materials. ➢ While bus crews are required to undergo training by the NTSA to obtain a license, this requirement largely remains confined to regulation.
4-3-2 To prepare training programs for crews.	Completed	➢ The program was finalized in coordination with NaMATA, NTSA, police, NGEC, and other relevant agencies. ➢ This activity was carried out as a part of Activity 4-2.
4-3-3 To hold workshops about the training program with related organizations including operators.	Completed	➢ Training was provided to the members engaged in the pilot project (supervisor / stage manager / crew, etc.) prior to the start of the project.
4-3-4 To finalize the training programs.	Completed	➢ 500 copies were prepared in March 2025.

Source: JICA Expert Team

The content of the educational training was developed under the joint supervision of various related agencies, including NaMATA, NTSA, the National Police Service, and NGEC. Training was provided to those involved in the pilot project. The content of the training received high evaluations.

Regarding subjective assessments by crew members, as shown in Figure 7.3.16, many reported improvements in their professional skills. In terms of objective assessments from bus users, Figure 7.3.17 shows a significant difference between the buses participating in the pilot project and other buses in aspects such as driving behavior and conductor behavior, indicating that the training had a positive impact.

The main program contents for the crew are shown below.

Table 7.3.10 Contents of Training for Crews

Drivers' Guide	
1. Professionalism and Customer Service	• Carry Drivers' License, PSV badge, National ID • Not be under the influence of alcohol or drugs • Proper uniform and appearance
2. Driving Safely	• Safety first • Safe speed • No driving on sidewalks • Follow traffic signals
3. Pre-shift Condition	• Check bus status before operation • Stick to route during operation even during traffic jam • Using horn only when necessary
Conductors' Guide	
1. Professionalism and Customer Service	• Conduct and communication • Sexual harassment and discrimination
2. Communicating with Passengers	• Greetings • Welcoming passengers • Helping passengers get off
3. Assisting Vulnerable Passengers	• Sign Languages
4. Aiming Comfortable/Safety Operation	• Cleanliness and lost property • Passenger interaction • Eating and smoking • Door safety
Safety and Responsibility Guidelines	
1. Responsibilities of Crews	• Prioritize health and safety • Follow safety regulations
2. Additional Obligations	• Stick to safe work practices • Avoid dangerous behavior • Be fit for duty • Report issues immediately

Source: JICA Expert Team

7.3.4 Activity 4-4: Implement the Training based on the Program

Activity 4-4 is summarized in **Table 7.3.11**.

Table 7.3.11 Summary of Activity 4-4

Activity	Achievement	Note
4-4 Implementation of the Training based on the Program (Activity 4-4)		
4-4-1 To train trainers for the training programs.	Completed	Trainer education sessions were held over two days in February, with participation from NaMATA, NTSA, and the Traffic Police. These sessions included discussions on training methods and mock training exercises.
4-4-2 To provide training for crews by the trainers.	Completed	Training for bus crew members, conducted by the trainers, was carried out over two separate days to avoid disrupting regular bus operations.
4-4-3 To implement the pilot project using the prepared manuals	Completed	Each crew member received training and was provided with a copy of the operational manual, after which they delivered services and operations under the pilot project framework.
4-4-4 To evaluate result of the pilot project	Completed	The pilot project was evaluated in Activity 4-3.

Source: JICA Expert Team

Training for trainers was conducted on 13 March 2025, and training for crew members was conducted on 29-30 March 2025 by NTSA and NaMATA staff prior to the implementation of the pilot project.


Trainers' Training


Crew Training

Source: JICA Expert Team

Figure 7.3.19 Photos of Training

The contents of the training program are shown below.

Table 7.3.12 Training Program

Program	Day	Taken by	No. of Participants	Content
Training for Trainers (NaMATA, NTSA, Traffic Police)	1	JET	39	・ Introduction of the training program ・ Verification of training content (by relevant agencies) ・ Implementation of mock training
Training for Supervisors and Stage Managers	1	JET	20	・ Tasks to be performed by drivers and conductors ・ Methods of operational management ・ How to fill out the documents required for operational management
Training for Crew Members (Drivers and Conductors)	2	Trainer	129	・ Safe driving education ・ Customer service and hospitality ・ Responsibilities of crew members

Source: JICA Expert Team

Chapter 8: Output 5 (Establishment of a Sustainable Implementation Structure to Mainstream Gender / Vulnerable People Concerns in Public Transport)

8.1 Outline

(1) Benchmarks in the PDM

For Output 5, the four objectively verifiable indicators set in the PDM are as follows:

5-1 A platform of gender/vulnerable group sensitivity is formulated.
5-2 Pilot projects to promote more inclusive public bus services are implemented.
5-3 Capacity-building workshops/trainings on gender/vulnerable group sensitivity in transport services are implemented.
5-4 A roadmap for a sustainable gender mainstreaming in public transport is formulated.

(2) Summary

By the end of December 2024, the WG for gender/vulnerable groups was established, and discussions with related organizations were held for purposes of understanding the activities. In addition, some interviews with Japanese bus operators and others were held to extract global best practices of gender-related efforts and learn some of the lessons from the Japanese bus industry experience. A survey to understand the current situation on gender /vulnerability concerns among passengers was conducted. Based on the results, issues and possible actions for improving public bus service with a high level of inclusiveness were discussed, and a draft roadmap for a sustainable gender mainstreaming in public transport was prepared.

WG5 conducted a pilot project entitled “The Campaign on 16 Days of Activism Against Gender-Based Violence” (GBV) in November–December 2023 to raise awareness on gender considerations. In coordination with related organizations, a series of discussions were conducted, a kick-off conference was held, and IEC (information, education and communication) materials were prepared and distributed. Regarding the pilot project along Ngong Road, ideas for enhancing inclusiveness were discussed among WG5 members and shared with stakeholders. Some WG5 members participated in discussions with NaMATA and operators, providing comments on the training manuals intended for bus/matatu crew on gender/vulnerable group consideration.

Participation in the above campaign against GBV could be regarded as having enhanced the capacity of WG5 members. In addition, “case of hospitality for vulnerable passengers by bus operators (Japan)” was compiled and shared with WG5 members in May 2024. An online workshop was held on 20 Jun 2024, during which the representative director of the Women Bus Drivers Association of Japan served as a lecturer and discussed the situation of women in the bus industry in Japan.

8.2 Meeting List

Meetings for Output 5 activities are shown in **Table 8.2.1**.

Table 8.2.1 Meeting List for Output 5

Date	Organization	Major Topic
Member or Institutions in the WG for Gender/Vulnerable Groups		
6 Feb 2023	NaMATA	• Purpose of the project and outline of activities • WG membership • Details of upcoming activities
21 Feb 2023	NGEC	• Purpose of the WG and outline of its activities • WG's approach to activities and ways to collaborate
23 Feb 2023	WG5 Kick-off meeting	• Purpose of the WG and outline of its activities • WG's approach to activities and ways to collaborate. • Details of the upcoming activities
8 Mar 2023	NaMATA	• Study contents (target groups and the number, survey approach, surveyors, schedule, etc.)
16/ 22 Mar 2023	NaMATA	• Progress of activities (survey questionnaire preparation, coordination with relevant institutions, etc.)
19 Apr 2023	WG5 meeting (online)	• Progress of activities (preparation for the current situation survey, roles of relevant institutions, schedule of upcoming activities, etc.)
25 Jul 2023	WG5 meeting (online)	• Progress of activities (preparation for the current situation survey, schedule of upcoming activities, etc.)
25 Sep 2023	NaMATA	• Progress of the current situation survey, schedule of upcoming activities, etc.
12 Oct 2023	WG5 meeting (hybrid)	• Ideas about the roadmap. • Campaign against GBV, its contents and slogans for posters. • Progress of the current situation survey and its tentative results.
15 Feb 2024	WG5 meeting (only NaMAT members)	• Results of the current situation survey (government institutions, bus/matatus operators (managers, drivers, and conductors), and passengers). • Challenges and possible actions based on the results of the survey.
24 Apr 2024	NaMATA	• Schedule and agenda of the next WG5 meeting. • Contents to be presented by WG5 at the JCC.
2 May 2024	NaMATA	• Contents to be presented by WG5 at the JCC.
3 May 2024	NaMATA	• Contents to be presented by WG5 at the JCC and its explanation to DG.
6 May 2024	WG5 meeting (hybrid)	• Results of the current situation survey and identified challenges /issues and possible actions/solutions. • Implementation of the campaign against GBV and results of survey to confirm its effects. • Contents of the pilot project along Ngong Road and WG5's activity plan on the pilot project. • "Case of hospitality for vulnerable passengers by bus operators (Japan)" as a reference for preparing a training manual for bus/matatu crew. • Upcoming schedule of WG5 activities.
20 Jun 2024	WG5 meeting (online) as capacity building workshop	• Lecture on "Success of women in bus industry in Japan" by Representative Director of Women Bus Drivers Association in Japan. • Q & A, and discussion.
15 Oct 2024	NaMATA	• Preparing a roadmap for sustainable gender/vulnerable sensitive system.
Related Institutions		
8 Sep 2022	Tokyu Bus Corporation (In Japan)	• Tokyu Bus's efforts, challenges, and lessons regarding the promotion of female drivers
8 Sep 2022	Women Bus Driver Association (In Japan)	• Initiatives, issues, lessons, etc. related to the promotion of female drivers by the association and bus operating companies
17 Feb 2023	Flone Initiative	• Purpose of the project and outline of activities

Date	Organization	Major Topic
		• Flone Initiative's efforts, challenges, and lessons regarding its support for the promotion of female drivers • Possible collaboration
21 Jul 2023	JICA Expert dispatched to NGEC (Ms. Kubota)	• Contents of WG5's activities and the current situation survey. • Future cooperation.
26 Jul 2023	Flone Initiative	• Contents of a subcontracted survey (contents of contract, outline of the survey, ToR, etc.).
25 Sep & 2 Oct 2023	JICA Expert (Ms. Kubota)	• Collaboration with WG5 for the campaign against GBV (25 Nov–10 Dec 2023).
2 Oct 2023	Flone Initiative (online)	• Survey schedule, questionnaires, selection of target bus/matatus operators, cooperation extended by NaMATA, etc.
9, 11, 16, 23, 25, 30 Oct & 1, 8, 15, 22 Nov 2023	Meetings of committee for the campaign against GBV (NGEC, UNFPA, JICA experts, NaMATA, BAK)	• Contents of the campaign against GBV (events, slogans, designs for posters, etc.) and its preparation.
13 Oct 2023	Bus operator (Citi Hopper)	• Measures taken considering gender/vulnerable persons. • Request for cooperation for the campaign against GBV.
16 Nov 2023	Flone Initiative (online)	• Progress of the survey and method of compiling, aggregating, and analyzing collected data.
27 Nov 2023	Conference on the campaign against GBV	• Campaign against GBV and harassment in public transport sector, handover of IEC materials (posters, reflector jackets, and T-shirts) to concerned parties for awareness raising, etc.
27 Nov 2023	Bus/matatu operators (KBS, Citi Hoppa, Metro Trans, Super Metro, City Shuttle, Embassava, Forward Travelers)	• Objective of the campaign against GBV. • Request for cooperation for distributing IEC materials (posters, reflector jackets, and T-shirts) and interview survey after the campaign period.
6 Feb 2024	Flone Initiative (online)	• Confirming data sheet and pointing out corrections. • Aggregation & analysis of the data, and finalization of the report.
24 Apr 2024	NaMATA	• Schedule and discussion points of WG5 meetings • WG5 presentation to the JCC
22 May 2024	WG5	• Results of survey on current situation, identified issues, and corresponding countermeasures • Implementation status and effectiveness survey results of the GBV campaign • Pilot project details on Ngong Road and WG5 activity plans • Japanese customer service guidelines to be considered in developing a training manual for crew members • WG5 activity plans
20 Jun 2024	WG5	• Capacity development workshop • Lecture by the executive director of the Women Bus Drivers Association: "The Role of Women in Japan's Bus Industry" • Q&A and discussions
15 Oct 2024	NaMATA	• Development of a roadmap for gender mainstreaming in public transport
12 Mar 2025	WG5	• Roadmap for gender mainstreaming in public transport
21 Mar 2025	NaMATA	• Confirmation of the schedule toward finalizing the roadmap
18 Apr 2025	NaMATA	• Roadmap and upcoming activities
20 May 2025	NaMATA	• Review of materials for the roadmap discussion meeting held on May 22
22 May 2025	WG5	• Review of the mainstreaming roadmap by WG5 members

Source: JICA Expert Team

8.3 Description of Output 5 Activities

8.3.1 Activity 5-1: Formulate a Platform of Gender / Vulnerable Group Sensitivity

Activity 5-1 is summarized in **Table 8.3.1**.

Table 8.3.1 Summary of Activity 5-1

Activity Items	Achievement	Remarks
5-1 Formulate a platform of gender/vulnerable group sensitivity		
5-1-1 To organize members of the WG.	Completed	➢ Through discussions with related institutions on the purpose of establishing WG5 and the outline of its activities, four institutions agreed to participate. WG5 launched its activities with a total of nine members from five institutions, including NaMATA, and held a kick-off meeting on February 23, 2023.
5-1-2 To obtain and study regulations /guidelines related to gender/vulnerable groups in the transport sector.	Completed	➢ To develop a basis for the WG's action plan and roadmap, the WG collected and compiled regulations /guidelines with advice also obtained from relevant institutions.
5-1-3 To study the current situation of gender/vulnerable groups.	Completed	➢ The study contents, including objectives, targets, and methods, were discussed and agreed at WG5. Survey on staff of government institutions was implemented by JET and NaMATA. Interviews with bus operators and passengers and compilation of survey results were carried out by a subcontractor (Flone Initiative). A summary of the survey results is shown in Table 8.3.8 below.
5-1-4 To analyze and identify priority issues.	Completed	➢ Based on the results of the current situation survey above, discussion with WG5 NaMATA members was held, and priority issues were identified as shown in Table 8.3.9.
5-1-5 To develop short, medium, and long-term action plan for the WG.	Completed	➢ The short-, medium-, and long-term activity plans for the WG were considered under the "Institution" package of the roadmap.
5-1-6 To hold regular meetings to share the status and progress	Completed	➢ Regular WG meetings (with all members or only NaMATA members) were held to confirm progress, review survey results, and discuss the roadmap.
5-1-7 To participate and observe Activity 1-4 to integrate gender/vulnerable groups concerns	Completed	➢ A WG5 member served as an observer in other WG meetings to follow up on their ongoing activities. ➢ During the pilot projects, requests were made to include the gender perspective.

Source: JICA Expert Team

(1) To Organize the WG5 and Hold Regular Meetings

Based on the results of the detailed planning survey, it was found that both the regulators and bus operators recognized and discussed the issue of gender and vulnerable groups but they are yet to take effective measures because of the following reasons:

- There is currently no clear strategy nor plan in place to address the needs of gender and vulnerable groups across multiple aspects, including infrastructure, facilities, management, and service delivery.
- Resource constraints, particularly in terms of finances, time, and human capacity, are evident especially on the regulator’s side. Although there is a dedicated office in charge of gender issues, their role is not fully functional due to these limitations.
- Low priority is accorded to concerns on gender and vulnerable groups by bus operators, since the focus is on profit.

In support of the perspective of "contributing to an integrated society," which is indicated in Kenya's national development policy, it is important to provide a bus service that is accessible to all citizens,

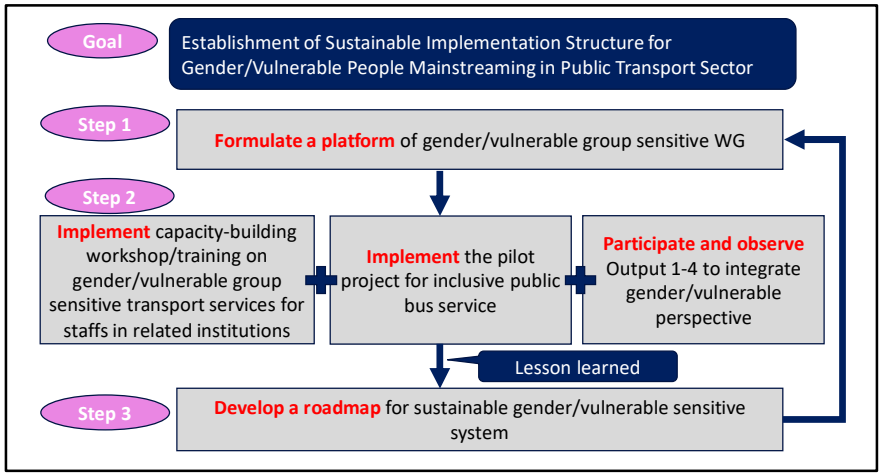
with full consideration for women, as well as the elderly, PWDs, and other vulnerable groups. This approach for Output 5 was agreed upon based on discussions with related organizations.

Table 8.3.2 Purpose and Basic Approach for Output 5

	Remarks
Category	Improve public transport service to make it more inclusive and user-friendly through enhancing the following four categories: 1) Accessibility and availability (bus route, sidewalk, ease of boarding, etc.) 2) Affordability (fare etc.) 3) Acceptability -safety and security- (safety on the bus, bus stop and other related facilities, and bus service, etc.) 4) Sustainability (employment, working conditions for transport staff, etc.)
Purpose	A sustainable implementation structure for gender/ vulnerable groups mainstreaming in the public transport sector, mainly bus services, will be established.
Basic approach	1) Implement activities aimed at providing bus services that are accessible to all, with full consideration given to women, the elderly, PWDs, and other vulnerable groups. 2) Establish a system to ensure that all activities (daily operations) in bus services are sensitive to the concerns of gender/ vulnerable groups. 3) Ensure that gender/vulnerable groups are considered from planning to monitoring.

Source: JICA Expert Team

To achieve the purpose shown in Table 8.3.2, the Gender/Vulnerable Group Sensitive Working Group (WG on Gender/Vulnerable Groups) in NaMATA was established to initiate efforts on gender/vulnerable group issues based on a clear strategy and plans and to supervise and advise each department on such issues. **Figure 8.3.1** shows the flow of activities in Output 5.



Source: JICA Expert Team

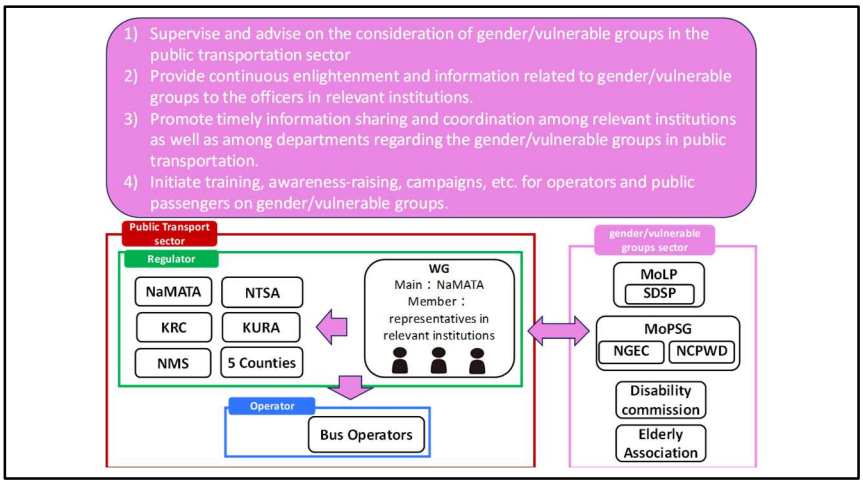
Figure 8.3.1 Activity Flow for WG on Gender/Vulnerable Group

In the initial phase, WG5 conducted a study of the current situation to prioritize actions to address and to develop an action plan. Based on the action plan, regular workshops on gender/vulnerable groups consideration were held with the staff from relevant organizations, and a pilot project was conducted for more inclusive public bus services. In addition, the WG for Gender/Vulnerable groups has participated in and advised the other WGs (Outputs 1~4) in their meetings to ensure timely integration of gender/vulnerable groups' perspectives into their activities.

At the end of this Project, WG5 reviewed their activities, verifying their effectiveness and sustainability. WG5 then developed a roadmap for gender/ vulnerable groups mainstreaming as an updated version of the action plan developed in Activity 5-1.

The role and implementation structure of the WG for Gender/Vulnerable groups is shown in **Figure 8.3.2**. The WG is composed of gender officers and representatives of relevant organizations and aimed at strengthening information sharing and collaboration not only within NaMATA but also among related organizations in the public transport sector. In addition, the WG also aimed to

enhance cooperation with organizations related to gender/ vulnerable groups, such as the National Gender Equality Commission (NGEC) and the National Council for Persons with Disabilities (NCPWD)— both are WG5 members—and to conduct activities in a more cross-sectoral manner.



Source: JICA Expert Team

Figure 8.3.2 Implementation Structure of the WG on Gender/Vulnerable Groups

Discussions with related organizations were held to explain the purpose of WG5 and its activities. Four organizations agreed to participate in the WG, including the NTSA and NCG. The WG for gender/vulnerable groups commenced its activities with a total of nine members from five agencies as shown in **Table 8.3.3**. The kick-off meeting of the WG5 was held on 23 February 2023, with attendance of members shown on **Table 8.3.3**. A summary of the kick-off meeting is shown in **Table 8.3.3**. Following the kick-off meeting, several WG meetings were held as listed in **Table 8.2.1**.

Table 8.3.3 Summary of the Kick-off Meeting of WG5

Item	Outline	
Purpose	➢ Agree on the purpose, approach, and activities of this WG ➢ Agree on the upcoming activities (mainly the study of the current situation of gender/vulnerable groups)	
Time and Date	23 February 2023. 9:30–11:00 (Kenyan time, hybrid)	
Participants	NaMATA	Ms. Abigail Muigai (Facilitator/ Presenter) Ms. Tracy Mugo (Presenter)
	NTSA	Mr. Yahya Ahamed Mr. Daniel Parsaloi
	NCC	Ms. Anzal Hillowle Ms. Maureen Gachambi
	NGEC	Mr. George Kimani Mr. Melvin Muthongo
	NCPWD	Mr. Leonard Dawafula-
	JICA Expert Team	Ms. Reimi Kobayashi (Presenter) Mr. Griffins Odhiambo (Local staff) Ms. Rezin Cheptoo (Local staff)
Agenda	➢ Self-introduction of WG members ➢ Explanation and discussion on the purpose, approach, and overview of activities of the WG ➢ Advice and comments on the approach of the WG's activities and the way of collaboration by each relevant institution ➢ Explanation and discussion on the approach and methodology of the study of the current situation of gender/vulnerable groups ➢ Explanation and discussion on how to promote mainstreaming of gender/vulnerable groups (how to effectively participate and observe Output 1-4 to integrate gender/vulnerable perspective)	

Source: JICA Expert Team

	
Group leader from NaMATA explaining the activities (Ms. Abigail, right)	WG members discussing the contents of the study

Source: JICA Expert Team

Figure 8.3.3 Photos of the WG5 Kick-off Meeting

The first WG5 regular meeting was held on 19 April 2023, as summarized in **Table 8.3.9**.

Table 8.3.4 Summary of the 1st WG5 Meeting

	Outline	
Purpose	Activity status and its discussion	
Date and Time	19 Apr 2023. 9:30–10:10 (Kenyan time, online)	
Participants	NaMATA	Ms. Abigail Muigai Ms. Tracy Mugo
	NCPWD	Mr. Leonard Dawafula-
	Kiambu County	Ms. Sylvia Macharia
	JICA Expert Team	Ms. Reimi Kobayashi Dr. Yukitsugu Komazawa Mr. Griffins Odhiambo
Agenda	➢ WG activity status ➢ Discussion on current situation survey implementation: NaMATA to send the questionnaire sheet to the government officers. JICA Expert Team to subcontract the surveys to other interviewees. WG5 agreed that NTSA would identify the target bus operators, and NCPWD to identify PWDs to interview. ➢ Upcoming activities and schedule	

Source: JICA Expert Team

The second WG5 regular meeting was held online on 25 July 2023, as summarized in **Table 8.3.5**. The person in charge in NaMATA was actively engaged in arranging the meeting, including the preparation of meeting materials and facilitation.

Table 8.3.5 Summary of the 2nd WG5 Meeting

	Outline	
Purpose	WG activity status and its discussion	
Date and Time	25 Jul 2023. 10:30–11:00 (Kenyan time, online)	
Participants	NaMATA	Ms. Abigail Muigai
	NGEC	Mr. George Kimani
	NTSA	Mr. Yahya Ahamed Mr. Daniel Parsaloi
	Kiambu County	Ms. Sylvia Macharia
	Nairobi County	Mr. Moses Kuiyaki
	JICA Expert Team	Ms. Reimi Kobayashi Mr. Griffins Odhiambo Ms. Bernice Njoroge Ms. Karen Kamau
↓		

Agenda	➢ WG activity status ➢ Discussion on current situation survey implementation: JICA Expert Team arranged to subcontract the surveys to other interviewees. NTSA to identify the target bus operators, and NCPWD to identify PWDs to interview. ➢ Upcoming schedule

Source: JICA Expert Team

The third WG5 Regular Meeting was held on 12 October 2023, as summarized in **Table 8.3.6**.

Table 8.3.6 Summary of the 3rd WG5 Meeting

	Outline	
Purpose	➢ WG activity status and its discussion ➢ Outline of roadmap and its formulation ➢ GBV campaign information and its discussion ➢ Results of current situation survey (government officers)	
Date and Time	12 Oct 2023. 10:00–11:30 (Kenyan time, hybrid)	
Participants	NaMATA	Ms. Abigail Muigai Ms. Tracy Mugo Mr. Emmanuel Bikwa Wanyama
	NTSA	Mr. Yahya Ahamed
	Nairobi County	Mr. David Thuo- PT Mr. Atelu Paul- PT
	Machakos County	Eng. Samuel Kinyanzwii
	Kiambu County	Ms. Sylvia Macharia
	FPTS	Mr. Mukabana
	JICA Expert Team	Ms. Junko Saikawa Mr. Griffins Odhiambo Ms. Bernice Njoroge
Agenda	➢ WG activity status: current situation survey implementation status ➢ Outline of roadmap and its formulation ➢ GBV campaign and its discussion: coordination with bus operations, rally before the conference, campaign impact evaluation survey ➢ Current situation survey (government officers): counties yet to submit questionnaire answers, the kick-off meeting with the subcontractor (surveyor) ➢ Upcoming activities and schedule: campaign arrangement (number of materials, distribution methods, quotation, poster messages and slogan)	

Source: JICA Expert Team

The fourth WG5 regular meeting was held on 6 May 2024, as summarized in **Table 8.3.7**.

Table 8.3.7 Summary of the 4th WG5 Meeting

	Outline	
Purpose	➢ WG activity status and its discussion ➢ Route 111 Pilot Project on Ngong Road and WG5 engagement plan	
Date and Time	6 May 2024. 10:00–11:00 (Kenyan time, hybrid)	
Participants	NaMATA	Ms. Abigail Muigai Ms. Tracy Mugo
	NTSA	Mr. Daniel Parsaloi
	NGEC	Mr. George Kimani Mr. Melvin Muthonga
	Nairobi County	Mr. David Thuo- PT Mr. Atelu Paul- PT
	Machakos County	Ms. Jackline Mauta
	JICA Expert Team	Ms. Junko Saikawa Mr. Griffins Odhiambo Ms. Bernice Njoroge

Agenda	➢ Results of current situation survey, and identified issues and countermeasures ➢ GBV campaign implementation and impact evaluation survey result ➢ Route 111 Pilot Project on Ngong Road and WG5 engagement plan ➢ Service guideline in Japan for crew training manual development ➢ Upcoming activities and schedule

Source: JICA Expert Team

After the fourth regular meeting of WG5, JET and the person in charge in NaMATA continued their discussion on the roadmap with other WG5 members providing feedback. On 22 May 2025, with the attendance of a majority, the revised roadmap was discussed with the explanation on the Route 111 Pilot Project, as summarized in **Table 8.3.8**.

Table 8.3.8 Summary of the 5th WG5 Meeting

	Outline	
Purpose	Discussion on the revised roadmap	
Date and Time	22 May 2025. 09:00~12:00 (Keyan time, Tamarind Hotel, hybrid)	
Participants	NTSA	Obisa Njoroge
	NGEC	Melvin Muthoga
		George Kimani
	Machakos County	Charles M. Mutuku
	KeNHA	Petronila Nyanchoka Ombasa
	Kajiado County	Jeremiah Nkabaai
	SDoT	Abdiraliiman M. Hassan
	SDIHUD	Ann Mugo
	Kiambu County	Sylvia Macharia
	Nairobi County	David Thuo
		Atelu Paul
	KURA	Michael Njonge
	NCPWD	Jane Wamugu
		Joan Koima
		Winfred Mbugua
	NaMATA	Abigail Muigai
		R. R. Mungu
		Gideon Kiplagat
		Ivy Kasale
		Alex Manyasi
		George Kimani
		Kevin Karenge
		Tracy Mugo
		Gloria Mutuku
	JICA Kenya	Caroline Nzioka
		Maona Yui
	JICA Expert Team	Ken Nishino
		Yukitsugu Komazawa
		Junko Saikawa
		Samuel Kamau
		Karen Kamau
		Bernice Njoroge
		Akbar Ahmed
Agenda	➢ Results of Route 111 Pilot Project ➢ Content of the revised Roadmap - Definition of the terms in Roadmap - Summary of current state and issues - Goals and targets in each policy domain (institution, service, and work and labor)	

	- Future of WG5 - Evaluation of Route 111 Pilot Project in terms of gender and vulnerable group mainstreaming - Lessons from the JICA Capacity Building Project ➢ Upcoming activities and schedule

Source: JICA Expert Team

(2) To Collect and Study Regulations / Guidelines related to Gender/Vulnerable Groups in the Transport Sector

For the WG5 to develop the action plan and roadmap, relevant regulations and guidelines were collected from relevant organizations, as shown in **Table 8.3.9**.

Table 8.3.9 Regulations and Guidelines Related to Gender/Vulnerable Groups in the Transport Sector

Area	Regulation /Guideline	
National Level		
General	Constitution of Kenya (2010)	
	Kenya Vision 2030	Medium Term Plan (MTP) - First MTP (2008-2012), Second MTP (2013-2017), and Third MTP (2018-2022)
Public transport	Integrated National Transport Policy 2009	
	National Transport and Safety Authority Act (2012) Eg. The National Transport and Safety Authority (Operation of Public Service Vehicles) Regulations (2014)	Traffic Act (Chapter 403) (1953) Eg. The Traffic (Amendment) Rules (2003)
Gender/vulnerable groups	National Gender and Equality Act (2011)	Persons with Disabilities Act (2003) - Eg. Persons with Disabilities (Access to Employment, Services and Facilities) Regulations (2009)
	Sexual Offences Act (2006)	Diversity Policy for the Public Service (2016)
	National Policy on Gender and Development (2000) - Eg. Sessional Paper No. 2 of 2006 on Gender Equality and Development	National Policy for Prevention and Response to Gender-based Violence (2014)
	Diversity Policy for the Public Service (2016)	
Employment	Employment Act (Chapter 226) (2007)	
Metropolitan・County Level		
Public transport	Nairobi Metropolitan Area Transport Authority Order (2017)	Nairobi City Transport Act (2020)
	Nairobi City County Government Non-Motorized Policy (2012)	Local Physical and Land Use Development Plan for Nairobi Railway City (2020-2035) (2020)
	Development of Commuter Rail Master Plan for Nairobi Metropolitan Region (2019)	Machakos County Public Transport Sexual Harassment & GBV Policy (2022)

Source: JICA Expert Team

(3) To Study the Current Situation of Gender/Vulnerable Groups

A survey on the current situation of gender/vulnerable groups was conducted to identify issues for effective and concrete mainstreaming of gender concerns and those of other vulnerable passengers. In the kick-off meeting that was held on 23 February 2023, the objectives, targets, and methods of the survey were discussed and agreed upon. Based on these agreements, NaMATA and JET compiled the answers to the questionnaire distributed to the staff of 12 relevant government institutions. On the other hand, interviews with bus/matatu operators (including drivers and conductors) and passengers were conducted by a subcontractor (Flone Initiative). Data sheets and a draft report were submitted by the subcontractor, and they were checked and revised by NaMATA and JET. The summary of the survey results is shown in **Table 8.3.10**.

Table 8.3.10 Results of Survey on the Current Situation of Gender/Vulnerable Groups in Public Transport

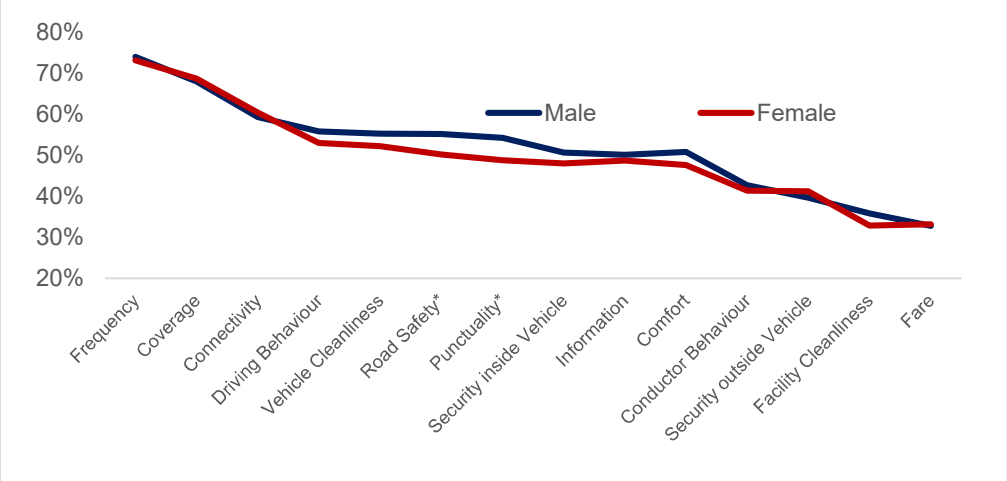
Government Organizations		
1)	Targets	- Questionnaires were collected from managers (37 respondents) and staffers (102 respondents) of 12 organizations (NaMATA, NTSA, KeNHA, KURA, KeRRA, SDR, SDT, Nairobi C, Kiambu C, Kajiado C, Machakos C, Murang'a C).
2)	Opinions about daily operation for inclusive bus services	- Questions were asked whether the current public transport service is accessible to all and giving full consideration to vulnerable passengers in terms of (i) access to the bus stop, (ii) bus design, (iii) bus fare system, (iv) safety of bus stops & related facilities, (v) safety on buses, (vi) safety of bus operations, (vii) clear announcements, (viii) attitude, assistance & service of crew. - Majority (more than 80%) of respondents (both managers and staff) disagreed or strongly disagreed with these issues.
3)	Working condition	- According to answers from management level, out of total 12 institutions, while 11 (a) have family-friendly policy, 10 (b) ensure equal opportunities, only 4 (c) provide regular training on gender sensitization/universal accessibility and 6 (d) have grievance mechanisms that vulnerable staff can easily access. - Staff have similar recognition on (a) having family-friendly policy and (b) ensuring equal opportunities, 8 institutions (d) have consultation/complaint system that anyone can use.
4)	Harassment	- Majority of respondents answered they know what harassment is (89.2% of managers and 78.4% of staff). - Around 70% of all staff respondents (72 out of 102) have never experienced harassment.
Passengers		
1)	Targets	- **Adult passengers** (above 18 years old, not in school & living independently): All 237 (male 78, female 159), PWDs 87 (M 38, F 49), Elderly (66 yrs. & above) 51 (M 27, F 24). - **Child Passengers** (5–18 years old, in primary/ secondary school): All 67 (M 25, F 42)
2)	Satisfaction of bus service	- Respondents were asked to rank their satisfaction with bus services in terms of (i) access to the bus stop, (ii) facilities and waiting time at the bus stop, (iii) bus fare, (iv) boarding & alighting, (v) bus interior facilities, (vi) safety operation, (vii) announcements & information, (viii) attitude, assistance & service of crew. - **Adult passengers:** Majority were satisfied with items (i), (iv), and (vii) above. Majority were dissatisfied with items (iii), (v), (vi) and (viii). Rates of satisfied and dissatisfied are nearly equal regarding (ii). Similar patterns of all passengers are also seen in female passengers. More PWDs were dissatisfied with all items except (vii). - **Child passengers:** Majority were satisfied with items of above (i), (iv), and (vii). Majority were dissatisfied with items (ii), (iii), (v) (80.6%), (vi) and (viii).
3)	Harassment	- **Adult passengers:** 47.7% of all adult passengers, 47.2% of female passengers, 60.9% of PWDs, and 41.2% of elderly passengers have experienced harassment at a bus stop or on a bus. 74.3% of all adult passengers have experienced harassment several times (2-4 times). "Verbal harassment/derogatory language by bus crew" was most frequent type of harassment (71.7%) and "No reaction/endured in silence" was most frequent response (57.5%). - **Child passengers:** 79.1% of all child passengers, 83.3% of female passengers, 77.8% of PWDs experienced harassment at a bus stop or on a bus, which are much higher percentages than those of adult passengers. Percentage of those who experienced harassment once is highest (26.9%). As for harassment type, "unwanted comments" was highest (34.0%) and followed by pushing/shoving/crowding (28.3%). "No reaction/endured in silence" was the most frequent response (84.9%).
Bus/Matatu Operators: Managers and Crew (drivers, conductors, stage crew)		
1)	Targets	- Bus/Matatu Operators: 5 managers, 37 drivers (all male), 80 conductors (male 56, female 24) and 5 stage crew (M 4, F 1) of 5 operators (City Hoppa, Embassava, Forward Travelers, KBS, Metro Trans).

2)	Vulnerable passengers and harassment	- All bus crew respondents observed **boarding of vulnerable passengers**: Every day (39.3%), more than twice a week (33.6%) and once a week (19.7%). Vulnerable passengers with mobility/physical disability are most commonly observed (96.7%). - **Frequency of harassment** witnessed by bus crew: every day (29.5%), more than twice a week (26.2%), once a week (17.2%) and once per month (10.7%). Verbal harassment/ derogatory language by other passengers was the most commonly witnessed (70.9%), followed by those by other bus crew (22.7%).
3)	Inclusive bus services	- According to answers from managers, 2 out of 5 operators provided priority seating and/or space, 3 installed surveillance systems, and 5 have grievance mechanisms in case of harassment. - According to answers from managers, 4 out of 5 operators provided staff training on customer service (assist vulnerable passengers), 4 provided staff training on safe driving techniques, 5 had staff policy/ manual on harassment, 3 provided training on customer service to prevent forceful touts, harassment, etc. - Perceptions of their crew on whether their companies provided such instruction, training, manuals, etc. varied.
4)	Working condition	- All target 5 operators did not provide employment contracts to drivers and conductors. Family-friendly policy & systems were applied to those under employment contracts. - Very high ratio of crew (90.2%) thought their companies provided equal opportunities for both male and female. - Higher percentage of crew respondents (78.7%) recognized a grievance mechanism such as hotlines and report system. - 76.2% of all respondents (72.0% of female ones) perceived that their workplaces were good for anyone to work in. - 64.2% of all respondents (64.0% of female ones) thought there were challenges to women working in public transport.
5)	Harassment	- 75.4% of all respondent crew (60.0% of female ones) never experienced harassment. 32.0% of female respondents frequently (more than once a week) experienced harassment. - Regarding the type of harassment, “verbal harassment/ derogatory language by other bus crew” was highest (46.7%), followed by “those by passengers” (23.3%) and “groping/ unwelcome touching by passengers” (16.7%).

Source: JICA Expert Team

In addition to the above, as noted in Section 3.6(2) of Chapter 3, a passenger satisfaction survey was conducted to assess the satisfaction levels by service attribute and gender. As shown in

Figure 8.3.4, women generally reported lower satisfaction levels across many items. In particular, the results indicated that women’s satisfaction with road safety and service punctuality was statistically significantly lower compared to that of men.



Source: JICA Expert Team

Figure 8.3.4 Passengers’ Satisfaction with 14 PT Service Attributes by Gender

(4) To Identify Challenges/Issues regarding Gender/Vulnerable Groups

Based on the results of the aforementioned survey on the current situation, a discussion with WG5 NaMATA members was held and issues for improving inclusive public bus service were identified. **Table 8.3.11** shows the issues identified and possible actions for improvement. In the current situation survey, the workplaces and working environments of staff of concerned government institutions and bus/matatu crew members were confirmed from the perspective of "sustainability". However, since improving these workplaces and working environments is a long-term issue, the WG5 NaMATA members agreed to continue discussions on the matter in the near future.

Table 8.3.11 Issues and Possible Actions for Promoting Inclusive Public Bus Service

Item	Challenge/Issue	Possible Action
Accessibility & Availability		
Access to bus stops	- Not enough bus stops (long distance to bus stops). - Unorganized bus stops.	- Reorganize location of bus stops (e.g., shorten intervals, set additional bus stops, etc.) to improve passenger access.
Sidewalks	- Poor sidewalk access to bus stops.	- Improve conditions of sidewalks (e.g., proper pavement, considering rainy season, etc.).
Boarding & alighting	- High steps of buses, poor seat spacing, lack of priority seating, no assistive devices. - Hurried boarding & alighting.	- Set bus design standard to make boarding, seating and alighting easy for vulnerable passengers (e.g., lower steps, seat spacing, with assistive devises, etc.). - Encourage operators to introduce such bus design standards. - Encourage operators to set priority seats for vulnerable passengers. - Encourage operators to apply timetables in consideration of required time for vulnerable passengers for boarding & alighting. - Raise awareness of passengers/crew (e.g. applying of queuing method for boarding, stickers for priority boarding at bus stops, considering vulnerable passengers in buses, etc.). - Manual preparation and training for crew on customer service (assist vulnerable passengers, etc.).
Affordability		
Fare	- Unregulated fare system (not consistent fare). - Overcharge & arbitrary hike by conductors.	- Formulate policy/regulation on fare system including considerable fare rates for vulnerable passengers. - Encourage operators to introduce regulated fare system and to announce it to passengers.
Safety & Security		
Bus stops	- Improper facilities of bus stops (dirty, no timetables, lack of waiting spaces, seats, roofs/shades, toilets, etc.). - Lack of safety facilities (no lighting, surveillance system, patrol of police offices/security guards, etc.).	- Prepare standard design of bus stops in consideration of vulnerable passengers and safety. - Coordinate with concerned government institutions to improve bus stops based on this standard design.
Announcement & information	- No clear announcement and information (on fares, destinations, routes, basic rules, precautions). - No communication gadgets (e.g. placards, announcement device, etc.) - Loud music inside buses.	- Examine announcement and information system at bus stops and inside buses and its operation: contents to be announced (no. of buses, their destinations, etc.), necessary audio devices (pre-recorded one, etc.), use sign language and Braille, etc. - Encourage operators to introduce such system.
Safety operation	- Reckless driving with high/over speed & overloading. - Poor surveillance system. - Untrained crew.	- Formulate a regulation on safe driving particularly considering vulnerable groups/women. - Enforce operators to keep such a regulation. - Encourage operators to set up a surveillance system. - Prepare manuals on safe driving. - Train crew on safe driving.

Attitude, assistance & service of crew	- Lack of professionalism, etiquette & discipline. - No assistance/customer care. - Harassment and ruthless talking.	- Prepare manuals on basic customer service (e.g. basic discipline & attitude as crew, assistance/hospitality for passengers, how to handle vulnerable passengers (use of basic sign language), deal with harassment, etc.). - Train crew on customer service.
Harassment	- Verbal abuse, coercion to board, physical contact, overcharging fares, etc. by crew. - Harassment by passengers. - Report/grievance mechanism is not functioned.	- Raise awareness of crew/passengers about against harassment and set up a grievance mechanism. - Encourage operators to function report/grievance mechanism.

Source: JICA Expert Team

The above-mentioned challenges/issues and possible actions were shared and discussed with WG5 members at its meeting held on 6 May 2024. Those of the workplaces and working environments of bus/matatu crew which are related to sustainability were confirmed in the process of preparing a draft roadmap, as shown in **Table 8.3.12**.

Table 8.3.12 Issues Relating to Workplaces and Working Environments of Bus/Matatu Crew and Possible Actions

Item	Challenge/Issue	Possible Action
Sustainability (Employment and Working Condition)		
Recruitment & employment	- Recruitment information is not reached to women. - Women applicants for crew of bus/matatu is limited. - Female managers in bus/matatus operators are very few. - Female crew are very few (most of them are conductors).	- Improve and formalize recruitment process/ system of crew for more outreach and attractive. - Encourage operators to apply such recruitment process/system.
Employment contract	- No employment contracts are concluded with crew (both male and female) in most bus/matatus operators.	- Encourage operators to conclude employment contracts with crew. - Examine relevant regulations and guidelines (revision of current ones, preparation of new ones, etc.) for improving working conditions, safety and health of crew (e.g. through improving working hours and styles, facilities, etc.). - Encourage operators to comply with those regulations and guidelines.
Working condition	- Working environment for bus/matatu crew is regarded as not attractive. - Majority of crew regard challenges for women working in public transport sector.	
Safety & health	- Long working hours, inflexible shifts, and late-night work. - Lack of toilet facilities which crew could easily use.	
Capacity development	- In-service capacity development training for crew especially female ones is not enough.	- Encourage operators to implement such in-service training for crew.
Family-friendly policy & system	- Majority of bus/matatu operators apply family-friendly policy & system (e.g. maternity leave, flexible shifts, etc.) for those under contract (usually excluding crew).	- Encourage operators to conclude employment contracts with crew. - Examine relevant regulations, guidelines and measures (revision of current ones, preparation of new ones, etc.) for improving family-friendly system. - Encourage operators to comply with those regulations, guidelines and measures.
Discrimination	- There is a stereotype that men are in technical fields (e.g. drivers, stage managers, etc.) and women are administrative fields. - Due to an image of ruggedness and roughness, husbands and family members tend not to think positively about women's working in bus/matatu industry.	- Encourage operators to foster role models through recruitment and training of female crew. - Awareness/sensitization for improving an image of women's working in bus/matatu sector.

Harassment	- Certain proportion of bus/matatu crew experienced harassment (verbal abuse, physical touching, etc.) from passengers and other crew. - Many bus/matatu operators still do not have code of conduct, policy and consultation/complaint system against harassment. - Crew's recognition on such code of conduct, policy and system is limited and complaint system seems not be functioned.	- Awareness/sensitization of crew/passengers against harassment occurred in bus/matatu and their related facilities (e.g. bus stops, etc.). - Encourage operators to introduce code of conduct, policy and consultation/complaint system against harassment. - Encourage operators to function report/grievance mechanism.

Source: JICA Expert Team

8.3.2 Activity 5-2: Implement Pilot Projects to Promote a More Inclusive Public Bus Service

Activity 5-2 is summarized in **Table 8.3.13**.

Table 8.3.13 Summary of Progress of Activity 5-2

Activity	Achievement	Remark
5-2 Implement pilot projects to promote a more inclusive public bus service		
5-2-1 To develop a detailed plan for the pilot project	Completed	➢ Campaign against GBV: Its contents were discussed, and activities were prepared in collaboration with other co-host organizations (NGEC, UNFPA, JICA experts, NaMATA, BAK). ➢ Ngong Road pilot project: WG5 members involved in the Activities in Output 4 and proposed some activities from viewpoint of gender mainstreaming.
5-2-2 To coordinate and prepare the pilot project	Completed	➢ Campaign against GBV: Its contents were discussed, and activities were prepared in collaboration with other co-host organizations. ➢ Ngong Road pilot project: WG5 members supported creation of the crew training manual from viewpoint of gender mainstreaming.
5-2-3 To implement the pilot project	Completed	➢ Campaign against GBV (launch conference, distribution of IEC materials (posters, T-shirts, reflector jackets) for awareness raising) was carried out. ➢ Ngong Road pilot project: WG5 members provided input from the perspective of gender mainstreaming, and some possible actions listed in Table 8.3.10 were adopted as the activities.
5-2-4 To monitor /evaluate the pilot project	Completed	➢ Campaign against GBV: Situation of distribution/use of IEC materials were monitored. Interviews with concerned people were conducted to confirm effects of the campaign. ➢ The evaluation will be conducted during the pilot project implementation period.

Source: JICA Expert Team

(1) "16 Days of Activism Against Gender-Based Violence" in Public Transport Campaign

A joint campaign entitled "16 Days of Activism against Gender-Based Violence" (GBV) aimed to raise the awareness of bus/matatus operators, crews, passengers, and other concerned parties about GBV in public transport. WG5 agreed that this campaign should be a pilot project for WG5. A series of meetings were held among host organizations (NGEC, UNFPA, NaMATA, BAK, JICA GBV Project, JICA Bus Project) to discuss the activities (kick-off conference, participants for the conference, slogans, IEC materials (banners, posters, stickers, reflector jackets, T-shirts, etc.)) and preparation. The kick-off conference was held on 27 November 2023, and WG5 members actively

participated in the launch of activities. The outline of the kick-off conference is shown in **Table 8.3.14**.

Table 8.3.14 Outline of the Kick-off Conference

Items	Outline	
Title	Conference on A Joint Campaign by NGEC, NaMATA and BAK, JICA and UNFPA on Gender-Based Violence in the Public Transport Sector (16 Days of Activism Against Gender Based Violence)	
Date	27th November 2023, 8:30~14:00	
Venue	Safari Park Hotel, Bougainville Conference Room	
Program content	Brief Speech	Mr. Anders Thomsen, UNFPA Kenya, Country Representative
	Brief Remarks	Ms. Mari Kato - Senior Representative, JICA Kenya
	Official Opening Remarks	Official Opening Remarks
	Presentation on the Overview and Data on Gender in Public transport	Ms. Naomi Mwaura, Flone Initiative
	Panel discussion on gender in public transport (discuss action can be taken by actors to prevent and respond to GBV)	-Abigail Muigai (Eng.) - Senior Network Management Officer NaMATA -Kevin Mubadi, National Chairman of BAK -Ms. Naomi Mwaura, Flone Initiative Representative -George Kimani, Principal Programme Officer, NGEC -NTSA Representative Facilitator: Caroline Murgor, GBV/Gender Advisor, UNFPA Kenya
	Brief plenary session Q&A	All
	IEC handover ceremony	All (led by NGEC)
	Closing Remarks	- Kevin Mubadi (BAK) - Eng. Francis Gitau -Director General NaMATA.

Source: JICA Expert Team

Through NaMATA, IEC materials, comprising 102 posters and 106 stickers, were distributed to concerned government agencies (NTSA, KeNHA, KURA, KeRRA, SDR, SDT, FPTS, Nairobi County, Kiambu County, Murang'a County. Although some operators participated in the above conference, JET members later visited seven bus/matatu operators (City Hoppa, KBS, Metro Trans, Super Metro, City Shuttle, Forward Travelers, and Embassava) to explain the purpose of the campaign and requested them to paste the posters/stickers inside their buses and also distributed T-shirts and jackets to drivers, conductors, and route managers. In total 484 posters, 290 stickers, 389 T-shirts, and 178 jackets were distributed.


Crew with T-shirts & posters


Crew with reflector jackets

Posters in an operator's office

Poster on a bus window

Female conductor with T-shirt


Crew with T-shirt & posters

Figure 8.3.5 Use of IEC Materials by Bus/Matatu Operators

To evaluate the effects of the campaign, an interview survey with bus/matatu operators (including drivers and conductors) was carried out from mid-December 2023 to mid-January 2024. The results of the survey are summarized in **Table 8.3.15**.

The implementation of the campaign and the results of the interview survey were shared with WG5 members at its meeting held on 6 May 2024. Lessons were considered when examining and implementing other pilot project activities and WG5 activities.

Table 8.3.15 Impact of the Campaign

Item		Result
1)	Cooperator bus/matatu operators	- 7 operators (City Hoppa, KBS, Metro Trans, Super Metro, City Shuttle, Forward Travelers, Embassava) agreed to cooperate with the campaign. Due to internal miscommunication from management, Embassava missed out distribution of materials during the campaign period (requested again by JET at the time of interview and it was done). - 6 managers (one from each operator), 16 drivers, 18 conductors, 8 route managers were interviewed based on questionnaire.
2)	Understanding of the purpose of the campaign	- JET members made individual visits to managers of operators and directly explained the purpose of the campaign. - About one-thirds (33.3%) of target crew answered “No” for understanding the purpose of the campaign. It seems to be due to insufficient explanation from managers to their crew within respective operators.
3)	Evaluation of the campaign	- Both managers and crew highly evaluated the campaign: slogans/design of posters are appropriate to appeal against GBV and effective to sensitize people against GBV in public transport sector, posters linger longer in the bus thus its message is visible over a long time, etc. - 83.3% of crew answered “Yes” for changes of concern/behavior about harassment/violence in buses/matatus through the campaign. - According to recognition/observation by target crew, majority of passengers seemed to recognize either posters or slogans in T-shirts. - Both managers and crew agreed to support a similar campaign again in future: the campaign should be done more frequently, other methods/materials and contents/sizes/numbers of posters should be examined, etc.
4)	Constraints/ Problems	- Since this campaign was jointly organized by several institutions, it took time to discuss and decide details of the activities. Information sharing with and requests to operators who were expected to act as important collaborators in implementing the related activities were delayed and not sufficient. - The campaign period was set from late November to early December in conjunction with the worldwide initiative. Since this period before the Christmas holiday was a busy season for transportation sector, operators were not very enthusiastic about cooperating with the campaign. Evaluation for the campaign could be carried out in January 2024 after the Christmas holiday. - Posters, T-shirts and reflector jackets were prepared for the campaign, which were bulkier than expected. Since there was no such distribution system, JET members should distribute them to respective operators, which was more time-consuming and burdensome than assumed for JET members. - T-shirts were chosen for appealing objectives/slogans of the campaign to passengers by having crew members wear them. However, all conductors and drivers are mandated by NTSA to wear uniform unique to each operator, which was pointed out by operators when distributing T-shirts to operators. This affected how many times crew would wear the T-shirts. - Evaluation on effectiveness of the campaign was implemented by JET members in cooperation of NaMATA and operators. Due to constrains of time and human resources, number of crew respondents was limited and interview with passengers was not done (instead, observation on passengers by crew was asked to crew respondents).
5)	Recommendations for future similar activities	- If some parties (e.g. operators for this time) are assumed to be involved with certain activities, it is necessary to share the purpose and contents of the activity at an early stage and to establish cooperative relations with them. Involvement of such parties in planning/preparation stage could be considered. - Timing and frequency of implementing the activity (campaign) would largely

Item		Result
		affect its effectiveness. From viewpoints of burden of physical distribution, coverage, effectiveness, use of other methods such as social media, broadcast messages, etc. is better to be examined. Types/ contents/ size/ numbers of materials should be well thought of in consideration of their appeal, cost effectiveness, ease of management, constraints related to the use of materials (e.g., T-shirts for crew, posters on bus stops, etc. for this time). - For this time, activities were monitored through sending photos by operators and frequent telephone communication/visits by JET members. Monitoring and evaluation are necessary for the future similar activity to follow up and to confirm its effectiveness. However, it is unlikely that a large-scale sub-contracted survey would be implemented for evaluation purposes. Efficient and sustainable methods for monitoring and evaluation (e.g. use of social media for collecting opinions from targets, incorporate questions related to necessary information into other surveys, etc.) should be examined.

Source: JICA Expert Team

(2) Pilot Project along Ngong Road

The main item of Activity 5-2 is a pilot project in accordance with the issues and the action plan in Activity 5-1. This pilot activity is linked with Output 4.

As mentioned above, WG5 discussed issues/challenges and possible actions for improvement in Activity 5-1. Based on the discussions, WG5 developed measures to mainstream concerns of gender/vulnerable groups, and measures were proposed to enhance inclusiveness in the pilot project and these were shared with related parties accordingly.

Table 8.3.16 Proposed Measures on Gender/Vulnerable Groups for the Pilot Project

Item		Measure
1)	Fare	- Introduce a uniform fare system to prevent fare differences based on gender or disability status.
2)	Improvement of Facility (Bus stop)	- Install shelters at bus stops to ensure that women carrying children or luggage, as well as persons with disabilities, can wait comfortably regardless of weather conditions. - Equip shelters with lighting to allow women to wait safely at bus stops after sunset. - Ensure sufficient space to accommodate wheelchair users. - If there is a height difference between the sidewalk and the bus stop, consider installing ramps to provide easy access for wheelchair users and other vulnerable individuals. - Put sticker for priority boarding. - Put sticker against harassment/violence. - Although setting/operating of surveillance cameras could be considered in longer term, it is not necessary to be included in the pilot project.
3)	Information	- Display operational hours, timetables, routes, and fares at bus stops and on social media. - Conduct verbal announcements by crew members at bus stops and inside buses.
4)	Bus operation & inside bus	- Implement orderly queuing for boarding at bus stops. - Designate seats near the doors as priority seating. - Introduce scheduled operations during off-peak hours to make buses more accessible for women, the elderly, and others traveling for shopping or medical visits. - Put sticker against harassment/violence (including reporting).
5)	Preparation of manuals and provision of training for crew	- Safe driving - Customer services/hospitality (including encouraging conductors to clearly announce necessary information to passengers). - Provide boarding and alighting assistance for transport-vulnerable individuals, including the elderly and children. - Implement communication methods, such as written communication, to assist transport-vulnerable passengers. - Conduct anti-harassment training, including appropriate response measures when witnessing harassment.

Source: JICA Expert Team

The activity plan for WG5, outlining the preparation and implementation of the pilot project along Ngong Road, was created and discussed during the WG5 meeting held on 6 May 2024. WG5 members agreed to maintain continuous engagement for the preparation and implementation of the pilot project.

Most of the ideas in **Table 8.3.16** were implemented in the pilot project. **Figure 8.3.6** shows the harassment awareness poster and the Braille content menu for visually impaired passengers specifically designed for the pilot project.

Figure 8.3.6 Poster and Content Menu for the Pilot Project

WG5 members participated as needed in discussions with NaMATA and operators related to the pilot project, providing comments on the crew training manual from the perspective of gender and consideration for vulnerable transport users. The outcomes of, and lessons from, each measure are summarized below and shown in **Table 8.3.16**,:

a) Fares: The introduction of a flat fare was generally viewed positively based on various feedback. However, under a dynamic pricing system, off-peak fares can be lower than the fixed fare, which would disadvantage users. This is particularly significant for women, who are known to travel more often during off-peak hours compared to men, thereby placing a greater financial burden on them. For PWDs, it is common practice to offer discounts or waive fares for companions. Considering the availability of disability certification by the NCPWD, the introduction of differential pricing for PWDs is considered feasible.

b) Bus Stops (Facility Improvements): During the design process, an enclosed waiting area with semi-transparent materials was proposed. However, in line with mainstreaming policies, an open and transparent design was ultimately adopted. While design decisions must consider material and cost constraints, this represents a good example of gender-sensitive design. Nonetheless, components such as lighting and surveillance cameras were not included due to budget limitations. Therefore, it is recommended to develop technical guidelines, including design options based on budget and facility design checklists, by collecting benchmark cases and good practices.

c) Signage & Information: Kenyan stakeholders showed creativity by developing guide signs for the visually impaired, marking an exploratory but meaningful step toward accessible services. Clearly displayed fares and timetables also contributed to more user-friendly service. However, the specific information needs of PWDs have not yet been thoroughly analyzed. Further feedback from organizations such as NGEC and through focus group discussions (FGDs) is needed to drive continued service improvements.

d) Bus Operations & Onboard Environment: Although priority seating was designated using posters, its actual implementation was not sufficiently clear or effective. Building public consensus around priority seating is necessary, and pilot initiatives such as colored seat markings and continuous awareness-raising campaigns could be effective. Regarding the impact of punctual services on improving accessibility for women and the elderly, the high satisfaction rating in the "Availability" category of the user survey suggests that some positive effects were achieved.

e) Crew Training & Manual: In terms of supporting vulnerable transport users, guide signs were developed for the visually impaired. Communication methods such as written dialogue require certain skill levels, so the creation of signage was seen as a practical and effective solution. Although the observations are qualitative, there appeared to be a shared awareness among crew members of the need to assist PWDs regardless of their training background. Since disabilities vary widely, practical training should ideally cover representative cases such as wheelchair users. Regarding harassment, appropriate recruitment practices, improvements in working conditions, and a calm working environment are essential. More concrete training on handling harassment, as well as the establishment of a support system for crew members, are also necessary.

8.3.3 Activity 5-3: Implement Capacity-Building Workshop / Training on Gender / Vulnerable Group Sensitivity in Transport Services

Activity 5-3 is summarized in **Table 8.3.17**.

Table 8.3.17 Breakdown of Progress for Activity 5-3

Activity	Achievement	Remarks
5-3 Implement capacity-building workshops/trainings on gender/vulnerable group sensitivity in transport services for staff of related institutions		
5-3-1 To develop plans for the workshops/trainings	Completed	➢ Though a workshop plan was not prepared, capacity-building activities, including workshops, were decided based on discussions with WG5 members.
5-3-2 To prepare the workshops/trainings with related organizations	Completed	➢ Capacity-building activities, including workshops, were implemented in consideration of proposals from WG5 members and their needs.
5-3-3 To provide the workshops/trainings	Completed	➢ Participation in the campaign against GBV could be regarded as a capacity-building activity for WG5 members. ➢ The “Case of hospitality for vulnerable passengers by bus operators (Japan)” was shared with WG5 members. ➢ An online workshop was held on 20 Jun 2024 where the representative director of the Women Bus Drivers Association in Japan served as a lecturer and discussed the situation of women in the bus industry.

Source: JICA Expert Team

Regarding Activity 5-3, capacity-building activities related to gender/vulnerable groups in transport, including proposals from WG5 members, were planned and implemented, taking into account their respective organizational mandates.

(1) Case of hospitality for vulnerable passengers by bus operators (Japan)

The training for bus/matatu crew and the preparation of its manual were done in the pilot project along Ngong Road. WG5 members reviewed this training manual from the perspective of mainstreaming gender including vulnerable passengers. Thus, as part of capacity-building activities, the hospitality guidelines for bus operators in Japan was shared with WG5 members at its meeting (6th May 2024) (see Attachment ‘Chapter 8 Hospitality of Japan’ for details).

(2) Online workshop with Representative Director of Women Bus Drivers Association in Japan

Improving the current management by bus/matatu operators of their employees (including crew) and their working environment was regarded as a mid- to long-term issue. In Nairobi and Machakos Counties, whose government officers are members of WG5, groups of female bus/matatu drivers have been formed. Thus, some WG5 members requested to introduce the experiences of other countries regarding this issue. An online workshop was held on 20 June 2024 with the participation of WG5 members and representatives from Flone Initiatives, who have helped organize female drivers’ groups in these counties. In that workshop, the representative director of the Women Bus

Drivers Association in Japan gave a lecture on women's success in the bus industry, which was followed by a Q & A session. The Kenyan side, who explained the current situation in the country regarding salaries/remuneration, retirement benefits, shifting working system, welfare benefits (health insurance, maternity/childcare leave, nurseries, etc.), countermeasures for gender/sexual harassments, asked questions about these situations in Japan. The workshop closed with a promise on continuous information exchange between Kenyan and Japanese sides.

8.3.4 Activity 5-4: Formulate a Roadmap for a Sustainable Gender Mainstreaming in Public Transport

Activity 5-4 is summarized in **Table 8.3.18**.

Table 8.3.18 Summary of Progress of Activity 5-1

Activity	Achievement	Remarks
5-4 Formulate a roadmap for a sustainable gender mainstreaming in public transport		
5-4-1 To discuss and consider sustainable gender/ vulnerable sensitive system based on the lessons from Activity 1 to 3.	Completed	➢ In consideration of the lessons from activities 1 to 3 including the findings from the survey of current situation, a draft roadmap was prepared.
5-4-2 To prepare a draft of a roadmap for a sustainable gender/vulnerable sensitive system	Completed	➢ A draft roadmap was prepared. ➢ Survey results were analyzed.
5-4-3 To hold workshops to discuss the proposed roadmap with related institutions.	Completed	➢ Discussions with NaMATA on the draft roadmap were held.
5-4-4 To finalize and propose the roadmap.	Completed	➢ Based on NaMATA's review of the draft roadmap, it was finalized through discussions with WG5 members.

Source: JICA Expert Team

(1) Implementation Results

In creating the draft roadmap, JET organized the issues identified through research on gender-related laws and guidelines and a survey of the current situation and provided examples of measures to address those issues. In particular, the survey of the current situation was divided into accessibility/availability, affordability, acceptability (safety & security), and sustainability (employment & working conditions), and the issues in each area were organized. As countermeasures, JET established categories such as institutions, advocacy/sensitization, bus operations/services, bus vehicles/related facilities, and capacity development, and created an action plan. The analysis of the current situation survey results was done collaboratively by Japanese experts and NaMATA staff, and when presenting the analysis results to the JCC, etc., the staff took the lead in responding.

After reviewing the draft roadmap, several points were identified for improvement, such as the fact that, in addition to the legal and guideline surveys and the current situation survey, previous studies and passenger satisfaction survey results also provided useful insights on gender issues, that the current situation survey had captured issues related to workers, and that there was room for improvement in structuring the issues and responses. Based on the above issues, JET reviewed the implementation structure of the action plan with an eye toward activities after the project's conclusion. JET also reviewed the draft roadmap to make its content more comprehensive.

Based on the re-examined draft roadmap, discussions were resumed with NaMATA officials, and on 12 March 2025, discussions were held with NaMATA WG5 members. Subsequently, discussions and revisions were conducted intermittently, and the draft roadmap was updated based on the gender mainstreaming efforts in the pilot project. After the WG5 discussion on 22 May 2025, the roadmap was finalized and submitted to the SC and the JCC on their third and sixth meetings, respectively. The outline of the roadmap is as shown in Table 8.3.19.

Table 8.3.19 Outline of the Roadmap

Chapter 1: Background and Objective
- International and Kenyan context of gender and vulnerable groups mainstreaming in public transport sector
- Objective of setting a Roadmap

Chapter 2: Current State and Issues
- Results of literature review, current situation survey, passenger satisfaction survey and institutional analysis
- Current state and issues from the perspectives of passengers, operators and government

Chapter 3: Policy and Goal
- Target year and overall goal
- Goal and target in institution, service and work and labor domain

Chapter 4: Formulation of Measures
- Specific measures and measure packages regarding institutions, service, and work and labor domains

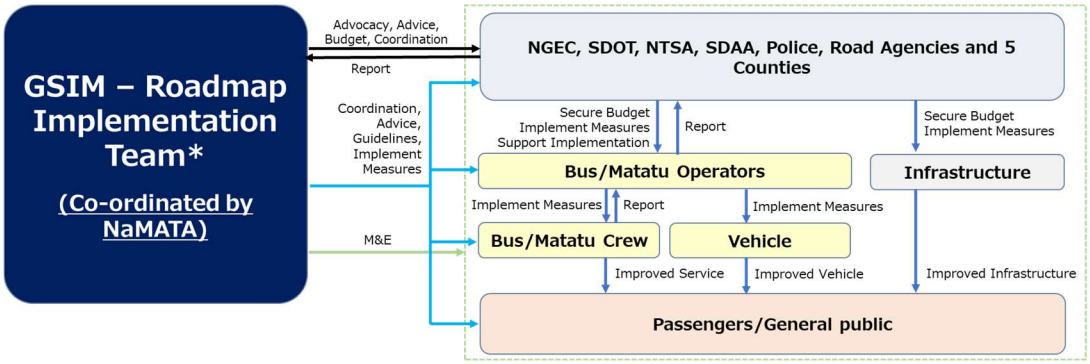
Chapter 5: Roadmap
- Implementation flow of measures
- Responsible institutions for each measure

Chapter 6: Short-term Actions
- JICA project activities
- Ngong Route 111 pilot project activities
-

Chapter 7: Conclusion
- Importance of roadmap and the way forward

Source: JICA Expert Team

Regarding the establishment of a sustainable system, a proposal was made as shown in Figure 8.3.7, led by NaMATA officials, taking into consideration the authority of relevant administrative agencies such as NGEC.



GSIM: Gender and social inclusion mainstreaming

Figure 8.3.7 Implementation Structure for Gender and Vulnerable Group Mainstreaming

(2) Lessons Learned and the Way Forward

In creating the roadmap, work proceeded without any suitable examples, and it is true that JET encountered difficulties in establishing the framework. On the other hand, regardless of the field, there were numerous examples of roadmaps as policy documents, and it was clear that there were several constituent elements. These include the promoting entity (such as a consultative body or secretariat), securing financial resources (such as foundations or funds), guidelines, measures and implementation plans, and so on. Drawing on these standard components, JET developed the framework. Additionally, by broadly collecting information on frameworks related to gender, JET also established a framework for organizing policies. The roadmap created was based on a starting point where there were virtually no initiatives related to gender, so its content is relatively comprehensive and exhaustive. Going forward, it is expected that an action plan will be developed based on this roadmap and that each policy will be implemented.

In creating the roadmap, a wide range of activities were carried out, including organizing data and insights from the survey on the current situation and creating the roadmap itself. The following impacts and future developments are anticipated from these activities:

a) **Awareness of Personnel and Human Networks:** It is felt that the awareness of gender and disability mainstreaming has increased, especially among NaMATA officers and project participants such as NGECs. The human network among agencies has also been expanded through other project activities such as WG meetings and training in third countries. To develop these relationships from personal to organizational, the following b) activities are expected. In addition, to continuously strengthen capacity, it is also desirable to formulate measures and hold regular study sessions as described in c).

b) **Gender Promotion Body:** The roadmap proposed a gender promotion body, which, although positioned as a division within NaMATA, is the result of close examination by NaMATA as a realistic starting point and includes strengthening the relationships with related organizations established in a). It is hoped that the sustainability of the system will be ensured by clearly stating it in the organization's bylaws and in NaMATA's policy documents in c).

c) **Planning and Implementation of Gender Policies:** The roadmap has just been developed, and the measures and actors to be considered have been identified. The legal basis for this roadmap is not necessarily clear, but as gender and vulnerable group mainstreaming is stipulated in higher-level policy documents, it is desirable that mainstreaming is included in NaMATA's organizational strategy documents and other relevant documents, and that this roadmap is positioned as a policy document that embodies the relevant statements. Afterwards, it is desirable that each measure be further discussed and implemented, including elaboration and concretization of the content, and concrete measures to be taken until realization.

Chapter 9: Project Review

9.1 Objectives

The objectives of a project review are as follows:

- Confirm the project's performance and level of achievement based on indicators stated in the Project Design Matrix (PDM).
- Analyze the project using six evaluation criteria: relevance, coherence, effectiveness, efficiency, impact, and sustainability.
- Identify factors that promoted or hindered the implementation process.
- Extract lessons that can be applied to similar projects.
- Confirm the activity plans of counterparts for achieving the overall goal after project completion.

9.2 Outputs and Achievements

9.2.1 Evaluation Indicators for Each Output and Achievements

(1) Output 1: Current Public Transport Services in NMA is Desktop-studied.

- Indicator 1-1: Existing public transport development policy, strategy and master plan are desktop-studied

  Achievement: National transport policy, information on development plans and ongoing projects in the NMA, including BRT and commuter railways, was collected and organized.

- Indicator 1-2: Laws and regulations related to public transport management and operation in the NMA are desktop-studied.

  Achievement: Relevant laws and regulations governing public transport were collected, and organizational structures, along with related regulations, were reviewed and organized.

- Indicator 1-3: Current situation of the public bus transport business in the NMA is examined.

  Achievement: Interviews were conducted with bus operators, and data was collected to assess their business status. Key issues were identified and organized.

- Indicator 1-4: Roles and responsibilities of the regulator and operator in other countries are desktop-studied.

  Achievement: Seventeen (17) cities from other countries were selected in a WG1 meeting, and case studies on role-sharing between government agencies and operators in the public transport sector were compiled. Also organized the types of bus service contracts used in each city.

- Indicator 1-5: Current problems and issues in public transport service in NMA are identified.

  Achievement: Based on activities 1-1 to 1-4, the key issues were identified, focusing on the structure of bus operators and their relationship with government agencies.

(2) Output 2: Integrated Public Transport System in NMA is Examined.

- Indicator 2-1: Existing trip demand data and vehicle operation information are obtained.

  Achievement: Traffic demand forecast data from NIUPLAN, information on existing bus routes, and feasibility studies of planned BRT were collected. In addition, traffic surveys were conducted to update the NIUPLAN demand forecasting model, and the necessary data and information for demand forecasting were organized.

- Indicator 2-2: Current traffic situation is examined, and future public transport passenger demand is estimated.

  Achievement: Based on the NIUPLAN demand forecasting model, the model was updated using traffic survey results collected under this Project. Five scenarios for the public transport network—including not only existing plans but also a proposed UMRT route—were developed, and future transport demand forecasting was conducted.

- Indicator 2-3: Integrated public transport network plan is developed.

  Achievement: Under Activity 2-2, the public transport network was reviewed, including the proposed new UMRT route. For western NMA, including Ngong Road—the pilot project corridor—a bus network, consisting of trunk and feeder routes, operational plans, and terminal development plans were formulated.

- Indicator 2-4: Public transport operational plan and fare policy are examined.

  Achievement: As part of Activity 2-2, the public transport operational plan was reviewed. A fare policy for Nairobi was proposed based on fare-setting theory.

- Indicator 2-5: Integrated public transport development strategies are formulated.

  Achievement: Through activities 2-2 to 2-4, a public transport policy was formulated. This included reviewing public transport networks with new routes and modes, planning for terminal development, scenario development and evaluation, and proposing a fare policy.

(3) Output 3: Sustainable Administrative Management System for the Public Transport Service is Formulated.

- Indicator 3-1: Steering Committee for sustainable administrative management system is held.

  Achievement: Discussions were held with NaMATA regarding the roles and functions of the SC. It was positioned as a forum to discuss public transport development plans, administrative management systems, public transport policies, and fare policies, with the aim of submitting proposals to decision-making bodies. The SC was established with the principal secretary of SDOT serving as chair.

- Indicator 3-2: Distinct roles and responsibilities both for regulator and operator in the public bus transport business are examined.

  Achievement: Based on the activities of Output 1 and discussions in WG1, the current challenges in public transport services and international case studies were reviewed. Functions and roles of relevant organizations were examined and proposed. To clarify the responsibilities of regulatory bodies and operators, a draft act and regulation were prepared under Activity 3-4.

- Indicator 3-3: Governance and institutional system of the public bus operators are proposed.

  Achievement: Governance issues for bus operators were reviewed, and the policy to incorporate bus operators in the future was confirmed at the SC meeting. In addition, a seminar

was held for bus operators in the NMA to explain the future policy on the restructuring of bus operators, thereby initiating activities toward operator reform.

- Indicator 3-4: A platform for administrative management system for the public transport service is formulated.

  Achievement: Based on the findings from the previous reviews, the structure for the Metropolitan Transportation Authority Act and the Public Transport Operators Regulations were proposed.

(4) Output 4: Capacity of the Public Transport Bus Management in the Regulatory Organization and Operators are Strengthened

- Indicator 4-1: Knowledge and practical experiences in public transport policymaking and planning are strengthened.

  Achievement: Training sessions were conducted on operation plans, traffic demand forecasting and fare policy, based on Japan's bus business practices.

- Indicator 4-2: Practical experiences in public transport administrative management are acquired through pilot projects.

  Achievement: Based on the roles of each organizations confirmed under Output 3, the pilot project along Ngong Road was implemented in collaboration with relevant organizations, led by NaMATA. Through this pilot project, experience was gained in planning, coordination, implementation, management, and evaluation related to bus operations

- Indicator 4-3: Training programs for operation managers, bus crews, and vehicle inspectors are developed.

  Achievement: In preparation for the pilot project along Ngong Road, a training manual for crew members was developed under joint supervision with NaMATA, NTSA, the police, NGEC, and other relevant organizations.

- Indicator 4-4: Training based on the program is conducted.

  Achievement: Before the implementation of the Ngong Road pilot project, NTSA and Police provided training for the participating bus crews, using the manual.

(5) Output 5: Sustainable Implementation Structure for Gender/Vulnerable People Mainstreaming in Public Transport Sector is Established.

- Indicator 5-1: A platform of gender/vulnerable group sensitive working group is formulated.

  Achievement: A working group (WG), led by NaMATA and including relevant organizations, was established. Six WG meetings were held. The WG developed survey content and conducted a survey on the current situation regarding gender and vulnerable road users.

- Indicator 5-2: Pilot projects to improve more inclusive public bus services are implemented.

  Achievement: A pilot project was conducted as part of a 16-day activism campaign against gender-based violence (GBV) in the public transport sector. In preparation for the Ngong Road pilot project, the WG members supported the creation of bus stop facilities and crew training manuals.

- Indicator 5-3: Capacity-building workshop/training on gender/vulnerable group sensitive transport services are implemented.

Achievement: Hospitality guidelines from Japanese bus operators were introduced, and a workshop was held featuring the representative director of the Women's Bus Drivers Association. Capacity-building activities continued through activities in the pilot project.

- Indicator 5-4: A roadmap for sustainable gender/vulnerable sensitive system is formulated.

  Achievement: A roadmap was developed based on the findings of the current situation survey conducted in Activity 5-1 and various discussions in the WG meetings.

9.2.2 Evaluation Indicators for the Project Purpose

The project purpose is to "the understanding of administrative management system and its scope of work on the public transport service in NMA is enhanced among the related organizations and their capabilities are strengthened." The objectively verifiable indicators are as follows:

- Indicator: Administrative management system and its scope of work on the public transport service in Nairobi Metropolitan Area is developed. Create a working system to coordinate the various stakeholders regarding public transport within Nairobi Metropolitan Area which functions after the completion of the Project.
- Objectively Verifiable Indicator: Presented to the board of the NaMATA for adoption.
- Evaluation Result: Regarding the second part of the indicator, “Create a working system to coordinate the various stakeholders regarding public transport within Nairobi Metropolitan Area which functions after the completion of the Project,” the SC which included NaMATA Board Members was established during the implementation of this Project as the coordinating framework. The continued operation of the SC was confirmed at the 3rd SC meeting. Regarding the first part of the indicator, “Administrative management system and its scope of work on the public transport service in Nairobi Metropolitan Area is developed,” the roles of relevant agencies in public transport services were proposed and confirmed during the three SC meetings held during the Project period. The same was also presented at a NaMATA Board Meeting.

9.3 Overall Goal

9.3.1 Goal

The overall goal of the project is: “Service level of the public bus transport in Nairobi Metropolitan Area (NMA) is improved.” By utilizing the outcomes of this project, improvements in public transport services across the region are anticipated.

9.3.2 Indicator

In the 2nd JCC meeting, it was agreed that the overall goal indicators on the PDM would be: (i) " Passenger satisfaction rate reaches 80% in 2030," and (ii) " The intended compliance mechanism is established and activated by 2030." These indicators were intended to reflect both the perspectives of service recipients and providers, with the expectation that service quality would be assessed from both sides.

However, given the current state of public bus services in the NMA and the progress made during the project period, it was determined that achieving such conditions would require a longer-term effort. Therefore, these indicators were considered inappropriate for assessing the level of achievement at the time of project completion.

Taking into account the actual implementation status of the project and the feasibility of post-project evaluation, the focus was shifted to concrete measures aimed at improving the original indicators. As a result, during the 5th JCC meeting, the indicator was revised to: “Public bus services are operated under an operation agreement on a pilot route.”

9.3.3 Lessons Learned

The revised indicator, ““Public bus services are operated under an operation agreement on a pilot route,” was considered achievable by leveraging the results of this project, including the pilot project along Ngong Road. As of July 2025, 10 bus operators that participated in the Ngong Road pilot project are reportedly working toward establishing a company to operate services along that corridor. From the operators’ side, the foundation for achieving the higher-level indicator was gradually established.

On the other hand, the service contract must be initiated and led by government agencies. NaMATA, as the contracting authority, is required to coordinate and consult with NTSA and the County Governments, as well as with bus operators. Under the roles agreed upon within this project, NTSA is responsible for the licensing of bus operators, the County Governments for the development and authorization of bus terminals and stops, and NaMATA for concluding service contracts that include service standards. The implementation of this set of roles by each agency is essential.

While bus operators have expressed dissatisfaction with past instances of unilateral intervention by government agencies, they also seek administrative support. Therefore, as demonstrated in the Ngong Road pilot project, it is important not to impose top-down instructions, but to continue close dialogue with operators and carry out initiatives incorporating both sides’ perspectives in order to improve public bus services.

The original indicator included passenger satisfaction. As part of the baseline study, a passenger satisfaction survey was conducted in February 2024. In addition to individual service items, overall satisfaction was measured, with 46.8% of respondents indicating they were satisfied. At the 2nd JCC meeting, this overall satisfaction rate was adopted as the basis for the higher-level indicator of achieving 80% satisfaction. Although the indicator has since been revised, it is expected that continued efforts will lead to eventual achievement. In the Ngong Road pilot project implemented under Output 4, the overall passenger satisfaction rate reached 92%, indicating that service improvements contributed to higher satisfaction. Improvements such as on-time operations, fare transparency, provision of operational information, safe driving, and courteous service—supported by joint training of crew members by government agencies and bus operators—are considered contributing factors. Therefore, it is considered fully feasible that, through continued cooperation between government agencies and bus operators on service improvements, the target of 80% passenger satisfaction can be achieved in the future.

9.4 Review Results

The review was conducted using a five-point scale: "high," "relatively high," "medium," "relatively low," and "low," based on six evaluation criteria established by the Development Assistance Committee (DAC) of the Organization for Economic Co-operation and Development (OECD). Among these criteria, relevance, effectiveness, and efficiency were assessed based on the current situation and the degree of achievement at the end of the project. In contrast, impact and sustainability were evaluated based on the current situation and the projected outlook following the project's implementation. These review results are stated on the situation at the end of the project based on the current activity status and speculations.

(1) Relevance

The relevance of this project is rated as "high."

Kenyan Policy: Traffic congestion during morning and evening peak hours in the Nairobi Metropolitan Area has become a significant issue due to economic development and population growth. In response, there is a pressing need to provide high-quality public transport services. The Integrated National Transport Plan identifies the following challenges: lack of regulations for road passenger transport, including matatus, inadequate infrastructure development, and an imbalance between supply and demand. This project's activities directly address these challenges, making them consistent with Kenyan policy.

Preconditions: The preconditions for achieving the project purpose were: " Public transport priority policy in Nairobi Metropolitan Area does not change significantly", "All stakeholders do not oppose the project ideas" and "Security issue in Nairobi is not worsened". All three preconditions have been met.

Beneficiary Needs: The direct beneficiary of this project is NaMATA, while the ultimate beneficiaries are the citizens of the NMA. Public transport is a daily necessity, and road-based public transport, which forms the densest network, is indispensable for daily life. By improving public bus services through capacity development at NaMATA, the project benefits public bus users. Additionally, the resulting modal shift will alleviate traffic congestion and reduce air pollution, providing benefits across the entire Nairobi Metropolitan Area.

Advantages of Japan's Cooperation: Public transport is often operated as a public service by governments or under government subsidies in many countries. In Japan, however, private companies frequently provide public transport services in collaboration with the government. Similarly, in Kenya, private operators manage public transport services. Discussions within the SC for this project confirmed that private operators would continue to provide public transport services in NMA. This alignment underscores the significant advantage of leveraging Japan's experience and knowledge in fostering collaboration between private operators and public authorities.

(2) Coherence

The coherence of this project is rated as "high".

Japan's ODA Policy: Japan's development cooperation policy for Kenya aims to "contribute to sustainable development and equitable social development that supports economic growth," with "economic infrastructure development" as one of its six sub-goals. In NMA, road construction has been carried out through grant aid, and this project complements those efforts by improving public bus services after the development of road infrastructure. This alignment demonstrates a high consistency with Japan's past projects.

Other Development Cooperation: The World Bank (WB) and Millennium Challenge Corporation (MCC) are implementing the Kenya Urban Mobility Improvement Project and Integrated Transport Planning Under NaMATA, respectively. Both projects are highly relevant as they focus on rehabilitating commuter railroads and formulating public transport plans for NaMATA, which is expected to become the primary management and supervision agency for public transport in the Nairobi metropolitan area. This project's activities align with these initiatives, reinforcing its consistency within the broader framework of development cooperation.

(3) Efficiency

The efficiency of this project is rated as "relatively high".

Improvement of Bus Service Quality: In the pilot project, improved bus services were introduced. In passenger satisfaction survey conducted to measure the impact, 43% to 71% of respondents reported satisfaction with the 14 service indicators for non-pilot bus users, while for pilot bus users, over 76% of respondents expressed satisfaction across all 14 indicators. These results indicated that the improvements were noticeable to public transport users, demonstrating a high degree of achievement for this goal.

Expansion to the Entire Nairobi Metropolitan Area: In the pilot project, 40 vehicles operating on Ngong Road provided safe and hospitable bus services with scheduled operations and trained

crews. To expand this model across the entire NMA, it will require the cooperation of NaMATA, county governments, and the NTSA. However, establishing a solid cooperation framework with these agencies takes time, and there is still room for improvement. Furthermore, enhancing the capacity of staff in these agencies, particularly in planning and managing public transport, is essential for successful implementation and future expansion.

(4) Effectiveness

The effectiveness of this project is rated as "moderate".

Cooperation among Kenyan CP Agencies: The project envisioned collaboration between Kenyan CP organizations and the JICA expert team, with five WGs established to facilitate activities. Representatives from each organization, who were members of the project team, were expected to participate in these WGs and contribute to discussions as the project progressed. However, participation from Kenyan organizations was limited except for WG5, and frequent changes in the representatives attending the meetings further hindered progress.

Pilot Project Implementation: The pilot project along Ngong Road experienced significant delays, primarily due to challenges in securing the budget for NaMATA and coordination with the operators. These issues led to repeated adjustments in project preparations and scheduling for JET's deployment. On the other hand, while considerable time was spent on preparations for the pilot project—including consultations with bus operators—this allowed for the establishment of strong relationships with the operators, which, as described in the previous section, contributed significantly to the success of the pilot project.

(5) Impact

The impact of this project is rated as "relatively high".

Pilot Project: As part of this project, an improved bus service was implemented along Ngong Road. Although the pilot project targeted only one route with a limited number of users, as mentioned above, user satisfaction was high, demonstrating a significant impact on them. While the scale of the pilot was small, it provided valuable insights into what public transport services should aim to achieve, contributing to the broader goal of improving bus services in the NMA.

Gender Mainstreaming: The project also incorporated gender mainstreaming activities, including the pilot project. Women, PWDs, and children expressed low satisfaction with the current public transport system. By improving bus services and making them accessible and inclusive for all, the project had a substantial impact on promoting equitable access to public transport as a reliable daily means of mobility.

(6) Sustainability

The sustainability of this project is rated as "moderate".

NaMATA's Structure and Cooperation among Related Organizations: Public bus services involve many stakeholders, including NaMATA, county governments, NTSA, KURA, KeNHA, KeRRA, police, and bus operators. While this project aimed to foster cooperation among these organizations, their participation in meetings was limited. In the future, effective collaboration among these entities will be crucial for improving public bus services. However, given the current lack of coordination, the sustainability of this aspect is rated as moderate.

Reorganization of Bus Operators: To address the current bus operator structure under the SACCO and franchise system, the Steering Committee agreed to reorganize bus operators into joint stock companies. This agreement is a significant achievement for the sustainability of the project, as improving bus services requires close cooperation between government agencies and bus operators. However, this reorganization must be led by government agencies and will require the active involvement of related organizations mentioned above. Given the challenges of achieving this level of coordination, sustainability is rated as moderate.

Development of Laws and Regulations: The project produced drafts of the Metropolitan Transport Act and the Public Transport Operators Regulations, which will need to be reviewed and enacted by the Kenyan government. However, it remains unclear whether NaMATA has the authority and capacity to lead this process. As a result, the sustainability of this component is judged to be fair.

9.5 Lessons and Issues

(1) Participation Awareness in a Multi-Stakeholder Project

The project team comprised more than 10 organizations, including central and local governments as well as private sector entities. Smooth implementation of the project required close coordination among these institutions. To facilitate this, five WGs were established to conduct activities by theme. However, participation from agencies other than NaMATA was inconsistent, with frequent personnel changes and many instances of non-attendance. In some cases, participants requested transport allowances or per diems, but the project adopted a policy of not providing such allowances, which likely contributed to low engagement.

In the context of Activity 3, the roles of each institution were examined. Administrative officers, in particular, often work strictly within defined responsibilities, and may have found it difficult to participate in external activities without clearly assigned roles. As a lesson, holding WG meetings on a rotational basis at each member institution's office may help foster a greater sense of ownership and participation.

(2) Building Mutual Understanding through Training

Given the multi-institutional composition of the project team, not only coordination but also mutual understanding and collaboration were essential. To support this, two third-country training programs, one study visit to Japan, and one training program in Japan were conducted during the project. Participants from various organizations took part in these programs, which provided exposure to good practices in other countries while also strengthening interpersonal relationships. In particular, the Japan visit, which included senior officials, helped build a shared understanding of public transport improvements in the NMA and facilitated smoother communication thereafter, contributing to the project's successful implementation.

(3) Collaboration with Private Bus Operators

At the start of the project, there were concerns about the feasibility of working with private bus operators. However, through continued discussions, especially after selecting the pilot route, the project engaged 10 operators who regularly participated in meetings and collaborated closely with government agencies. Unlike past initiatives, this pilot project demonstrated a new model in the NMA in which operators and government agencies worked together to improve services. As NMA moves toward restructuring its bus system and network, deeper communication between operators and authorities will become increasingly important. Given that nearly 200 bus operators are active in the NMA, individual engagement is challenging. Therefore, to improve public transport services in the NMA, it is essential to proceed cooperatively through dialogs with the 10 companies that participated in the pilot project and related organizations, rather than imposing one-sided, top-down directives from administrative agencies.

(4) Data Management and Utilization by Government Agencies

Various data necessary for transport demand forecasting and BRT planning already exist, having been collected by donors and research institutions. However, this data has not been properly managed, making access to raw data difficult. Operators are required to submit data to the NTSA and county governments when applying for operating permits, but such data was not provided to

the project. This may be due to a lack of data management systems on the government side or non-compliance by operators. In either case, administrative bodies must collect and manage data in accordance with regulations. Contributing factors to poor data management include a lack of understanding of data utilization and the absence of management guidelines. Therefore, it is necessary to establish data usage policies and develop data management guidelines to enable both proper management and practical use.

(5) Framework for Regulatory Enforcement

There are several regulations governing public transport in the NMA, including the NTSA Act and the Nairobi City County Transport Act, which stipulate operational rules and define the roles of administrative bodies and operators. However, these regulations are often not enforced. Although administrative agencies recognize these issues, improvements have been limited. One likely reason is that while the acts provide overarching rules, no accompanying operational guidelines exist, leaving officials unsure how to implement the regulations. Thus, to enforce the relevant regulations effectively, it is necessary to develop and disseminate detailed implementation guidelines.