

Country Name	Project for Revision of Dar es Salaam Urban Transport Masterplan
United Republic of Tanzania	

I. Project Outline

Background	<p>Dar es Salaam is Tanzania's largest city and the most important center for industry and commerce. JICA conducted technical cooperation to develop a transport master plan, "Dar es Salaam transport policy and system development master plan" (the previous M/P) with the target year of 2030. Many of the proposed projects in the previous M/P had already been implemented by development partners including JICA and the government budget. However, the population growth of Dar es Salaam was faster than the projection in the previous M/P; in addition to the rapid growth of the number of private vehicles exceeding the forecast by the previous M/P. Besides that, a trial operation of urban railway, which was not included in the previous M/P, started as a pilot project in 2011. In addition to those changes in the city, Dar es Salaam became a gateway of transport corridor for the neighboring countries such as Zambia, Burundi, Rwanda and Uganda. Under those situations, the previous M/P needed to be updated in order to cope with the new transport demand.</p>										
Objectives of the Project	<p>The project aims at preparation of the revised Urban Transport Master Plan (the revised M/P) and strengthening capacity of the relevant agencies for implementation of the revised M/P, thereby contributing to improvement of urban transport issues in Dar es Salaam City through implementation of the proposed projects in the revised M/P by a governmental approval and reflection into the city policy and program.</p> <p>1. Expected Goals through the proposed plan¹: The revised M/P prepared by the project contributes to improvement of urban transport issues in Dar es Salaam through implementation of the proposed projects in the revised M/P by a governmental approval and reflection into the city policy and program.</p>										
Activities of the Project	<p>1. Project Site: Dar Es Salaam</p> <p>2. Main Activities: i) information collection and review of the current situation, ii) determination of future urban structure and demand forecast, iii) preparation of a draft revised Dar es Salaam Urban Transport Master Plan, iv) pre-feasibility study for priority projects, v) capacity building for implementation of the revised MP and public relation activities</p> <p>3. Inputs (to carry out above activities)</p> <table border="0"> <tr> <td>Japanese Side</td> <td>Tanzania Side</td> </tr> <tr> <td>1) Mission members: 17 persons</td> <td>1) Staff Allocated: 23 persons</td> </tr> <tr> <td>2) Training in Japan: 10 persons</td> <td>2) Facilities and equipment: Project office</td> </tr> <tr> <td>3) Equipment: printer</td> <td>3) Operating cost: Utility costs</td> </tr> </table>			Japanese Side	Tanzania Side	1) Mission members: 17 persons	1) Staff Allocated: 23 persons	2) Training in Japan: 10 persons	2) Facilities and equipment: Project office	3) Equipment: printer	3) Operating cost: Utility costs
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Project Period	(ex-ante) October 2016- March 2018 (actual) October 2016-July 2018 (Extension: April 2018-July 2018)	Project Cost	(ex-ante) 330 million yen, (actual) 299 million yen								
Implementing Agency	President's Office Regional Administration and Local Government (PO-RALG), Dar es Salaam City Council (DCC) (Since 2021 Dar es Salaam Regional Secretariat (DRS))										
Cooperation Agency in Japan	Eight-Japan Engineering Consultants Inc, Nippon Koei Co., Ltd., CTI Engineering International Co., Ltd., Metropolitan Express Company Ltd.										

II. Result of the Evaluation

< Special Perspectives Considered in the Ex-Post Evaluation >

(Establishment of DUTA)

- In the ex-ante evaluation summary, although Dar es Salaam Urban Transport Authority (DUTA) was going to be established, it was not established. Therefore, the ex-post evaluation was not able to study on DUTA.

(Expected Goal through the proposed Plan)

- In the ex-ante evaluation summary, the Expected Goal through the Proposed Plan is stated as the revised M/P prepared by the project contributes to improvement of urban transport issues in Dar es Salaam City through implementation of the proposed projects in the revised M/P by a governmental approval and reflection into the city policy and program. The statement is composed of three stages of: i) the approval of the government of Tanzania on the revised M/P and reflection of the revised M/P into the city policy; ii) the implementation of the proposed projects in the revised M/P; and iii) improvement of the urban transport issues in Dar es Salaam. The stage i) and ii) can be considered as "expected utilization of the proposed plan (the revised MP) and the stage iii) should be purely the Expected Goal. Therefore, in this ex-post evaluation, i) and ii) was verified as the expected utilization of the proposed plan and iii) will be verified as the Expected Goal.

1 Relevance/Coherence

[Relevance]

<Consistency with the Development Policy of Tanzania at the Time of Ex-Ante Evaluation >

The project was consistent with the development policy of Tanzania at the time of ex-ante evaluation. In terms of economic growth and regional integration, the government of Tanzania adopted several policies and programs such as "National Transport Policy (NTP)" (2003), "Transport Sector Investment Program" (2007-2016), and "the Big Result Now" (2013) which identified a transport sector as one of priority sectors.

<Consistency with the Development Needs of Tanzania at the Time of Ex-Ante Evaluation >

¹ The degree of achievement of expected goals is not to be assessed in principle at the time of ex-post evaluation, since it is defined as the medium-to-long-term goals which will be attained as a result of crystallizing the proposed plan ("output" of the project).

The project was consistent with the development needs of Tanzania at the time of ex-ante evaluation. The population growth of Dar es Salaam was faster than the projection in the previous M/P and the number of private cars was going to more rapidly increase than the projection as well. The pilot operation of urban railway which was not included in the M/P 2008 started in 2011. Those factors required the update of the previous M/P.

<Appropriateness of Project Design/Approach>

The project design/approach was appropriate. No problem attributed to the project design/approach was confirmed.

<Evaluation Result>

In light of the above, the relevance of the project is ③².

[Coherence]

<Consistency with Japan's ODA Policy at the Time of Ex-Ante Evaluation>

The project was consistent with the Country Assistance Policy for the United Republic of Tanzania (2012) at the time of ex-post evaluation. One of the priority areas "Infrastructure development conducive to economic and social development" including the improvement of arterial traffics and urban transportation. And one of seven focus areas of Tokyo International Conference on African Development (TICAD) V was "Promote regional integration for region-wide development, especially inter- and intra-regional trade, through the development of trade related infrastructure".

<Collaboration/Coordination with other JICA's intervention>

Although the collaboration/coordination between the project and the Capacity Development Project for Improvement of Dar es Salaam Transport (Phase-2) of JICA which aimed at establishing DUTA was planned at the time of ex-ante evaluation, it was not implemented because the change of the president caused policy changes including reduction of government recurrent costs by dismantle of existing governmental organizations, opposition to the establishment of new organizations and the ownership of DUTA was transferred from PO-RALG to the Ministry of Works, Transport and Communications (MoWTC).

<Cooperation with other institutions/ Coordination with international framework>

The cooperation/coordination with other partners and international frameworks were mentioned to some extent at the time of ex-ante evaluation. However, the JICA study team received cooperation during the project implementation period from other donors including the World Bank (WB) and expected synergy effects have been materialized at the time of ex-post evaluation because Dar es Salaam City Master Plan team and the JICA study team worked closely together in developing the future transport proposals for Dar es Salaam City to achieve consistency and complementarity between the two planning interventions. One of the synergy effects enabled JICA and the WB to coordinate their activities and reduce operating costs. During implementation of the project for improvement of Tazara Intersection (Phase 3) and the project for Widening of New Bagamoyo Road (Phase 2) by JICA, lanes were provided in the middle of the roads to allow for Bus Rapid Transit (BRT) (Phase III) and (Phase IV) respectively to be supported by the WB. This coordination helped to reduce costs during project implementation of the two BRT phases. Furthermore, most donors and the government of Tanzania have referred to the revised M/P to formulate and implement transport projects in Dar es Salaam. In addition, the expected synergy effects with the international frameworks have been realized. The revised M/P is greatly influenced by Africa's Agenda 2063 and the synergy effects can be witnessed in achieving Sustainable Development Goals (SDGs) 9 (Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation), 10 (Reduce inequality within and among countries) and 11 (Make cities and human settlements inclusive, safe, resilient and sustainable) as a result of implemented and ongoing projects proposed in the revised M/P including BRT Phase II-V, TOD for Dar es Salaam, Tanzanite Bridge, Widening of New Bagamoyo Road, Kijazi Interchange, Tazara Flyover, and Widening of Kimara-Kibaha Road. These projects are financed by donors such as JICA, the World Bank (WB), the African Development Bank (AfDB), the French Agency for Development (Agence Française de Développement: AFD) and Economic Development Cooperation Fund (EDCF) in collaboration with the government of Tanzania.

<Evaluation Result>

In light of the above, the coherence of the project is ③.

[Evaluation Result of Relevance/Coherence]

In the light above, the relevance/coherence of the project is ③.

2 Effectiveness/Impact

<Status of Achievement for the Objectives at the Time of Project Completion>

The objectives of the project were achieved as planned by the project completion. By the time of project completion, the "Revision of Urban Transport Master Plan" (Output 1) was prepared and "Capacity development of President's Office Regional Administration and Local Government (PO-RALG) and Dar es Salaam Regional Secretariat (DRS) staff" (Output 2) on urban transport and planning by trainings and workshops in Japan and Tanzania was conducted.

< Utilization Status of the Proposed Plan at the Time of Ex-post Evaluation>

The proposed plan has been utilized as expected by the time of ex-post evaluation. The revised M/P prepared by the project was approved by the government of Tanzania through PO-RALG on July 11, 2018 (Indicator1). The revised M/P prepared by the project was reflected into the city policies for the development of Dar es Salaam such as "Dar es Salaam Master Plan 2012-2032" of the Ministry of Lands, Housing and Human Settlements, "National Five-Year Development Plan (FYDP) I, II, and III". It is notable that although the reflection to "Dar es Salaam City Master Plan 2016-2036" was not expected at the time of ex-ante evaluation, the ex-post evaluation survey acknowledged the Master Plan approved in February 2020 by William Lukuvi, Minister for Lands, Housing and Human Settlements Development reproduced the issues, the projects and recommendations provided by the revised M/P. "TANROADS Strategic Plan 2021/22-2025/26" also incorporates most road projects in the revised M/P including flyovers and upgrade of outer ring road Kibamba – Bunju (Indicator 2). All the 5 priority projects have been in the phase of the feasibility study, design and construction and the status of extracted 37 proposed projects was confirmed and 3 projects have been completed and 28 projects are in the phase of feasibility study, procurement, mobilization and construction, though 6 projects have not started work yet (Indicator 3).

<Status of Achievement for Expected Goals through the Proposed Plan at the Time of Ex-post Evaluation>

² ④ : very high, ③ : high, ② : moderately low, ① : low

The expected goals through the proposed plan have been achieved as planned at the time of ex-post evaluation. The number of traffic jams has been reduced in several roads of Dar es Salaam as a result of the installation of BRT I which has accelerated mode shift from cars to BRT buses. The construction of flyovers and interchange and road widening projects also improve the traffic congestions in Dar es Salaam in spite of no quantitative data available at the time of the ex-post evaluation. The travel time in the city has been also reduced by the construction of flyovers and road widening. The BRT I project has reduced the travel time from 2 hours to 45 minutes between Kimara and Kivukoni. In addition, the number of road traffic accidents in Dar es Salaam has sharply decreased from 5,937 in 2012 to 21 in 2021 because of BRT, flyovers and the road widening project which installed traffic separation with median, pedestrian walkways and provision of traffic lights. The passengers using BRT per day has increased from 70,000 at the start date of operation to 200,000 at the present and other road projects have encouraged people to use public transportation.

<Other Impacts at the Time of Ex-post Evaluation>

Some positive impacts have been observed in the ex-post evaluation. Reduced travel time and increased utilization of transportation have facilitated people to more flexibly access social services such as markets, schools and hospitals. This is even more important when women are sick and pregnant. In addition, there had been an increase in the number of passing vehicles at Tazara Flyover from 26,766 in 2018 to 40,476 in 2020 due to improved road network as a result of implementing projects proposed by the M/P.

Some negative impacts have been confirmed by the implementation of the revised M/P; for instance, in the implementation of Tegeta Line project Dar es Salaam commuter Railway Project, the risk level of traffic accidents around the project sites was high and noise, vibration and pollution of ambient air by dust were generated. Therefore, Tanzania Railway Corporation (TRC), contractor, engineer and local authority took mitigation measures including establishment of speed limitation of project vehicle, installation of warning signs and humps proper maintenance of construction machine, sprinkling water on the access road and provision of ear plugs and dust masks. About impact on social environment, government agencies like the Dar Rapid Transit (DART) and the Tanzania National Roads Agency (TANROADS) acquired land for infrastructure construction. But before acquisition, the agencies compensated all those affected in accordance with Tanzanian laws and regulations. In the projects of John Kijazi Interchange, Widening of New Bagamoyo Road and Tanzanite Bridge, affected people were identified and compensation for them was properly conducted.

<Evaluation Result>

In light of the above, the effectiveness/impact of the project is ④.

Status of Achievement of Utilization Status of the Proposed Plan and Expected Goals through the Proposed Plan

Aim	Indicators	Results	Source
(Utilization Status of the Proposed Plan) i) the approval of the government of Tanzania on the revised M/P and reflection of the revised M/P into the City policy	Indicator 1 The revised M/P prepared by the project is approved by the government of Tanzania.	Status of Utilization: Utilized as expected (Ex-post Evaluation) The master plan was approved by the government of Tanzania through PO-RALG on July 11, 2018.	Final Report of the project
ii) the implementation of the proposed projects in the revised M/P.	Indicator 2 The revised M/P prepared by the project is reflected into the city policy of Dar es Salaam.	Status of Utilization: Utilized beyond the expectation (Ex-post Evaluation) The content of revised M/P has been reflected in “Dar es Salaam Master Plan 2012-2032” (MoLHHSD), “Five Year Development Plan I, II, and III,” “Dar es Salaam Master Plan, Road Development Plan” and “Public Transport Development Plan”.	MOLHHSD MOFP DCC
	Indicator 3 The current status of the priority projects proposed in the revised M/P.	Status of Utilization: Utilized as expected (Ex-post Evaluation) All the 5 priority projects proposed in the revised M/P have been in the phase of the feasibility study, design, and construction. The status of extracted 37 proposed projects was confirmed and 3 projects have been completed and 28 projects are in the phase of feasibility study, procurement, mobilization and construction, though 6 projects have not started work yet.	PO-LARG DCC
(Expected Goals through the Proposed Plan) The improvement of the urban transport issues in Dar es Salaam	Indicator 1 The urban transport issues in Dar es Salaam are improved.	Status of Achievement: Achieved as planned (Ex-post Evaluation) <ul style="list-style-type: none"> ● The number of traffic jam was reduced. ● Travel time was reduced. ● The number of traffic accidents was reduced. ● The number of passengers using public transportations increased; moreover, Flyovers and widened roads by proposed projects supported the operation of public transportation. 	DART, TANROADS

3 Efficiency

The project cost was within the plan (the ratio against the plan: 91%) and the project period slightly exceeded the plan (the ratio against the plan: 117%). The project period was extended because the activities of the project were larger than expected and the delay to obtain intermediate approvals occurred. Outputs were produced as planned.

In the light above, the efficiency of the project is ③.

4 Sustainability

<Policy Aspect>

The revised M/P prepared by the project has been included in the “Dar es salaam City Master Plan” approved by MOLHHSD which is a planning tool to guide the city and government on future growth and development of Dar es Salaam from 2016 to 2036, “National Five -Year Development Plan” approved by the Ministry of Finance and Planning (MOFP) which is a strategy to achieve the goals of

< Institutional/Organizational Aspect>

Some government agencies including DART, TANROADS and the Tanzania Rural and Urban Road Agency (TARURA) have organization structures to implement the projects proposed in the revised M/P prepared by the project which have been functioning. Those organizations have the reasonable number of staff members to implement the plan. For instance, the Operation and Infrastructure Management Division of DART consists of 17 staff members. The division is solely responsible for the implementation of the BRT project proposed by the M/P.

As a coordination mechanism, there is a proper coordination among stakeholders for the implementation of the plan developed by the project. TARURA, Dar es Salaam City Council (DCC), Dar es Salaam Regional Administrative Secretary (DSM-RAS), Land Transport Regulation Authority (LATRA), Tanzania Railway Corporation (TRC) and Councils participate the initiatives taken by TANROADS and DART. In addition, Regional Road Board members meet twice a year to discuss all road projects in Dar es Salaam. Members of the Board include Regional Commissioner, council directors, local councilors from all councils, and all implementing agencies.

<Technical Aspect>

Some staff members of PO-RALG and DCC were continuously trained on the necessary skills and knowledge to implement the plan. On average 15 participants per year from PO-RALG get training on contract management, use of design manual for roads, economic planning and urban planning and on average 5 participants per year from DCC get trained on Geographic Information System (GIS), integrated land use planning, unit title and construction. However, due to transfers and turnovers, there is a need for time-to-time capacity building.

<Financial Aspect>

Some institutions face the challenge of low budget to implement the projects proposed in the plan. However, there have been initiatives by the government of Tanzania to finance different levels of the plan. In addition, PO-RALG and DART have had negotiations with donors. For the BRT Project phase II-V AfDB, WB and AFD have financed. These projects are in the phase of procurement of contractors and construction. The construction of the Tanzanite bridge funded by EDCF was completed. For the improvement of intersections, review of detail engineering design is currently implemented by AfDB fund.

<Environmental and Social Aspect>

At the time of ex-ante evaluation, environmental permits, pollution control measures and monitoring system for natural and social environmental aspects were expected to be confirmed by the project.

PO-RALG and DCC have been undertaking a Strategic Environmental Assessment (SEA) to ensure that planned development targets are able to avoid or mitigate negative social, economic and environmental impacts and the SEA to ensure that social, economic and biological/ecological considerations are fully integrated into the proposed Master Plan.

As countermeasures against risks in the environmental and social aspects, normally an implementing agency conducts an Environmental and Social Impact Assessment (ESIA) study in the feasibility study of a project and proposes mitigation measures which will be implemented during the project in order to minimize negative impacts on the environment and local community.

In addition, all projects have been obliged to be monitored by implementing agencies following the environmental and social management plan. Other mitigation measures against negative impacts include minimizing site clearing and borrow pits, use of stockpiled fertile soil for re-vegetation of borrow pits, prevent blasting of rocks at quarry site at night, areas adjoining rivers to be left undisturbed as buffers, and disturbed riverbanks and heads in the neighborhood of culverts and bridges shall be stabilized by grassing. However, some agencies have not taken all necessary countermeasures against the risks due to insufficient funds.

<Evaluation Result>

In light of the above, slight problems have been observed in terms of the technical and financial aspects of the implementing agency. Therefore, the sustainability of the project effects is ③.

5 Summary of the Evaluation

The project prepared the revised Master Plan and provided the capacity development of PO-RALG and DCC staff. The revised M/P has contributed to the improvement of urban transport issues in Dar es Salaam City. After the project completion, the revised M/P has been utilized as expected.

Considering all of the above points, this project is evaluated to be highly satisfactory.

IV. Recommendations & Lessons Learned

Recommendations for Implementing Agency:

- It is recommended that either a single implementing agency with authority and power to coordinate the urban transportation system in Dar es Salaam be created, or that a system be established in which PO-RALG or other agencies take the lead in coordinating various issues related to the urban transportation system with the relevant agencies. The proper coordination among MOWT PO-RALG and MOFP will lead efficiency and effectiveness in the formulation and implementation of transport projects and avoid duplication of activities.
- It is recommended that implementing agencies to enhance the awareness of importance of environmental and social considerations in relevant agencies and transfer the skills in order to secure the budget and conduct stable environmental and social consideration measures.
- It is recommended that implementing agencies conduct capacity buildings to foster ownership and empowerment, and strengthen confidence, knowledge and skills and also take prevent measures to secure adequate number of qualified staff who can provide efficiency, effectiveness, morale, health and safety for the implementation of projects.

Lessons Learned for JICA:

- In order to promote comprehensive development based on the recommendations of a Master Plan (M/P), it is necessary to identify priority projects in the M/P to avoid the situation where formulation of project does not proceed as much as possible and attract funds from development partners and investors, and at the final Joint Coordinating Committee (JCC) for the project make all parties concerned aware of the importance of integrating the M/P to higher level policies and the necessity to establish a mechanism to coordinate relevant organizations including ministries, governmental agencies and donors.



On-going Construction of BRT Phase II in Dar es Salaam



Tanzanite Bridge in Dar es Salaam