

Date: 9 May 2016

Environmental and Social Considerations in Detailed Planning Survey
(Technical Cooperation for Development Planning)

(一般概況)

1. Full title of the Project

the Project for Revision of Dar es Salaam Urban Transport Master Plan

2. Type of the study (e.g. Master Plan, Feasibility Study, Detailed Design, etc.)

Master Plan

3. Categorization and its reason

The Study is classified as a “Category B” because the Project is not likely to have significant adverse impact on the environment under the JICA Guidelines for Environmental and Social Considerations (April, 2010) in terms of its sectors, characteristics and areas.

4. Agency or institution responsible for the implementation of the project

President’s Office Regional Administration and Local Government (PO RALG)
the Dar es Salaam City Council (DCC)

5. Outline of the Project (objectives, justification, location, proposed activities, and scope of the study)

1. Expected Goals which will be attained after the Project Completion

The revised the Urban Transport Master Plan will be approved by GOT, and then it will work effective as a policy and program to resolve urban transport issue in Dar es Salaam.

2. Outputs

The major outputs of the Project are;

- (1) Revised Urban Transport Master Plan in Dar es Salaam, for which target year is set to be the year of 2040
- (2) Technical Transfer to formulate/revise Urban Transport Master Plan

3. Activities

- (1) Review and Analysis of the current situation shown in below
 - 1) Current policy, legal and regulatory framework, and related plan for the urban transport
 - 2) Related past studies including the Dar es Salaam Urban Transport Master Plan developed

- in 2008 and the extent of its implementation to date
- 3) The role, structure and capacity of key transport stakeholders
 - 4) Current condition of the urban transport infrastructure and facilities
 - 5) Current condition of the public transport services, road transport services, and traffic management services
 - 6) Socio-economic condition
 - 7) Development potential, challenges and constraints including Environmental issues toward future development in Dar es Salaam
 - 8) Current tendency of supports by other donors including World Bank, African Development Bank
 - 9) Current status of GIS data
 - 10) Current traffic condition by implementation of Traffic survey
 - 11) Other existing data and information related to the Project
- (2) Setting the future urban structure and demand forecast
 - 1) Setting of development vision
 - 2) Conducting analysis by preparing alternative development scenarios on future urban structure
 - 3) Implementation of Strategic Environmental Assessment
 - 4) Setting socio-economic framework
 - 5) Conducting study on future traffic demand forecast
 - (3) Formulation of Dar es Salaam Urban Transport Master Plan
 - 1) Setting of basic transport policy for Dar es Salaam
 - 2) Clarification of Land Use Policy for Urban Transport
 - 3) Formulation/Revision of Existing plans including Road Plan, Public Transport Plan, and Traffic Management Plan
 - 4) Formulation of Dar es Salaam Urban Transport Master Plan
 - 5) Conducting economic and financial analysis
 - 6) Formulation of phased implementation plan up to the year of 2025, 2030 and 2040
 - 7) Identifying prioritized projects
 - 8) Recommendation of legal framework for planning and implementation of Urban Transport Master Plan
 - (4) Pre-feasibility study for selected prioritized project(s)
 - 1) Identifying prioritized project(s) for pre-feasibility study
 - 2) Conducting basic design studies
 - 3) Calculating estimated Project costs

- 4) Conducting economic/financial analysis
- 5) Conducting environmental and social consideration study (SEA/IEE level)
- 6) Recommendation of the institutional framework on planning, implementation management
- (5) Technical transfer through implementation of the Project
 - 1) Conducting analysis of the Capacity of the Tanzanian side related to urban transport planning in Dar es Salaam
 - 2) Formulation of a capacity development plan
 - 3) Conducting on-the-job trainings through the implementation of the Project
 - 4) Conducting training course in Japan
 - 5) Conducting workshops/seminars to formulate/monitoring the M/P

6. Description of the project site (maps, environmental and social condition, current issues, etc.)

1. Project Location

The project site is the city of Dar es Salaam (see Figure 1).

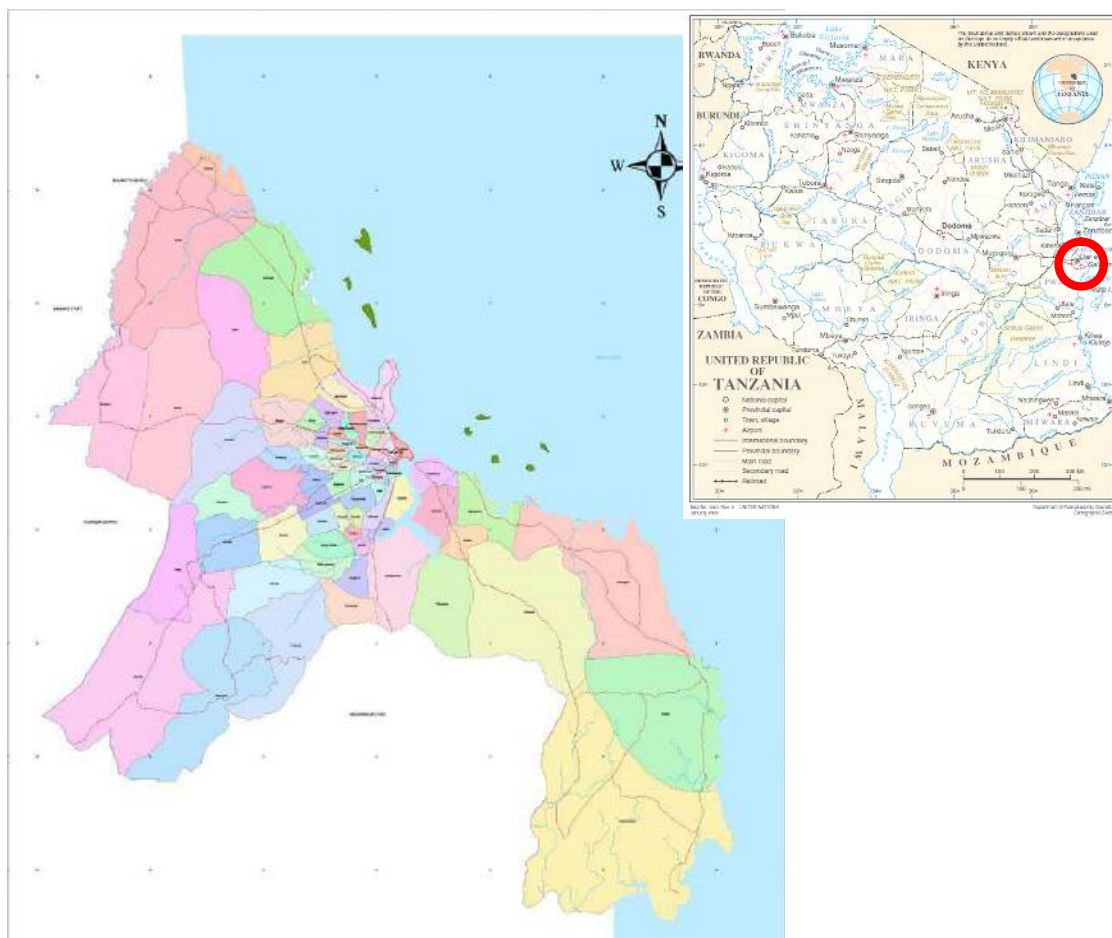


Figure 1. Dar es Salaam

2. Environmental and Social Conditions

Dar es Salaam is Tanzania's largest and most important industrial and commercial center with 4.4 million inhabitants in 2012 (Population and Housing Census 2012, National Bureau of Statistics). With population growth of 5.6 percent per year, Dar es Salaam has become the third fastest growing city in Africa. Its population is expected to reach more than 10 million by 2035. The urbanization is also observed in the neighboring districts of Dar es Salaam. Dar es Salaam is also critical to the region's economy. The land locked countries of Zambia, Burundi, Rwanda and Uganda as well as large parts of eastern Democratic Republic of Congo depend on the port and markets of Dar es Salaam for their import and export needs. This makes Dar es Salaam strategically important not just for Tanzania but also for large part of East Africa.

Dar es Salaam has about 3,500 km of roads, of which only about 20 percent are in good condition. Road density in Dar es Salaam is barely 1.0 km/sq. km, there are only four main road arteries, and the system lacks adequate paved connecting roads between them.

Dar es Salaam lies along the Western Coast of the Indian Ocean with a total land surface area of 1,393 sq.km. It consists of moderate hills to the west and north of the city, plains and coastal areas. Dar es Salaam has a tropical savanna climate with two rainy seasons (March to May and November to December) and a dry season (June to September). Total annual precipitation average is 1,100mm.

Original vegetation of Dar es Salaam area consists of coastal shrubs and forest, Miombo forest, coastal wetland and mangrove. There is no National Park within or near Dar es Salaam, however there are five Forest Reserves and one Game Reserve (Pande Game Reserve, Protected Area Management Category IV "Habitat/Species Management Area" by International Union for the Conservation of Nature: IUCN) within the city boundary. Dar es Salaam is within Biodiversity Hotspot as Coastal Forests of Eastern Africa, Endemic Bird Area and Key Biodiversity Area. It is reported about 270 species in Dar es Salaam, including 14 Endangered Species listed by IUCN.

3. Current Issues

The rapid increase of population in the recent years leads to the sudden and unplanned urbanization such as expansion of informal settlements, traffic congestions, lack of social infrastructures, etc. The unplanned development combined with climate change makes Dar es

Salaam vulnerable to the risk of flooding and sea level rise.

7. Legal Framework of Environmental and Social Considerations

(1) Laws, regulations and standards related to environmental and social issues require the procedures of Environmental Impact Assessment (EIA), including stakeholder participation, and information disclosure.

Table 1 is a list of policies, laws and regulations related to environmental and social issues in Tanzania. Presently there are environmental standards relating to: industrial effluent, drinking water, noise and air quality.

Table 1 Laws, Regulations and Standards Related to Environmental and Social Issues

	Name	Year	Responsible Government Agencies
Policies	National Environmental Policy (NEP)	1997	Vice President's Office (VPO)
	National Forest Policy	1998	Ministry of Natural Resources and Tourism
	Wildlife and Wetland Policy	2007	Ministry of Natural Resources and Tourism
	National Water Policy	2002	Ministry of Water and Irrigation
	Agriculture and Livestock Policy	1997	Ministry of Agriculture and Livestock Development
	National Tourism Policy	1998	Ministry of Natural Resources and Tourism
	National Mineral Policy	1998	Ministry of Energy and Minerals
	National Transport Policy	2003	Ministry of Transport and Communication
	National Energy Policy	1992	Ministry of Energy and Mineral
	Construction Industry Policy	2002	Ministry of Works
	Road Safety Policy	2009	Ministry of Infrastructure Development
	National Human Settlements' Development Policy	2000	Ministry of Land, Housing and Human Settlement Development
	National Land Policy	1997	Ministry of Land, Housing and Human Settlement Development
	Women and Gender Development Policy	2000	Ministry of Women, Gender and Children Development
National Policy on HIV/AIDS	2001	Prime Minister's Office	
Policies	Environment Management Act (EMA)	2004	Parliament of the United Republic of Tanzania
	The Environmental Impact Assessment and Audit Regulations	2005	VPO
	The Environmental (Regulations of	2005	VPO

	Environmental Experts) Regulations		
	Strategic Environmental Assessment Regulations	2008	VPO
	National Environmental Standards	2005	Tanzania Bureau of Standards
	Land Act	1999	Ministry of Land, Housing and Human Settlement Development
	Village Land Act	1999	Ministry of Land, Housing and Human Settlement Development
Legal and Regulatory Framework	The Land Regulations	2001	Ministry of Land, Housing and Human Settlement Development
	The Land Use Planning Act	2007	Ministry of Land, Housing and Human Settlement Development
	The Urban Planning Act	2007	
	Local Government Acts	1982	Prime Minister's Office
	Regional and District Act	1997	Prime Minister's Office
	Forest Act	2002	Ministry of Natural Resources and Tourism
	Wildlife Conservation Act No. 5	2009	Ministry of Natural Resources and Tourism
	Protected Places and Areas Act	1969	Ministry of Natural Resources and Tourism
	Marine Parks and Reserves Act	1994	Ministry of Natural Resources and Tourism
	Water Resources Management Act	2009	Ministry of Water and Irrigation
	The Road Act	2007	Ministry of Infrastructure Development
	Surface and Marine Transport Regulation Authority (SUMATRA) Act	2001	Ministry of Transport and Communication
	The Electricity Act	2008	Ministry of Energy and Minerals
	Mining Act	1998	Ministry of Energy and Minerals
	Mining (Environmental Management and Protection) Regulations	1999	Ministry of Energy and Minerals
	The Petroleum Act	2008	Ministry of Energy and Minerals
	Explosive Act, 538	1963	Ministry of Energy and Minerals
	The Grave (Removal) Act	1969	Ministry of Land, Housing and Human Settlement Development
	Antiquities Act Cap 333R.E.	2002	Ministry of Natural Resources and Tourism
	The HIV and AIDS (Prevention and Control) Act	2008	Prime Minister's Office
Occupational Health and Safety Act	2003	Ministry of Labor, Employment	

			and Youth Development
	The Employment and Labor Regulations Act	2004	Ministry of Labor, Employment and Youth Development

The Environmental Management Act (EMA) and the EIA and Audit Regulations set out the EIA system and procedure of Tanzania. Under this system, projects listed in the First Schedule of the EIA and Audit Regulations are categorized either ones required only Preliminary Assessment or ones required to carry out full a-fledged EIA in order to obtain EIA Certificate issued by the Minister of State Responsible for Environment.

The detailed process of the EIA system is described in the EIA and Audit Regulations. Stakeholder participation and information disclosure are required at the different stages of the EIA procedure. The method of stakeholder meetings and disclosure is also described in the EIA and Audit Regulations.

In Tanzania, it requires EIAs to be conducted and relevant documents to be prepared only by experts or firms of experts whose names and qualifications are registered by the National Environmental Management Council (NEMC).

Figure 2 is the flowchart of the EIA procedure of Tanzania.

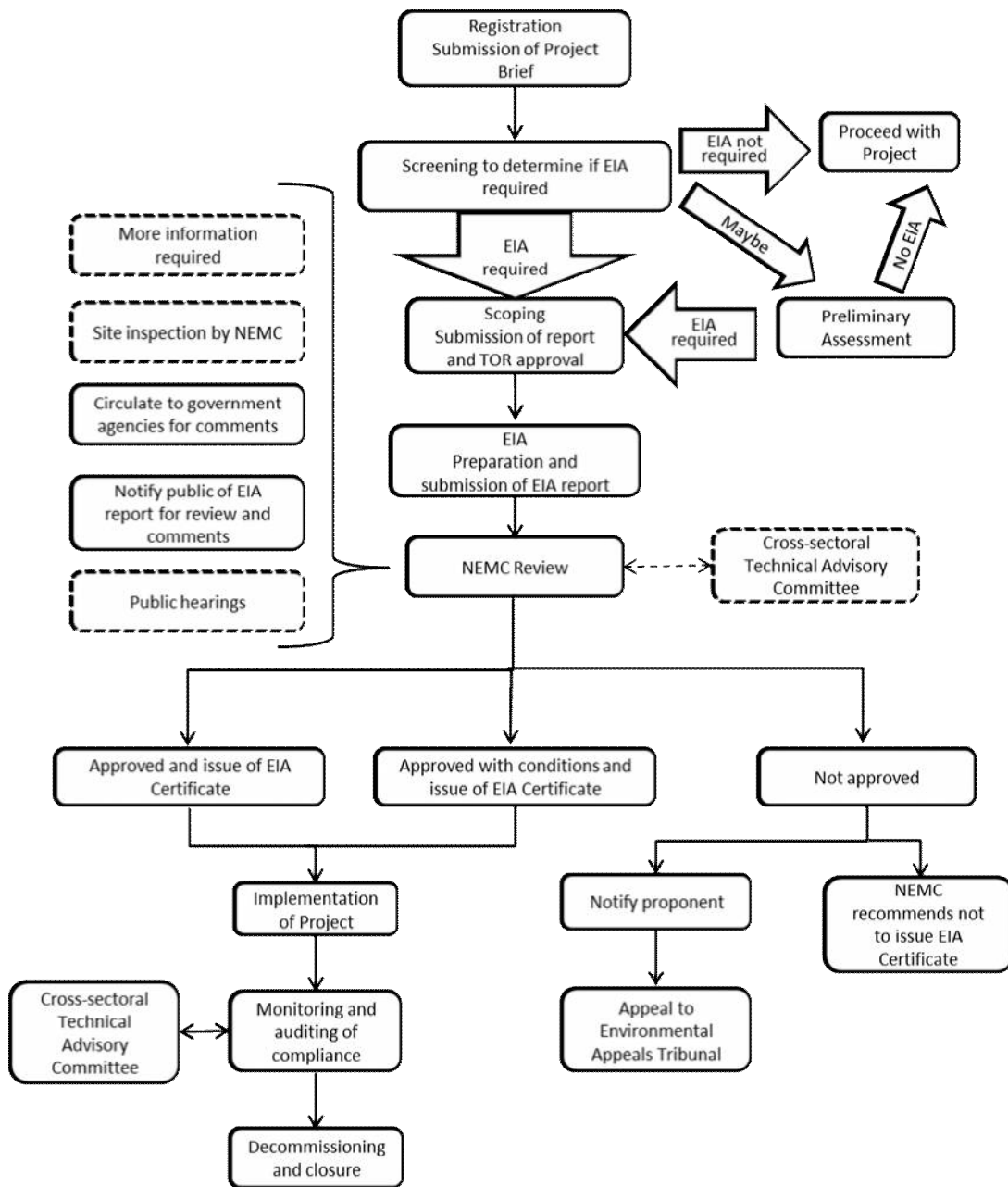


Figure 2 Flowchart of EIA Procedure

Strategic Environmental Assessment (SEA) is required by the EMA for bills, policies, regulations, policies, programs and plans. The process of SEA is similar to EIA as below, as described under Article 11 of the SEA Regulations 2008. The contents of SEA report are described under Third Schedule of the Regulations.

(a) Screening;

- (b) Scoping;
- (c) Developing terms of reference;
- (d) Identification of alternatives and conducting assessments of likely impacts;
- (e) Preparation of draft strategic environmental assessment report;
- (f) Consultation and participation
- (g) Revision of draft strategic environmental assessment report;
- (h) Approval of strategic environmental assessment report; and
- (i) Monitoring of significant environmental impacts of implementation of the Bill, regulations, policy, strategy, plan or program.

(2) Relative agencies and institutions

Name of Agencies/Institutions	Responsibilities
Department of Urban Development under PO RALG and Department of Urban Planning, Transportation and Environment under DCC	Provide environmental and social assessment support for foreign and locally funded projects implemented by PO RALG and DCC respectively. Their functions include conducting assessments for environmental, social impact and preparing relevant EIA reports and RAP, and monitoring. They also oversee environmental and social assessment and implementation conducted by municipalities.
National Environmental Management Council (NEMC):	Responsible for processing and reviewing environmental impact assessment reports and providing recommendation to the Minister Responsible for Environment on granting EIA Certificates
Vice President's Office, Director of Environment	Responsible for processing and reviewing SEA reports and providing recommendation to the Minister Responsible for Environment on approvals.
Vice President's Office, Minister of State Responsible for Environment	Responsible for approving EIA and SEA reports and issuing EIA Certificates and SEA Approval Notices.

8. Provisional Scoping (types and magnitudes of possible adverse impacts and mitigation measures)

Provisional scoping was carried out based on a possible case, improvement of transportation system in Dar es Salaam. Impacted items, selected based on the JICA Guidelines for Environmental and Social Considerations, are examined against impact factors that can occur at the different project stages. Each impact is evaluated whether if it is positive or adverse and also

examined its possible extents and severities. The results of scoping are as Table 2.

Table 2: The Results of Provisional Scoping and Possible Adverse Impact

	Item	Adverse Impact		Positive Impact		Possible Adverse Impact	
		Construction	Implementation	Construction	Implementation		
Social Environment	1	Resettlement	B	C	C	C	Resettlement may be triggered if land acquisition is required.
	2	Living and Livelihood	B	C	B	A	Due to the construction work, traffic control and limited accesses to public and commercial facilities, living and economic activities may be hampered. On the other hand, once implemented, improved transportation system can allow people to spend less time on commuting and lead improved economic activities.
	3	Utilization of land and local resources	B	C	B	C	If land acquisition is required, some change in land use of limited area is expected. Land use may be changed due to improved transportation.
	4	Social institutions and local decision-making institution	C	C	C	C	Impacts on social institutions or local decision making institution are unknown at this stage.
	5	Existing social infrastructures and services	B	C	C	A	Traffic congestions, limited access to existing infrastructures and services are also expected due to the traffic control during the work. Once implemented, social infrastructure and services related to transportation will be improved.
	6	Poor and indigenous peoples, gender, children's rights	C	C	C	A	Unequal employment opportunity and child labor may occur. Improved transportation systems provide more opportunities to those currently who have fewer means of mobility, e.g. elderly, women, students, and poor.
	7	Equality of benefits and losses	B	B	B	B	Employment opportunity for hiring locals for construction work may not be equal. Benefit and losses for business and economic activities around the project site may not be equal.
	8	Heritage	C	C	C	C	If the land is acquired, they may be relocated or affected.
	9	Local Conflicts of Interest	C	C	C	C	Conflicts of interests may occur at decision making during planning of the Master Plan.
	10	Water Right/Common	C	C	C	C	Water use may be required during construction.
	11	Social Consensus	C	C	C	C	Social consensus is needed during planning of the Master Plan.

		Item	Adverse Impact		Positive Impact		Possible Adverse Impact
			Construction	Implementation	Construction	Implementation	
	12	Public Health	B	C	C	C	Public health may be deteriorated if waste and waste water is not properly managed during construction. Public health may be deteriorated if waste and waste water is not properly managed at stations during implementation.
	13	Infectious Diseases(AIDS/HIV)	B	C	C	C	There may be risk of infectious diseases due to the influx of construction workers.
	14	Working Environment	B	C	C	C	Without a proper management, labor conditions and safety of workers may not be ensured.
Natural Environment	15	Topography and Geology	C	C	C	C	Impacts on topography and geology are unknown at this stage.
	16	Land Erosion	C	C	C	C	Impacts on Land erosion are unknown at this stage
	17	Ground Water	C	C	C	C	Impacts on ground water are unknown at this stage.
	18	Hydrology	C	C	C	C	Impacts on hydrology are unknown at this stage.
	19	Protected Areas	C	C	C	C	There are forest reserves in Dar es Salaam. Impacts on such reserves are unknown at this stage.
	20	Ecosystem	C	C	C	C	Some mangroves and swamps are present along the coastal area of Dar es Salaam. Impacts on such areas are unknown at this stage.
	21	Climate	C	C	C	C	Impacts on climate are unknown at this stage.
	22	Landscape	C	C	C	C	Impacts on landscape are unknown at this stage.
	23	Global Warming	B	C	C	B	Emission of global warming gas by heavy machinery and vehicles is expected during construction.
Pollutions	24	Air Quality	B	C	C	B	Emission of air pollutants by heavy machinery and vehicles is expected during construction.
	25	Water Quality	C	C	C	C	Impacts on water quality are unknown at this stage.
	26	Soil Contamination	C	C	C	C	Impacts on soil contamination are unknown at this stage.
	27	Wastes	B	C	C	C	Waste may be produced during construction and implementation
	28	Noise and Vibration	B	C	C	C	Noise and vibration problems may occur during construction. They may occur depending on the transportation mode selected.
	29	Subsidence	C	C	C	C	Impacts on Subsidence are unknown at this stage.
	30	Odor	C	C	C	C	Impacts on odor are unknown at this stage.

	Item	Adverse Impact		Positive Impact		Possible Adverse Impact	
		Construction	Implementation	Construction	Implementation		
	31	Sediment	C	C	C	C	Impacts on Sediment are unknown at this stage.
Others	32	Accident	B	C	C	B	There are risks of accidents during construction.

A: Significant impact is expected. B: Some impact is expected. C: Impact is unknown. D: No impact is expected.

9. Alternatives to the project activities including ‘without project’ option.

Since the study is to review the Urban Transportation Master Plan for Dar es Salaam, at this stage, there is no alternative plan except “without project” option.

In comparison to the “without project” option, implementing this project is highly beneficial, especially in terms of positive impacts on the social environment. By implementing the project, the transportation in Dar es Salaam will be improved, accommodating the increasing population flow into the city. This will lead to promotion of economic activities and improvement of living conditions of the general public especially those living and working in the city and suburban areas. On the other hands, if this project is not implemented, the transportation in Dar es Salaam would not be improved or even deteriorated further causing losses in economic activities.

Alternative analysis for pre-feasibility study is not applicable at this stage since prioritized projects are to be decided in the Master Plan study. Alternative analysis will be made based on the results of the Master Plan study.

10. Result of the consultation with recipient government on environmental and social consideration including roles and responsibilities.

PO RALG and DCC are responsible for overseeing environmental and social considerations of the project. These agencies have experience to work with international donors such as JICA and WB and are aware the roles and responsibilities of them and other governmental agencies on the environmental and social considerations.

11. Terms of Reference for Environmental and Social Considerations

During the process of reviewing the urban transportation master plan, a Strategic Environmental

Assessment should be carried out in accordance with the legislations of the country as well as JICA Guidelines. Since there are only 10 cases of SEA approved in Tanzania so far, it will be advisable to provide some capacity development activities for those decision makers and administrators of PO RALG, DCC and other relevant agencies of this Project, as well as for those who actually carry out SEA so that the experience will be applied to other master planning activities in future.

Terms of Reference for the Study include, but not limited to, the followings.

1. The study compares and analyzes alternative plans of each option based on a strategic environmental assessment (environmental assessment at Policy (P), Planning (P), and Program (P), (PPP) level). Specifically, comparative analysis of alternative plans of each option needs to be conducted including likely environmental and social impacts after having carried out scoping process (clarify extremely important items on environmental and social impacts and its evaluation methods at the time of decision making such as policy, plan, and program levels).

2. After the Master Plan is formulated, scoping for the priority project which is selected through the comparative analysis of alternative plans of each option, is to be conducted (clarify items on environmental and social impacts). Specifically, items needed for conducting an environmental assessment for the selected priority projects are to be determined and the methods of baseline surveys and prediction to be decided.

3. Main items of the Study are as follows: (items (1) to (3) written below need to examine including environmental and social consideration aspects).
 - (1) Examination of objectives and goals on related policies and plans.
 - (2) Examination of alternative plans of each option in order to attain goals of the project under various conditions.
 - (3) Examination of policy and contents of plans (prediction of development, list of measurements and map showing the planned route and development area).
 - (4) Conduct of scoping (clarify extremely important items on environmental and social impacts and its evaluation methods at the time of decision making such as policy, plan, and program levels).
 - (5) Confirmation of existing environmental and social conditions of the proposed project area as a baseline data (land use, natural environment, culture and lifestyle of indigenous people and their communities, local economy and socio-cultural environment and others).
 - (6) Confirmation of legal framework and institution of the GOT on environmental and social

considerations.

- 1) Laws, regulations and standards related to environmental and social considerations (environmental impact assessment, resettlement, public participation, information disclosure and others).
- 2) Gaps between the “JICA Guidelines for Environmental and Social Considerations, April 2010” and legal framework of Tanzania on environmental and social considerations.
- 3) Outlines of relative agencies and institutions responsible for the implementation of the project.
- (7) Prediction of the project’s likely impacts.
- (8) Evaluation of the project’s likely impacts and comparative analysis of alternatives at the PPP level including ‘without project’ option.
- (9) Examination of the mitigation measures (to be avoided, minimized and compensated).
- (10) Examination of the monitoring methods (monitoring items, frequencies and methods).
- (11) Preparation of scoping result for the priority project on items for environmental and social considerations (Alternatives which would be considered and the scope for important items on likely environmental and social impacts as well as draft prediction and evaluation methods).
- (12) Conduct of SEA/IEE study for the priority project in compliance with the laws, ordinances, and standards related to environmental and social considerations established by the GOT as well as JICA Guidelines for Environmental and social considerations, as required during the pre-feasibility study.
- (13) Supporting of consultation local stakeholders (purpose of meeting, participants, content of meeting, and others).

12. Other relevant information

None

END