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

1. Full title of the Project  
Project for Urban Transport Master Plan in Kinshasa City

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

3. Categorization and its reason  
(1) Category : B  
(2) Reason :  
The project is not considered to be a large-scale transport project, is not located in a sensitive area, and has none of the sensitive characteristics under the JICA Guidelines for Environmental and Social Considerations (April, 2010), it is not likely to have a significant adverse impact on the environment.

4. Agency or institution responsible for the implementation of the Project  
Infrastructure Unit, Ministry of Infrastructure and Public Works

5. Outline of the Project (objectives, justification, location, proposed activities, and scope of the study)  
5.1 Objectives  
The First Integrated Urban Transport Master Plan for the City of Kinshasa will be prepared by the Project.

5.2 Location  
Kinshasa City in the Democratic Republic of Congo

5.3 Scope of the Project  
(1) Review and analysis of current situation  
(2) Review of related rules, regulations, policies and plans, especially “SOSAK”  
(3) Review and analysis of socio-economic situation of “SOSAK”  
(4) Analysis of development potentials, challenges and constraints toward future development in Kinshasa City  
(5) Implementation of transport survey and analysis of its output  
(6) Preparation of several development scenarios  
(7) Proposal of suitable transport network  
(8) Selection of priority projects  
(9) Analysis of alternatives based on the Strategic Environmental Assessment prepared through the project.  
(10) Formulation of urban transport master plan  
(11) Implementation of pre-F/S of a project selected among the priority projects
Capacity development in the formulation of master plan

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

6.1 **Location Map**
6.2 Environmental and social conditions

A drastic growth of demography and the number of vehicles during the recent years have caused unplanned and rapid urbanization toward the outskirts of the city, which is aggravating transport problems in Kinshasa which is one of the most inhabited cities in sub-Saharan countries with a population of more than 12 million people. Existing roads are congested everywhere. People are obliged to commute under lousy conditions of actual means of transport.

6.3 Current issues

On one hand, Kinshasa City is confronted with a lot of difficulties regarding transport sector as described in 6.2. On the other hand, Kinshasa City has actually no integrated view of urban transport development and is contented with fragmental improvement of road conditions when they are financed. In this context, it is important to elaborate an integrated master plan on urban transport development in conformity with SOSAK (SCHÉMA D'ORIENTATION STRATÉGIQUE DE L'AGGLOMÉRATION DE KINSHASA) which is the city’s development vision for all sectors targeting 2030 and was approved by the provincial assembly.

7. Legal Framework of Environmental and Social Considerations

7.1 Laws, Regulations and Relative agencies and institutions

(1) Laws and Regulations

The constitution of the Democratic Republic of Congo, also known as the Constitution of the Third Republic was adopted by government 18th February 2006. Article 53 states that:

- Every person has a right to a healthy environment and which is favorable to his/her full development.
- The environment must be protected.
- The State must look after the protection of the environment and the health of the people.

Article 123 of the Constitution makes provision for laws to be made concerning, inter alia, “the protection of the environment and tourism”. Article 203 allows for co-operative governance by central government and the Provincial administrations “to protect the environment, natural sites and landscapes, and the conservation of such sites.”

Decree No 14/019 of 2 August 2014 and Law No 11/009 of 9 July 2011 define SEA and EIA. The objectives are described as follows.

SEA: A preliminary systematic review of the environmental consequences of policy, plan or program developed by the State, the Province, decentralized territorial entity or public institution.

EIA: A systematic process of identification, prevision, evaluation and reduction of physical, ecological, esthetic and social effects prior to the implementation of a project of industrial, agricultural, or other kinds of development, construction, equipment, installation or implantation in order to evaluate the direct or indirect consequences regarding environment.

(2) Relative agencies and institutions

Ministry of Environment, Natural Conservation and Sustainable Development (MENCSD) is responsible for, in conformity with Ordinance No 15/015 of 21 March 2015, the followings.

- Implementation of national sustainable environmental management policies and the conservation of biodiversity and ecosystems;
- Development of implementation plans such policies, monitoring and evaluation;
- Sustainable forest management, water resources, wildlife and the environment;
· Management of human settlements;
· Assessment and monitoring of environmental and social studies of any project likely to affect the environment;
· Regulation of all activities that may affect the environment, biodiversity and ecosystems and the safety of communities;
· Development and implementation of standards for sanitation environments;
· Creation and development of green areas and amusement parks;
· Development of standards to care of the environment in the mining, quarrying and oil;
· Regulation of hunting and fishing;
· Protection of fauna and flora;
· Promotion and coordination of all activities related to sustainable environmental management, forest resources, fish and wildlife, and conservation of nature;
· Monitoring and environmental audits of public and private companies and non-governmental organizations working in the areas of the environment and nature conservation;
· Determination and ecosystem management;
· Management of environmental services;
· Creation of protected areas other than strict nature reserves and creating proposals of the latter;
· Creation and management of capture stations wildlife;
· Development, extension and management of environmental education programs.

Congolese Agency of Environment (ACE: Agence Congolaise de l’Environnement) was established, under MENCSD, in conformity with Decree No 14/030 of 18 November 2014. The missions of ACE are as described below.

· Evaluate and assess all the environmental and social studies and monitoring their implementation;
· Ensuring the inclusion of environmental protection in the implementation of all development projects, infrastructure or operation of any industrial, commercial, agricultural, forestry, mining, telecommunications or other likely have an impact on the environment.

7.2 Procedures of SEA and EIA, stakeholder participation and information disclosure

(1) SEA

Decree No 14/019 of 2 August 2014 describes the basic concept and the contents of SEA.

(i) Screening

Screening includes only documentation of policy, plan, or program on which a decision on the necessity of SEA shall be made.

(ii) Scoping

Scoping should include the followings: situation of the site, political regulatory, institutional background, stakeholders, challenges, methodology of SEA, alternatives, qualification, etc.

(iii) Evaluation of SEA
SEA shall be evaluated based on the situation of the site, identification of environmental opportunities and constraints, identification and analysis of impacts as well as potential impacts, performance indicators, mitigation and optimization measures, conclusion and recommendations.

(iv) Considerations

As this will be the first SEA for a master plan targeting one decentralized entity in DRC, all related organizations shall be required to keep close contact one another for the best coordination. During scoping and the actual SEA study, it is mandatory to conduct public consultations at least two times according to ACE’s recommendation. In carrying out public consultations the lead agency shall:

- hold at least two public meetings inviting all stakeholders including local communities to explain the policy, program or plan and its effects, and to ask attendees for their oral, written comments or objections if any,
- ensure that the first meeting is held during the scoping stage, and
- ensure that the relevant organizations and local communities shall be well informed of public consultations in an adequate manner and at the best timing.

(2) EIA

According to the actual laws and regulations in DRC, EIA is generally required for any road construction or rehabilitation project. It is ACE who decides the necessity of EIA upon a promoter's application with attached documentation.

Decree No 14/019 of 2 August 2014 describes that EIA should include the followings.

- Non technical summary of the project written in French, English and local language on necessity
- Context and justification
- Institutional, legal and juridical framework
- Detailed description of the project including maps, drawings, figures which might be useful for better comprehension
- Precise and detailed inventory of the initial status of the site including all important environmental and social aspects.
- Comparison and analysis of alternatives
- Identification and evaluation of direct, indirect, and cumulative consequences of the project
- Environmental and social management plan
- Conclusion
- Annex

8. Provisional Scoping (Type and magnitudes of possible adverse impacts and mitigation measures)
<table>
<thead>
<tr>
<th>Item</th>
<th>Impacts</th>
<th>Stakeholders/ Objects</th>
<th>Positive/ Negative</th>
<th>Timing</th>
<th>Possibility</th>
<th>Impact Scale</th>
<th>Necessity of verification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public nuisance</strong></td>
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<tr>
<td>1. Air Pollution</td>
<td>Aggravation of air pollution by exhausted gas due to the increase of traffic volume</td>
<td>Local people inside and near the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/ Site Survey</td>
</tr>
<tr>
<td>2. Water Pollution</td>
<td>Increase of wastewater by urbanization, water pollution by drainage from construction works or factories into lakes, wetlands or rivers</td>
<td>Local people inside and near the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/ Site Survey</td>
</tr>
<tr>
<td>3. Solid Waste</td>
<td>Increase of industrial waste, general waste, occurrence of polluted sludge due to construction works and urbanization</td>
<td>Local people inside and near the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/ Site Survey</td>
</tr>
<tr>
<td>4. Soil Contamination</td>
<td>Health hazard by toxic materials or heavy metals</td>
<td>Local people inside and near the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/ Site Survey</td>
</tr>
<tr>
<td>5. Noise and Vibration</td>
<td>Occurrence of noise and vibration by increase of traffic volume</td>
<td>Local people inside and near the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents</td>
</tr>
<tr>
<td>6. Land subsidence</td>
<td>Land subsidence by overuse of underground water</td>
<td>Local people inside and near the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>C</td>
<td>Documents/ Site Survey</td>
</tr>
<tr>
<td>7. Odor</td>
<td>Increase of exhausted gas, occurrence of odor from waste dumping sites or sewage treatment plants</td>
<td>Local people inside and near the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/ Site Survey</td>
</tr>
<tr>
<td>8. Bottom sediment</td>
<td>Deterioration of bottom sediment of rivers or wetlands by discharge of contaminated materials from construction drainage</td>
<td>Local people inside and near the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/ Site Survey</td>
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<tr>
<td><strong>Natural Environment</strong></td>
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<tr>
<td>9. Natural Reserves</td>
<td>Impacts on natural reserves due to the change of land use</td>
<td>Natural reserves inside the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/ Site Survey</td>
</tr>
<tr>
<td></td>
<td>Impacts on natural reserves such as exhausted gas, noise, and dust due to the increase of traffic and construction vehicles</td>
<td>Natural reserves inside the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/ Site Survey</td>
</tr>
<tr>
<td>10. Ecosystem</td>
<td>Impacts on flora and fauna by alteration of existing land use or land filling</td>
<td>Ecosystem inside the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/ Site Survey</td>
</tr>
<tr>
<td></td>
<td>Impacts on flora and fauna by exhaust gas, noise, dust caused by increase of traffic volume</td>
<td>Ecosystem inside the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/ Site Survey</td>
</tr>
<tr>
<td></td>
<td>Impacts on mangrove, coral reef or seaweed bed</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>11. Lakes and</td>
<td>Change of water</td>
<td>Lakes and</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/ Site Survey</td>
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<tr>
<td>Topic</td>
<td>Description</td>
<td>Change</td>
<td>Source</td>
<td>Notes</td>
<td>Documents/Site Survey</td>
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<tr>
<td>12. Topography and Geology</td>
<td>Change of topography or geology by excavation or earth fill</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/Site Survey</td>
<td></td>
</tr>
<tr>
<td>13. Resettlement</td>
<td>Loss of existing land uses (dwelling or farmland), changes in sources of livelihood, or unemployment</td>
<td>Negative</td>
<td>Before Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/Site Survey</td>
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<tr>
<td></td>
<td>Recovery of livelihood</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/Site Survey</td>
<td></td>
</tr>
<tr>
<td>14. Poverty</td>
<td>Scale-down of Poverty area</td>
<td>Positive</td>
<td>After Construction</td>
<td>Little</td>
<td>C</td>
<td>Documents/Site Survey</td>
<td></td>
</tr>
<tr>
<td>15. Ethnic minorities and indigenous peoples</td>
<td>Consideration for the culture and lifestyle of ethnic minorities and indigenous peoples, and inequity dividend of benefits</td>
<td>Negative</td>
<td>After Construction</td>
<td>Little</td>
<td>C</td>
<td>Documents</td>
<td></td>
</tr>
<tr>
<td>16. Local Economy</td>
<td>Increase of the construction related employment opportunities</td>
<td>Positive</td>
<td>Under Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/Site Survey</td>
<td></td>
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<tr>
<td></td>
<td>Loss of employment opportunities due to the change of economic structure caused by the transport means and urbanization</td>
<td>Negative</td>
<td>After Construction</td>
<td>Little</td>
<td>C</td>
<td>Documents/Site Survey</td>
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<tr>
<td></td>
<td>Increase of employment opportunities brought about by the transport means</td>
<td>Positive</td>
<td>After Construction</td>
<td>Little</td>
<td>C</td>
<td>Documents/Site Survey</td>
<td></td>
</tr>
<tr>
<td>17. Land use and local natural resource</td>
<td>Loss of production opportunities due to the change of land use</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>C</td>
<td>Documents/Site Survey</td>
<td></td>
</tr>
<tr>
<td>18. Water right</td>
<td>Loss of water right by alteration of existing river or wetland to land uses</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/Site Survey</td>
<td></td>
</tr>
<tr>
<td>19. Existing social infrastructure and social services</td>
<td>Disruption of social and economic network by traffic blockade or new road construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/Site Survey</td>
<td></td>
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<tr>
<td></td>
<td>Improvement in health and education sectors</td>
<td>Positive</td>
<td>After Construction</td>
<td>Little</td>
<td>B</td>
<td>Documents/Site Survey</td>
<td></td>
</tr>
<tr>
<td>20. Social capital and organization including decision making process</td>
<td>Influence to the social capital and organization due to unequal dividend of benefits</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>C</td>
<td>Documents/Site Survey</td>
<td></td>
</tr>
<tr>
<td>21. Unequal dividend of benefits</td>
<td>Occurrence of unequal dividend of benefits</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>C</td>
<td>Documents/Site Survey</td>
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<tr>
<td>No.</td>
<td>Objective</td>
<td>Description</td>
<td>Affected</td>
<td>Impact</td>
<td>Scale</td>
<td>Category</td>
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<tr>
<td>22</td>
<td>Interest opposition</td>
<td>Occurrence of interest opposition due to unequal dividend of benefits</td>
<td>Local people inside the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>C</td>
</tr>
<tr>
<td>23</td>
<td>Cultural Heritage</td>
<td>Disappearance of or serious damage to cultural heritage due to the change of land use or exhausted gas/vibration</td>
<td>Cultural heritage inside the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>C</td>
</tr>
<tr>
<td>24</td>
<td>Landscape</td>
<td>Destruction of landscape due to the topographic change or the constructions</td>
<td>Landscape inside the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>C</td>
</tr>
<tr>
<td>25</td>
<td>Gender</td>
<td>Gender problems due to unequal dividend of benefits</td>
<td>Local people inside the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>C</td>
</tr>
<tr>
<td>26</td>
<td>Children’s Human Right</td>
<td>Invasion of children’s human right due to unequal dividend of benefits</td>
<td>Local people inside the construction site</td>
<td>Negative</td>
<td>After Construction</td>
<td>Little</td>
<td>C</td>
</tr>
<tr>
<td>27</td>
<td>Infectious Diseases (HIV/AIDS, etc)</td>
<td>Increase of infectious diseases due to the change of the social structure caused by the transport means and urbanization</td>
<td>Local people inside the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>C</td>
</tr>
<tr>
<td>28</td>
<td>Labor Environment including Safety</td>
<td>Aggravation of labor environment due to the change of the social structure and land use caused by the transport means and urbanization</td>
<td>Local people inside the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>C</td>
</tr>
<tr>
<td>29</td>
<td>Accidents</td>
<td>Landslide, Roof-fall, other accidents</td>
<td>Local people inside and near the construction site</td>
<td>Negative</td>
<td>Under Construction</td>
<td>Little</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increase of traffic accidents in the newly opened road</td>
<td>All users of the constructed road</td>
<td>Negative</td>
<td>After Construction</td>
<td>Little</td>
<td>C</td>
</tr>
<tr>
<td>30</td>
<td>Climate Change</td>
<td>Demand increase of energy due to the opening of the new road and urbanization</td>
<td>Local people inside the construction site</td>
<td>Negative</td>
<td>Under/ After Construction</td>
<td>Little</td>
<td>C</td>
</tr>
</tbody>
</table>

Legend
A: Every possibility of positive/ negative social/ environmental impacts
B: Some possibility of positive/ negative social/ environmental impacts
C: Positive/ negative social/ environmental impacts are unpredictable
D: Positive/ negative social/ environmental impacts can be neglected

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

   Detailed mitigation plans will be elaborated and analyzed through the implementation of the Project.

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

    They have basically understood the essence of JICA “Guidelines for Environmental and Social Considerations”.

11. **Terms of Reference for Environmental and Social Considerations**

    Implementation of SEA
12. Other relevant information

None