

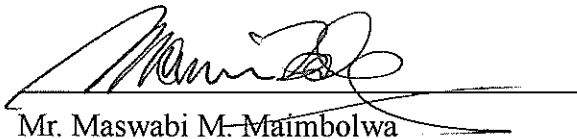
APPENDIX

Appendix -1:

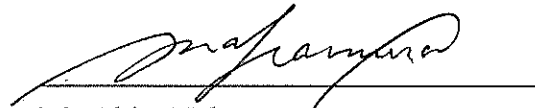
Scope of Work

**SCOPE OF WORK
FOR
THE STUDY ON
COMPREHENSIVE URBAN DEVELOPMENT PLAN FOR
THE CITY OF LUSAKA
AGREED UPON BETWEEN
MINISTRY OF LOCAL GOVERNMENT AND HOUSING
AND
JAPAN INTERNATIONAL COOPERATION AGENCY**

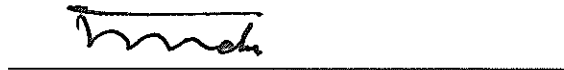
Lusaka, March 23, 2007



Mr. Maswabi M. Maimbolwa
Permanent Secretary
Ministry of Local Government and Housing
The Republic of Zambia



Mr. Akira Nakamura
Leader,
Preparatory Study Team
Japan International Cooperation Agency



Mr. Timothy M. Hakuyu
Town Clerk
Lusaka City Council
The Republic of Zambia

I. INTRODUCTION

In response to the request of the Government of the Republic of Zambia, (hereinafter referred to as "GRZ"), the Government of Japan (hereinafter referred to as "GOJ") has decided to conduct "the Study on Comprehensive Urban Development Plan for the city of Lusaka" (hereinafter referred to as "the Study") in accordance with the Agreement on Technical Cooperation between the GRZ and the GOJ signed on June 27, 2006 (hereinafter referred to as "the Agreement").

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of the GOJ, will undertake the Study in close cooperation with the authorities concerned of the GRZ.

The present document sets forth the Scope of Work with regard to the Study and will be valid after notification of approval by JICA Headquarters through JICA Zambia Office to the Zambian side.

II. OBJECTIVES OF THE STUDY

The objectives of the Study are:

1. To formulate an urban development master plan including the Lusaka development vision for the year 2030 (hereinafter referred to as "Lusaka Development Vision"), a development strategy, an urban structure plan and mid/long-term development programs with the target year 2030 in line with Vision2030,
2. To formulate a short-term development plan in line with 5th National Development Plan,
3. To formulate a capacity development plan to ensure realization of the output of the Study,
4. To formulate an implementation/management plan, and
5. To carry out relevant technology transfer to Zambian counterpart personnel in the course of the Study.

III. STUDY AREA

The Study area for planning will be within the existing administrative boundary of the city of Lusaka as shown in the map in APPENDIX1. The Study will cover the entire the city of Lusaka and adjoining areas in principle in consideration for key infrastructure planning and zoning.



IV. STRUCTURE / SCOPE OF THE STUDY

IV-1 STRUCTURE OF THE STUDY

The Study consists of the following pillars:

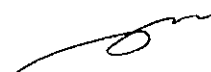

1. Lusaka Development Vision
2. Lusaka development strategy
 - 2-1. Economic aspect
 - 2-2. Social aspect
 - 2-3. Environmental aspect
3. Urban structure plan
 - 3-1. Land use
 - 3-2. Key infrastructure
4. Mid/long-term development program to guide future development direction
5. Short-term development programs/projects to cope with urgent and priority development issues
6. Capacity development plan
7. Implementation/management plan

Appendix 3 illustrates the above structure.

IV-2. SCOPE OF THE STUDY

In order to achieve the objectives mentioned above, the Study will cover the following items:

1. Review and analysis of the present situation
 - 1-1. To review existing laws, regulations, policies and institutional arrangements related to urban development,
 - 1-2. To review upper policies, including Vision 2030, PRSP, 5th National Development Plan, the Lusaka Comprehensive Development Plan (in 2000) and other on-going projects/plans,
 - 1-3. To collect and analyze necessary data of the present situation for the Study,
 - 1-4. To evaluate the present conditions of urban development issues (i.e., urban poverty, socio-economic situation, land use, infrastructure including transportation, water supply, sanitation and drainage),
2. Formulation of Lusaka Development Vision
 - 2-1. To identify stakeholders for the Study,
 - 2-2. To discuss issues among stakeholders,
 - 2-3. To formulate Lusaka Development Vision, and
 - 2-4. To have the Lusaka Development Vision authorized by the steering committee.
3. Formulation of the future socio-economic framework with demand forecast;
4. Formulation of Lusaka development strategies;
 - 3-1. Economic aspect
 - 3-2. Social aspect
 - 3-3. Environmental aspect



5. Formulation of an urban structure plan;
 - 5-1. Land use
 - 5-2. Key infrastructure
6. Formulation of mid/long-term development programs;
7. Formulation of short-term development programs/projects regarding urban development to cope with urgent and priority issues;
8. Formulation of a capacity development plan necessary for implementing above program/projects;
9. Formulation of the implementation/management plan; and
10. Technical/knowledge transfer through the implementation of the Study.

V. STUDY SCHEDULE

The Study will be carried out for around 16 months in accordance with the attached tentative schedule as shown in APPENDIX 2.

VI. REPORTS


JICA will prepare and submit the following reports in English to the GRZ.

1. Inception Report which covers the methodology of the Study
Thirty (30) copies at the time of commencement of the Study.
2. Progress Report which covers all the findings during the first works in Zambia.
Thirty (30) copies within six (6) months after commencement of the Study.
3. Interim Report which covers the formulation of the master plan.
Thirty (30) copies within ten (10) months after commencement of the study.
4. Draft Final Report which covers all the results of the Study
Thirty (30) copies within fourteen (14) months after commencement of the Study.
The written comments on the Draft Final Report from the GRZ shall be delivered within one (1) month after the receipt of the Draft Final Report.
5. Final Report
Sixty (60) copies, the same number of copies of summary and four (4) sets of CD-ROM.
Within one (1) month after the receipt of the comments on the Draft Final Report.

VII. UNDERTAKINGS OF THE GRZ

In accordance with the Agreement on Technical Cooperation signed on June 27, 2006 between the GRZ and GOJ, the GRZ will undertake the followings:

1. To facilitate smooth conduct of the Study, the GRZ shall take the following measures:
 - (1) To permit the members of the Japanese study team (hereinafter referred to as "the Team") to enter, leave and sojourn in the Republic of Zambia for the duration of their assignment therein, and exempt them from foreign registration requirements and consular fees;



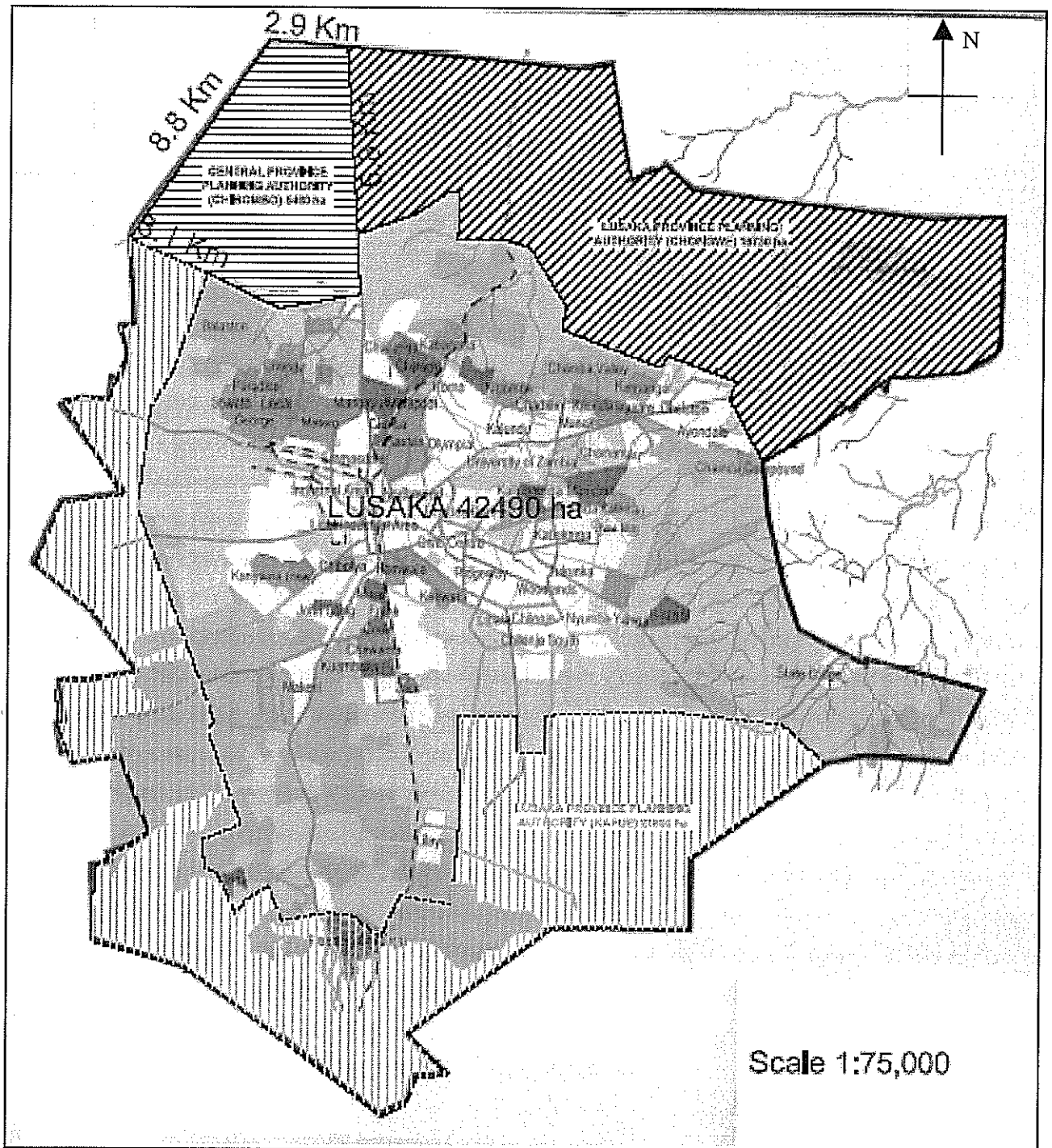
- (2) To exempt the members of the Team from taxes, duties, VAT and any other charges on equipment, machinery and other materials imported and locally purchased for the implementation of the Study;
 - (3) To exempt the members of the Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Team for their services in connection with the implementation of the Study; and
 - (4) To provide the Team with necessary facilities for remittance as well as utilization of the funds introduced into the Republic of Zambia from Japan in connection with the implementation of the Study.
2. The GRZ shall bear claims, if any arises, against the members of the Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Team.
 3. Under the supervision and full responsibility of the Ministry of Local Government and Housing (MLGH), Lusaka City Council (LCC) and Lusaka Water and Sewerage Company (LWSC) shall act as the main counterpart agency to the JICA Study Team, paralleling with the Ministry of Finance and National Planning (MFNP), Ministry of Energy and Water Development (MoEWD), Ministry of Works and Supply (MWS), Ministry of Transportation and Communications (MTC), Environmental Council of Zambia (ECZ), National Water and Sanitation Council (NWASCO), and the Ministry of Community Development and Social Services (MoCDSS), Ministry of Tourism, Environment & Natural Resources, Lusaka Province Planning Authority, and District Council of Chongwe, Chibombo, and Kafue. The Ministry of Local Government and Housing also as coordinating body in collaboration with other government and non-governmental organizations concerned for the smooth implementation of the Study.
 4. The GRZ shall, at its own expense, provide the JICA Study Team with the following, in collaboration with other organizations concerned:
 - (1) Security-related information as well as measures to ensure the safety of the JICA Study Team;
 - (2) Available data and information related to the Study;
 - (3) Counterpart personnel;
 - (4) Suitable office space with basic office equipment and furniture;
 - (5) Credentials or identification cards; and
 - (6) Information on as well as support in obtaining medical service.

VIII. OTHERS

JICA and the GRZ shall consult with each other in respect of any matter that may arise from or in connection with the Study.

END





M

must

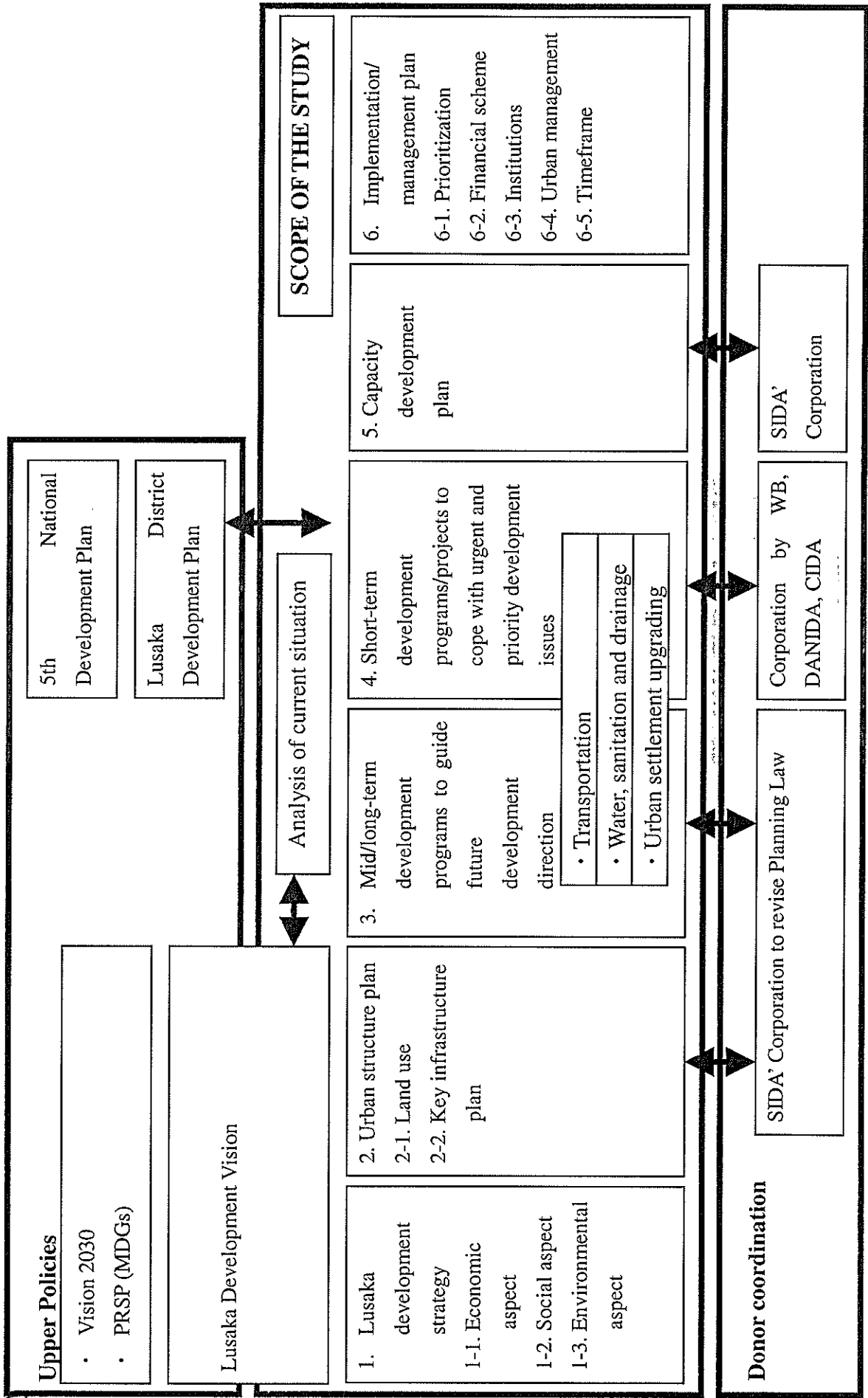
on

Tentative Schedule

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Work in Zambia		■												■			
Work in Japan	■					■				■			■			■	
Report	△ IC/R					△ P/R				△ IT/R				△ DF/R			△ F/R

Legend

- IC/R Inception Report
- P/R Progress Report
- IT/R Interim Report
- DF/R Draft Final Report
- F/R Final Report



**MINUTES OF MEETINGS
ON
SCOPE OF WORK FOR**

**THE STUDY ON
COMPREHENSIVE URBAN DEVELOPMENT PLAN FOR
THE CITY OF LUSAKA**

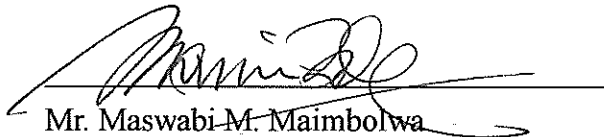
AGREED UPON BETWEEN

MINISTRY OF LOCAL GOVERNMENT AND HOUSING

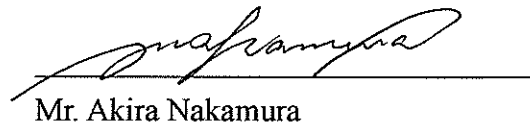
AND

JAPAN INTERNATIONAL COOPERATION AGENCY

Lusaka, March 23, 2007



Mr. Maswabi M. Maimbolwa
Permanent Secretary
Ministry of Local Government and Housing
The Republic of Zambia



Mr. Akira Nakamura
Leader,
Preparatory Study Team
Japan International Cooperation Agency



Mr. Timothy M. Hakuyu
Town Clerk
Lusaka City Council
The Republic of Zambia

INTRODUCTION

In response to the request of the Government of the Republic of Zambia, (hereinafter referred to as “GRZ”), the Government of Japan (hereinafter referred to as “GOJ”) has dispatched the preparatory study team (hereinafter referred to as “the Team”) headed by Mr. Akira NAKAMURA to discuss and conclude the scope of work (S/W) for “the Study on Comprehensive Urban Development Plan for the city of Lusaka” (hereinafter referred to as “the Study”).

The Team had a series of discussions with the Ministry of Local Government and Housing (MLGH), Lusaka City Council (LCC) and other parties related to the Study. Participants of the discussions are listed in Attachment 1.

This document summarizes major items discussed and remarks expressed by both sides, and is meant to supplement the Scope of Work.

1. Study Title

Both sides agreed that the Study is titled as “the Study on Comprehensive Urban Development Plan for the city of Lusaka.”

2. Basic Idea

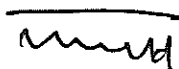
2-1. Importance of formulating a vision/strategy

Both sides confirmed that formulation of Lusaka Development Vision for 2030 (hereinafter referred to as “Lusaka Development Vision”) is important and therefore should be included as one of the output of the Study. At the same time, both sides confirmed that formulation of Lusaka Development Vision would take time for consensus building among stakeholders and therefore needs immediate start even before the commencement of the Study. With that understanding, Zambian sides promised to discuss Lusaka Development Vision among key stakeholders, including District Council of Chongwe, Chibombo, and Kafue, and consolidate the output from the discussion. The output will be the basis for Lusaka Development Vision.

2-2. Role of MLGH and LCC

With the support from MLGH, LCC will:

- Arrange for the counterpart personnel for the accomplishment of the Study and capacity building for sustainability of implementing the Urban Development Plan;
- Facilitate the JICA Study Team to access relevant study data;
- Utilize the Urban Development Plan; and
- Spearhead implementation of the Urban Development Plan.



2-3. Consensus building

There are various stakeholders involved in the urban development sector, and consensus building in the course of the Study is therefore crucial for realization of proposed programs/projects by the Study. Both sides confirmed that the GRZ ensures that representatives from ministries and organizations concerned with the Study will be the members of the Steering Committee, which will function as the platform for consensus building.

2-4. Prioritized areas for interventions

Zambian side underlined the importance of addressing land use, transportation, water supply, sanitation and drainage, and urban settlement upgrading in the Study.

2-5. Harmonization with plans/projects ongoing and/or under preparation

The Team confirmed that there are several plans/projects ongoing and/or under preparation related to the Study, such as cooperation by the World Bank, SIDA, DANIDA, CIDA, etc. Both sides confirmed that the Study needs to be harmonized with those plans/projects not only to avoid duplication of work but also to enhance synergetic effect.

2-6. Importance of revising planning standard

Zambian side explained that the planning standard, which is under the authority of LCC, is outdated and therefore needs to be revised. The Team explained that the necessary revision in relation to the Study will be considered.

3. Utilization of the Study

The GRZ will officially endorse the outputs of the Study as per existing regulations and issue guidelines to stakeholders for effective implementation of the Urban Development Plan.

4. Steering Committee

The Steering Committee will be organized for effective and efficient implementation of the Study by LCC under the leadership and responsibility of MLGH. The Steering Committee will execute the decision making power when necessary. The Steering Committee will comprise the following ministries and organizations with possible inclusion of others if MLGH and LCC considers necessary. MLGH shall inform JICA Zambia Office the members of the Steering Committee before the commencement of the Study.

- (1) Ministry of Local Government and Housing (MLGH)
- (2) Lusaka City Council (LCC)
- (3) Lusaka Water and Sewerage Company (LWSC)
- (4) Ministry of Finance and National Planning (MFNP)
- (5) Ministry of Energy and Water Development (MoEWD)



- (6) Ministry of Works and Supply (MWS)
- (7) Ministry of Transportation and Communications (MTC)
- (8) Environmental Council of Zambia (ECZ)
- (9) National Water and Sanitation Council (NWASCO)
- (10) Ministry of Community Development and Social Services (MoCDSS),
- (11) Ministry of Tourism, Environment & Natural Resources,
- (12) Lusaka Province Planning Authority, and
- (13) District Council of Chongwe, Chibombo, and Kafue.

5. Working group

Zambian side will establish working groups in order to secure the smooth implementation of the Study. Working groups will be formulated based on theme/sectors, namely land use, transportation, water and sanitation, and urban settlement. Other working groups may be formulated if deemed necessary. Members of working groups need to be assigned from the following organizations before the commencement of the Study.

- (1) Ministry of Local Government and Housing (MLGH),
- (2) Lusaka City Council,
- (3) Lusaka Water and Sewerage Company (LWSC),
- (4) Environmental Council of Zambia (ECZ), and
- (5) Other organizations related to the Study.

6. Counterpart Personnel

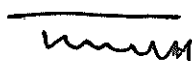
Both sides confirmed that the Study should be conducted in close collaboration between the Zambian and Japanese sides. In this context, both sides confirmed that Zambian side assigns an appropriate number of counterpart personnel for the Study. The core members of the counterpart will be assigned from the organizations below:

- (1) Ministry of Local Government and Housing (MLGH)
- (2) Lusaka City Council (LCC)
- (3) Lusaka Water and Sewerage Company (LWSC)

Zambian side will select one counterpart leader from MLGH and one counterpart leader from LCC and inform the result to JICA Zambia Office before the commencement of the Study.

7. JICA guidelines for Environmental and Social Considerations

The Team explained the outline of the JICA guidelines and the need to comply with it in the implementation of the Study. Both sides confirmed to work together to adopt the approach specified by the guidelines of Zambia and JICA.



8. Public Consultation during the Study

Both sides confirmed that public consultation on the projects/programs proposed in the Study that might have negative impacts on the socio and natural environment (for instance, involuntary resettlement with land acquisition, negative impact with land reclamation, and urban forest degradation) should be organized whenever necessary for assessing public opinion.

9. Office Space and Equipment

LCC shall provide office space equipped with furniture (desk, chairs, etc.), telephone lines and air conditioning in Lusaka for JICA Study Team.



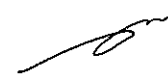
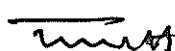
List of Participants

Zambian side

Maswabi M. Maimbolwa,	Permanent Secretary, MLGH
Elijah M. Chisanga,	District Commissioner, Office of the President
Peter Lubambo,	Director – DISS, MLGH
Howard Chitengi,	Principal Planner, MLGH
Timothy Hakuyu,	Town Clerk, LCC
Bornwell L. Luanga,	Director of Engineering, LCC
Rose Phiri,	Acting Director of Housing & Social Services, LCC
Joseph Mukupa,	Acting Director of City Planning, LCC
Amos Musonda,	Acting Deputy Director of Public Health, LCC
Wallace Mumba,	Assistant Director of Engineering, LCC
Gilbert Lungu,	Acting Assistant Director of Legal, LCC
Janathan Mwanza,	District Planning Officer, LCC
Jopen Lunoqvisse,	Swede Survey, LCC
K. Chama,	Swede Survey, LCC
Ms Mwiche Kabwe,	Planning Specialist, Environmental Council of Zambia
G. Ndongwe,	Managing Director, Lusaka Water & Sewerage Co. Ltd
Wilson Shane,	Water Supply Manager, Lusaka Water & Sewerage Co. Ltd
Kabamba Mukuka,	Principal Engineer, ZESCO Limited
Weston Chikunji,	Senior Engineer, Zamtel
Mubanga Mulenga,	Principal Engineer, Road Transport and Safety Agency
Ronald Nyangu,	Principal Engineer, Road Development Authority
Kelvin Chitumbo,	NWASCO

Japan Side

Akira NAKAMURA,	Leader, JICA Preparatory Study Team
Takeo OCHI,	Member, JICA Preparatory Study Team
Naomichi MUROOKA,	Member, JICA Preparatory Study Team
Kiyoshi YASUKAWA,	Member, JICA Preparatory Study Team
Shigeru UEDA,	Member, JICA Preparatory Study Team
Hiroyuki DOI,	Member, JICA Preparatory Study Team

Appendix -2
Members List

Steering Committee Members
All the Participants of five Steering Committees

Ministry of Local Government and Housing

Joel Ngo	Permanent Secretary (Participated in 3 rd SC)
M.M Maimbolwa	Permanent Secretary (Participated in 1 st SC)
Peter Lubambo	Acting Permanent Secretary (Participated in 4 th and 5 th SC)
Albert M. Kayamba	Acting Permanent Secretary (Participated in 2 nd SC)
M. M. Okpara	Director of Physical Planning and Housing (participated in 1 st SC)
Muhau Wina	Director of Physical Planning and Housing
Burton B. Chirwa	Director of Government Valuation
Sichilengo	Assistant Director of Infrastructure and Social Services
J. A. Chileshe	Assistant Clerk, House of Chiefs
Richard M. Kangwa	Senior Engineer
A. P. Lengalegu	Senior Planner
John Kalala	Principal Planner
Nkumbu Siame	Principal Engineer
Towera Kazunga	Principal Planner
H. S. Chitengi	Principal Planner
Benson Chongo	Principal Planner
David Thomson Tembo	Principal Housing Development Officer

Lusaka City Council

Timothy Hakuyu	Town Clerk
Bornwell L. Luanga	Director of Engineering
Bornwell Matawe	Deputy Director of Social Housing
Joseph Zulu	Deputy Director of City Planning
Michael Kabungo	Head of Waste Management Unit
Nina Nkhuwa	Acting Assistant Director of City Planning
Miriam T. Siavud	Acting Assistant Director Housing
Simasiku Malumo	Deputy Director of Engineering
Maxwell Zulu	Provincial Planner
Anna B. Phiri	Assistant Town Planner

Ministries and Governmental Organizations

Shirley J. Zulu	Deputy Director, Ministry of Finance and National Planning
Bridget Mkuyamba	Assistant Director, Ministry of Finance and National Planning
D. M. Kasumatete	Senior Economist, Ministry of Finance and National Planning

Chisengele Hamwela	Economist, Ministry of Communication and Transport
Olipa Sayama	Planner, Ministry of Communication and Transport
R. Nyundu	Road Traffic Commission, Ministry of Communication and Transport
Bupe Kaonga	Director, Ministry of Community Development and Social Services
Chanda Mulenga	Senior Community Development Officer, Ministry of Community Development and Social Services
Changano Ngoi	Chief Community Development Officer, Ministry of Community Development and Social Services
Gregory Mwanza	Chief Planner, Ministry of Community Development and Social Services
Benny Chundu	Director, Ministry of Energy & Water Development
Nafalo Ziba	Planner, Ministry of Energy and Water Development
K. M. Kapinga	Assistant Director, Ministry of Works and Supply
Goerge Mweenda	Statistician, Ministry of Works and Supply
Mukuka L. N. Zulu	Permanent Secretary, Ministry Tourism, Environment and Natural Resources
Rhodah Habweele	Senior Planner, Ministry Tourism, Environment and Natural Resources
Richard C. Mukozomba	Senior Planner, Central Province Planning Office
Julius P. Daka	Manager, Environmental Council of Zambia
Humphrey K. Mwale	Senior Inspector, Environmental Council of Zambia
Charity N. Mundia	Inspector, Environmental Council of Zambia
Constantino Mwemla	Inspector, Environmental Council of Zambia
Maxwell Zulu	Provincial Planner, Lusaka Province Planning Authority
Richard Mukozomba	Senior Planner, Lusaka Province Planning Authority
Joseph M. Ngoma	Chief Executive, National Housing Authority
Baldwin Mbuzi	Director of Projects, National Housing Authority
Wallace Mumba	Road Engineer, National Road Fund Agency
Alinani Msisya	Principal Engineer, Road Development Agency
Osward M. Chanda	Director, National Water Supply and Sanitation Council
Muleya Curtis	Technical Officer, National Water Supply and Sanitation Council
Kasenga Hara	Technical Officer, National Water Supply and Sanitation Council
Peter Mutale	Technical Inspector, National Water Supply and Sanitation Council
Lungu Muhabi	Director, Zambia Development Agency
Chola Mwitwa	Manager of Planning and Policy, Zambia Development Agency
Robert B. Banda	MFEZ Manager, Zambia Development Agency
George Ndongwe	Managing Director, Lusaka Water and Sewerage Company
Henry Mtine	Engineering Director, Lusaka Water and Sewerage Company

District and Others

David M. Kabanda	Council Secretary, Chibombo District Council
John M. Ndumba	Director of Works, Chibombo District Council
Charles Mukuka	Director of Works, Chibombo District Council (participated in 3 rd SC)
Nyirenda Mable	Director of Works, Chibombo District Council (participated in 2 nd SC)
F. M. Nasilele	Deputy Council Secretary, Chongwe District Council
Michael Chongo	Director of Works, Chongwe District Council
Chikwasha C.	District Planning Officer, Chongwe District Council
Carol M. Chiyangi	District Planning Officer, Chongwe District Council
Christopher Chikwasha	Deputy District Planning Officer, Chongwe District Council
Albert Hamayanda	Council Secretary, Kafue District Council
Stanley Malambo	Deputy Director of Works, Kafue District Council
Vivian Chikoti	Town Clerk, Kabwe Municipal Council
Rodgers Kakunta	Deputy Director of Engineering, Kabwe Municipal Council

Working Group Members

City Planning / Living Environment Working Group

Muhau Wina	Director of Physical Planning and Housing, Ministry of Local Government and Housing
Gregory Mwanza	Chief Planner, Ministry of Community Development and Social Services
Joseph Zulu	Acting Director of City Planning, Lusaka City Council
Bornwell Matawe	Deputy Director of Social Housing, Lusaka City Council
Michael Kabungo	Head of Waste Management Unit, Lusaka City Council
Mapopa Nyirenda	Planning Officer, Chibombo District Council
Christopher Chikwasha	Planning Officer, Chongwe District Council
Stanley Malambo	Deputy Director of Works, Kafue District Council
Humphrey K. Mwale	Senior Inspector, Environmental Council of Zambia
Maxwell Zulu	Provincial Planner, Lusaka Province Planning Authority
Kennedy Mayumbelo	Peri-urban Manager, Lusaka Water and Sewerage Company
Baldwin Mbuzi	Director of Projects, National Housing Authority

Urban Transportation Working Group

Richard M. Kangwa	Senior Engineer, Ministry of Local Government and Housing
Benard Phiri	Principal Economist, Ministry of Finance and National Planning
Nina Nkhuwa	Assistant Director of City Planning, Lusaka City Council
Simasiku Malumo	Engineering, Lusaka City Council
J. D. Mwila	Council Member, Association of Consulting Engineers of Zambia
R. Mushinge	Council Member, Association of Consulting Engineers of Zambia
Constantino Mwembela	Inspector, Environmental Council of Zambia
Emmanuel Kaunda	Monitoring & Evaluation Manager, National Road Fund Agency
Wallace Mumba	Road Engineer, National Road Fund Agency
Elias Mwape	Chief Engineer, Road Development Agency
Mubanga Mulenga	Principal Engineer, Road Transport and Safe Agency

Water Supply and Sewerage Working Group

Douglas Singanga	Senior Engineer, DISS, Ministry of Local Government and Housing
Wamupuu Akapenwa	Senior Economist, Ministry of Finance and National Planning
Michael Kabungo	Head of Waste Management Unit, Lusaka City Council
Iren Kabuha	Assistant Director of Housing, Lusaka City Council
Adam Hussen	Director, Development Water Agency
Charity N. Mundia	Inspector, Environmental Council of Zambia
Chinokoro Herbert	Projects Manager, Lusaka Water and Sewerage Company
Oswell Katooka	Technical Service Manager, Lusaka Water and Sewerage Company

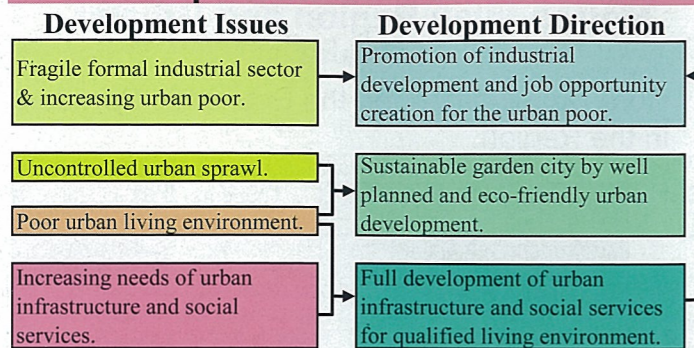
Member of JICA Study Team

Isamu Asakura	Team Leader/Integrated Urban Planner
Akiko Kishi	Community Development Specialist/Coordinator (2)
Munenori Tada	Urban Economic Development Specialist
Koji Morio	Poverty Reduction/Social Service Planner
Makine Kusano	Co-team Leader/Urban/Land Use Planner
Shigeki Takashima	Living Environment Specialist
Kanao Itoh	Urban Renewal Development Planner
Shogo Uchida	Co-team Leader/Urban Transportation Planner
Motoki Ogawa	Transportation Surveyor (1)
Manabu Shimizu	Transportation Surveyor (2)
Koichi Arakawa	Traffic Demand Analyst
Hiroaki Takahashi	Road Planner (1)
Satoshi Mizuno	Road Planner (2)
Takayasu Nagai	Transportation Facility Planner (1)
Hidenori Osumi	Transportation Facility Planner (2)
Masanori Teddy	Co-team Leader/Water Supply & Sewerage Planner
Hiromi Yamagai	Groundwater Development Specialist
Shigemasa Tsuboi	Structural Engineer
Jun Horimoto	Water Resource Development/Water Management Planner
Naoko Katashima	Social Environment Specialist
Junko Saikawa	Environmental & Social Considerations Expert (2)
Yusaku Makita	Economic & Financial Analyst
Kazunobu Kamimura	Capacity Development Planner
Nobuhiro Oshima	Coordinator (1)
Fridah Zulu	Secretary

Appendix -3

Newsletter and Brochure

Development Direction of Lusaka



Vision of Lusaka in 2030

1. ECHO of social and economical challenges in Lusaka to neighbouring countries

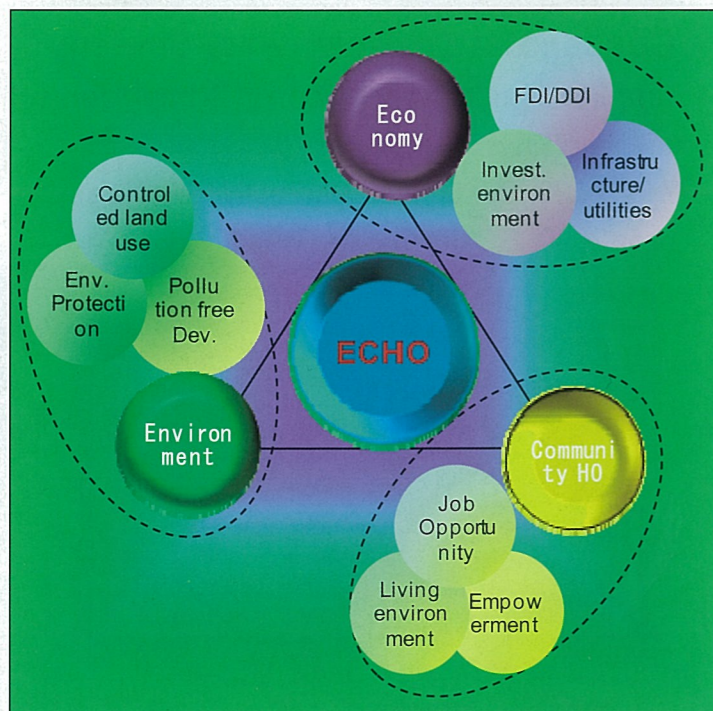
Economic active Lusaka is realized and amount of job opportunity is created through the industrial investment and expansion of foreign trade, etc. and income increase of the urban poor is achieved.

2. ECHO of environmentally sustainable and eco-friendly city of Lusaka

Sustainable garden city is realized through eco-friendly urban development, land use control, appropriate environmental protection, eco-friendly urban transportation network, etc.

3. ECHO of prosperous benefit to the communities for hope and opportunity

Living environment in the formal/informal settlements is upgraded with appropriate road network, safety/sufficient water supply, adequate drainage management, etc.



Vision of ECHO Garden City

DEVELOPMENT CHALLENGES

Industrial Development Challenges

INDUSTRIALIZATION		
Approaches	Merits	Conditions
MFEZ	MFEZ with favorable investment incentive encourages various types of FDI to enter into industrial estates.	Large scale of MFEZ is subject to land acquisition and environmental assessment.
Logistics/ Distribution area	Lusaka enjoying a centrally-located position would attract foreign investors to establish logistics and distribution centers in surrounding area.	Logistics and distribution area should be carefully considered in relation with the plan of Inner and Outer Ring Roads.
HIGH-ORDER SERVICES		
The middle-income status will require Lusaka to construct high-order commercial services step by step.		
Trade	Trade/logistics services for dry cargo and various types of container cargos because of Lusaka as land / transit port.	
R & D	R & D relating to new fuel (ethanol), pharmaceutical, and safe and health food products.	
Financial	The middle-income economy needs the diversified financial services represented by stock exchange, banking and insurance.	

Development Cost by Sector for Lusaka Urban Development (Public Investment)

(unit: US\$ million)						
	-2015	2016-2020	2021-2030	Total (million \$)	equiv: (K' billion)	Remarks
1 Urban transportation development	188	364	540	1,092	3,910	Road, public transport, traffic management, etc.
2 Utility development	199	337	540	1,076	3,850	Water supply, sewerage, drainage, etc.
3 Living environment improvement /note	78	114	181	373	1,330	Urgent improvement, housing supply, etc.
4 Social service improvement	47	94	231	372	1,330	School and health care facility
5 Park, green, sports facility development	24	31	78	132	470	
6 Legal/Institutional reforms	5	2	0	7	20	Land tenure system, property tax management, etc.
7 Empowerment of formal/informal SME	10	0	0	10	40	Training for management and technology skill
8 LS -MFEZ	75	n.a.	n.a.	75	270	
Total	625	942	1,569	3,136	11,230	1\$=3,582K

Note: US\$ 2,000 million cost by private initiative scheme is additionally necessary for UUS renewal.
US\$1.00=ZMK3,582

Priority Project/Programs for Short Term Period Implementation

Project Program Title		Cost	Project Program Title		Cost
		(US\$ million)			(US\$ million)
Urban Transportation		108.6	Living Environment Improvement		15.5
1) Inner Ring Road (Mumbwa-Kafue-Kasama, 12.9km)		29.4	1) Urgent Improvement of Living Environment (renovation of communal tap, drainage, sanitation, etc.)		3.0
2) Outer Ring Road (9.4km)+Lilay Road (7.6km)		31.8	2) CBE-led Living Environment Improvement/Public Service Operation		2.0
3) LS-MFEZ Access (10.4km)		21.7	3) Enhancement of Micro-finance for Housing Development, Upgrading of Substandard Housing in UUS		10.5
4) Airport Road Extension (LN-MFEZ, 6.4km)		4.9	Social Service Improvement		47.2
5) Mumbwa road/Los Angeles Road (4.0km)		12.8	1) Improvement of Education Service		32.2
6) Kalambo Road/Benbella Road (1.6km)		0.7	2) Improvement of Medical Care Service		15.0
7) Bus Institutional Reform		1.0	Legal/Institutional Enhancement		3.1
8) Traffic Management in Town		2.5	1) Least Cost Capacity Development (A feedback process installation, basic filing and data input and management, etc.)		0.0
9) Intersection Improvement (10 intersections)		3.8	2) Basic Administrative Capacity Development (Strengthening data management, communication skill, etc., Promoting accreditation and increment of Qualified Planner by authorized organization)		0.5
Water/Sewerage/Drainage		167.0	3) Formulation of Capacity for Master Plan Implementation (Development control, building permission, inspection, penalty enforcement, implementation capacity of infrastructure project, new urban transportation planning section, planning coordination)		1.2
1) Water Resources Management Program (Acquisition of Kafue River Water Right, Study on Comprehensive Groundwater, Ordinance on Registration of Industrial/Commercial Wells)		3.0	4) Capacity for Urban & Living Environment Improvement (Reinforcing Land Management, Empowerment of local communities for public		1.4
2) Water Supply Sector		128.0	Industrial Development/Job Opportunity Expansion		80.0
a Improvement of UFW (Leakage)		3.0	1) Formal/Informal Micro, SME training		5.0
b Water Supply and Sanitation Improvement Project (Kafue)		85.0	2) LS-MFEZ Development (Phase1)		75.0
c Improvement and Expansion of Distribution System		40.0	Total		421.4
3) Sewerage Sector		24.0			(K' billion) 1,510
a Remaining Rehabilitation of Existing Facilities		24.0			
4) Drainage Sector		12.0			
a Provision of Mobile Pumping Station as urgent measure		4.0			
b Urgent Rehabilitation of Existing Facilities		4.0			
c Comprehensive Drainage Master Plan Study		4.0			
5) Solid Waste Management					

US\$1.00=ZMK3,582

Note: UUS renewal projects by private initiative will be necessary in addition to above.



What is LUSEED?

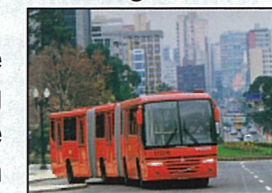
LUSEED or the Lusaka Sustainable Economic and Environmental Development is sub-title of "The Study on Comprehensive Urban Development Plan for the City of Lusaka", the technical assistance project from Japan International Cooperation Agency (JICA), which is being implemented by the Ministry of Local Government and Housing (MLGH) and Lusaka City Council (LCC) in cooperation with relevant agencies to prepare the Master Plan to sustain both economic and environment growths of Greater Lusaka.

Background of LUSEED

Lusaka City, the capital of the Republic of Zambia, has become a large city due to migration from rural areas and economic growth. The municipality area of Lusaka City is 424 km² and the Government has plans to expand it to 864 km². The 2005 population for Lusaka was estimated at approximately 1.8 million people or 350,000 households.

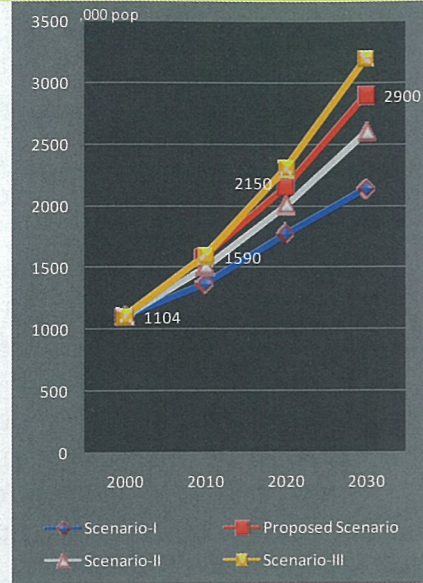


The City has been facing several problematic issues, such as air pollution, disorderly transportation system, water shortage, water pollution, flooding, toxic and hazardous waste disposal, due to the rapid industrial growth and the high population growth, without any comprehensive plan capable of countering these changes, and the living environment has been getting worse.

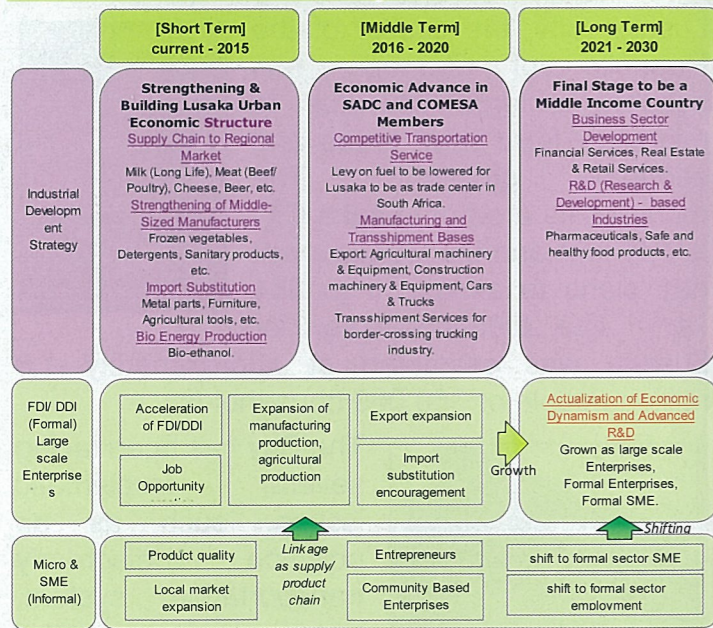


In order to effectively solve these problems, a comprehensive urban development plan including sub-programs for urban transportation, water supply and sewerage, and living environment improvement, is necessary for the Greater Lusaka with the target year of 2030.

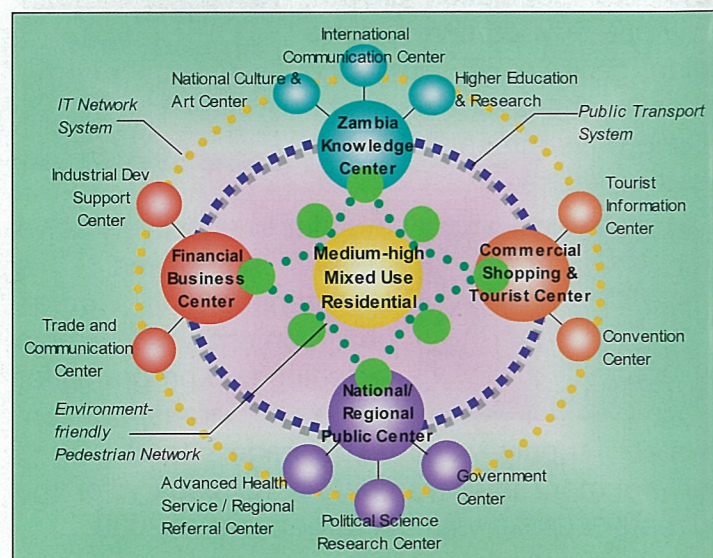
Population of Greater Lusaka



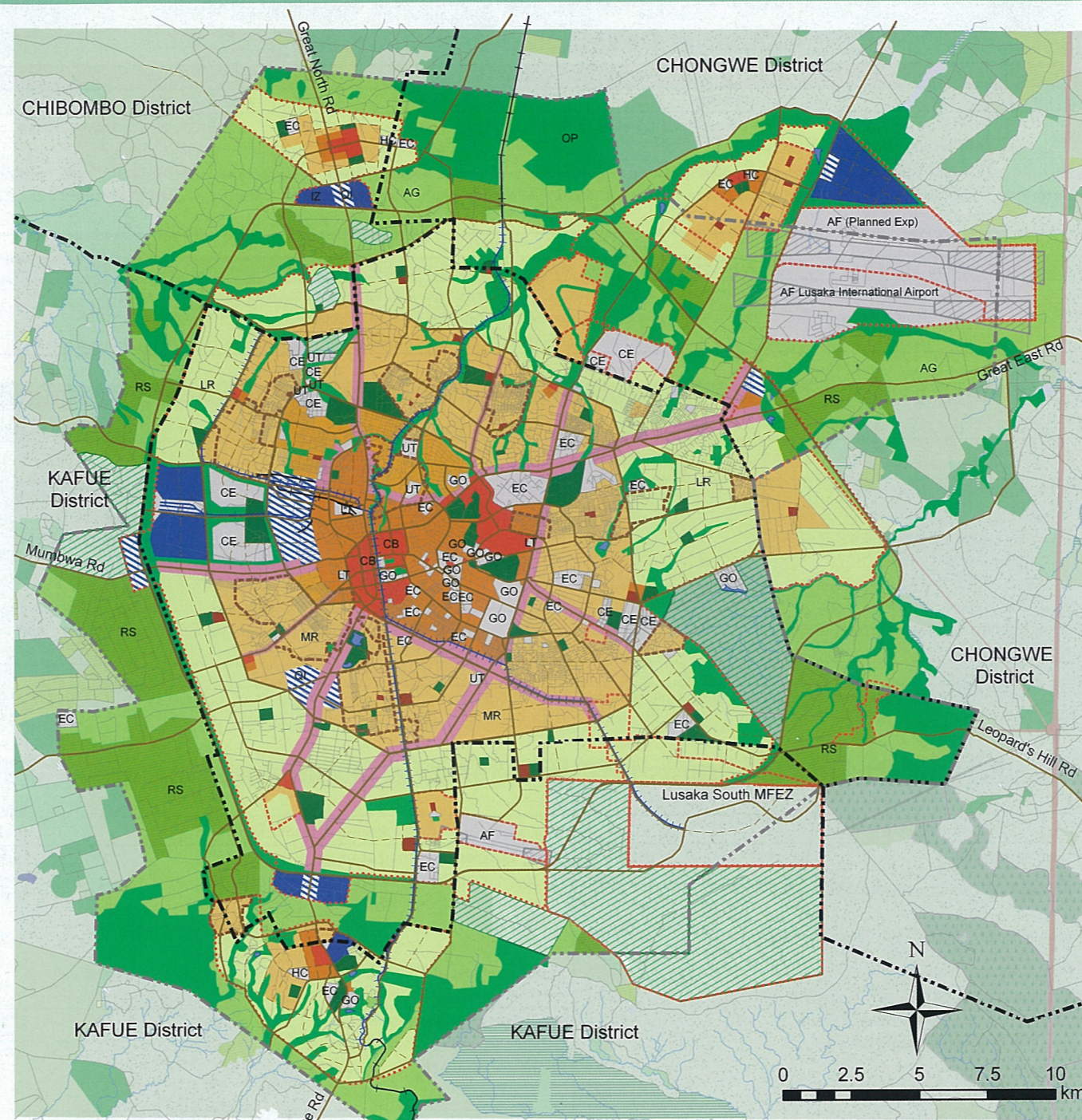
Industrial Development Scenario



Role and Function of Urban Centers



Land Use Plan for Greater LUSAKA in 2030



Legend

Proposed Land Use 2030

Class I: RURAL

- AG Agricultural Area
- RS Rural Settlement (Village, Small holdings)

Class II: RESIDENTIAL

- LR Low-density Residential
- MR Medium-density Residential
- HR High-density Residential

Class III: COMMERCIAL & BUSINESS

- CB Commercial & Business (Retail, wholesale, office, etc)
- CC Corridor Commercial (Mixed use along major roads)
- NC Neighbourhood Commercial
- MX Mixed Use (Commercial & Business with Residential)

Class IV: PUBLIC USE

- (P) Key Public Zone (Govt, Institutions, Health, Edu, etc)

Class V: INDUSTRIAL AREA

- I2 Industrial Area (Heavy and Light Industry by EPZ, etc)
- I3 Quasi-Industrial (Mixed use including Logistic)

Class VI: GREEN & OPEN SPACES

- PR Major Park and Recreation
- OP Green & Open Spaces (Watershed Protection)
- W Water Surface

- NE Natural Environmental Conservation Zone
- SD Special Development Control Zone

- Statutory Improvement Area to be normalised
- Planned or Implementing Urban Development

- Urban Development Promotion Zone
- Study Area (Original)
- District Boundaries
- Streams & Waterways
- Existing Railway Line
- Existing Roads

Proposed Railway Lines

- Commuter Railway
- Freight Railway

Proposed Roads

- Motorway/Major Arterial/Minor Arterial
- Major Collector
- Minor Collector

Development Direction in the Metropolitan Region and Greater Lusaka

1. Core Development on the Economic Corridors in the Region.

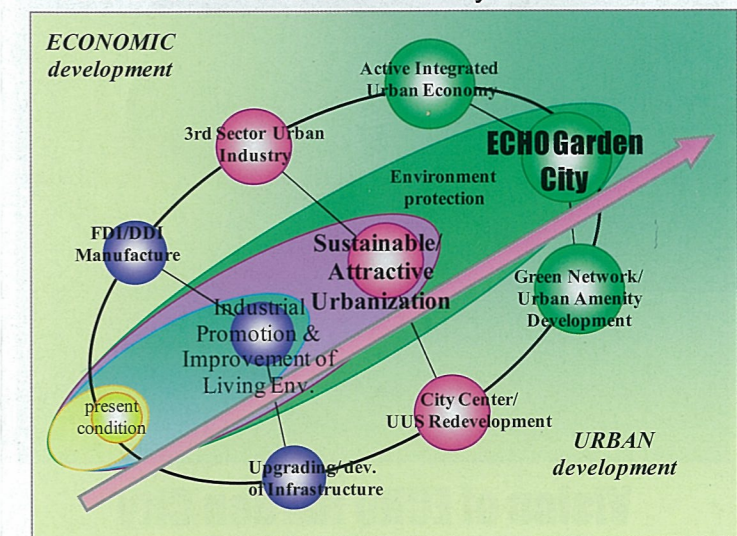
District	Development Direction by Sector for Adjacent Districts			
	Agriculture Sector	Industrial Sector	Tourism Sector	Social Service
Kafue	Logistic center development for aquaculture product. Access road development from production area.	Logistic center development for existing industrial product. Supporting industrial development for Greater Lusaka FDI development.	Tourist/Visitor Center Development in Kafue riverfront in close location of National Highway (NH)-T2.	Logistic center development for aquaculture product. Access road development from production area.
Chongwe	Logistic center development for commercial farmers product. Access road development from production area.	Logistic center development for industrial product at Satellite City (airfront). Access road development for industrial zone.	Roadside Station development for local product promotion at potential area on NH- T4. Tourist Information Center Development on NH-T4 for Lower Zambezi National Park.	Logistic center development for aquaculture product. Access road development from production area.
Chibombo	Logistic center development for commercial farmers product and livestock products. Access road development from production area.	Supporting industrial development for Large Industrial Development at Kabwe. Access road development from production area.	Roadside Station development for local product promotion at potential area on NH-T2. Tourist/Visitor Center Development for Lukanga Wetland tourism.	Logistic center development for aquaculture product. Access road development from production area.

2. Linkage Development in the Region.

Development activities shall not limit to urban area. Advanced systems, such as remote medical care and ICT education, will be introduced into to support rural services.

Conceptual Environmental Strategy

- Year 2015: Industrial Promotion & Improvement of Living Environment.
- Year 2020: Sustainable/ Attractive Urbanization
- Year 2030: ECHO Garden City





"The Study on Comprehensive Urban Development Plan for the City of Lusaka"

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team



NEWSLETTER

October 2007 (NL_No.1)



LUSEED or the Lusaka Sustainable Economic and Environmental Development is sub-title of "The Study on Comprehensive Urban Development Plan for the City of Lusaka", which signifies the importance of sustaining both economic and environment of Greater Lusaka, moreover bring-up the Plan as **LU**saka's **SEED** for the Future.

LUSEED is a technical assistance project from Japan International Cooperation Agency (JICA), which is being implemented by the Ministry of Local Government and Housing (MLGH) and Lusaka City Council (LCC) in cooperation with relevant agencies.

LUSEED Study Team is a joint venture of KRI International Corp., Nippon Koei Co., Ltd. and Japan Engineering Consultants Co., Ltd. The Study commenced in September 2007 and is expected to end in March 2009.

INTRODUCTION TO THE STUDY

Lusaka City, the capital of the Republic of Zambia, has become a large city due to migration from rural areas and economic growth. The municipality area of Lusaka City is 424 km² and the Government has plans to expand it to 864 km². The 2005 population for Lusaka was estimated at approximately 1.8 million people or 350,000 households.

The City has been facing several problematic issues, such as air pollution, disorderly transportation system, water shortage, water pollution, flooding, toxic and hazardous waste disposal, due to the rapid industrial growth and the high population growth, without any comprehensive plan capable of countering these changes, and the living environment has been getting worse.

In order to effectively solve these problems, a comprehensive urban development plan which consolidate various sector is necessary. It is the background of this Study.

The objectives of the Study are:

- (1) **To formulate a Comprehensive Urban Development Master Plan** including sub-programs for urban transportation, water supply and sewerage, and living environment improvement for the Greater Lusaka Urban Area for the target year of 2030.
- (2) **To formulate a short-term development plan** on urban issues to be urgently implemented and formulate plans, including implementation and management plans, for priority projects.

- (3) **To carry out technology transfer** to the Zambian counterpart personnel in the course of the Study.
- (4) **To formalize the Comprehensive Urban Development Master Plan** as the formal development plan of Lusaka by means of legal approval.

The Study Area covers all of Lusaka City, which covers an area of 424 km² and the adjoining areas, as illustrated below.

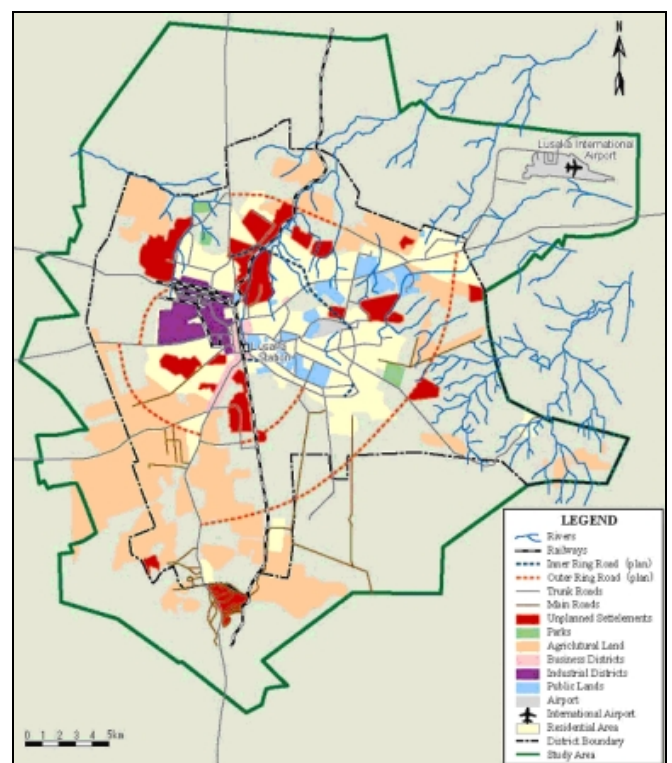


Figure-1 Study Area

The main SUBPROGRAMS of this study include i) **Urban Transport**, ii) **Water Supply and Sewerage**, and iii) **Upgrading of Urban Settlements and Redevelopment**. In order to integrate these subprograms and formulate the comprehensive development plan, inter relation of subprogram under integrated development vision and strategy must be given attention.

Main work items and the outputs are as follows:

- (1) Formulation of an **Integrated Development Master Plan**.
 - Evaluation of Lusaka City in relation to the development plan of the GRZ.
 - Examination of future visions and development strategies for Lusaka City.
 - Formulation of a **Comprehensive Urban Development Master Plan**, based on the development strategies.

"The Study on Comprehensive Urban Development Plan for the City of Lusaka"

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team

- (2) Formulation of **Master Plans for each Sub-Program.**
- *Formulation of a Master Plan for "Urban Transportation", "Water Supply and Sewerage", and "Urban Settlement Upgrading & Redevelopment", as prioritized by the GRZ. (Target Years: 2015 for the short-term plan, 2020 for the mid-term plan, and 2030 for the long-term plan)*
- (3) **Plan of Priority Projects.**
- *Selection of priority projects to be urgently implemented from the Master Plans above.*
 - *Formulation of the project profile of priority projects.*
- (4) Formulation of **Capacity Development Plans.**
- *Formulation of a capacity development plan to suit the implementation of the programs/projects.*

Outline of the Study Schedule is as follows:

August to December 2007

- *Analysis and evaluation of the present condition, including traffic survey and ward profile survey.*

January to March 2008

- *Development Vision and the Urban Development Strategy.*

April to December 2008

- *Formulation of Comprehensive Urban Development Plan.*
- *Formulation of Master Plan of Sub-Programs.*
- *Formulation of Plan of Priority Projects.*
- *Seminar and Workshop.*

January to March 2009

- *Seminar*
- *Finalization of the Study Report*

LAUNCHING OF THE STUDY

The first Steering Committee (SC) meeting was held on 14 September 2007 at the MLGH conference room, chaired by Permanent Secretary, Mr. Maswabi M. Maimbolwa. Mr. I. Asakura, LUSEED Study Team Leader presented the draft Inception Report and had a discussion for adjustment of the Study contents to the present condition.



Picture-1 1st Steering Committee

CURRENT ACTIVITIES

TRAFFIC SURVEY

The Study Team has just started traffic survey consisting of; i) household interview survey, ii) cordon line survey, iii) screen line survey, iv) public transportation survey, and v) freight interview survey. It is planned that the surveys will be finished by the end of this year.

WATER RESOURCES SURVEY

The Study Team will start the water resources survey both for groundwater and surface water from early October 2007. The survey consists of; i) investigation of existing LWSC boreholes, ii) Kafue river water flow, and iii) Kafue river water quality analysis. The survey for groundwater is planned to be completed in one (1) month after commencement, and surface water will continue until March 2008.

WARD PROFILE SURVEY

The Study Team is conducting profile survey in all 33 wards of Lusaka by interviewing key persons, including WDC. Main purposes of the interview survey are; i) to grasp updated situation of each ward, ii) to realize how the residents consider own living environment, and iii) to grasp the residents' ideas for the improvement of living environment. The survey will continue until mid October 2007.



Picture-2 Ward Profile Survey

CONTACT US

For more information and inquiries, please contact address and/or e-mail below.

LUSEED Project Office in LCC

Telephone/Fax: +260 (211) 253012

Address: Room 418, Old Wing, Civic Center
P.O. Bo 30077, Lusaka, ZAMBIA

E-mail: jica_luseed@yahoo.co.jp

Newsletter is available in our office also on LCC web-site.

<http://www.lcc.gov.zm>



"The Study on Comprehensive Urban Development Plan for the City of Lusaka"

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team



NEWSLETTER

December 2007 (NL_No. 2)

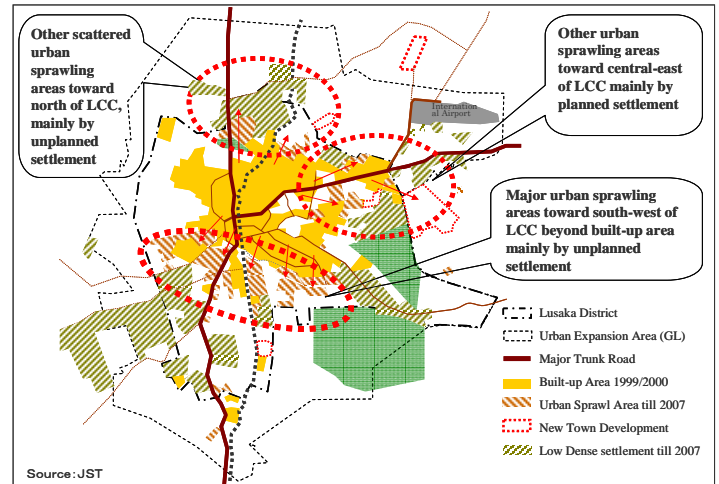
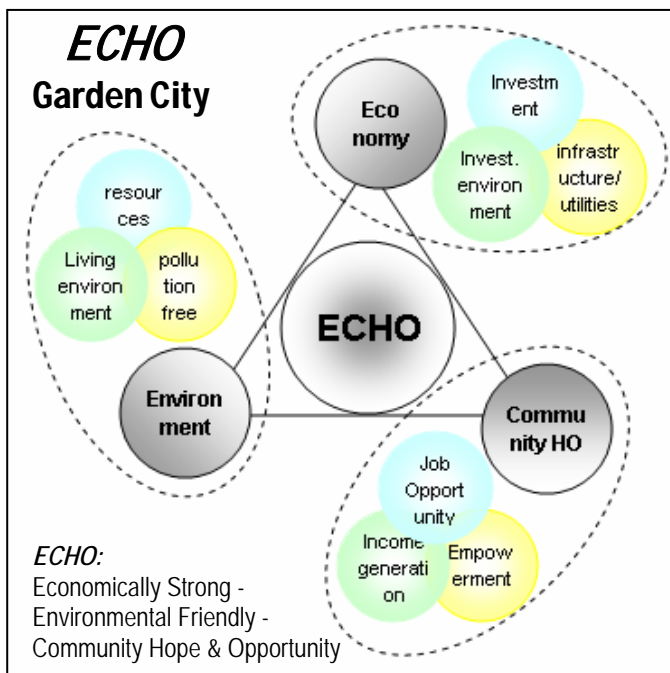


LUSEED or the Lusaka Sustainable Economic and Environmental Development is a technical assistance project from Japan International Cooperation Agency (JICA), which is being implemented by the Ministry of Local Government and Housing (MLGH) and Lusaka City Council (LCC) in cooperation with relevant agencies. The Study commenced in September 2007 and is expected to end in March 2009.

[provisional] DEVELOPMENT VISION

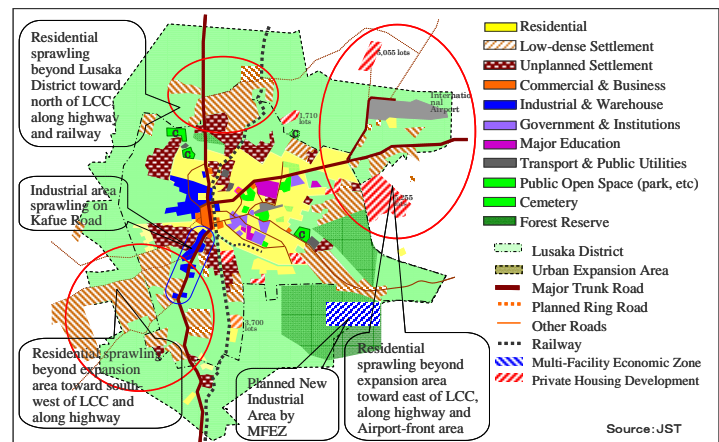
The Study Team provisionally proposed the development vision of the Lusaka City as follows:

- Echo of Prosperity to Zambia from Lusaka.
- Echo of Social and Economical Challenges in Lusaka to Neighboring Countries.
- Echo of Prosperous Benefit to the Communities for Hope and Opportunity.



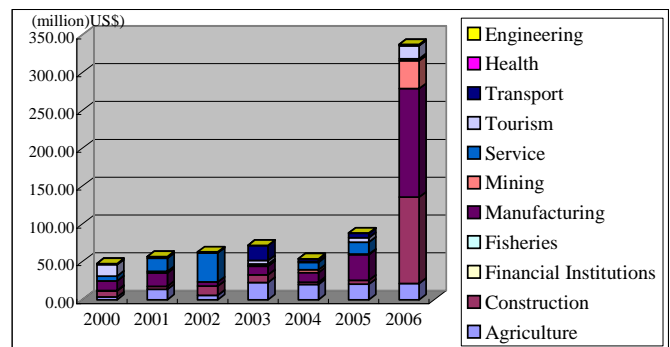
LAND USE TREND

Land use changes since year 2000 to 2007 is summarized in figure shown after.



INVESTMENT TREND

Number of the investor was gently increased from 2005 to 2006, however the investment amount was drastically increased as shown in figure below.



SPATIAL DEVELOPMENT ANALYSIS

URBANIZATION TREND

Urbanization trend since year 2000 to 2007 is summarized in figure below. Sprawls direction for unplanned urban area is to North and South of current build-up area, and planned urban sprawls is concentrated in Eastern area, the area close to the airport.

"The Study on Comprehensive Urban Development Plan for the City of Lusaka"

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team

[tentative] POPULATION FRAMEWORK

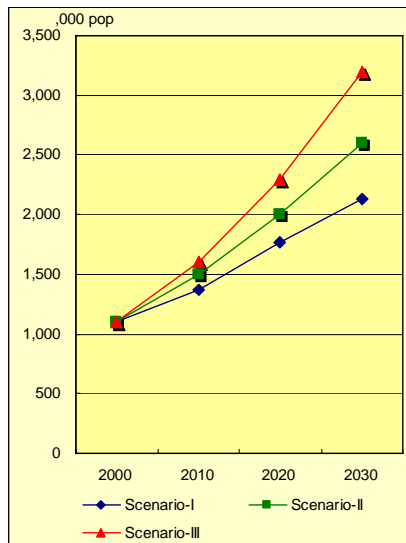
Based on the current projections and urbanization trend, 3 population growth scenarios were assumed. Considering preliminary environmental impact, infrastructure development plan and community relations, tentatively The Study Team proposed to follow [Scenario-II].

Scenario-I

- Based on the CSO projection.
- Natural growth oriented.
- Capping urban population increase.

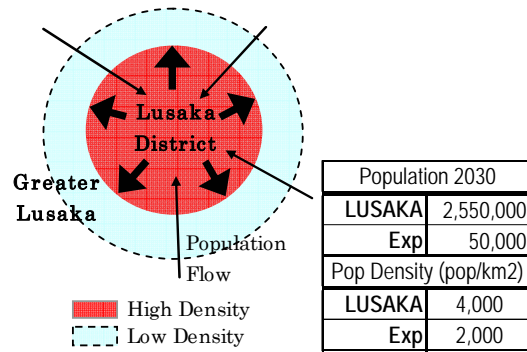
Scenario-II

- Based on the UN projection.
- Natural and Social growth oriented.
- Multi-growth poles in Zambia.



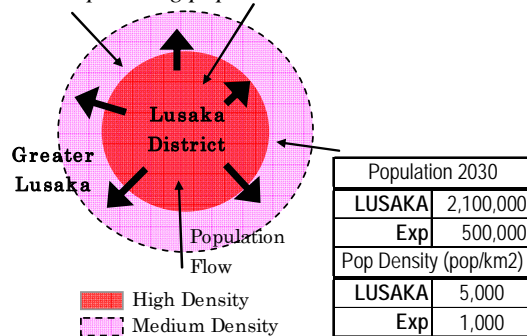
Scenario-III

- Based on the current urbanization trend.
- Natural and Social growth oriented.
- Single-growth pole in Zambia.



Alternative-III [DESPERSED CITY]

- Density control of Lusaka District settlement.
- Wide spreading pop into Greater Lusaka area.



2nd Steering Committee (SC) Meeting

The second Steering Committee (SC) meeting was held on 14 November 2007, chaired by Permanent Secretary, Mr. Maswabi M. Maimbolwa. Mr. I. Asakura, LUSEED Study Team Leader presented the provisional Development Vision and tentative Strategies described above.



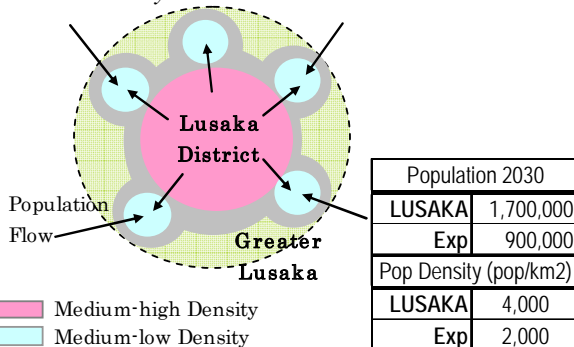
Picture-1 2nd Steering Committee

[tentative] SPATIAL DEV. STRATEGY

Mean while, 3 alternatives of Spatial Development Strategy are under consideration from environmental and economical/infrastructures investment point of view.

Alternative-I [GREATER CITY]

- Well organized urbanization.
- Strategic new town development.
- Mixed density combination.



Alternative-II [COMPACT CITY]

- Strict control of urban fringe sprawl.
- High-dense land use of Lusaka District.

CONTACT US

For more information and inquiries, please contact address and/or e-mail below.

LUSEED Project Office in LCC

Telephone/Fax: +260 (211) 253012

Address: Room 418, Old Wing, Civic Center
P.O. Bo 30077, Lusaka, ZAMBIA

E-mail: jica_luseed@yahoo.co.jp

Newsletter is available in our office also on LCC web-site.
<http://www.lcc.gov.zm>



"The Study on Comprehensive Urban Development Plan for the City of Lusaka"

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team



NEWSLETTER

February 2008 (NL_No.3)

TECHNICAL TRANSFER PROGRAMS



LUSEED or the Lusaka Sustainable Economic and Environmental Development is a technical assistance project from Japan International Cooperation Agency (JICA), which is being implemented by the Ministry of Local Government and Housing (MLGH) and Lusaka City Council (LCC) in cooperation with relevant agencies. The Study commenced in September 2007 and is expected to end in March 2009.

TECHNICAL TRANSFER (TT) PROGRAMS summarized below are including as a part of scope of this Study.

TARGET

- To enable Lusaka City to formulate appropriate urban management system by better understanding of effective implementation mechanism (urban transportation, urban water system, and living environmental improvement) at Lusaka City area.
- To enable to entitle City Master Plan as a statutory city plan through stakeholders understanding and cooperation.

OBJECTIVES

- To implement technology transfer program through works of Master Planning of Lusaka City targeting middle-management group of officers.
- To involve stakeholders (Working Group and others) for master planning process in participatory planning manner.
- To identify issues and propose an integrated Capacity Development Plan for effective urban management mechanism through technology transfer programs.

PROGRAMS

Preliminary proposed TT programs for each sub-program of the Study are shown hereafter.

I. Urban Planning & Living Environment WG

- Approach to Comprehensive Urban Planning (Nov 07)
- Sharing Urban Issue's Identification of Urban Development (Nov 07)
- Living Environment Improvement (Mar 08)
- Formulating Consensus for Vision & Strategy (Mar 08)
- Consensus for Master Plan (Jul 08)
- Urban Management System (Jul 08)
- Urban Development Measures and Best Practice (Aug 08)

- Consensus for Implementation Plan (Nov 08)
- Consensus for Final Outcome (Feb 09)

II. Urban Transport WG

- Traffic Survey Issues Identify (Nov 07)
- Survey Result Vision/Strategy (Mar 08)
- Demand Forecast/Best Practice (May 08)
- Master Planning/Best Practice (Nov 08)
- Traffic Database/DF Model by Training (Nov 08)

III. Water Supply and Sewerage WG

- Future of Groundwater Development (Dec 07)
- Introduction of Water Resource Development Strategy (Feb 08)
- Water Supply System Dev Strategy (Jun 08)
- Sewerage System Dev Strategy (Jul 08)

PROGRESS and FINDINGS

Urban Planning & Living Environment WG

The 1st and 2nd TT programs were combined and held on 12th November 2007 subject to core WG member.

The findings are as follows:

- Population Growth Scenario
Estimated based on UN projection with consideration on natural growth and social multi-growth pole of Zambia (scenario-II) is most favourable.
[2010] 1.5 mill. [2020] 2.0 mill. [2030] 2.6 mill.
- Spatial Development Strategy
Greater city concept with satellite urban core (alternative-I) is desirable and applicable.
- Other Issues
 - a. Necessary consideration on Customary Tenure (Chief's Land), especially in Chibombo.
 - b. Justification of function of Lusaka City Airport in core area of the City.
 - c. Investment incentives for the housing and/or commercial developer of satellite core, especially on large scale land acquisition.
 - d. Improvement methods of unplanned urban settlement area, subject to land right/ownership and public transportation.

"The Study on Comprehensive Urban Development Plan for the City of Lusaka"

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team

Urban Transport WG

1st TT program subject to Traffic Survey/Problem Identification was held on 11th December 2007. The findings are as listed below.

- Road and Traffic Issues
 - a. Many roads and streets in unplanned settlements are in poor condition.
 - b. Road construction and improvement are far behind urban development needs (housing, commercial and industrial).
 - c. Traffic diversion routes such as bypass and ring roads are necessary.
 - d. Relief of traffic congestion in Town and the major junctions is urgent need.
 - e. Insufficient road facilities, such as traffic light, street lighting and pedestrian deck.
 - f. Traffic safety is becoming a big problem due to rapid increase in car population.
- Public Transport Issues
 - g. Increase efficiency of public bus by sufficient service route network.
 - h. Improvement of public bus services.
 - i. Consideration of the railway function.
- Environmental Issue
 - j. Necessary to apply policy or regulation to restrict insufficient/polluting vehicles.

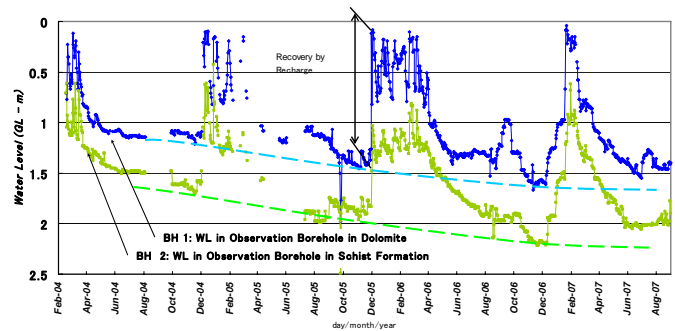


Picture-1 1st TT Program for Urban Transport WG

Water Supply and Sewerage WG

1st TT program was held on 19th December 2007. The findings are as listed below.

- Evaluation of Groundwater Resource
 - a. The long term declining of water level in dry seasons is also observed year by years.
 - b. The sharp fluctuations are observed, means not only that the recharge speed is quick after raining, but also that run-off in the aquifer is quick as well.



Groundwater Level Observation (Feb. 2004 – Aug. 2007)

- c. Insufficiency of data and information on groundwater level, discharge rate and actual use for private boreholes makes groundwater analysis difficult.
- Groundwater Development Strategy
 - d. Establishment of comprehensive management system for groundwater control in legislation and organization is required before development.
 - e. As conclusion, development of surface water to meet the future demand is required in order to minimize the groundwater use except development of 10 new boreholes to be funded by the World Bank.
 - Methods for Groundwater Management
 - f. In order to restrict groundwater use, it is required to establish the water resource management act after passage of the bill, which was prepared by the Ministry of Energy and Water Development.
 - g. Application of environmental tax and the additional billing on the sewerage is also considered to be one of the methods for groundwater restriction.

COMING NEXT

To harmonize the outcomes from each WG, TT programs below will be combined with the Workshop plans to be held on 19th February 2009.

- 3rd and 4th TT programs of Urban Planning & LE WG
- 2nd TT program of Urban Transport WG
- 2nd TT program of Water Supply and Sewerage WG

CONTACT US

For more information and inquiries, please contact address and/or e-mail below.

LUSEED Project Office in LCC

Telephone/Fax: +260 (211) 253012

Address: Room 418, Old Wing, Civic Center
P.O. Bo 30077, Lusaka, ZAMBIA

E-mail: jica_luseed@yahoo.co.jp

Newsletter is available in our office also on LCC web-site.

<http://www.lcc.gov.zm>



"The Study on Comprehensive Urban Development Plan for the City of Lusaka"

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team



NEWSLETTER

March 2008 (NL_No.4)

WORKSHOP on 19th February 2008



LUSEED or the Lusaka Sustainable Economic and Environmental Development is a technical assistance project financed by Japan International Cooperation Agency (JICA), which is being implemented by the Ministry of Local Government and Housing (MLGH) and Lusaka City Council (LCC) in cooperation with relevant agencies. The Study commenced in September 2007 and is expected to end in March 2009.

WORKSHOP summarized below was conducted to present and discuss the preliminary vision and strategy for the urban development plan.

CONTENTS

Date/Time: 19 February 2008

Place : Amalila Room, Pamodzi Hotel, Lusaka

Materials : available on our web-site (refer to **CONTACT US**)

(1) **Welcome Speech**

by Mr. Joel. M. NGO, Permanent Secretary, MLGH.

(2) **[Session-1]** Outline and Progress of LUSEED Project

- *Presentation on Preliminary Vision & Strategy of Urban Development Plan.*
- *Questions and Answers*

(3) **[Session-2]** Group Discussions by Working Group

- *Urban Planning & Living Environment WG.*
- *Urban Transport WG.*
- *Water Supply & Sewerage WG.*
- *Result Presentation of Group Discussion.*

(4) **Wrap-up of the Workshop**

by Mr. Muhau Wina, Acting Director, Department of Physical Planning & Housing, MLGH.

(5) **Closing Speech**

by Mr. Mukupa, Director of City Planning, LCC.

[SESSION-1] OUTLINE & PROGRESS of the PROJECT

Major subject raised during Q&A are:

- **Financial provision** is very important and will be considered in the master plan.
- **Transportation improvement** is very important for the City development, and will be given attention as a major sector, including the suggestion for railway system.
- **Links between regional projects and plans** of Kafue, Chibombo and Chonguwe districts are very important, as well as **coordination among donors' activities.**



Picture-2 Questions and Answers

[SESSION-2] GROUP DISCUSSIONS

Urban Planning & Living Environment WG

Major discussion results are listed below:

- [option-1] **Greater City Concept** with satellite cities development was agreed to be adopted.
- Priority sectors to be considered for living environmental are; 1) water, 2) access to roads, 3) health care, 4) job creation, 5) drainage, 6) security and 7) education.



Picture-1 Opening of the Workshop



Picture-3 Initial Input from the Study Team Member

“The Study on Comprehensive Urban Development Plan for the City of Lusaka”

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team

- **Housing problems are also very critical** due to inadequate numbers, density of the built-up areas, pokiness/close quarters, and no security of tenure.
- **Employment issues should be considered carefully** to ensure the sustainability of their self-help activities.

Urban Transport WC

Major discussion results are listed below:

- Air-Rail-Road (3 modes) of transportation should be **developed in an integrated manner** to effectively serve the growing population of Lusaka.
- **Inner ring road** development with a range of 5km to 15km radius has a top priority.
- To maintain current monumental roundabouts, to erect additional railway flyover, channelization and sleep lanes re-engineering.
- **To introduce a mass transport** and provide integrated system of bus & LRT.
- Railway should not be re-routed out of the CBD.
- The city airport should be located closed to the center.

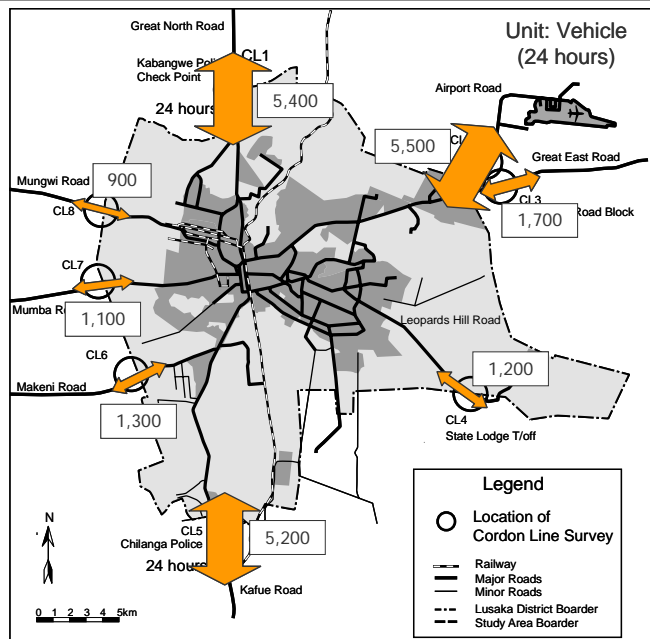


Figure-1 Result of Traffic Survey

Water Supply and Sewerage WC

Major discussion results are listed below:

- Prioritizing the development of **Kafue River surface water** to meet the current demand.
- Necessary to conduct further study, e.g. **Comprehensive Groundwater Management Program**, to grasp the actual conditions and to ensure the development potential aquifer

as well as to identify essential conservation measures.

- **Decrease UFW ratio** prior to further system development.
- **Financial arrangement is very important** for implementation of expansion of Iolanda Water Works which are a priority project, and it will be considered in detail by the Study Team at more advanced stage.
- Lack of funds makes the sewerage sector service insufficient, therefore it is necessary to **consider sanitation market to makes financial feasibility** of the sector.
- **Sewerage system should be considered together with the drainage system**, especially during the rainy season when the amount of influent to the treatment plants becomes nearly double compared with the dry season.

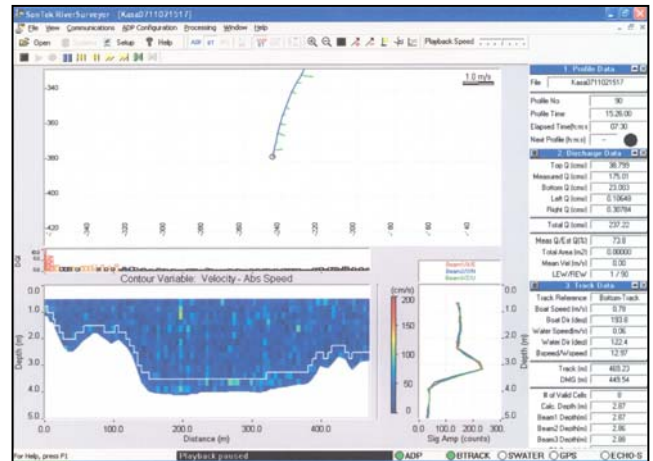


Figure-2 Kafue River Flow Capacity Surveyed by SONTEK

SPECIAL THANKS

To all workshop participants, thank you for your cooperation and kind attention on our Study. We do hope continues supports and collaborations from all of you, also from other beneficiaries and relevant authorities could not attended this time.

Progress Report which includes the results of the workshop and preliminary development strategies based on the findings will be available by March 2008.

CONTACT US

For more information and inquiries, please contact address and/or e-mail below.

LUSEED Project Office in LCC

Telephone/Fax: +260 (211) 253012

Address: Room 418, Old Wing, Civic Center
P.O. Bo 30077, Lusaka, ZAMBIA

E-mail: jica_luseed@yahoo.co.jp

Web-site : <http://jicaluseed.rakurakuhp.net/>

Newsletter is available in our office also on LCC web-site.

<http://www.lcc.gov.zm>



"The Study on Comprehensive Urban Development Plan for the City of Lusaka"

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team



NEWSLETTER

July 2008 (NL_No. 5)

ENVIRONMENTAL CONSIDERATIONS

LUSEED or the Lusaka Sustainable Economic and Environmental Development is a technical assistance project from Japan International Cooperation Agency (JICA), which is being implemented by the Ministry of Local Government and Housing (MLGH) and Lusaka City Council (LCC) in cooperation with relevant agencies. The Study commenced in September 2007 and is expected to end in March 2009.

ENVIRONMENTAL AND SOCIAL ISSUES summarized below will be considered during formulation of the Master Plan.

Seminar on 16 July 2008

The seminar was organized at Taj Pamodzi Hotel on 16 July 2008; 1) to sensitize outcomes of the Master Plan Study on "Comprehensive Urban Development of Lusaka", 2) to sensitize outcomes of the master plans on 3 sub-programs of urban transportation, water supply & sewerage and living environment improvement, and 3) to collect opinions and suggestions from stakeholders. The full-day seminar consisted of 6 sessions and Q&A sessions as shown below.

- Session 1: Outline and Progress of LUSEED Project;
- Session 2: Comprehensive Urban Development Plan for the City of Lusaka;
- Session 3: Proposed Master Plan and Priority Projects of Urban Transportation Sub-program;
- Session 4: Proposed Master Plan and Priority Projects of Water Supply & Sewerage Sub-program;
- Session 5: Proposed Master Plan and Priority Projects of Living Environment Improvement Sub-program; and
- Session 6: Environmental & Social Considerations Study and Proposed Conceptual Environmental Strategy

The seminar was attended by more than 120 participants including 3 working group members, relevant ministries & agencies, academia, chairpersons of the ward development committees, ward councillors, members of parliament from each constituency, NGOs, relevant international donors and the other relevant stakeholders. Participants actively expressed their comments and questions in the Q & A sessions.

Development Strategy for the Master Plan

In the first session, the phased development strategy for the Comprehensive Urban Development Master Plan was explained by Mr. Asakura, Team Leader of the Study Team.

The phased Development Strategy shows the fundamental direction of economic and urban development of Lusaka City in the short-term (up to Year 2015), the mid-term (up to Year 2020) and the long-term (up to Year 2030).

For instance, in the short-term strategy, industrial promotion and living environment improvement shall be enhanced by the FDI/DDI-led manufacturing sector and infrastructure development. For the mid-term, development shall go beyond industrial development and necessary social infrastructure provision, and sustainable/attractive urbanization shall be realized by the third sector urban industry and city center/UUS redevelopment. In the long-term, by active integrated urban economy, green network/urban amenity development, and strengthening environmental protection measures, the ECHO Garden City, an economically, socially and environmentally sound city, shall be achieved by 2030. The strategy is applied to not only the Comprehensive Urban Development Master Plan but also 3 Sub-program Master Plans which will be discussed in the following issues of the newsletter.

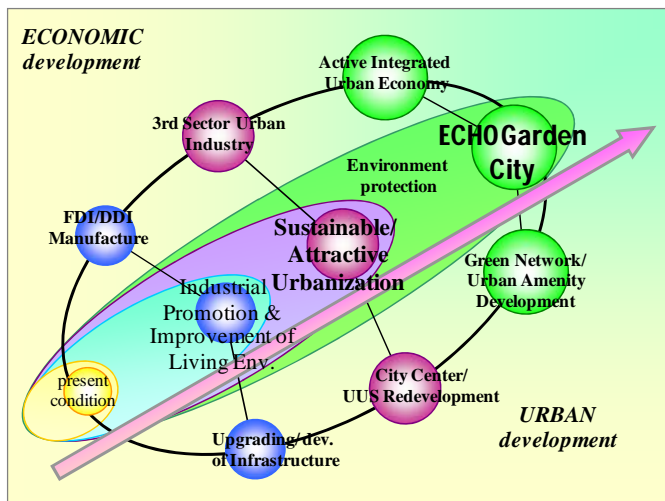


Figure 1 Phased Development Strategy for the Master Plan

Environmental & Social Considerations Study

(1) Scope of Environmental & Social Considerations Study

The master plan has been developed considering environmental and social issues to harmonize environmental protection, natural resource use and urban development. As the environmental & social considerations study, the Initial Environmental Examination (IEE) including some elements of the Strategic Environmental Assessment (SEA) was

“The Study on Comprehensive Urban Development Plan for the City of Lusaka”

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team

conducted for; 1) Comprehensive Urban Development Master Plan, 2) Urban Transport Sub-program Master Plan, 3) Water Supply & Sewerage Sub-program Master Plan, and 4) Living Environment Improvement Sub-program Master Plan.

(2) Conceptual Environmental Strategy

The conceptual environmental strategy was prepared based on the results of the SEA (see Figure 2). The phased environmental strategy was prepared in accordance with the Development Strategy shown in Figure 1. It shows the direction of the environmental strategy in terms of the citizens’ lifestyles and utilities toward ECHO Garden City. As the short-term environmental strategy, environmental safe lifestyle and environmental utility development shall be introduced to utilize resources for efficient industrial and social development. For the mid-term, eco-friendly lifestyle and eco-urban structure development shall be promoted to realize sustainable/attractive urbanization. Finally, ecological lifestyle and comfortable utility development shall be adopted to achieve the ECHO garden city.

(3) Initial Environmental Examination for the Master Plans

The IEE results for the Master Plans are summarised in Table 1. The environmental & social impacts were determined by considering the overall development strategy as well as the master plans of individual sub-programs. As a result, involuntary resettlement, land use, split of communities, increased water use were identified as expected negative impacts of the master plan by the integrated IEEs.

To mitigate these negative impacts; 1) adequate public consultation with the Project Affected Persons on the Resettlement Action Plan and as the relocation site, and 2) promotion of eco-friendly development activities including resource saving practices of industries such as the Cleaner Production and environmental awareness raising for citizen, are suggested.

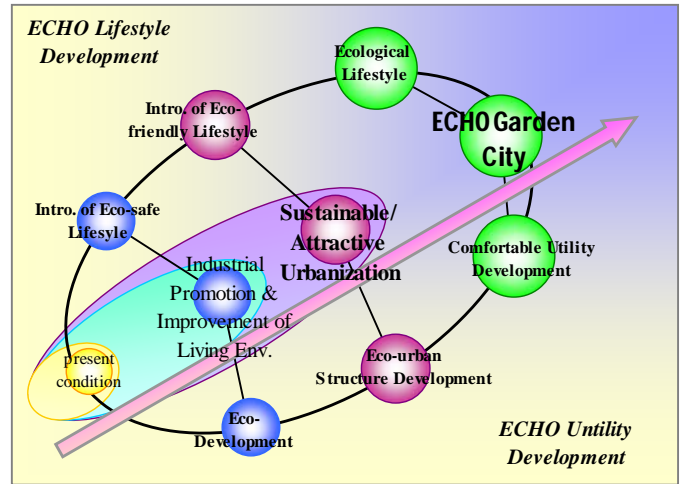


Figure 2 Conceptual Environmental Strategy

COTACT

For more information and inquiries, please contact address and/or e-mail below.
LUSEED Project Office in LCC
 Telephone/Fax: +260 (211) 253012
 Address: Room 418, Old Wing, Civic Center
 P.O. Bo 30077, Lusaka, ZAMBIA
 E-mail: jica_luseed@yahoo.co.jp
 Newsletter is available in our office also on LCC web-site.
<http://www.lcc.gov.zm>

Table 1 Summary of the Master Plans' IEE

Env. Impacts	Social Environment										Natural Environment										Pollution									
	1. Involuntary Resettlement	2. Local Economy such as Employment & Livelihood, etc.	3. Land Use & Utilization of Local Resources	4. Social Institutions such as Split of Communities	5. Existing Social Infrastructures & Services	6. The poor, indigenous & ethnic people	7. Misdistribution of Benefit & Damage	8. Cultural Heritage	9. Local Conflict of Interest	10. Water Usage or Water Rights & Rights of Common	11. Sanitation	12. Hazards (Risk), Infectious Diseases such as HIV/AIDS	13. Topography & Geographical Features	14. Soil Erosion	15. Groundwater	16. Hydrological Situation	17. Coastal Zone	18. Fauna, Flora & Biodiversity	19. Meteorology	20. Landscape	21. Global Warming	22. Air Pollution	23. Water Pollution	24. Soil Contamination	25. Waste	26. Noise & Vibration	27. Ground Subsidence	28. Offensive Odor	29. Bottom Sediment	30. Accidents
Overall Master Plan	A-	A+	A+/-	A-	B-	C-	C-	B-	C-	A-	A+	A+	B-	B-	A+	A+	B-	A+	B-	B-	A+	B-	A+/B-	A+/B-	B-	B-				
Transportation	A-	A+	A+	A-	B-	C-	B-	B-		B+		B-	B-	B-	B-	B-		B-	B-	A-	B-		B-	A-	B-					C-
Water Supply/ Sewerage	B-	A+	A+		B-	C-	C-	C-	A-	A+	A+			A+	A+					B-	B-	B-	A+	B-	B-					
Urban Settlement Improvement	A-	A+	A+	A-	B-	C+/-	C-	C-		A+	A+								A+		B-	A+	B-	B-						

Note: A(+/-) significant positive/negative impacts; B(+/-) positive/negative impacts to some extent; C(+/-) extent of positive/negative impact is unknown; Blank - no impact is expected. Source: JICA Study Team



"The Study on Comprehensive Urban Development Plan for the City of Lusaka"

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team



NEWSLETTER

July 2008 (NL_No.6)

COMPREHENSIVE URBAN DEVELOPMENT MASTER PLAN



LUSEED or the **Lusaka Sustainable Economic and Environmental Development** is a technical assistance project from Japan International Cooperation Agency (JICA), which is being implemented by the Ministry of Local Government and Housing (MLGH) and Lusaka City Council (LCC) in cooperation with relevant agencies. The Study commenced in September 2007 and is expected to end in March 2009.

PROPOSED URBAN DEVELOPMENT summarized below will be applied to formulate Master Plan.

thousand employment for adjacent areas in three Districts of Kafue, Chongwe and Chibombo in 2030.

URBAN STRUCTURE

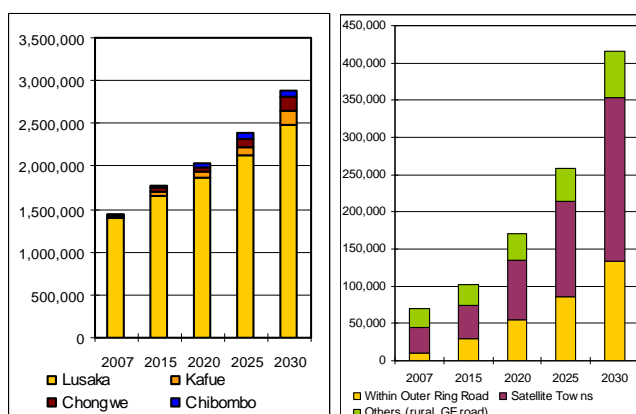
The Future Greater Lusaka is formulated by proposed urban form in combination with road and transport network and land use. Road network play a key role in securing convenient access and traffic, and supporting daily life and economic development for future Greater Lusaka, where the network system is proposed by Ring Roads and Radial Roads. Satellite cities in three Districts of Kafue, Chongwe and Chibombo are proposed to be formulated in sustainable town development manner with work place and living place provision. Chilanga in Kafue District, Airfront Town in Chongwe and Chibombo South Town are expected to become satellite city and contribute to each district socio-economic development.

DEVELOPMENT FRAMEWORK

The development framework for the Greater Lusaka area covering Lusaka District and adjacent areas in Kafue, Chongwe and Chibombo District is set by desirable population and employment sizes to achieve a role of a leading growth centre for economic development toward the Middle Income Country, taking account of land availability and vulnerable natural environment.

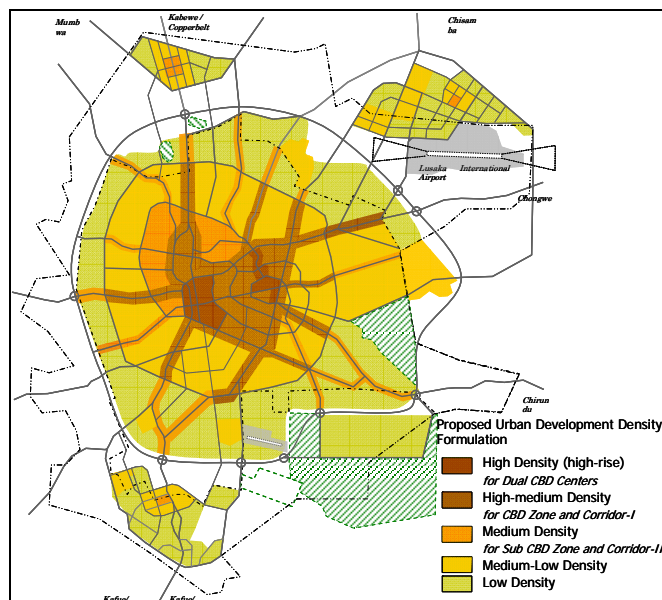
(1) Population Growth

A population of 2.9 million is targeted for the year of 2030 for Greater Lusaka area while Lusaka Districts would have population 2.5 million and 0.4 million for other districts as adjacent areas in three Districts in 2030.



(2) Employment Growth

In comparison with current employment 380 thousand employment in 2005, 1,126 thousand employment is targeted for the year of 2030 for Greater Lusaka area increased by 746 employment during 25 years, while Lusaka Districts would have 890 thousand and 236

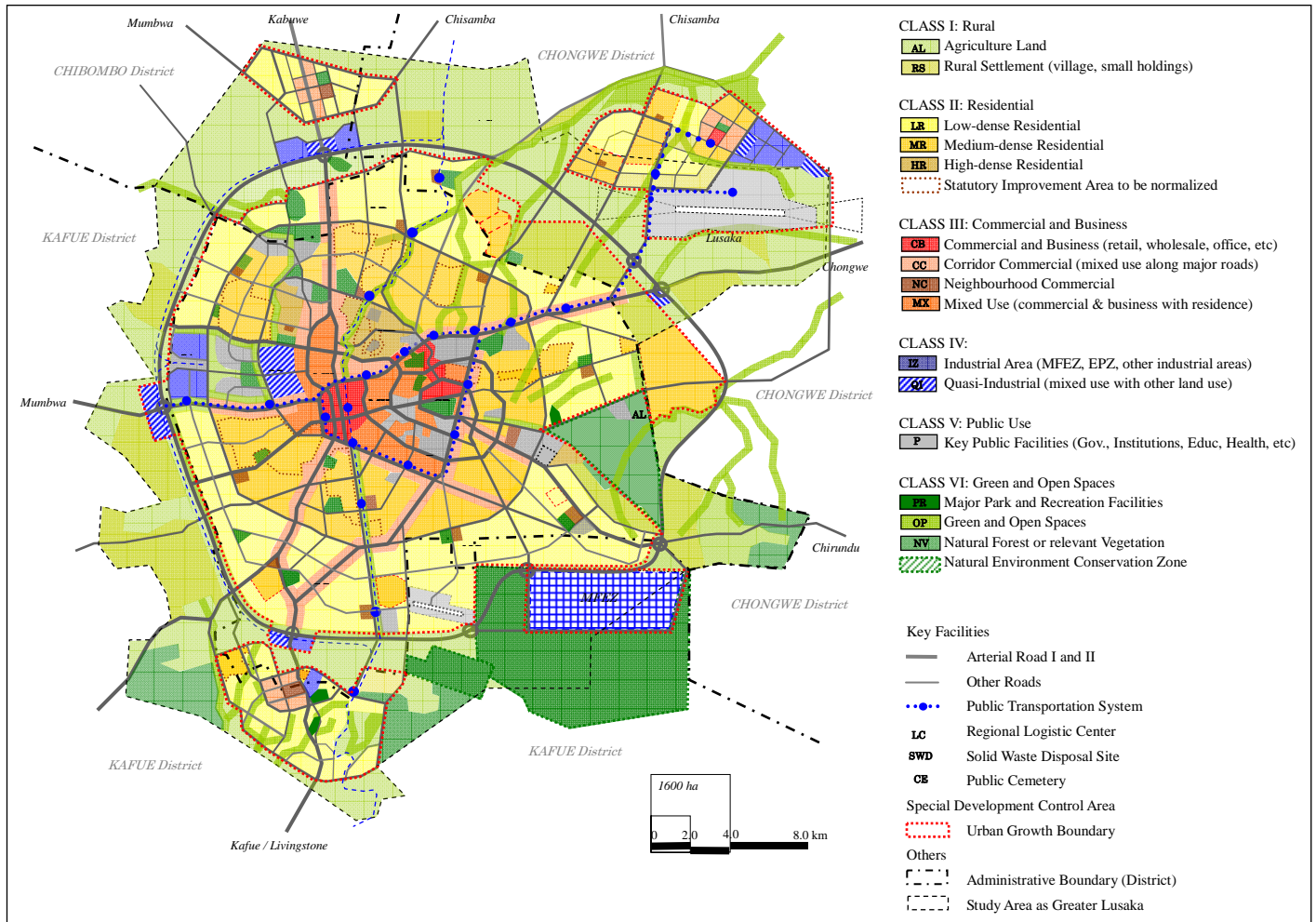


Development density plays an important role in formulation of future urban structure of Greater Lusaka area, taking account of gradual densification from the centre to urban fringe area and corridor dense development in order to achieve efficient land use with controlled urban landscape and less infrastructure provision.

“The Study on Comprehensive Urban Development Plan for the City of Lusaka”

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team

Proposed Land Use Plan 2030 for Greater Lusaka



PORPOSED LAND USE PLAN 2030

The land use plan for Greater Lusaka is formulated according to target population and employment toward 2030. It is proposed that gradual dense residential development and effective foundation for economic development led by industrial zones and competitive urban centre’s development are principles for the land use plan, while vulnerable water system with greenery network will be protected and formulated.

Large unplanned settlements in Lusaka will be improved as ordinal residential areas to achieve urban quality of life together with urban renewal development in potential urban development areas in the city center.

Satellite cities will be established in medium and long term period in adjacent areas as part of Chibombo, Chongwe and Kafue Districts in conjunction with industrial zones development in the sphere of proposed Outer Ring roads. Peri-urban agriculture land will be retained and improved not only for food production but also environmental buffer green of ECHO garden City development.

COMING NEXT

It is planned to hold the fourth Steering Committee for presentation of the Study on 1st August. The main theme will be agreement on the Master Plan and presentation of Interim Report.

CONTACT US

For more information and inquiries, please contact address and/or e-mail below.

LUSEED Project Office in LCC
Telephone/Fax: +260 (211) 253012
Address: Room 418, Old Wing, Civic Center
P.O. Bo 30077, Lusaka, ZAMBIA

E-mail: jica_luseed@yahoo.co.jp
Newsletter is available in our office also on LCC web-site.

<http://www.lcc.gov.zm>



"The Study on Comprehensive Urban Development Plan for the City of Lusaka"

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team



NEWSLETTER

July 2008 (NL_No.7)



TRANSPORTATION MASTER PLAN

LUSEED or the Lusaka Sustainable Economic and Environmental Development is a technical assistance project from Japan International Cooperation Agency (JICA), which is being implemented by the Ministry of Local Government and Housing (MLGH) and Lusaka City Council (LCC) in cooperation with relevant agencies. The Study commenced in September 2007 and is expected to end in March 2009.

Session on **Urban Transport Subprogram** of 2nd Workshop summarized below was conducted to present and discuss the issues, strategy and road map.

ROAD NETWORK IN 1975 PLAN

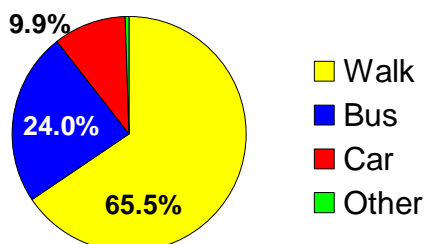
The City of Lusaka Development Plan in 1975, or *Doxiadis Plan*, was the official development plan whose target year was 2000. The Doxiadis Plan proposed the road network based on the projection that the population in the target year would be 1.2 million. Now, the projection proved right, but the most of the proposed roads were not taken shape.



Proposed Road Network in 1975 Plan (Doxiadis Plan)

MODAL SPLIT

People walk in Lusaka: according to the Household Interview Study by LUSEED in 2007, about two-thirds of trips are walking, while trips by bus account for 24% and car for 10%. This means the importance of pedestrian facilities in Lusaka.

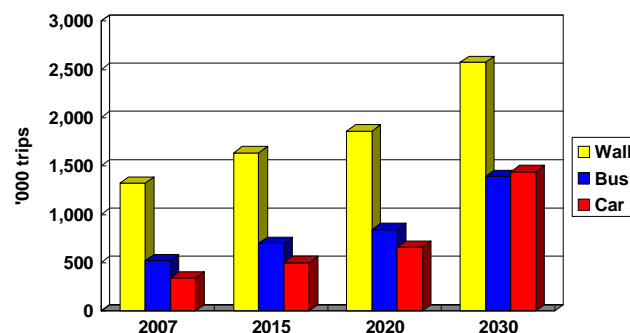


The share of buses is larger than cars, but the impact of cars is larger because two minibuses can carry 24 persons but three to five cars are needed to carry 10 persons.

FUTURE TRAFFIC DEMAND

Currently, there are 1.8 million trips per day in Lusaka. In average, a person in Lusaka makes 1.57 trips per day. The total number of trips is projected to become 1.3 times the present number in 2015, 1.6 times in 2020, and 2.7 times in 2030. The increase in the trip by car will be large: 1.4 times in 2015, 2.0 times in 2020, and 4.6 times in 2030. The year 2030 is the target year of LUSEED master plan.

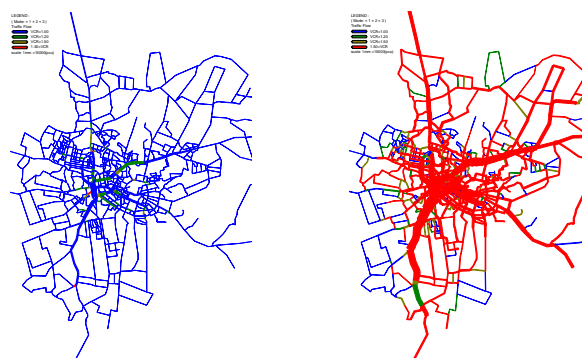
No. of Daily Trips by Mode for All Purposes



Source: Estimation by LUSEED JICA Study Team

NETWORK ANALYSIS

This increase will cause serious problem on roads in Lusaka. The figure below illustrates the traffic volume: left figure in 2007 and right figure in 2030. The width of lines represents the volume and blue colour means that traffic is less than the road capacity while traffic exceeds the capacity on the red coloured lines. It is clear that the present road network can not deal with the traffic volume in 2030.



"The Study on Comprehensive Urban Development Plan for the City of Lusaka"

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team

CHALLENGES

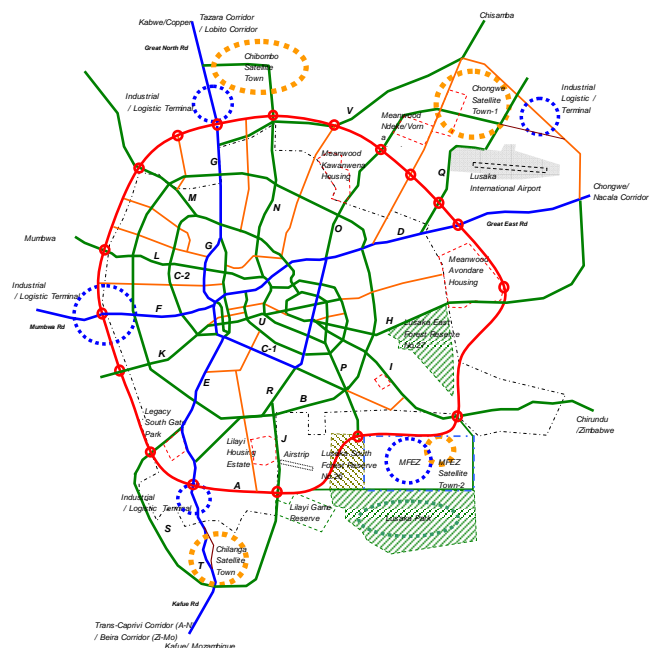
The challenges in the urban transportation sector are:

- 1. Equal Accessibility for All Citizens: provide opportunity of access to job, business, education, health, culture and other urban activities, which contributes poverty reduction and income generation**
 - Cover the entire city with passenger transport services
 - Improve bus service (price, frequency, safety)
 - Provide access road for vehicles in all communities
 - Develop road network for quick access within the city
- 2. Safe and Pleasant Transport System**
 - Reduce traffic accidents
 - Improve the security on roads and streets
 - Manage and control traffic flow under good condition
 - Provide safe and comfortable pedestrian routes
- 3. Sustainable Economic Development through Competitive Transport Infrastructure**
 - Provide access to new industrial zones
 - Provide the north-south corridor for inter-city transport
 - Provide the competitive freight transport system
 - Provide the competitive air transport services
- 4. Sound and Managed Urban Growth**
 - Connect the new urban area with good transport system
 - Provide sufficient transport system that meets the future traffic demand
 - Formulate good urban structure by hierarchic road network
 - Provide transport terminal for smooth transfer
- 5. Enriched Quality of Life in All Communities**
 - Improve deteriorated roads and streets
 - Relief traffic congestion
 - Promote non-motorized transport
 - Reduce vehicle emission



FUTURE ROAD NETWORK

LUSEED proposes the future road network which will support the urban development in the future. The road network in 2030 will have three Ring Roads, 12 Radial Roads, and seven other important roads as arterial and collector roads. Outer Ring Road will connect the new industrial areas providing bypass for inter-city traffic. Radial Roads will connect the center of the city and the new satellite towns.



CONTACT US

For more information and inquiries, please contact address and/or e-mail below.

LUSEED Project Office in LCC

Telephone/Fax: +260 (211) 253012

Address: Room 418, Old Wing, Civic Center
P.O. Bo 30077, Lusaka, ZAMBIA

E-mail: jica_luseed@yahoo.co.jp

Newsletter is available in our office also on LCC web-site.

<http://www.lcc.gov.zm>



"The Study on Comprehensive Urban Development Plan for the City of Lusaka"

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team



LUSEED

NEWSLETTER

July 2008 (NL_No.8)

MASTER PLAN FOR WATER SECTORS



LUSEED or the **Lusaka Sustainable Economic and Environmental Development** is a technical assistance project from Japan International Cooperation Agency (JICA), which is being implemented by the Ministry of Local Government and Housing (MLGH) and Lusaka City Council (LCC) in cooperation with relevant agencies. The Study commenced in September 2007 and is expected to end in March 2009.

MASTER PLAN for WATER SECTORS explained below was proposed in the Seminar held on 16th July 2008.

WATER SUPPLY SECTOR

(1) Water Demand Forecast

Based on the development frameworks (e.g. population and industrial area), the water demand shown **Table 1** below was forecasted.

Table 1 Water Demand Forecast

	2007	2015	2020	2030
Domestic Use	85,092 (39.0%)	125,605 (43.2%)	173,712 (45.8%)	345,438 (57.4%)
Public Use	20,332 (9.3%)	24,740 (8.5%)	28,414 (7.5%)	40,431 (6.7%)
Commercial Use	4,726 (2.2%)	5,645 (1.9%)	6,951 (1.8%)	13,158 (2.2%)
Industrial Use	108,000 (49.5%)	135,000 (46.4%)	169,800 (44.8%)	202,860 (33.7%)
TOTAL	218,150 (100.0%)	290,990 (100.0%)	378,876 (100.0%)	601,887 (100.0%)

Considering current supply capacity of LWSC and assumed private boreholes, around; 1) **142,000 m³/day** in 2015, 2) **252,000 m³/day** in 2020, and 3) **531,000 m³/day** in 2030, will be lacked.

To cover huge shortage forecasted above, surface water from Kafue River is necessary to be developed with required minimum capacity of **430,000 m³/day** to meets 2030 year demand. Groundwater will be developed continuously for the remote or satellite area and urban agriculture uses.

Estimated development capacity of Kafue River is **11,229,000 m³/day** in average. It is more than enough for ordinary years, however it will necessary to introduce water saving measures for all Kafue River water user during 10 years drought year with development capacity of **668,000 m³/day**.

Water supply system development plan is proposed as summarized in **Figure 1** and focused distribution pipeline expansion area which limited by the current distribution system is shown in **Figure 2**.

SEWERAGE SECTOR

Effluence sewage capacity was estimated on 80% of water demand as shown in **Table 2**. Remaining 20% was

assumed as consumptions and infiltration amount.

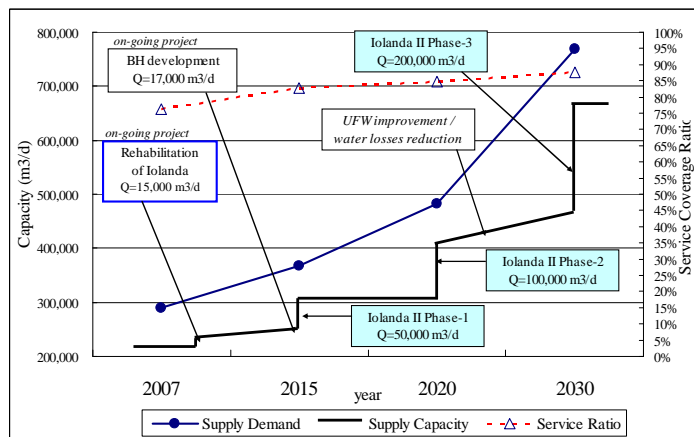


Figure 1 Proposed Water Supply System Development Plan

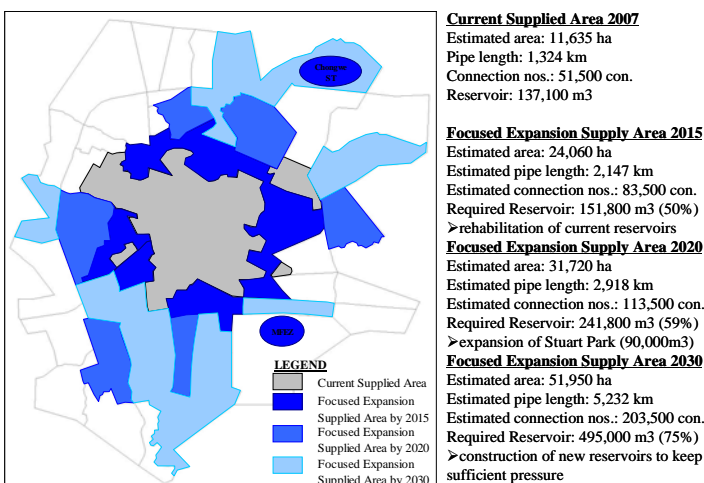


Figure 2 Proposed Water Supply System Development Plan

Table 2 Effluence Sewage Forecast

Domestic Sewage Forecast	2007	2015	2020	2030
Service District	139,851	193,461	217,239	309,268
- Service Target Area	43,271	70,815	96,315	143,359
Chelstone	2,156	2,816	4,863	7,089
Western	11,486	15,003	21,627	24,329
Kauda Square	6,382	8,220	14,686	25,398
Manchinchi	16,264	38,089	46,990	69,497
Ngwerere	6,983	6,687	8,149	17,046
- Autonomic Area	54,472	57,211	56,445	69,736
- On-site Treatment Area	42,108	65,435	64,479	96,173
Non-service District	34,671	39,319	85,843	172,530
Total	174,522	232,780	303,082	481,798

Considering the performance limitation of the sewer collection system and expansion capacity of the current treatment plants, there are many area could not be covered by current public system. Therefore, the service district necessary to be divided based on the type of sewerage measurement; 1) **Service Target Area**: The area physically feasible to connect sewer line considering the location of the treatment plant, 2) **Autonomic Area**: The area consists of

“The Study on Comprehensive Urban Development Plan for the City of Lusaka”

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team

exclusive housing, governmental offices, university, golf course /park, city airport, which assumed already have own treatment as well as no any public treatment required, 3) **On-site Treatment Area:** The area with low density and/or physically not feasible to connect public sewer line.

Sewerage system development plan is proposed as summarized in **Figure 3** and collectable expansion area is shown in **Figure 4**.

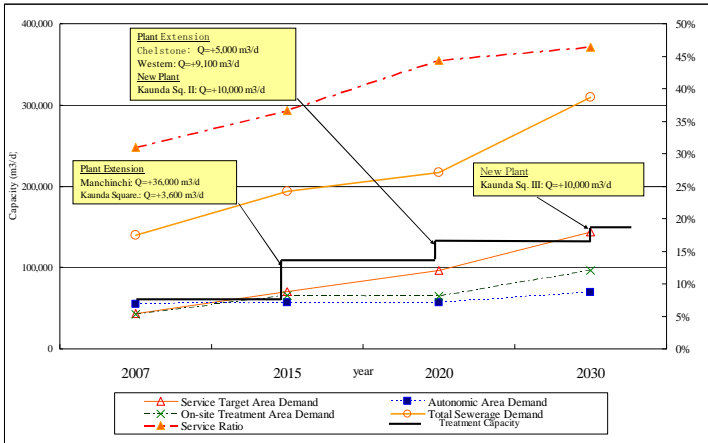


Figure 3 Proposed Water Supply System Development Plan

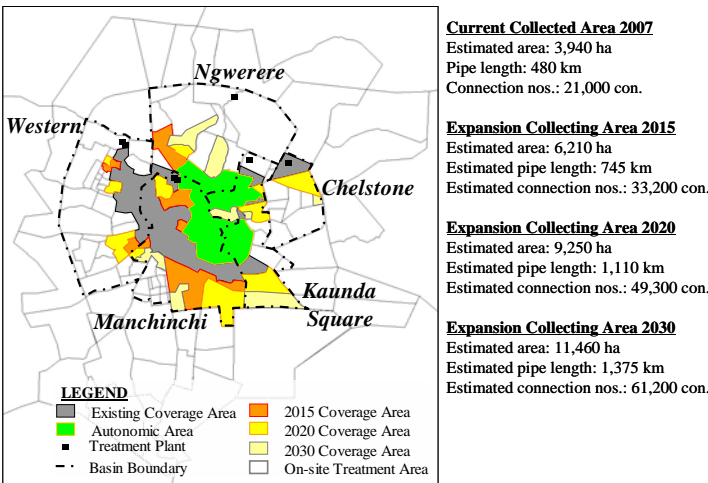


Figure 4 Proposed Water Supply System Development Plan

DRAINAGE SECTOR

Flood disaster was occurred every year, however the basic data such as sufficient topographic map to define rainfall catchment and grasp the flow directions is not available. Moreover, the quantitative accurate inundation record is also not exists. Therefore, the fundamental improvement plan just can be prepared soon after necessary basic information was provided urgently.

Inline with the survey and preparation of the improvement plan; 1) rehabilitation of existing drain structures, and 2) provision of mobile pumping stations, can be conducted as a urgent countermeasures for flood disaster. Confirmed

inundation area and streams/rivers required to be rehabilitate is shown in **Figure 5** below.

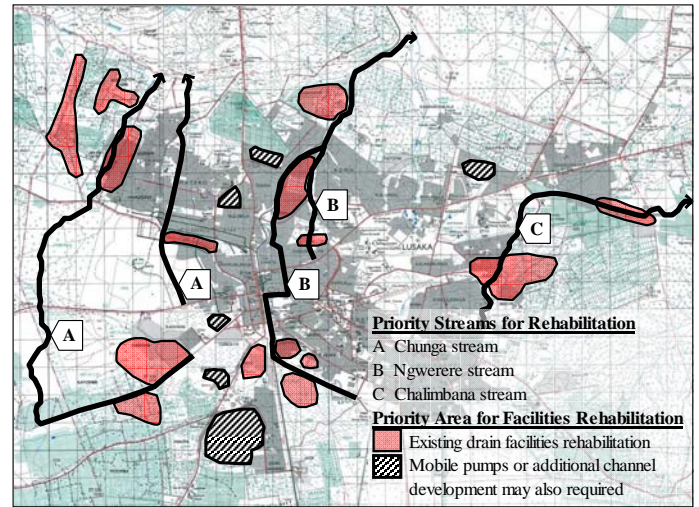


Figure 5 Inundation Area and Urgent Countermeasures

PROPOSED NECESSARY PROGRAMS/PROJECTS

The programs and projects necessary to be conducted for the short-time period (until 2015) are as listed below.

Water Resources: **WR-1** Acquisition of Kafue River Water Right, **WR-3** Study on Comprehensive Groundwater Management Program, **WR-4** Establishment of Groundwater Observation Network, **WR-5** Development of New Sufficient Groundwater, and **WR-6** Ordinance on Registration of Industrial/Commercial Wells.

Water Supply System: **WS-1** Improvement of UFW, **WS-2** Development of Iolanda-II Water Works, and **WS-3** Improvement and Expansion of Distribution System.

Sewerage System: **SW-1** Remaining Rehabilitation of Existing Facilities, including part of Manchinchii/Garden and Chunga treatment plants, and expansion of Kaunda Square treatment plant (3,600 m3/d).

Drainage Improvement: **FR-1** Provision of Mobile Pumping Station, **FR-2** Urgent Rehabilitation of Existing Facilities, and **FR-3** Comprehensive Drainage Master Plan Study.

CONTACT US

For more information and inquiries, please contact address and/or e-mail below.
LUSEED Project Office in LCC
Telephone/Fax: +260 (211) 253012
Address: Room 418, Old Wing, Civic Center
P.O. Bo 30077, Lusaka, ZAMBIA
E-mail: jica_luseed@yahoo.co.jp
Newsletter is available in our office also on LCC web-site.
<http://www.lcc.gov.zm>



“The Study on Comprehensive Urban Development Plan for the City of Lusaka”

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team



NEWSLETTER

July 2008 (NL_No.9)

LIVING ENVIRONMENT IMPROVEMENT MASTER PLAN



LUSEED or the **Lusaka Sustainable Economic and Environmental Development** is a technical assistance project from Japan International Cooperation Agency (JICA), which is being implemented by the Ministry of Local Government and Housing (MLGH) and Lusaka City Council (LCC) in cooperation with relevant agencies. The Study commenced in September 2007 and is expected to end in March 2009.

Session on **Living Environment Improvement Subprogram** of 2nd Workshop summarized below was conducted to present and discuss the issues, strategy and road map.

LIVING ENVIRONMENT IMPROVEMENT SUBPROGRAM

Living environment improvement subprogram is focused on Unplanned Urban Settlements (UUS) due to the urgent needs of infrastructure and public services.

MAJOR ISSUES OF UUS

The followings are major issues of UUS to be addressed.

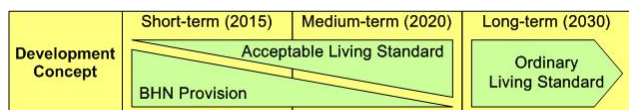
- Insufficient Housing Stock
- Lack of Infrastructure and Public Services
- Substandard Housing
- Unsecured Property Right

DEVELOPMENT STRATEGY

Overall target of UUS improvement is set as follows.

- To transform UUS into average residential neighbourhood with good living conditions up to 2030

In order to achieve this overall target, time sequence of development concept was proposed as follows.



In short-term, infrastructure and public services such as communal tap are provided to fulfil BHN for the uncovered areas. Along with this BHN provision, target is gradually shifted to achieve acceptable living standard toward medium-term up to 2020. For long-term, infrastructure

and public services are provided in order to achieve ordinary living standard. For the realization of this development concept, the challenges are defined as follows.

- To revive/enforce social housing scheme for poor
- To encourage governmental institutional supports (finance, incentives, etc.) for private sector involvement in housing supply
- To provide basic and common infrastructure for living environment improvement
- To introduce/establish urban renewal mechanism for UUS improvement with consolidated planning system
- To secure property ownership and stabilize tax revenue through streamlining of land tenure system
- To empower communities' activities for settlement betterment
- To enhance income level and job opportunity for informal sector

SERVICE STANDARD TARGET FOR UUS IMPROVEMENT

Based on ideas concerning the living environment standard identified by stakeholders, targeted service standard for UUS improvement is elaborated as follows.

	Short Term (2015)	Medium-Term (2020)	Long Term (2030)
Supply of Social Housing	Provision of Collective Social Housing by Public Sector		
Water Supply	Improvement of Communal Tap Service	Communal Tap Service to Entire UUS	Individual Tap Service to Entire UUS
Road	Tarred Condition for Major Local Roads		Tarred Condition for All Local Roads
Drainage	Emergent Pump Dewatering System		Fully Equipped Drainage System
Park/ Sport	One Sport Park in One Ward Neighboring Park		One Sport Park in One Ward, Neighboring Park
Security	Adequate Distribution of Police Post		Adequate Distribution of Street Lights
High School	Provision of Sufficient Classroom		One High School in One Ward
Medical Care	Improvement of Existing Clinics		One Clinic in One Ward
Market	Convenient Market with Good Accessibility		Clean Neighboring Market
Toilet	VIP Toilet Septic Tank		Water Flush Toilet

"The Study on Comprehensive Urban Development Plan for the City of Lusaka"

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team

REQUIRED PROJECTS/PROGRAMS

Taking into account above-mentioned service standard target, required projects/programs to realize the development concept are elaborated as follows.

Legal/Institutional Reforms

- Reform of Property Tax Collection System for Financial Stability of LCC & WDC
- Streamlining of Land Tenure System
- Establishing/Consolidation of Urban Renewal Method

Renewal of UUS

- Experimental Implementation of Chibolya Urban Renewal Project
- Urban Renewal of UUS with Delivery of Infrastructure, Housing and Land Tenure

Promotion of Affordable Housing

- Enhancement of Micro-finance for Housing Development by Injection of Government Funds
- Upgrading/Rebuilding of UUS Substandard Housing
- Development of Social Housing by LCC
- Development of Commercial Housing by NHA

Improvement of Housing Facilities

- Urgent Communal Tap Installation
- Improvement of Sanitation from Pit Latrine to Septic Tank
- Environmental Betterment by Conversion of Household Energy Source from Charcoal to Environment-friendly Energy

Social Service Improvement

- Provision of Sufficient Educational Facilities
- Improvement of Medical Care

Development of Park & Green

- Development of Park, Green, Sport Facilities, Cemetery

Empowerment of Industrial Sector

- Informal/Micro Enterprises Empowerment

URBAN RENEWAL METHOD FOR UUS

Urban renewal method which is a packaged development mechanism with participatory planning approach shall be introduced in order to deal with complex and challenging issues of UUS and to develop entire community. Total management of project, planning and designing, fund

procurement, consensus building, securing/arranging of property rights, land tenure delivery, housing development, provision of infrastructure and public services, and other related administrative services are to be included in the mechanism. Fundamental mechanism of urban renewal is outlined as follows.



Project funds of urban renewal are basically procured from land sale and land subdivision. Using the funds, disorderly developed buildings are rearranged with issuance of land tenure, and needed infrastructure and public services are provided systematically.

Concept of proposed urban renewal method is shown as follows.



Participatory planning approach shall be applied to urban renewal method. In this connection, Chibolya urban renewal pilot study has been conducted in order to examine applicability of urban renewal mechanism through community-based approach, to reflect lessons learnt from the pilot study to Lusaka City Master Plan and to transfer technical know-how of urban renewal method to Zambian side.

CONTACT US

For more information and inquiries, please contact address and/or e-mail below.

LUSEED Project Office in LCC

Telephone/Fax: +260 (211) 253012

Address: Room 418, Old Wing, Civic Center
P.O. Bo 30077, Lusaka, ZAMBIA

E-mail: jica_luseed@yahoo.co.jp

Newsletter is available in our office also on LCC web-site.

<http://www.lcc.gov.zm>



"The Study on Comprehensive Urban Development Plan for the City of Lusaka"

Ministry of Local Government and Housing – Lusaka City Council
Japan International Cooperation Agency - JICA LUSEED Study Team



LUSEED

NEWSLETTER

December 2008 (NL_No.10)

PILOT PROJECT & PRE-FS STUDIES



LUSEED or the Lusaka Sustainable Economic and Environmental Development is a technical assistance project from Japan International Cooperation Agency (JICA), which is being implemented by the Ministry of Local Government and Housing (MLGH) and Lusaka City Council (LCC) in cooperation with relevant agencies. The Study commenced in September 2007 and is expected to end in March 2009.

Results and details on the **Pilot Project and Pre-Feasibility Studies** described below were presented and discussed in the Workshop held on 28th November 2008.

PILOT PROJECT: URBAN RENEWAL

(1) What is Urban Renewal?

Urban renewal method which is a packaged development mechanism should be introduced in order to deal with complex and challenging issues of UUS and keep the community at it is at that place. The mechanism should include total management of project, planning, fund procurement, consensus building, securing/arrangement of property rights, land tenure delivery, housing development, provision of infrastructure and public services and other related administrative services.

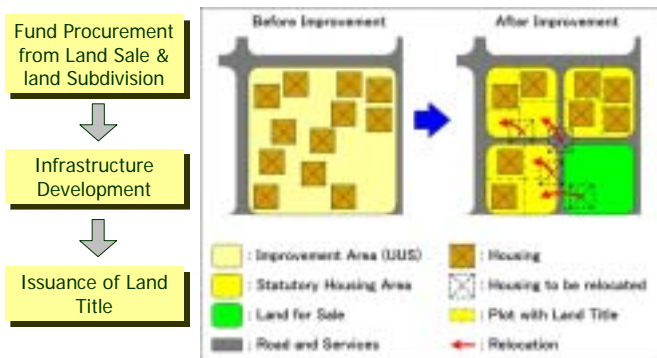


Figure 1 What is Urban Renewal?

(2) How to Improve Chibolya Area?

Basic concept of Chibolya urban renewal aims at formulating self-financing mechanism for land development including land subdivision and infrastructure development by generation of fund through revenue from leasehold business to private sector. On the other hand, Chibolya community would receive benefit from this process by eligible subdivision program to acquire land title with core-house provision in improved area with appropriate infrastructure services.

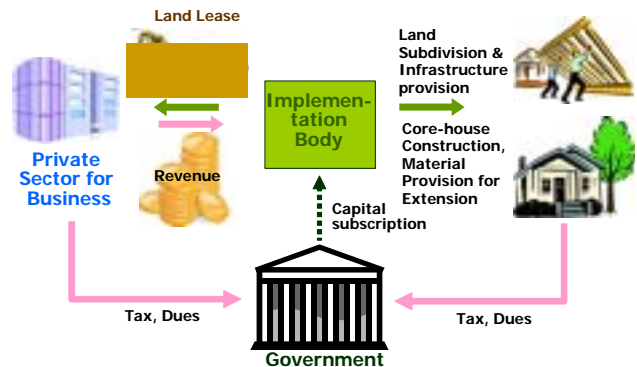


Figure 2 Development Mechanism

(3) Proposed Step of Renewal

To improve the compound by urban renewal method, it will take a long time compare with design and build method. The improvement will be done stage by stage

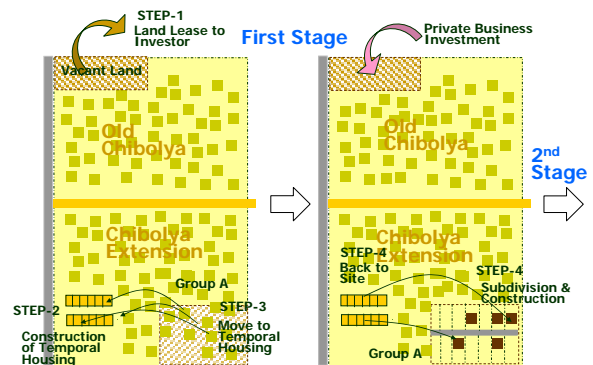


Figure 3 Proposed Step

PRE-FEASIBILITY STUDIES

(1) Inner Ring Road (Short Term Project)

- Inner Ring Road (Mumbwa-Kafue-Kasama) 13.3km
- MFEZ Access (South MFEZ) 10.4km

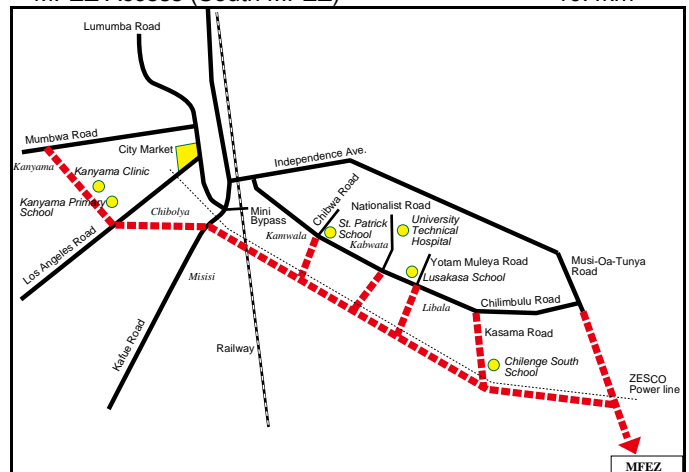


Figure 4 Alignment of Inner Ring Road

"The Study on Comprehensive Urban Development Plan for the City of Lusaka"

Ministry of Local Government and Housing – Lusaka City Council
 Japan International Cooperation Agency - JICA LUSEED Study Team

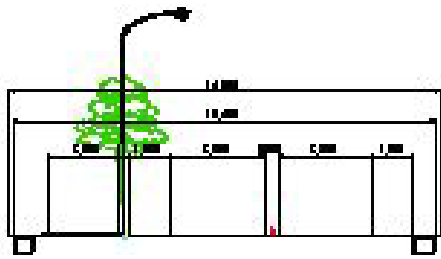


Figure 5 Typical Road Section for Inner Ring Road

(2) Outer Ring Road (Mid-Long Term Project)

- Outer Ring Road (North Section) 17.3km
- Outer Ring Road (East Section) 18.3km
- Outer Ring Road (South Section) 19.4km
- Outer Ring Road (West Section) 31.0km

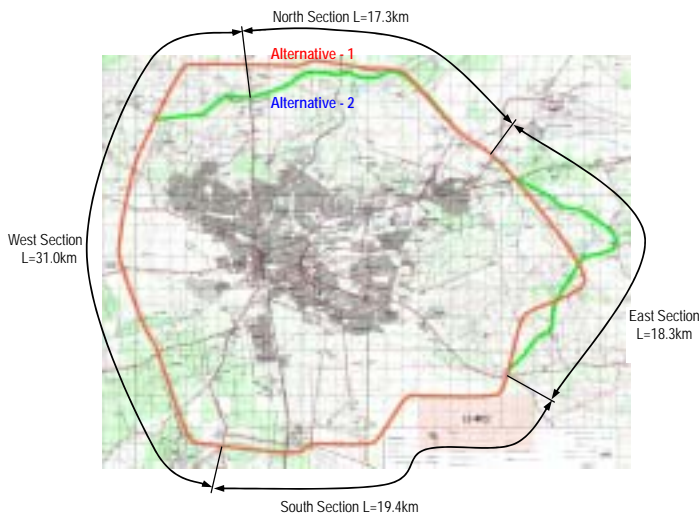


Figure 6 Alignment of Outer Ring Road

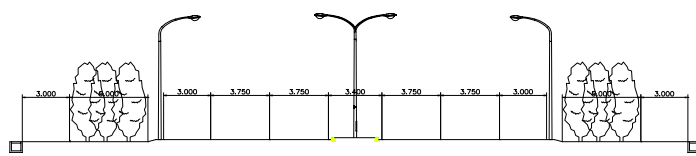


Figure 7 Typical Road Section for Outer Ring Road

(3) Water Supply and Sanitation Improvement Project (Short Term Project)

Iolanda II Phase-1 Water Works

- Intake Structure
- Water Treatment Plant (50,000m³/d)
- Transmission Pipeline to Lusaka (about 66.5km)
- Booster Pumping Station

Sanitary Sector Improvement

- Sanitary Pilot Plant
 detailed project contents will be defined during the implementation stage. preliminary, community plant (large scale septic tank) is proposed for the basic technology for urban unplanned settlement sanitation system.

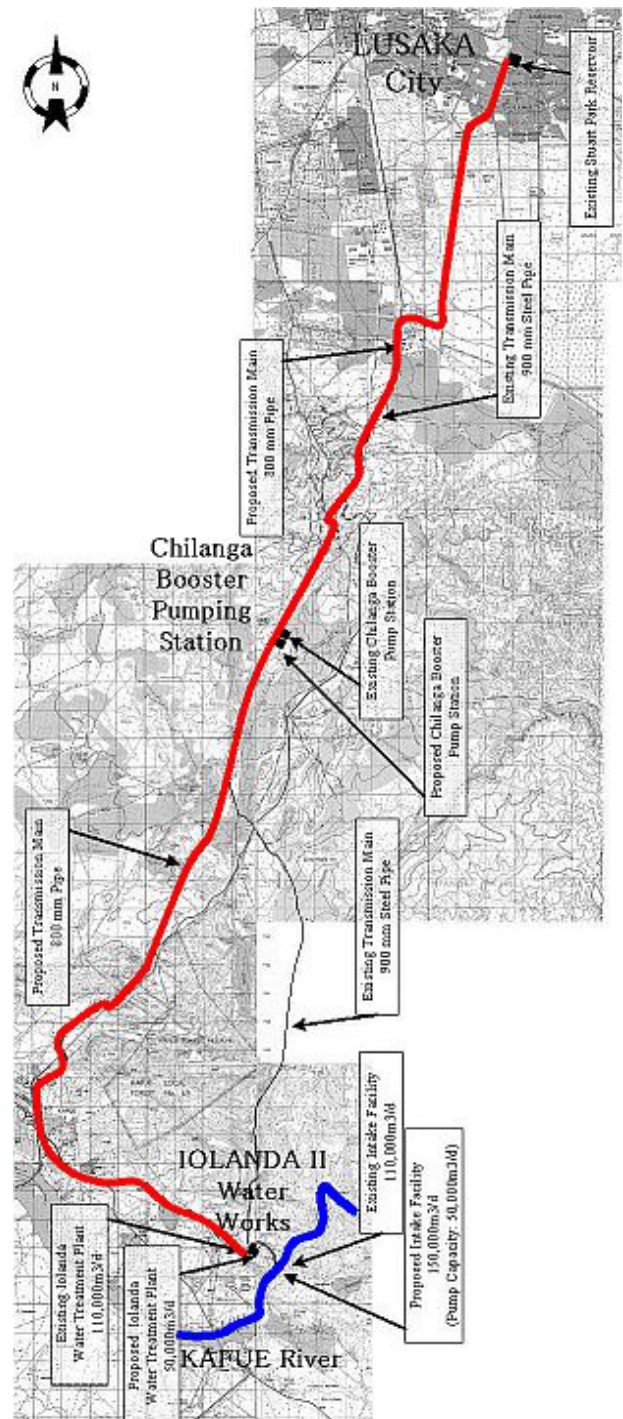


Figure 8 Outline of the Project

CONTACT US:

For more information and inquiries, please contact address and/or e-mail below.
LUSEED Project Office in LCC
 Telephone/Fax: +260 (211) 253012
 Address: Room 418, Old Wing, Civic Center
 P.O. Bo 30077, Lusaka, ZAMBIA
 E-mail: jica_luseed@yahoo.co.jp
 Newsletter is available in our office also on LCC web-site.
<http://www.lcc.gov.zm>