

No.

THE DEMOCRATIC REPUBLIC OF THE CONGO
KINSHASA PROVINCIAL GOVERNMENT

**THE DEVELOPMENT STUDY
FOR
URBAN REHABILITATION PLAN OF KINSHASA
IN
THE DEMOCRATIC REPUBLIC OF THE CONGO**

**FINAL REPORT
VOLUME I
MAIN TEXT**

MARCH 2010

JAPAN INTERNATIONAL COOPERATION AGENCY

Eight - Japan Engineering Consultants Inc.

Oriental Consultants Co., Ltd.

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The following foreign exchange rate is applied in the study

1 US dollar = 792FC = 95.37 JP Yen, or 1 FC = 0.12 JP Yen (June 2009)

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PREFACE

In response to a request from the Government of the Democratic Republic of the Congo, the Government of Japan decided to conduct a study on “The Development Study for Urban Rehabilitation Plan of Kinshasa in the Democratic Republic of the Congo” and entrusted to the study to the Japan International Cooperation Agency (JICA).

JICA dispatched a study team headed by Mr. Yasushi OWAKI of Eight-Japan Engineering Consultants Inc. and consist of Eight-Japan Engineering Consultants Inc. and Oriental Consultants Co., Ltd. to the Democratic Republic of the Congo, between February, 2008 and March, 2010.

The Study Team held discussions with the officials concerned of the Government of the Democratic Republic of the Congo and conducted field surveys at the study area. Upon returning to Japan, the team conducted further studies and prepared this final report.

I hope that this report will contribute to the promotion of this project and to the enhancement of friendly relationship between our two countries.

Finally, I wish to express my sincere appreciation to the officials concerned of the Government of the Democratic Republic of the Congo for their close cooperation extended to the study.

March 2010

Kiyofumi KONISHI
Director General
Economic Infrastructure Department
Japan International Cooperation Agency

Mr. Kiyofumi KONISHI
Director General
Economic Infrastructure Department
Japan International Cooperation Agency

March 2010

Dear Sir,

LETTER OF TRANSMITTAL

We are pleased to submit to you the Final Report of “The Development Study for Urban Rehabilitation Plan of Kinshasa in the Democratic Republic of the Congo”.

This study was conducted by Eight-Japan Engineering Consultants Inc. and Oriental Consultants Co., Ltd. under a contract to JICA, during the period from February 2008 to March 2010.

We wish to take this opportunity to express our sincere gratitude to the officials concerned of JICA, Ministry of Foreign Affairs of Japan, Kinshasa Provincial Government and Ministry of Plan, Budget, Public Works and Infrastructures, JICA Democratic Republic of Congo Office and Embassy of Japan in the Democratic Republic of the Congo for their cooperation assistance throughout the Study.

Finally, we hope this report will contribute to further promotion of the project.

Very truly yours,

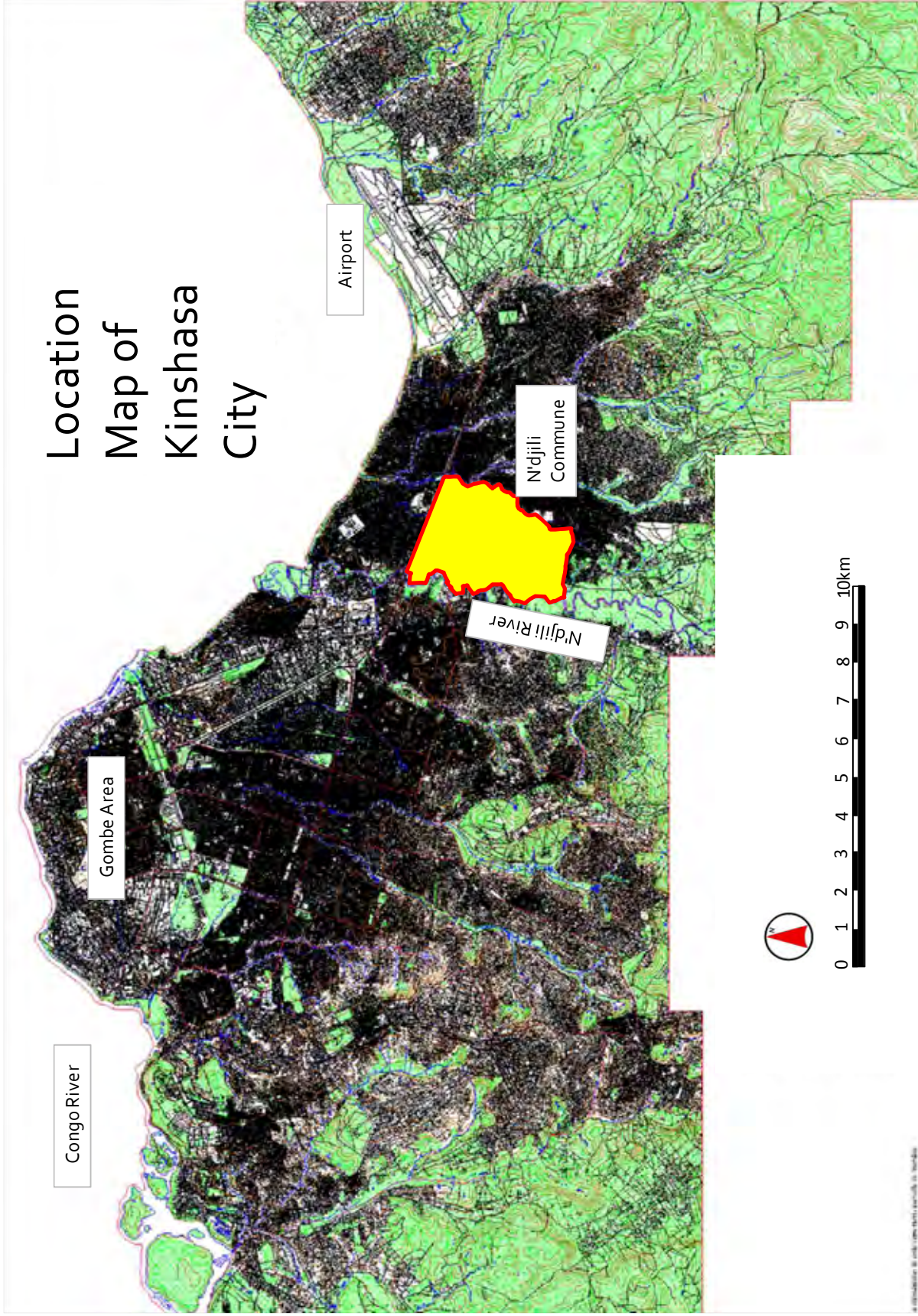
Yasushi OWAKI
Team Leader
The Development Study for Urban Rehabilitation Plan of
Kinshasa in the Democratic Republic of the Congo
The Consortium of Eight-Japan Engineering Consultants
Inc. and Oriental Consultants Co., Ltd.

LOCATION MAP

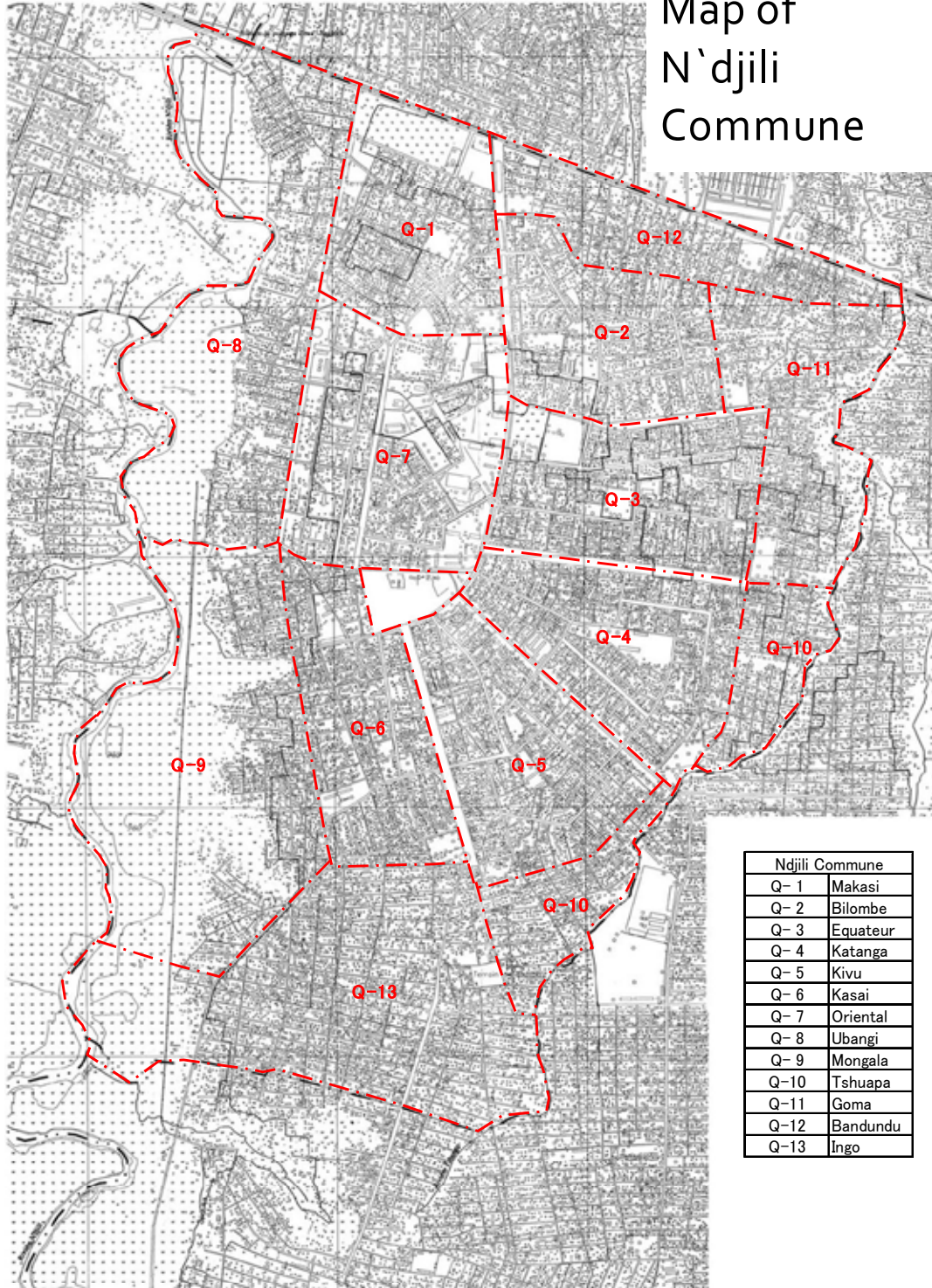
Democratic Republic of Congo



Location Map of Kinshasa City



Location Map of N'djili Commune



0.0 0.5 1.0 1.5 2.0km

Project Outline

1. Country	Democratic Republic of the Congo
2. Name of Study	The Development Study for Urban Rehabilitation Plan of Kinshasa in the Democratic Republic of the Congo
3. Counterpart Agency	Kinshasa Provincial Government, Ministry of Plan, Budget, Public Works and Infrastructure(Former Ministry of Reconstruction and Planning)
4. Objectives of the Study	The objective of The Study is to recommend and demonstrate appropriate method and process for the formulation of urban rehabilitation plans in Kinshasa, by formulating an urban rehabilitation plan and adjustment process for pilot commune which is in this case N'djili commune experience.

1. The Study Area

N'djili Commune as Pilot Commune

2. Scope of the Study

- (1) Review and Analysis on Present Situation of the Pilot Commune
- (2) Formulation of the Basic Policy for Development of the Commune
- (3) Proposing Urban Rehabilitation Plan
- (4) Implementation of Plot Project(s)
- (5) Evaluation of Pilot Project(s)
- (6) Finalization of Urban Rehabilitation Plan

3. Narrative Description

3.1 Development Vision for the Year 2018

Actions from N'djili

- Model commune for the development and reconstruction of Kinshasa
 - Commune of actions on people's own initiatives
- (Urban Infrastructure) Beautiful Urban Space
(Health and Sanitation) Healthy Town
(Education and Citizenship) Citizenship
(Industry and Employment) Made in N'djili
(Water and Energy) Access to Lifeline

3.2 Implementation Scheduled on 10Years Action Plan for each sector

3.2.1 Urban Infrastructure

1) Development Concept of the Rehabilitation Phase (Short-term Period; 2009-2013) Project

- Improve Luemba Boulevard as a main street of N'djili.
- Rehabilitation of existing paved roads.
- Capacity Development for Provincial Urban Planning Sections of the Province.
- Improvement of N'djili Junction to mitigate traffic congestion.
- Installation of Sidewalk and Traffic safety facilities/Pedestrian crossings, Traffic sign, Humps, etc.
- Rehabilitation of Community Roads using LBT (Application of "Do-Nou" Technology).
- Rehabilitation of urban core zone (Q7).
- Clean-up Gutters Together with the Sanitation Brigade
- Planting flowers and tree along streets

2) Development Concept of the Development Phase (Middle-term Period; 2014-2018) Project

- Enhancement of Public Transportation.
- Improvement of living environment/conditions of the commune
- Improvement of Tertiary Roads.
- Improvement of bus route network, bus terminal, bus stops
- Development of Community Core Zone.

3) Development Concept for the Sustainable Development (After 2018)

- Development of integrated road network plan.

3.2.2 Health and Sanitation

1) Development Concept of the Rehabilitation Phase (Short-term Period; 2009-2013) Project

- Rehabilitation and construction of health centers.
- Construction of maternal and child health care centre including surgical unit
- Establishment of Health Information System (HIS) on epidemiological deceases and reproductive health
- Health & Sanitation education in Schools and Streets
- Rehabilitation and Construction of Public Toilet
- Establishment of solid waste disposal systems in the Province
- Formulate sanitation and hygiene management plan
- Establish solid waste management system in the Commune
- Sensitization on sanitation and hygiene issues
- Clean-up solid waste and promoting recycling

3.2.3 Education and Citizenship

1) Development Concept of the Rehabilitation Phase (Short-term Period; 2009-2013) Project

- Rehabilitation of security fence for primary and secondary schools
- Rehabilitation of toilet for primary and secondary schools
- Rehabilitation of classrooms
- Strengthening Capacity of the Commune Administration
- Civic Education
- Non-formal education for out-of-school children

<p>2) Development Concept of the Development Phase (Middle-term Period; 2014-2018) Project</p> <ul style="list-style-type: none"> ● Supply Equipment for Primary and Secondary Schools ● Sports and Culture Promotion in the Commune & Schools <p>3.2.4 Industry and Employment</p> <p>1) Development Concept of the Rehabilitation Phase (Short-term Period; 2009-2013) Project</p> <ul style="list-style-type: none"> ● TOT of N'djili masters at ITI ● Rehabilitation of markets, storages ● Establish and operate farmers' market at SECOMAF ● Establishment of Industry Support Systems ● Establish N'djili industry association <p>3.2.5 Water and Lifeline</p> <p>1) Development Concept of the Rehabilitation Phase (Short-term Period; 2009-2013) Project</p> <ul style="list-style-type: none"> ● Rehabilitation and upgrading of RESIDESO water supply network and SNEL Power line <p>2) Development Concept of the Long-term Project (After 2018)</p> <ul style="list-style-type: none"> ● Technical Assistance Project for Management of the Distribution Network <p>3.3 Implementation of the deferent type of the pilot projects</p> <p>(1) Civic Education Project</p> <p>(2) Clean-up Campaign Project</p> <p>(3) Road Rehabilitation Project by Do-Nou Technology</p> <p>(4) Rehabilitation of Blv. Luemba</p> <p>3.4 Methodology for Urban Rehabilitation Plan in Kinshasa</p> <p>To formulate the urban rehabilitation plan, this plan reviews existing data and development plans and specifies medium to long term (10year) range development policy together with Action Plan. Consecutive stages of this study are following;</p> <ul style="list-style-type: none"> ● Stage 1: Compile existing data of Kinshasa Province and N' djili commune, ● Stage 2: Prioritize community demands by dialogue and participatory approach. ● Stage 3: Indicate development policy and address Action Plan for the commune, ● Stage 4: Examine Pilot Projects to provide feedback on the Plan. ● Stage 5: Evaluate Pilot Projects and review The Study for improvement the Plan. ● Stage 6: Implement Projects of Action Plan.
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<p>4. Conclusion and Recommendations</p> <p>4.1 Conclusion</p> <p>(1) Identified necessary actions for stakeholders</p> <p>(2) Activate community organization</p> <p>(3) Compile current data and analyze conditions in Kinshasa province</p> <p>(4) Compile current data and analyze conditions in the pilot commune</p> <p>(5) Forecast future demand and indicate development policies in the pilot commune</p> <p>(6) Formulate an Action Plan in the pilot commune</p> <p>(7) Implement Pilot Projects for the verification of the Action Plan</p> <p>(8) Verified applicability of the study as a model of urban rehabilitation planning</p> <p>4.2 Recommendation</p> <p>(1) Modification depending on community characteristics</p> <p>(2) Highlight capacity building through Civic Education</p> <p>(3) Support for decentralization</p> <p>(4) Support for community</p> <p>(5) Necessary for coordination of development actions among Province, Commune and CLD level.</p>

5. Report Structure			
Name of Report	Language		
	Eng.	Fre.	Jap.
1. Summary	✓	✓	✓
2. Volume I: Main Text	✓	✓	
3. Volume II: Action Plan	✓	✓	

1. INTRODUCTION

1.1 BACKGROUND

The emergency study is to be conducted in Kinshasa which is a capital of the Democratic Republic of the Congo for the purpose of the provision of the peace to all people in the DRC.

The Government of the DRC under President Joseph Kabila undertook a series of economic reforms in the country. The Government of Japan through its International Cooperation Agency (JICA) has financed The Study for urban rehabilitation plan in Kinshasa whereby Ndjili has been selected as pilot commune for The Study..

Ndjili is a commune of Tshangu District, in the city of Kinshasa, situated in the South of Masina commune which is separated by the Lumumba Boulevard. It is located in the Eastern part of Kinshasa town, in the plain, beyond Ndjili River. It has 13 popular quarters. The population in Ndjili Commune has been increasing due to the inflow from the rural areas. This influx of population has increased poverty, because of remarkable insufficient Basic social infrastructure services and lack of the economic infrastructure supporting economic activities.

1.2 OBJECTIVE OF THE STUDY

The objective of The Study is to recommend and demonstrate appropriate method and process for the formulation of urban rehabilitation plans in Kinshasa, by formulating an urban rehabilitation plan for pilot commune which is in this case N' djili commune.

1.3 SCOPE OF THE STUDY

Scope of work, agreed upon between Kinshasa Provincial Government and Japan International Cooperation Agency on 8th August, 2007, clarifies the Scope of The Study as follows;

- (1) Review and Analysis on Present Situation of the Pilot Commune
- (2) Formulation of the Basic Policy for Development of the Commune
- (3) Proposing Urban Rehabilitation Plan
- (4) Implementation of Plot Project(s)
- (5) Evaluation of Pilot Project(s)
- (6) Finalization of Urban Rehabilitation Plan

1.4 STUDY PROCEDURE

- (1) Definition of Objective end Methodology
 - (2) Review of Development Policies and Strategies
 - (3) Analysis of General Condition in Kinshasa Province
 - (4) Review and Analysis of Present Condition and Issues of N' djili Commune
-

- 1) Review and Analysis on Present Situation
- 2) Conducting of the Social Survey
- 3) Extraction of Existing Issues
- (5) Establishment of Basic Policy for the Rehabilitation of N'djili Commune
- (6) Formulation of Action Plan for Community Vitalization
 - 1) Institutional Improvement for Action
 - 2) Formulation of Land Use Plan
 - 3) Formulation of Sector Plan
- (7) Preparation of Project Profile and Establishment of Implementation Schedule
- (8) Implementation of Pilot Project
- (9) Finalization of Methodology for Urban Rehabilitation Plan in Kinshasa
- (10) Conclusion and Recommendation

1.5 STUDY ORGANIZATION

The Study is conducted under close cooperation with the Kinshasa Provincial Government and N'djili commune. Kinshasa Provincial Government is represented by the Ministry of Plan, Budget, Public Works and Infrastructures (formerly the Ministry of Reconstruction and Plan), and N'djili commune is represented by commune office.

2. REVIEWING OF EXISTING DEVELOPMENT POLICIES AND STRATEGIES

2.1 NATIONAL DEVELOPMENT PLAN

The following three policies and strategies are articulated for the national development plan. In addition to the Poverty Reduction Strategy and Millennium Development Goals, national development strategy was established to achieve poverty reduction.

(1) Poverty reduction strategy paper (prsp)

The Congolese Government has set out an ambitious vision for the country's development. This vision is articulated in the PRSP, which was presented on July 2006. It emphasizes the need to break with past practices and to ensure a dramatic improvement of living conditions throughout the country, as a condition for sustained peace and eventual economic recovery.

(2) Millennium Development Goals (MDGs)

DRC's Human Development Index declined by more than 10 percent in the last ten years – and DRC now ranks 167 out of 177 rated countries. Progress made between independence and the early 1990s has largely vanished.

(3) Development Strategies

In demonstrating its commitment to achieve the MDGs and acknowledging the importance of

human capital in poverty reduction, the Government has devoted an entire pillar of the PRSP to developing the social sectors. Following development strategies prioritizing five sectors had been declared by the President.

- a) Rehabilitation of rural infrastructure including the road network
- b) Health and sanitation
- c) Education, training and human security
- d) Creation of employment opportunity and poverty alleviation
- e) Access to the water and electricity

2.2 DEVELOPMENT ASSISTANCE BY DONORS

In the fiscal year of 2003-2004, DRC received sum of US\$ 3,183 million Development Assistance by donors, defined as International Organization or Industrialized Countries. Particularly, as a background to the process of peace keeping and post conflict economic recovery in DRC, Development Assistance for DRC focuses on urgent rehabilitation program for Kinshasa and eastern provinces.

In addition, in order to assist more efficiency support and upgrade synergy effects, the donors set up its development policies and strategies under their development assistance frameworks and action plans.

(1) Development Assistance in Kinshasa City

International Organizations, such as WB, UNICEF, UNDP, UNHCR, UNEPA, UNESCO, support assistance of Health, Hygiene, Education and Community Development sectors in Kinshasa City. Bilateral Development Assistance disbursed those sectors as well through the collaboration with Belgium (CTB), UK (DFID), USA (USAID), and Germany (GTZ).

(2) Development Assistance in the N'djili Commune

In the N'djili Commune, Development Assistances are supported by CTB, China and UN-HABITAT. Assistance activities by each donor are as follows:

CTC: Rehabilitation projects of Cecomaf Road (L=2.2km)

China: Construction of the China-RDC Friendship Hospital (Y2007)

UN-HABITAT: Capacity development (Module 1: Local leadership, Module 2: Local economic governance, Module 3: Participation for communal development) project in N'djili commune and Masina commune.

3. GENERAL CONDITION OF KINSHASA PROVINCE

3.1 NATURAL CONDITIONS

Kinshasa is located in an alluvial plain of about 700 km upstream from the Atlantic Ocean of the

Congo River, with an altitude in the range of - 550 m to 300 m above sea level. The climate of the Democratic Republic of Congo consists of two seasons; the rainy season and the dry season. And the surface stratum of Kinshasa is comprised of sand and silt clay by river sediment.

3.2 ADMINISTRATIVE SYSTEM

At present, the DRC has 11 provinces within its own territory, including the Kinshasa Province, which is the sole province withholding a special status in the DRC. There are urban Divisions for the various Ministries. These have so far been functioned under the Authority of the Central Government. However, after the Decentralization Law was promulgated by the President of the Republic in July of 2008, some functions that were falling under the responsibility of the Central Government were shifted to Kinshasa's Provincial Government.

3.3 COMMUNITY ORGANIZATION

Generally, the community unit/entity in Kinshasa Province is classified on a commune basis. At present, Kinshasa Province manages a total of 24 communes. In the case of the N'djili commune, it is directed by the burgomaster, a representative of the commune, with 28 public departments. Moreover, the N'djili commune has 1 commune administration office and 23 administrative branch offices.

3.4 SOCIO-ECONOMIC CONDITIONS

(1)Population

According to the household survey conducted by the National Institute of the Statistics (INS) in 2004, total population of Kinshasa Province is 6,387,725, and 51.2% of the population is composed of women. The majority of the population consists of the younger generation and more than half (51.3%) of the individuals are below 20 years old, of which 97.9% is Congolese, and 71% of whom originated from Kinshasa or its surrounding provinces.

(2)Land Use

The following two plans are provided as a land-use master plan that concerns Kinshasa City and the N'djili commune now. These plans were determined in the 1960-70's. Therefore, the plan is not completely appropriate for the present urban situation.

The land use situation of Kinshasa City of today is shown as in the following figure.

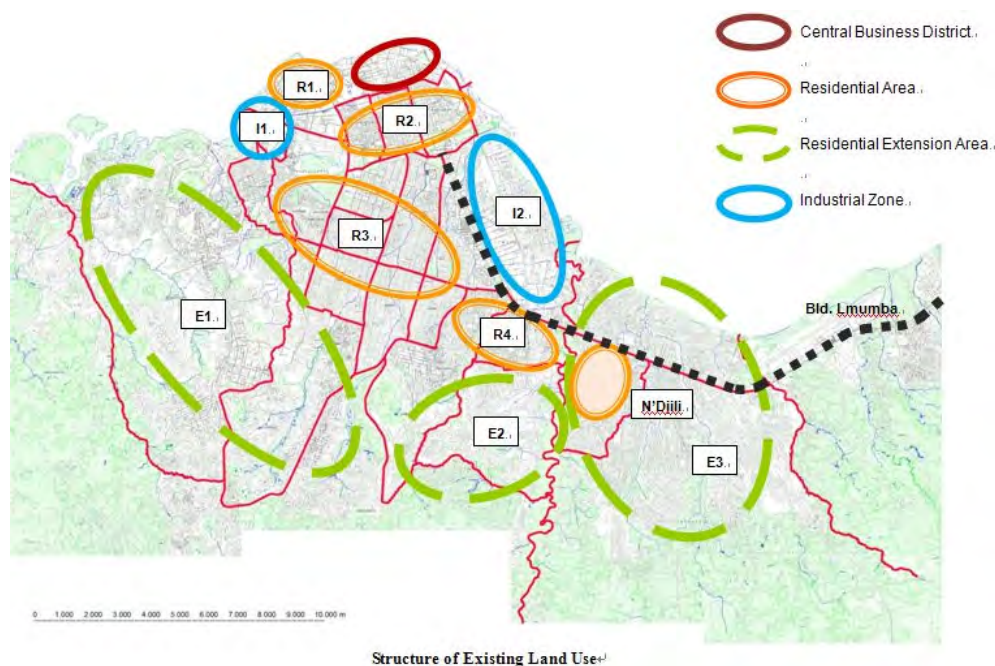


Fig. 1 Structure of Existing Land Use

3.5 SECTOR CONDITIONS

(1) Urban Infrastructure

Transport in Kinshasa is composed mainly of land transport including bus and railway. “Boulevard Lumumba” connects from downtown of Kinshasa province to N’djili Airport and “Boulevard Poids lourds,” a port area in the eastern part of downtown to the intersection of Limete in the suburbia. “Route de Matadi” from Kinshasa to Matadi, “Boulevard du 30 Juin,” “Avenue Pierre Mulele,” and “Avenue Kasavubu” are the central routes in Kinshasa, while “Boulevard Triomphal” and “Boulevard Sendwe” face the stadium and exist as Kinshasa’s main arterial road.

The bus operation system is managed by public corporations such as CITY TRAIN and RETRANS KIN, or by private companies and/or owner-drivers. There are three railway lines in Kinshasa, Gare Centrale-N’djili Airport, Gare Centrale-Kasangulu-Matadi (Bas Congo province), and Gare Centrale-Kitambo-Kinsuka. Trains are operated by ONATRA (Office National de TRAsport).

(2) Health and Sanitation

The FIVE-YEAR HEALTH PLAN was prepared through UNICEF and WHO in collaboration with BDOM, Salvation Army Church, Rotary Club and Kinshasa Health Inspection in 2007. The general objective is to improve the medical situation of the population for the Province of Kinshasa. Specific objectives are: 1.) To revitalize the health zones to correct the distortions, for recovering its function as preliminary unit of health and sanitation activities; 2.) To reorganize the intermediate level of Health and Sanitation sector; 3.) To rationalize the finances of the health sector; 4.) To reinforce the intra and intersector partnership; 5.) To develop human resources for health and 6.) To reinforce the

research of the system of health.

In the other hand, there is no sewerage system development plan or a sewer network system and treatment plant in Kinshasa. In contrast, Kinshasa's provincial government has a plan to promote the privatization of the solid waste collection service.

(3) Education and citizenship

Primary and secondary school are within jurisdiction of the Ministry of Education of Primary, Secondary and Professional (Ministère del Enseignement Primaire, Secondaire et Professionnel, MEPSP). The primary and secondary education systems of DRC consist of six years of primary education and six years of secondary education. In secondary education, the first two years is for basic compulsory subjects and the other four years is for specific subjects including vocational training subjects based on selected courses. According to the statistic data from MEPSP (2008), the number of students in primary school is 778,216 (10.8% in all of RDC), secondary school is 431,022 (14.8% in all of RDC). The school attendance rate is 57.8% for primary school and 37.4% for secondary school.

(4) industry and employment

After the conflict in 1991 and 1993, and recent armed conflicts that have hampered economic development of the city, there has been intensive development of activities in farming and within the chemical and steel construction industry sector. In spite of the fact, main economic activities are carried out within the informal sector.

Agricultural activities play an important role in supplying the products which meet the demand of the people in Kinshasa. After rehabilitation and irrigation improvements, the Pool of the Malebo area, with a surface of more or less than 50,000 ha ranging from Kingabwa to Nsele, presented a production potential of 30,000 tons of rice every two to three times per year which covers 50% of the demands of the town's capital and which also creates 1,000 extra jobs in the sector.

The labour force rate, according to a household survey, indicates it is 42.5% (47.4% with the inclusion of unemployed persons). Of the labour force, 49.7% are men while 35.7% are women. The unemployment rate within Kinshasa is only of 6.3% with the majority of those out of work consisting mostly of women. The unemployment rate is highest among people in the age range of 25-29 years.

(5) Water and Lifeline

The water supply's master plan of Kinshasa aims at the improvement of the water supply system in the Kinshasa province, which is formulated by the World Bank. The target year for the master plan is 2017. As of March 2009, 6 projects are completed or on-going in the water supply sector.

In regard to the plan of the electric facilities in the Democratic Republic of the Congo, it is thought that a plan regarding extension and rehabilitation is required for all the institutions of power

generation, power transmission, power distribution and electric supply. However, the implementation depends on the source of revenue and the assistance of a donor as well as the development projects of other sectors.

3.6 environment management system in congo

A basic environmental law has not been prepared in the DRC. The environmental quality standards on air, water, soil and noise have not been enacted. However, the Constitution of the DRC along with sectoral laws and decrees, establish the environmental management, issues and protection.

4. PRESENT CONDITIONS OF THE N'DJILI COMMUNE

4.1 NATURAL CONDITIONS

The N'djili commune is located in the eastern area of Kinshasa and the gross area is approximately 11.4 km². This commune is in the centre of Tshangu District. Annual average rainfall and temperature are about 1,400 mm and 25 degree Celsius.

As of 2007, the total population of the N'djili commune was estimated at 320,762. The population of people under 20 years old accounts for 51.9% of the total population. The N'djili commune is a highly populated area in the Kinshasa Province, and its population density is 397.9 person/ha.

4.2 ADMINISTRATION OF THE COMMUNES

The commune's administration office is located in Quarter 7. The Commune divided by 13 Quarters with Quarter leaders respectively. The organisation of the commune's administration is headed by the burgomaster and consists of 23 administrative offices.

A civil society can be defined as a web of associations, social norms and practices that comprise of activities of a society separate from its state and market institutions. Civil societies or civil-based organisations (CBOs) in N'djili have taken roles of grassroots development and advocacy, especially within the education and sanitation sectors.

And, there are a number of religious organisations such as churches. Churches seem to be the most reliable organisation within the population. Additionally, there are various types of associations in N'djili, such as youth clubs. At the Quarter level, each street has a street leader who has the responsibility of sharing information from a quarter leader with the residents along the street.

4.3 ECONOMY

N'djili extends to a wide variety of socio-economic activities both in the formal and informal sector. The primary sector represented by market-gardening activities of N'djili is well-known to consumers in Kinshasa through its history and its dynamics in the supply of Kinshasa. The second industry sector specifically occupied within N'djili is that of car repair shops, as all of Kinshasa recognizes the sharpness and dynamism of these activities.

4.4 LAND USE

For the examination of land use of the N'djili commune, nine large categories and 12 sub-categories were identified as follows:

- **Residential Areas:** Residential areas occupy about 60% of the entire commune area.
- **Administrative / Official Areas:** Administrative facilities do not exist except for some facilities which are located around the commune office in Quarter 7.
- **Commercial / Business Areas:** The area for the market, which is located at Quarters 2, 6, and 7, is not large enough, with a measurement of 0.1 square meters per population.
- **Educational Areas:** Referring to the land use ratio, there seems to be enough area secured for the educational facilities in the N'djili commune.
- **Health Centers:** Half of the health facility sites of Sino-Congolais Hospital are located in Quarter 7 and this hospital is not facilitated for civilian daily use.
- **Parks:** An equipped public park hardly exists within the N'djili commune, and public, unoccupied public land and green space are used for recreational purposes.
- **Agricultural Areas:** The mass of farmland is located in Quarters 8, 9 and 13 on the N'djili River's eastern shore.
- **Transport / Roads:** The roads of the N'djili commune occupy 10.9% of the entire commune which is not a high ratio.

4.5 SECTOR CONDITIONS

(1) Urban infrastructure

Boulevard Lumumba and Route CECOMAF are located in the eastern side of the commune; roads enclosing Quarters 7, 2^{eme} Republique and access road to Chinese-DRC hospital in Quarter 7 are paved with asphalt. Due to the road's depredation and potholes, the condition of the asphalt pavement is not satisfactory and all other roads are unpaved. Asphalt roads are relatively wide. Some roads with relatively wide widths are allocated and connected by the radial road in Quarter 7. For minibuses, the drivers mainly use the asphalt roads since their routes not definitive. 20 bus stops are found in the N'djili commune without any waiting facilities or institutions for people waiting for the minibuses.

(2) Urban Facility

There are 4 public Marches in Q-2, Q-5, Q-6 and Q-7 in the N'djili commune. The Marches of Q-6 and Q-7 are large scaled.

In addition, presently in the N'djili commune, there are only a few public toilets. Furthermore, they are poorly maintained and so generate dirty and unsanitary conditions.

(3) Health and Sanitation

The common diseases are malaria, diarrhoea, tuberculosis, measles, typhoid and sexually

transmitted diseases (STD) such as HIV/AIDS. Health zone of N'djili covers the same geographical area as the N'djili commune. The health zone is divided into 14 health areas which are the same as Quarter 1-12 and two health areas in Quarter 13 (Q13A and Q13B). In the Health zone of N'djili, there are two general hospitals; 110 health centers located in the 14 health areas.

Sanitary conditions of the N'djili commune are a serious problem. Only 20% of households have an indoor toilet. Littering is also another serious problem found on the streets and other public spaces of N'djili. According to a household survey, 14% of households dispose their rubbish on the streets or other places, while the remaining other households dispose their rubbish through waste collection men or by digging a hole within their household compound. In addition, more than 50% of households do not have a drainage system in their household. Thus, waste water tends to flow onto the street or streams directly.

And solid waste in the N'djili commune is left in open dumpsites of the N'djili Commune or its surrounding area because public services for solid waste collections or disposal are not provided in the N'djili commune.

(4) Education

There are 202 primary schools and secondary schools in the N'djili commune including one of the four institutes of Industrial Technology Institute (ITI) of Kinshasa. The number of students is 68,335 in primary school and 46,780 in secondary school. The enrolment rates of both primary and secondary school for boys are significantly high and almost twice that of the school age population. Problems in education are identified through a household survey and the CLD planning workshops and they include high school fees and poor conditions of the school facilities and equipment. Public education is basically free of charge. However, parents need to pay for some of the fees for the teachers to compensate for their low salaries.

(5) Citizenship

The roles and responsibilities of men and women in the household are slightly different. Men tend to supervise and protect the household. On the other hand, women tend to supervise their children or become housewives. On the other hand, 58.2% of women contribute to their household budget. Children, elders, widows, and disabled persons are defined as vulnerable groups in the N'djili commune. Due to poverty and difficult life circumstances, some people tend to neglect these vulnerable family members.

And according to the investigation of street children by The Study Team, a number of so-called bewitched children are seen in many Revival churches while street children in many instances spend their nights in the open and wander on the streets and roads within the town.

(6) Security

The security of the N'djili commune is a serious concern for the population (especially during

nighttime). There is high incidence of crimes that include robbery, rape, vandalism and other illegal activities. In August 2008, for instance, there were 75 cases of crimes which included two murder cases according to the statistics of the N'djili commune police.

(7) Industry and Employment

The N'djili commune's industry is mainly characterized by agricultural farming activities, automobile mechanics, mechanical engineering and related activities and small businesses.

In the aspect of household budget, 19.5% of households have income less than 25,000 FC per month. This means approximately 20% of the population live on less than 1.5 USD a day. On the other hand, 82% of household expenses tend to be used for food on average.

(8) Water and ELECTRIC POWER SUPPLY

According to a household survey, 97% of households have access to tap water from REGIDESO in their household compound or through their neighbours' compound. However, most of them are unsatisfied with the water quality due to the poor conditions of the piping system and unstable water supply.

Concerning energy resources, 80% of households have connection to electricity by SNEL. However, the connection is irregular and unstable.

5. BASIC POLICY FOR THE REHABILITATION OF N'DJILI COMMUNE

5.1 RELEVANT POLICIES FOR COMMUNITY DEVELOPMENT

Through the analysis of relevant policies described in Main Text 2.2, the fundamental direction of development planning is specified as follows;

Table 1 Major Policies from Relevant Plans and Programmes

Urban Infrastructure (Roads)	<ul style="list-style-type: none"> • Rehabilitation and construction of intercommoned roads and inter quarter roads • Make use of public buses to reduce the traffic jam
Health & Sanitation	<ul style="list-style-type: none"> • The development of Health Zones is the main line of the strategy to reinforce the Health System. • It aims at improving the functionality level of hospitals and health centres in order to provide quality health cares to the population. • Promoting community partnership in the implementation of health policy. • Evacuation of rubbish and other waste • Reactivate and reinforce Communal Improvement/ Cleaning up Brigades • Organizing Sanitary and Methodological Education Campaign
Education & Citizenship	<ul style="list-style-type: none"> • Increasing school attendance from 64.1% in 2006 to 80% in 2008, and 100% from now to 2015. • Annual rehabilitation of 10% of classrooms and equipping them with school furniture. • Train drop-out young children and send them to vocational training centers
Water & Energy	<ul style="list-style-type: none"> • Rehabilitation of existing infrastructures, thus facilitating access to a greater number, • To identify water needs and inventory

5.2 DEVELOPMENT VISION AND BASIC CONCEPTS

Considering potentials and predominance in the commune, basic concept for the master plan which harnesses the potentials of the community development and enhances the people's self-reliance shall be established as follows.

Actions from N'djili

- *Model commune for the development and reconstruction of Kinshasa*
- *Commune of actions on people's own initiatives*

As the master plan is correspondent with the relevant plans of the government, the basic concept of the master plan is in line with the five pillars in the Provincial Government Program 2007-2011, KINSHASA City. Basic concepts categorized in the five pillars of the program are as follows.

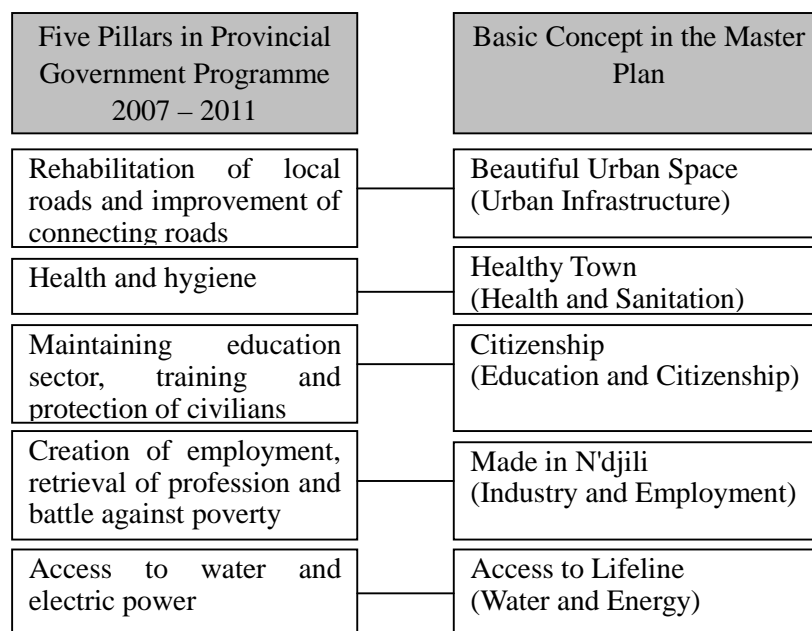


Fig. 2 Relationship of Basic Concepts and Five pillars of Kinshasa Province

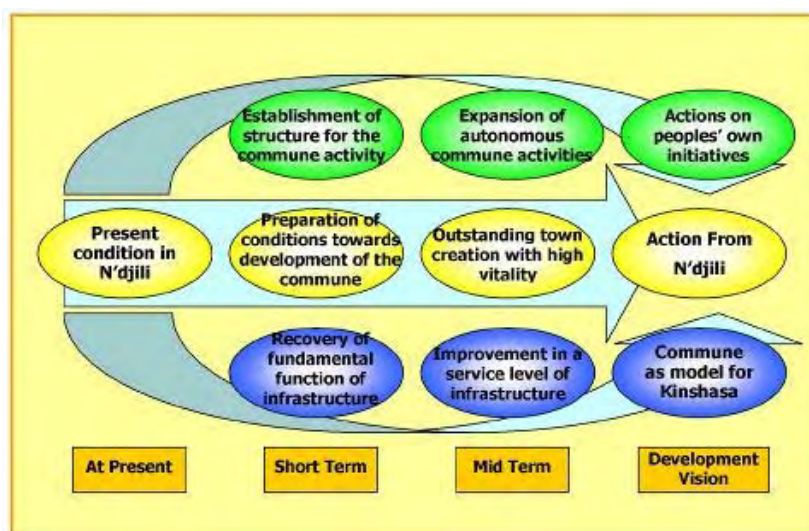


Fig. 3 Approach for the Development of N'djili Commune

6. ACTION PLAN FOR COMMUNITY VITALIZATION

6.1 INSTITUTIONAL ARRANGEMENT FOR ACTION

(1) Local Development Mechanism

A local development mechanism should have a significant initiative for commune development. Both government and donors, however, have limited financial capacity to solve various kinds of issues in commune level. Local level or grassroots development mechanism and initiatives are significantly important to tackle various miscellaneous issues in the community. In this regard, the

government and grassroots institutions should collaborate for planning, implementation, and evaluation of those community development activities. The CLDs can be a key coordinators and facilitators to mobilize the population in cooperation with churches, NGOs and associations.

(2) Realization of Action Plan and Securing Sustainability

Implementation of the development Action plan with sustainability requires the commitment of not only the government and donors but also the civil society and the population.

Through the Community Profile Survey, the JICA study team established the good relationship with the CLD members as well as the counterparts of N'djili commune office and the Provincial Ministry of Plan, Budget, Public Works and Infrastructures. The team involved these stakeholders in the process of data collection, planning workshops, and stakeholder meetings. It is necessary for the stakeholders especially the counterparts to participate in the planning activities working together with the JICA study team. It is necessary to examine actual capacity and constraints of the grassroots institutions, budget allocation of the government and donors through the planning process.

6.2 Establishment of Improvement policy for urban planning issues

(1) improvement policy for urban planning and land use issues

Corresponding to issues mentioned Action Plan Chapter 2 Present Conditions of the N'djili Commune, required activities for urban environmental improvement towards urban rehabilitation are shown in Table 2 as improvement policy.

Table 2 Improvement Policy for Urban Planning and Land Use Issues

Urban environment	Urban planning	Legal affairs, Implementation of plan
A-1. Urban redevelopment, land readjustment - high utilization of land (advancement of reconstruction into multi-floor building) - restructuring of public space (road network, park et al.) - improvement of public space relating to redevelopment projects A-2. Construction and reconstruction of individual public facilities A-3. Voluntary prescription of construction rules in N'djili commune	B-1. Basic census survey for whole Kinshasa Province. B-2. Development policy making and preparation of Urban master plan for whole Kinshasa Province - political decision making - inter ministerial counsel - discussion and negotiation with every commune for future prospect B-3. Prescription of construction rules according to local condition and customs	C-1. Enhancement and complementing of legal system concerning urban planning, construction and land use C-2. Strengthening capability for observation and verification on construction activities - its entrustment to residents' association for example

(2) Land Use Restructuring Policy

For examination on future land-use and environmental improvement project of urban spaces in N'djili commune, the following are enumerated as the content that should be considered in the reorganization policy.

About new Development Site: It is necessary to reorganize existing blocks in urban area to correspond to an overpopulated situation, and to promote their advanced use.

About Agricultural Land: The geological features of present agricultural site are considered not suitable for construction. So it should be preserved in the future land-use plan.

About the Land Use System: the possibility of establishing detailed land use system and regulations that are suited to the local lifestyle is quite low.

Development of Architectural Capacity: Since the Commune already suffers from overcrowding, the remodelling of existing building into multilayered structures is needed to secure enough floor space for residents.

Reorganization of Land Use: It is necessary to divide its land use for the long term into a residential, commercial and industrial land use.

(3) Urban Space Improvement Scheme

Correspondence to Wide Urban Area Function: It is necessary to work on the rehabilitation and the high standardization of Route Nsanda in consideration of the south to the by-pass road in the future for the future plan of N'djili commune.

Collaboration with the Vicinity Commune: It should be assumed the functional cooperation of district (5 communes) including N'djili commune is corresponding to the city development in the eastern part of Kinshasa of the future.

Reconstruction of Road Network in District: All traffic tends to concentrate to the central ring road that surrounds quartier 7. Hence in a mid-term frame, an existing road is proposed to be connected and an outer ring road constructed.

Upgrade of Land Use: It is necessary to attempt the construction of the multilayered buildings and introduction of communal facilities (road, park, and district facilities) by redeveloping the district.

Construction of Agricultural Road: The improvement of the district environment is planned to be attempted by rehabilitating agricultural roads and area environmental improvement around the road additionally.

6.3 URBAN INFRASTRUCTURE

(1) Main Problems, Action, Goal and Development Policies for Urban Infrastructure

Table 3 Policies and Actions for Urban Infrastructure

Policy	Action
Establish adequate road and drainage maintenance system by community participation	<ul style="list-style-type: none"> • Improve Luemba Boulevard as a main street of N'djili. • Rehabilitation of existing paved roads. • Improvement of N'djili Junction to relief traffic congestion. • Rehabilitation of community roads by LBT. • Clean-up gutters together with the sanitation brigade
Ensure the sustainable urban growth with strong and stable economy	<ul style="list-style-type: none"> • Capacity Development for Provincial Urban Planning Sections of the Province. • Rehabilitation of urban core zone (Q7). • Development of Community Core Zone. • Planting flowers and tree along streets
Satisfy increasing traffic demand and ensure traffic safety and security	<ul style="list-style-type: none"> • Installation of Sidewalk and Traffic safety facilities/Pedestrian crossings, Traffic sign, Humps, etc. • Improvement of Tertiary Roads.
Enhance equal accessibility and promote public transport	<ul style="list-style-type: none"> • Improvement of bus route network, bus terminal, bus stops
Establish adequate road network system with accessibility (Long Term)	<ul style="list-style-type: none"> • Development of integrated road network plan.

6.4 HEALTH AND SANITATION

Table 4 Policies and Actions for Health and Sanitation

Policy	Action
Rehabilitation of the Health Centres, Development of Health Centre Maintenance System (Action by Provincial Government)	<ul style="list-style-type: none"> • Rehabilitation and construction of health centers as focal points of local health services • Construction of maternal and child health care centre including surgical unit • Establishment of health information system (HIS) • Establishment of appropriate deployment system of doctors and nurses in N'djili health zone. • Establishment of solid waste disposal systems in the Province
Establishment of Health & Sanitary Management Systems , Installment of Sanitation Facilities (Action by Commune)	<ul style="list-style-type: none"> • Rehabilitation and construction of public toilet. • Formulate sanitation and hygiene management plan. • Health & Sanitation education in the School • Establish solid waste management system
Sensitization, Promotion of Health & Sanitation Activities (Action by Residents)	<ul style="list-style-type: none"> • Sensitization on sanitation and hygiene issues. • Clean-up solid waste and promoting recycling

6.5 EDUCATION AND CITIZENSHIP

Table 5 Policies and Actions for Education and Citizenship

Policy	Action
Rehabilitation of Schools and Improvement of those Environment, Support School Facilities and Equipments. (Action by Province)	<ul style="list-style-type: none"> • Rehabilitation of security fence. • Rehabilitation of toilet for primary and secondary schools. • Rehabilitation of classrooms. • Supply equipment for primary and secondary schools
Empowerment of Civil Society Organization (Action by Commune)	<ul style="list-style-type: none"> • Strengthening Capacity of the Commune Administration
Action from Residents/community peoples (Action by Residents)	<ul style="list-style-type: none"> • Civic Education • Non-formal education for out-of-school children • Sports and culture promotion in the commune & schools

6.6 INDUSTRY AND EMPLOYMENT

Table 6 Policies and Actions for Industry and Employment

Policy	Action
Promotion of N'djili Industry, (Action by Provincial Government and Commune)	<ul style="list-style-type: none"> • TOT of N'djili masters at ITI • Rehabilitation of markets, storages • Establishment of Industry Support Systems.
Improvement of Agricultural Production (Action by Provincial Government and Commune)	<ul style="list-style-type: none"> • Establish and operate farmers' market at CECOMAF
Networking of Small Vendors (Action by Residents)	<ul style="list-style-type: none"> • Establish N'djili industry association

6.7 WATER AND ELECTRIC POWER SUPPLY

Table 7 Policies and Actions for Water and Electric Power Supply

Policy	Action
Distribution Network Management (Action by Provincial Government)	<ul style="list-style-type: none"> • Improvement of Water/Electric Power distribution network and water equipment. • Establishment of distribution network management system

7. IMPLEMENTATION SCHEDULE ON ACTION PLAN

7.1 10 YEARS ACTION PLAN FOR EACH SECTORS

(1) Action plan for urban infrastructure

1)Development Concept of the Rehabilitation Phase (Short-term Period; 2009-2013) Project

Following 9 projects are proposed at the Rehabilitation Phase. The order of project is depends on project intiaives, from Provincial Gorvernment, Commune Office, to residents with time logical sequences.

- Improve Luemba Boulevard as a main street of N'djili.
- Rehabilitation of existing paved roads.
- Capacity Development for Provincial Urban Planning Sections of the Province.
- Improvement of N'djili Junction to mitigate traffic congestion.
- Installation of Sidewalk and Traffic safety facilities/Pedestrian crossings, Traffic sign, Humps, etc.
- Rehabilitation of Community Roads using LBT (Application of "Do-Nou" Technology).
- Rehabilitation of urban core zone (Q7).
- Clean-up Gutters Together with the Sanitation Brigade
- Planting flowers and tree along streets

2)Development Concept of the Development Phase (Middle-term Period; 2014-2018) Project

Under the overall Development Concept, following 2 Development Concepts are set for urban infrastructure projects in the Rehabilitation Phase.

- Enhancement of Public Transportation.
- Improvement of living environment/conditions of the commune.

Consequently, following 3 urban Infrastructure Projects are proposed to implement at the Development Phase.

- Improvement of Tertiary Roads.
- Improvement of bus route network, bus terminal, bus stops
- Development of Community Core Zone.

3)Development Concept of the Long-Term Project (After 2019)

Successively, after completion of Development Phase Projects, following an urban Infrastructure Project is expected to implement to complement.

- Development of integrated road network plan.

(2) Action Plan for Health And Sanitation

1)Development Concept of the Rehabilitation Phase (Short-term Period; 2009-2013) Project

In Health sector, following actions are recommended to execute urgently.

- Rehabilitation and construction of health centers.
- Construction of maternal and child health care centre including surgical unit
- Establishment of health information system (HIS) on epidemiological deceases and reproductive health
- Health & Sanitation education in Schools and Streets
- Rehabilitation and Construction of Public Toilet
- Establishment of solid waste disposal systems in the Province
- Formulate sanitation and hygiene management plan

- Establish solid waste management system in the Commune
- Sensitization on sanitation and hygiene issues
- Clean-up solid waste and promoting recycling

2)Development Concept of the Development Phase (Medium-Term Period; 2014-2018) Projects

Without a successive project since started from Rehabilitation Phase, there is no proposed implementation project newly starts at the Development Phase.

(3)Action Plan for Education and Citizenship

1)Development Concept of the Rehabilitation Phase (Short-term Period; 2009-2013) Project

Following a project is proposed at the Rehabilitation Phase.

- Rehabilitation of security fence for primary and secondary schools
- Rehabilitation of toilet for primary and secondary schools
- Rehabilitation of classrooms
- Strengthening Capacity of the Commune Administration
- Civic Education
- Non-formal education for out-of-school children

2)Development Concept of the Development Phase (Medium-Term Period; 2014-2018) Projects

Consecutive actions from Rehabilitation Phase, following projects are proposed at the Development Phase.

- Supply Equipment for Primary and Secondary Schools
- Sports and Culture Promotion in the Commune & Schools

(4)Action Plan for Industry and Employment

1)Development Concept of the Rehabilitation Phase (Short-term Period: 2009-2013) Project

Following 5 projects are proposed at the Rehabilitation Phase.

- TOT of N'djili masters at ITI
- Rehabilitation of markets, storages
- Establish and operate farmers' market at CECOMAF
- Establishment of Industry Support Systems
- Establish N'djili industry association

2)Development Concept of the Medium-term Project

Without successive projects since started from Rehabilitation Phase, there is no proposed implementation project newly starts at the Development Phase.

(5) Action Plan for Water and Electric Power Line

1) Development Concept of the Rehabilitation Phase (Short-term Period: 2009-2013) Project

Therefore, following a project is proposed at the Rehabilitation Phase.

- Rehabilitation and upgrading of RESIDESO water supply, SNEL electric power supply network

2) Development Concept of the Development Phase (Middle-term Period: 2014-2018) Project

Without successive projects since started from Rehabilitation Phase, there is no proposed implementation project newly starts at the Development Phase.

3) Development Concept of the Long-Term Project after Action Plan (After 2019)

Following a project is proposed at the Long Term Phase.

- Technical Assistance Project for Management of the Water supply, Electric power supply Distribution Network.

8. PILOT PROJECT

8.1 OBJECTIVES

To implement a variety of projects successfully, the Action Plan verifies the efficiency and effectiveness of Projects in advance. Projects of Action Plan include not only facilities/infrastructure improvement but also projects by community participatory approaches. Through the implementation of Pilot Project, participation of commune people is promoted. Pilot Projects also have the intention of gaining precious lessons by the process of trial and error in project activities. Lessons learned from the Pilot Projects would be applied in other projects at the implementation stage. The Study implemented 4 Pilot Projects during The Study period.

8.2 CIVIC EDUCATION

(1) Outline of the civic education project

Project Purpose: CLD members can facilitate participatory community development to the population using acquired attitude, knowledge and skills respect of law, human rights, and realizing internal good governance.

Overall Goal: CLDs are recognised in the community and can plan and implement various community development projects in N'djili commune towards MDGs in a participative responsible and transparent manner.

Outputs: 1) CLD members are capable of putting together needs for the community development of their communes, and are fully aware of human right through the training, 2) CLDs prepare action plans for community development in each quarter by a participatory approach

(2) Action planning

After the theoretical sessions, the trainees discussed with their neighbours at their quarter about concerning problems and needs of their community. In the result, infrastructure development and improvement of sanitation conditions were high priority issues. However, it was difficult for some of the issues to be solved without external resources such as school construction. The JICA Study Team facilitated the participants to consider using own resources to change their conditions. Then, the participants discussed priority action plans for N'djili commune and selected the three priority action plans as shown in the table below:

Table 8 Commune Action Plans from the Participants

Priority	Action Plan
1	Expansion of civic education
2	Clean-up gutters and solid waste management
3	Infrastructure development (gutters, public toilet, and drainage are high priority)

Expansion of Civic Education was selected as the highest priority action, because the participants recognised that Civic Education was a foundation of community development and mentality change of the people.

8.3 CLEAN-UP CAMPAIGN

(1) Outline of the clean-up campaign project

Project Purpose: Foundation of sustainable grassroots actions for reducing solid wastes and maintenance gutters are established in each quarter.

Overall Goal: Solid wastes in the target streets, markets and gutters are cleaned regularly by the initiatives of CLDs

Outputs: 1) Committees are established in 13 quarters and 4 markets for a sustainable system of community based solid wastes management, 2) CLD members and community acquire knowledge about how to reduce solid wastes, 3) Markets, streets and gutters are cleaned up by community, 4) Community based Plastic Recycling organization is operating to recycle plastic wastes.

(2) Achievement

The project purpose is achieved. Through the clean-up of target markets, gutters and streets and the sensitisation by CLD initiative, a foundation of sustainable grassroots actions for reducing solid wastes and maintenance gutters was established in each quarter.

Achievement of the sensitisation programme is shown in the below table.

Table 9 Result of Sensitisation Programme

Place	Number of sessions	Direct beneficiaries
Schools	26	5,200
Markets	11	4,500
Churches	3	1,000
Total	40	10,700

8.4 ROAD REHABILITATION PROJECT BY DO-NOU TECHNOLOGY

(1) Outline of the road rehabilitation project by do-nou technology

Project Purpose: Foundation of sustainable grassroots actions to rehabilitate road by the participation of commune people with utilizing of Do -nou technology.

Overall Goal: Potholes and erosions of the unpaved roads in commune are rehabilitated by the commune people under the initiative of CLDs

Outputs: 1) Technology and knowledge are transferred to attendant people to rehabilitate road by themselves, 2) Attendants can diffuse the technology to other people and other communes, 3) Community based road maintenance activity become general, 4) Organization of commune and CLDs are strengthened

(2) Using Do-Nou Technology

The use of DO-NOU technology for the maintenance of unpaved roads in some Asian countries dates back to 2000s. This technology has been applied in the Philippines; it is being introduced in African countries such as Kenya, Cameroon, Tanzania, Uganda, etc.

(3) Implementation of Training

Training consists of classroom training and field training. The classroom training started on October the 26th 2009 for the members of CLD selected in the Commune of N'djili.

The field training was conducted on Tuesday October the 27th 2009, everyone from trainers to trainees met. After training on how to fill the bags with sand to transform them into Do-Nou, the 52 trainees were divided into 4 teams of 13 people each. Then, it was decided that two teams remain on the site to prepare the section intended to receive the Do-Nou bags for road improvement.

8.5 REHABILITATION OF LUEMBA BLVD.

(1) Outline of the rehabilitation of luemba blvd.

Project Purpose: 1) Urgent distribution of the peace divided to the beneficiaries, 2) To collect information on the business practice, design and cost estimation, the capacity of the local contractor for the confirmation of the possibilities for the execution of the new project, 3) Capacity development to provincial government and commune office

Overall Goal: 1) Rehabilitation of Blv. Luemba, 2) Provision of beautiful urban space, 3) Reduction of the flood area by the installation of the storm water drainage system, 4) Traffic safety by the provision of sidewalk with traffic safety measures Potholes and erosions of the unpaved roads in commune are rehabilitated by the commune people under the initiative of CLDs

Outputs: 1) Paved carriageway, 2) Provision of the sidewalk, 3) Provision of proper storm water drainage system to the existing outlet, 4) Minimum land acquisition and house compensations

(2) Design policy and standards

The following policy was established for the design and the implementation of the project;

- 1) To construct a symbolical avenue of N’ djili commune,
- 2) To secure the safety of pedestrians, cycles and vehicles,
- 3) To create a focus of prosperity of the commune.

The Study Team basically applied to use the DCR road design standards as the most appropriate standards for the Luembe Blvd.

(3) Implementation Plan

Before implementation of Pilot Project, the committee was set up between DRC side and Project team.

This project was implemented by AFRITEC on a contract basis with JICA DRC. AFRITEC was selected through the designated bidding.



Fig. 4 Final Work Schedule for the Rehabilitation of Blv. Luemba

8.6 OVERALL EVALUATION

(1) Overall Evaluation

The JICA Study Team evaluated each pilot project and projected the results and lessons learned to the Action Plan, especially in consideration of future implementation and institution arrangements.

Generally, most of the respondents were of the view that these pilot projects had positive impact on the commune. The evaluation result of each pilot project by the general public of N’djili is shown in the figure below.

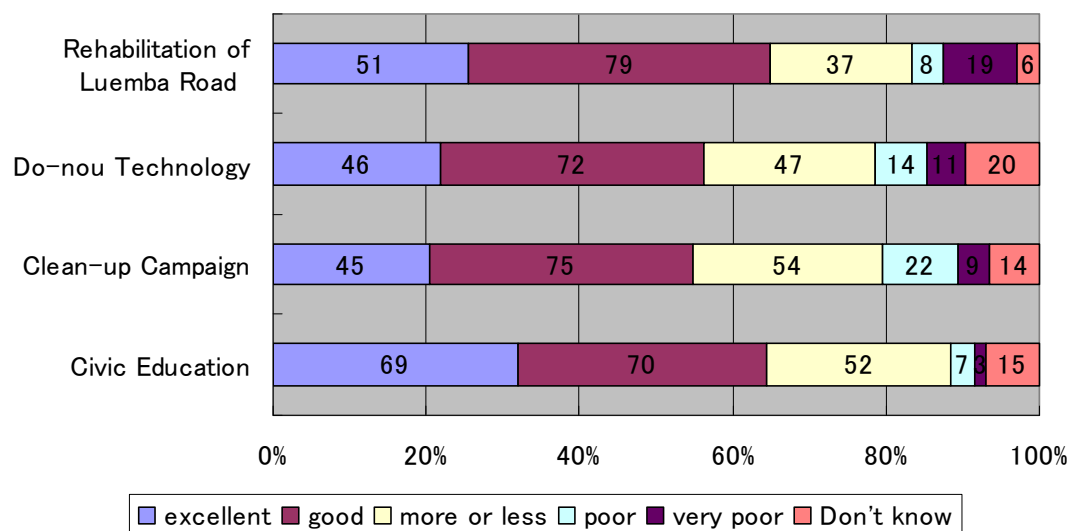


Fig. 5 Evaluation Result of the N’djili Population on the Pilot Projects

(2) Achievements

- 1) The participant's expansion and capacity development in the commune activity
- 2) Reinforcement of commune CLD organization
- 3) Expansion of independent activity
- 4) Formation of core of the commune

(3) Recommendation

- 1) Necessity of functional enhancement of commune administration
- 2) Necessity of continuous support for sustainable activity
- 3) Acknowledgment of action plan and maintenance of plan

9. SOCIO-ECONOMIC FRAMEWORK AND METHODOLOGY FOR URBAN REHABILITATION PLAN IN KINSHASA

9.1 SOCIO-ECONOMIC FRAMEWORK OF N’DJILI COMMUNE IN 2018

(1) Population Framework in 2018

Based on the latest demography as of 2008, The Study Team has made population projections of Kinshasa and The Study area of N’djili Commune taking into account past trends of mortality and fertility plus the effect of HIV/AIDS, at the target year of 2018. The population of Kinshasa Province and The Study area are projected as shown in the following table.

Table 10 Population Forecast in 2018

2007			2018		
2007	Population	Density/km2	Growth/year	Population	Density/km2
DRC	65,837,000	28	3.20%	93,099,000	40
Kinshasa	6,387,725	719	2.35%	8,054,229	907
N'djili	320,762	34,020	1.80%	390,448	41,411

(2) Labour force and employment

Ratio of working age population to total population or the labour force coefficient (15-60 years old) is 54% in The Study area. The labour participation ratio including formal and informal is 67% according to the household survey conducted by the team for The Study area. Although the labour force coefficient will increase steadily as the generation affected by the civil war is replaced by the younger generation, it is assumed to be stable as 53.8% in 2018.

(3) Economic indicators

Updated data on gross regional domestic product (GRDP) for smaller administrative unit are not readily available in DRC. Hence, the annual growth rate of GRDP of Kinshasa which is forecasted as 4.7% in the Provincial Development Plan 2007-2011 has been applied in the projection. Based on the assumptions that the GRDP per capita of Kinshasa 2007 estimated in the development plan, US\$260 and the growth rate of 4.7% is applied, in conclusion, the economic structure of The Study area is roughly estimated in the following table.

Table 11 GRDP by industry in N'djili Commune in 2007

Industry	Population	Structure	Coefficient	Modified	GRDP 2007
Primary	8,588	7.4%	1.0	4.2%	\$3,537,496
Secondary	39,342	33.9%	1.2	22.5%	\$18,735,878
Tertiary	68,122	58.7%	2.2	73.3%	\$61,124,746
Total (GRDP)	116,052	100.0%		100.0%	\$83,398,120
GRDP/capita					\$260

9.2 METHODOLOGY FOR URBAN REHABILITATION PLAN IN KINSHASA

(1) General -“Action from N’djili”-

To formulate the urban rehabilitation plan, this plan reviews existing data and development plans and specifies medium to long term (10year) range development policy together with Action Plan. Consecutive stages of this study are following;

- Stage 1: Compile existing data of Kinshasa Province and N'djili commune,
- Stage 2: Prioritize community demands by dialogue and participatory approach.
- Stage 3: Indicate development policy and address Action Plan for the commune,
- Stage 4: Examine Pilot Projects to provide feedback on the Plan.
- Stage 5: Evaluate Pilot Projects and review The Study for improvement the Plan.
- Stage 6: Implement Projects of Action Plan.

(2)Methodology

Stage 1: Analysis of Current Condition in Kinshasa and Commune

Stage 1 is the initial stage of the urban rehabilitation plan. To understand general conditions of commune, data compilation is an indispensable activity towards making an Action Plan.

Stage 2: Community Needs Survey

To signify priority of community development, Stage 2 involved collecting community opinion through several community surveys.

Stage 3: Basic Policy and Action Plan for Commune

After completion of data collection, analysis and community needs surveys, basic policy and Action Plan for commune had been addressed/ formulated. Stage 3 is making a Basic Policy and Action Plan for commune based on previous surveys' results.

Stage 4: Implementation of the Pilot Project

Stage 4 follows following steps of procedure:

- Step 1: Clarification of Objective for Pilot Project
- Step 2: Selection of Pilot Project
- Step 3: Establishment of Implementation Organization
- Step 4: Establishment of Implementation Plan
- Step 5: Acquisition of Budget

Stage 5: Evaluation of the Pilot Project and Reviews of The Study

Stage 6: Project Implementation of Action Plan

The project implementation for Action Plan includes 1) Selecting the priority project of the Action Plan, 2) Formation of Study Team, 3) Basic Design of the Project, 4) Discussion with the government to acquire budget, 5) Establishment of implementation organization for the project, 6) Detailed design of the project, 7) Implementation of the project and 8) Monitoring of the project.

10. CONCLUSION AND RECOMMENDATIONS

(1) Conclusion

- 1) Necessary actions were identified among the variety of stakeholders by participatory approach.
- 2) Organization of CLD was activated and played the significant role in the participatory approach.
- 3) The Study compiled current data and analyzed conditions in Kinshasa province that are of great use in other communes.
- 4) The Study compiled current data and analyzed conditions in the pilot commune. Data collection approach and basic contents of database are applicable for other communes.
- 5) The demand forecasting approach for making Socio-economic frameworks and indicated development policies in The Study are also applicable and valuable for other communes.
- 6) A variety of menu and indicated outlines of prioritized projects in The Study are valuable for making their Action Plans respectively for other communes.
- 7) Through the implementation process of the Pilot Projects, various lessons learned were scrutinized and verified. Pilot Projects motivates the community for participation of the planning.
- 8) Participatory approach and its methodology, defined as “N’djili Model”, are highly valuable for making urban rehabilitation plans that can be applied for other communes

(2) Recommendation

- 1) N’djili model can be utilized as a development guideline for other communes, but it requires some modification depending on community characteristics.
- 2) For sustainability in development actions, capacity building activities through Civic Education Campaign are of paramount importance at Government level, Commune level and Community level.
- 3) To encourage CLD activities, continuous necessary support is indispensable for sustainable impact on the residents and also better appropriateness of the development process.
- 4) To implement development projects, potential donors and international organization assistance and coordination activities for Kinshasa Provincial Government, N’djili Commune and CLD are highly expected.

**THE DEVELOPMENT STUDY FOR URBAN REHABILITATION PLAN
OF KINSHASA IN THE DEMOCRATIC REPUBLIC OF THE CONGO**

FINAL REPORT

**VOLUME I
MAIN TEXT**

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LIST OF ABBREVIATIONS

Abreviation	English
ADF	African Development Fund
AfDB	African Development Bank
AIDS	Aquired Immune Deficiency Syndrome
AU	African Union
BAD	African Development Bank
BEAU	Design Office for Urban Developments
BM	World Bank
BTC	Belgian Technical Cooperation
CAF	Country Assistance Framework
CBO	Community Based Organization
CCD	Community Development Comission
CIDA	Canadian International Development Agency
CLD	Local Development Committee
CTB	Belgian Technical Cooperation
DAC	Development Assistance Committee
DFID	(British) Department for International Development
DID	Densely Inhabited District
DRC	Democratic Republic of the Congo
DVDA	Rural Access Roads Department
EC	European Committee
EIA	Environmental Impact Assessment
EMRR	Emergency Multisector Rehabilitation and Reconstruction
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign Direct Investment
FNUAP	United Nations Fund for Population
FPR	Rwandan Patriotic Front
GDP	Gross Domestic Product
GEEC	Environmental Studies Group of Congo

Abreviation	English
GIS	Geographic Information Systems
HDI	Human Development Index
HIPC	The Heavily Indebted Poor Country
HIMO	Labour Based Technology
HIV	Human Immunodeficiency Virus
IDA	International Development Association
IDP	Internal displaced people
IEE	Initial Environmental Examination
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
JICA	Japan International Cooperation Agency
JPY	Japanese Yen
LBT	Labour Based Technology
MONUC	(United Nations Mission in the Democratic Republic of Congo)
NGO	Non-Governmental Organizations
OUA	Organization of African Unity
OCDE	Organization for Economic Cooperation and Development
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
ONATRA	National Office for Transport
ONG	Non-Governmental Organization
ONU	United Nations Organization
OR	Road Agency
OVD	Office for Road and Drainage
PHC	Primary Health Care
PNUD	United Nations for Development Programm
PRSP	Poverty Reduction Strategy Paper
PTA	Parent-Teacher Association
RDC	Democratic Republic of the Congo

Abreviation	English
REGIDESO	(Water works Authority)
SIDA	Aquired Immune Deficiency Syndrome
SIG	Geographic Information Systems
SNEL	(Electricity Authority)
SNHR	(Rural Hydrogic Bureau)
TOT	Training of Trainers
UA	African Union
UE	European Union
UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNIFEM	United Nations Development Fund for Women
UNOPS	United Nations Office for Project Services
USAID	US Agency for International Development
USD	United States Dollar
WB	World Bank
WFP	World Food Program
WG	Working Group
WHO	World Health Organization
WHP	Women and Health Programme
WIR	World Investment Report
WTP	Water Treatment Plant

CHAPTER 1

INTRODUCTION

CHAPTER 1 : INTRODUCTION

1.1 GENERAL

This report presents The Development Study for Urban Rehabilitation Plan of KINSHASA in The Democratic Republic of The Congo. The Action Plan for the Rehabilitation of N'djili commune made as part of The Development Study for Urban Rehabilitation Plan of KINSHASA in The Democratic Republic of The Congo is described in the Volume for the Action Plan.

1.2 BACKGROUND

The following serious problems are a direct consequence of the socio economic turmoil that lasted for many years in the Kinshasa Province. The problems are inadequacy of government function, stagnation of economic activity, centralization of population to Kinshasa Province, increase in unemployment, social unrest by the lack of basic infrastructure and the stagnation of capital city function.

The Government of Japan had temporarily terminated its support and cooperation activities in the Democratic Republic of The Congo (hereinafter referred to "DRC") because of the influence of the socio economic turmoil in the DRC for many years.

The Government of the DRC under Joseph Kabila undertook a series of economic reforms in the country. The Government of Japan through its International Cooperation Agency (JICA) has financed The Study for urban rehabilitation plan in Kinshasa whereby Ndjili has been selected as pilot commune for The Study..

Ndjili is a commune of Tshangu District, in the city of Kinshasa, situated in the South of Masina commune which is separated by the Lumumba Boulevard. It is located in the Eastern part of Kinshasa town, in the plain, beyond Ndjili River. It has 13 popular quarters. The population in Ndjili Commune has been increasing due to the inflow from the rural areas. This influx of population has increased poverty, because of remarkable insufficient Basic social infrastructure services and lack of the economic infrastructure supporting economic activities. Based on the above situation in N'djili commune, N'djili commune is selected as the pilot commune with the target of assisting the commune people solve their current issues. And the experiences acquired in N'djili commune will be projected onto other communes so as to establish the methodology for rehabilitation plan in Kinshasa.

The emergency study is to be conducted in Kinshasa which is a capital of the DRC for the

purpose of the provision of the peace to all people in the DRC.

1.3 OBJECTIVE OF THE STUDY

The objective of The Study is to recommend and demonstrate appropriate method and process for the formulation of urban rehabilitation plans in Kinshasa, by formulating an urban rehabilitation plan for pilot commune which in this case is N'djili commune.

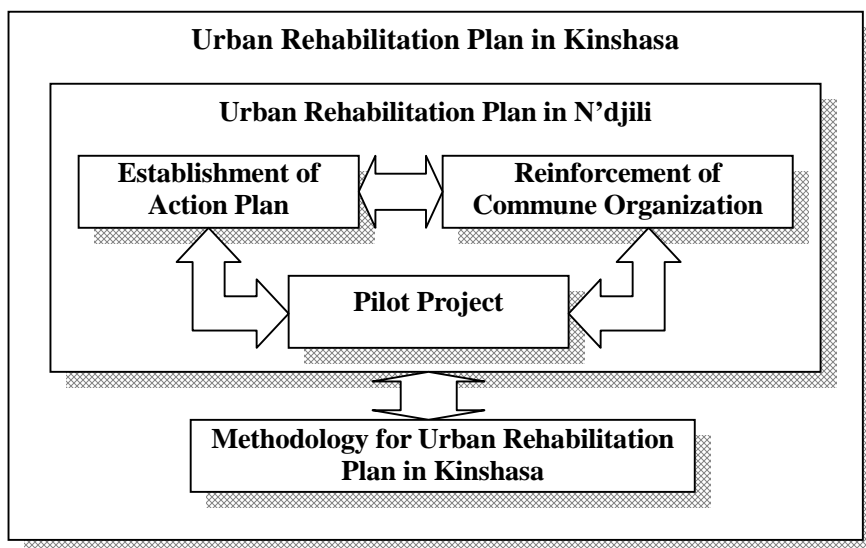


Fig. 1.2.1 Composition of Urban Rehabilitation Plan in Kinshasa

1.4 STUDY AREA

The Study Area covers Kinshasa Province as shown in the Location Map at the beginning of this Report.

1.5 SCOPE OF THE STUDY

Scope of work, agreed upon between Kinshasa Provincial Government and Japan International Cooperation Agency on 8th August, 2007, clarifies the Scope of The Study as follows;

(1) Review and analysis on present situation of the pilot commune

- a) To review existing laws, regulations, policies and institutional arrangements related to commune development;
- b) To review past studies, development plans, projects and traffic surveys in the commune;
- c) To review other existing data and information related to the commune development (existing land use, existing infrastructures etc);
- d) To conduct social survey and other necessary survey(s);
- e) To make community profiles; and

f) To conduct traffic survey.

(2) Formulation of the basic policy for development of the commune

- a) To formulate appropriate -framework for discussion of planning with participation of local communities; and
- b) To formulate the basic policy for development of the commune.

(3) Proposing urban rehabilitation plan

- a) To set up future socio economic framework;
- b) To forecast a future demand for land use plan (housing area, commercial area, industrial area etc);
- c) To consider functional layout and formulate a zoning map;
- d) To propose infrastructure development projects;
- e) To make profiles for infrastructure development projects; and
- f) To propose urban rehabilitation plan of the communes.

(4) Implementation of pilot project(s)

- a) To select pilot project(s);
- b) To conduct designing and cost estimation for the pilot project(s);
- c) To prepare implementation plans for the pilot project(s);
- d) To prepare bidding documents for the pilot project(s);
- e) To conduct biddings and select contractors for the pilot project(s); and
- f) To implement the pilot project(s).

(5) Evaluation of pilot project(s)

- a) To evaluate and analyze the result of the pilot project(s);
- b) To summarize lessons learned during the implementation of pilot project(s); and
- c) To identify the problems and countermeasures for implementation of the urban rehabilitation plan.

(6) Finalization of urban rehabilitation plan

- a) To finalize the urban rehabilitation plan with feedbacks from evaluation of pilot project(s); and
- b) To recommend effective method and process for the formulation of urban rehabilitation plans in Kinshasa.

1.6 STUDY VIEW (CHARACTERISTICS OF THE PLAN)

This study was compiled as an “Urban Rehabilitation Plan” with technical cooperation of JICA. The Rehabilitation Study can be defined as “Planning for urgent rehabilitation of social/economical infrastructure, such as road networks, lifelines or resident housing, including community services of medical treatment, hygiene and education that aim to restructure community society being

recovering since post internal conflicts in DRC. Expected task for Urban Rehabilitation Plan is slight difference from conventional “Development Master Plan (M/P)” which integrates comprehensive planning for urban development policy and the strategy. While prior to M/P stage, Urban Rehabilitation Plan relatively focuses on basic infrastructure rehabilitation works and captioned social service improvement. It also has clear intention to present participatory approach for the community autonomy.

Moreover, it is necessary to identify the local resource (local networks, human resources, and available budgets) then should be specify prioritize projects. Therefore, Urban Rehabilitation Plan should give weigh to urgent sector and the region rather than long term conceptual planning to encourage community initiatives for actions. Finally, throughout the verification of Pilot Projects, the study is requested to propose a model of community participation approach for Kinshasa government.

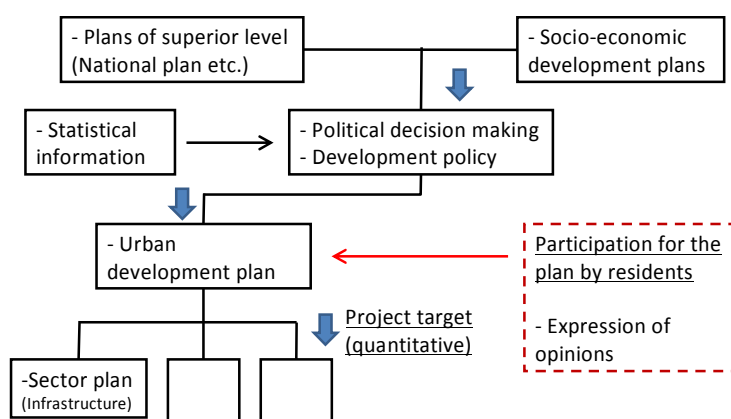


Fig. 1.6.1 Development Master Plan (for grown society)

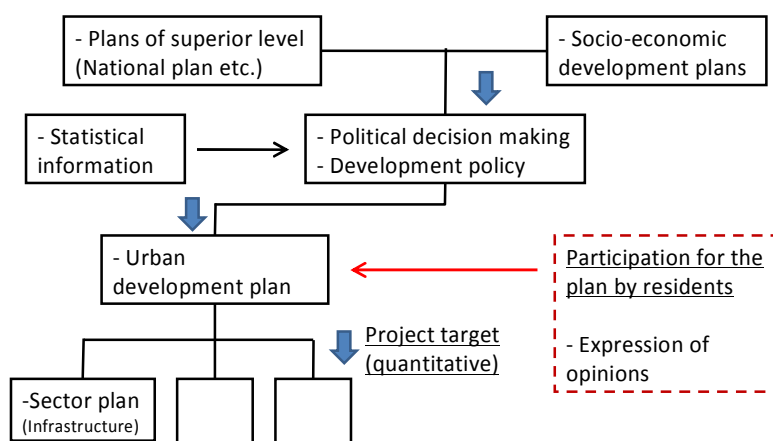


Fig. 1.6.2 Urban Rehabilitation Plan (for developing society)

1.7 STUDY PROCEDURE

In order to achieve the objectives by carrying out the work items described above, The Study is

conducted under the following procedure and methodology.

1.7.1 Procedure

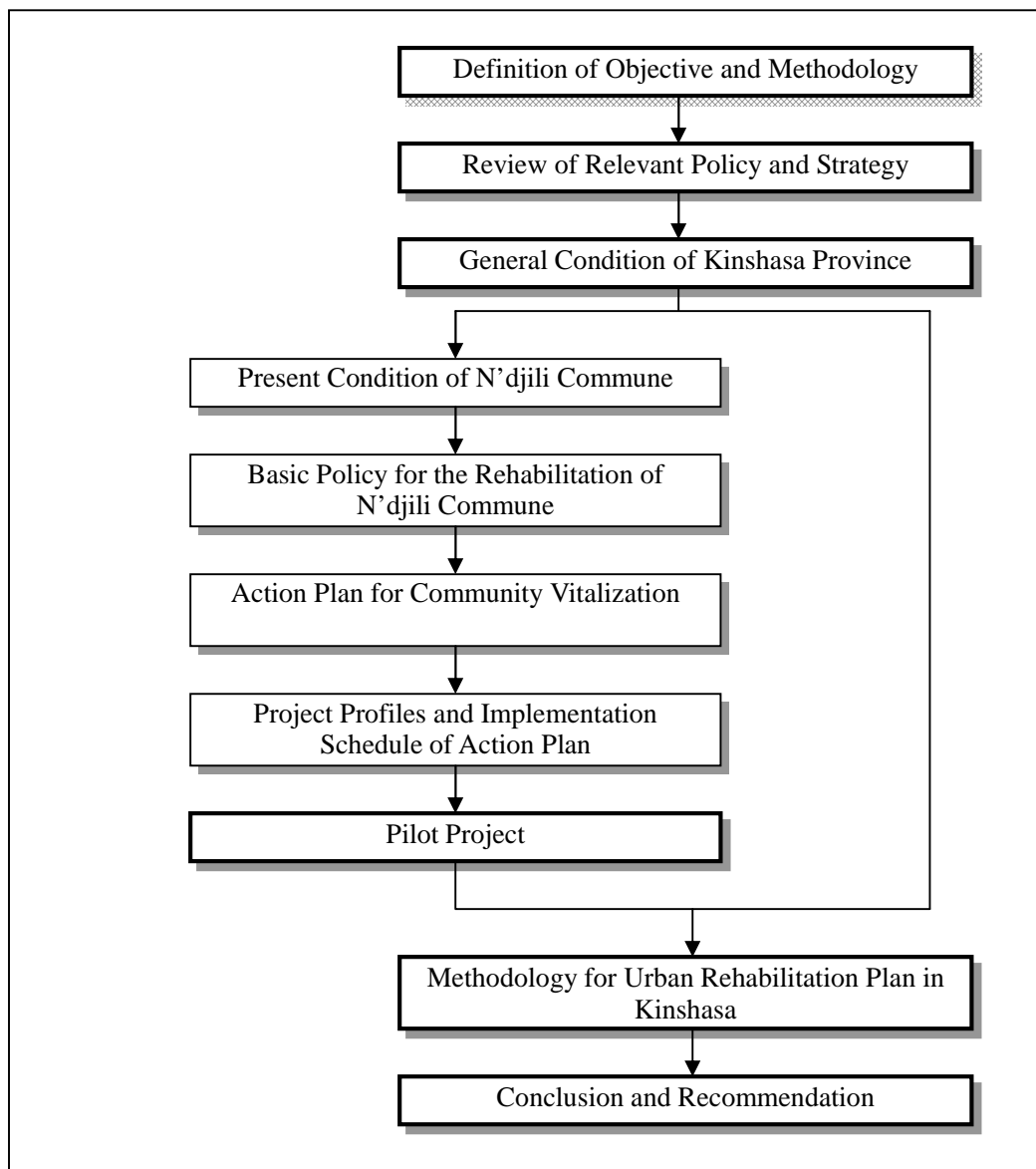


Fig. 1.7.1 General Flowchart of The Study

1.7.2 Methodology

(1) Review of Development Policies and Strategies

Relevant development policies and strategy of the National Government, Kinshasa Provincial Government and the pilot commune are to be reviewed to provide a base for the establishment of development principle of the pilot commune. Activities of donors in Kinshasa Province are also to be reviewed.

(2) Analysis of General Condition in Kinshasa Province

In order to clarify characteristics of the pilot commune in the socioeconomic and infrastructure aspects, present conditions of Kinshasa Province are grasped in the following items;

- Natural condition, Socio economic condition, Land use, Administrative system, Road, Health and Sanitation, Education and Citizenship, Industry and Employment, Access to water and Lifeline

(3) Review and Analysis of Present Condition and Issues of N'djili Commune

1) Review and Analysis on Present Situation

Following survey and analysis for Ndili Commune will be conducted in this Study.

- Natural condition, Landuse pattern, Infrastructures, Industry, Socio-economic situation, Existing development policy and Programme, Activities of other donors and NGO, Social environmental consideration regulation act, etc.

2) Conducting of the Social Survey

Social survey for 13 quarter of Ndjili Commune as pilot commune will be conducted. Community profile will be prepared in this Study.

Table 1.7.1 Social Environmental Survey

Survey Area	Survey Items
Social Environment	Inhabitant's profile(population, age structure, family structure, religion, ethnic group/tribe, local language), history of community, community organization, education situation(school attendance rate, opportunity of education by public/private), healthcare situation(mortality rate, sick rate by diseases, prevention diseases and condition of the nutrition), Local culture and custom, gender, etc...
Economic condition	Industry (Industrial structure and employment opportunities), Employment situation, livelihood, income and outgo.
Infrastructure	Roads, bridges, public transportation, water supply, sewage, education facilities, healthcare facilities and other public facilities such as community center, religious facilities and markets.
Land use	Land use, existing regional/infrastructures development plan
Refugee and IDPs(Internally Displaced Person)	Situation of refugee occupation / distribution from Angola and IDPs
Other donor's activities	Other donor's and NGO's activities(past projects, on-going projects and future's projects)

3) Extraction of Existing Issues

As the consequence of the analysis on present condition in N'djili commune, issues in various fields observed at present or anticipated in near future are clarified.

(4) Establishment of the Socio Economic Framework

Establishment of a socio-economic framework (such as population, economy, employment, poverty level, income, number of persons attending schools and living environment)

(5) Establishment of Basic Policy for the Rehabilitation of N'djili Commune

Relevance between N'djili Commune and other neighbouring communes and function which N'djili Commune should achieve will be studied. Future vision up to the target year and the target for the short term and medium term will be established. The basic policy for the development of the N'djili Commune will be formulated.

(6) Formulation of Action Plan for Community Vitalization

1) Institutional Improvement for Action

The scheme for local communities' participation will be established for the discussion and implementation of urban rehabilitation plan for Ndjili Commune.

2) Formulation of Land Use Plan

Future demand for land use plan of Ndjili Commune will be forecasted in consideration of the socio-economic framework. Land use development policy is formulated in consideration of improvement of living environment and urban functional layout.

3) Formulation of Sector Plan

Infrastructure and public facilities development plan for the following sectors will be proposed. Execution agency for each project be made clear and the financial situation, implementation capacity for management and maintenance and project realization in consideration of other donor's activities should be considered for proposing the infrastructure development plan.

- a) **Urban Infrastructure**
- b) **Health and Sanitation**
- c) **Education and Citizenship**
- d) **Industry and Employment**
- e) **Access to Water and Lifeline**

4) Preparation of Profile for Development Projects

The project profile for developments project will be prepared including the following items.

- | | |
|------|---|
| i) | Project name |
| ii) | Background and objective for the project |
| iii) | Contents of the project(contents of the works, cost, construction period) |
| iv) | Project implementation methodology(execution agency, Financial source) |
| v) | Effectiveness of the project(beneficiary, estimated environmental impact) |
| vi) | Relevancy to other projects |
| vii) | Important assumptions, Pre-conditions |

Several Projects shall be selected as emergency projects. Design and cost estimate will be done for the selected projects.

5) Consideration for Environment

Special effort will be given to access the appropriate environmental and social considerations in accordance with the JICA Guidelines for Environmental and Social Consideration.

(7) Implementation of Pilot Project

1) Selection of Pilot Project

Pilot project shall be selected from the project files in consideration of the lessons learned by effectiveness, urgency, size of the project, beneficiary and implementation period.

2) Examination of Framework of the Pilot Project

Framework for the implementation of Pilot Project, such as scope of project, organization for implementation, implementation period, scale and budget is examined and decided. Related surveys, if necessary, are conducted before the Implementation of pilot project.

3) Preparation of Implementation

Based on the framework for the pilot project, preliminary construction plan/implementation plan including necessary procedure for the implementation of the pilot project is established.

Cost estimation will be prepared for the preparation of the tender. Drawings, TOR, Bill of quantities, Specification and other necessary documents will be prepared.

4) Implementation of the Pilot Project

a) Selection of the NGO/Contractor

By preparing a list of NGOs/contractors and locally inviting and explaining tenders, a contract will be negotiated. Required technical transfer to the counterparts will be done to ensure the sustainability and continuity of performance of the commune people.

b) Implementation of the Pilot Project

Pilot project will be implemented by the contractor at the site. All activities/construction will be supervised by The Study Team. Completion of the implementation of pilot project will be confirmed by The Study Team.

(8) Finalization of Methodology for Urban Rehabilitation Plan in Kinshasa

1) Evaluation of the Pilot Project

C-2-1 Evaluation and analysis of the result of the pilot project

The result of the pilot project including the formulation of the management and maintenance system will be evaluated and analyzed.

2) Major Findings and Conclusion by the Experience of Pilot Project

C-2-2 Summarizing lessons learned with implementation of the Pilot Project, and identification of the problems and countermeasures for implementation of the urban rehabilitation plan

3) Finalization of Urban Rehabilitation Plan for the Commune

Urban rehabilitation plan for the Commune will be finalized in consideration of the problems and countermeasures for implementation of the pilot project.

4) Proposition of Methodology for the Urban Rehabilitation Plan in Kinshasa

The methodology and process for the urban rehabilitation plan in Kinshasa will be proposed in consideration of the process for preparing the urban rehabilitation plan for Ndjili Commune as a pilot commune.

(9) Conclusion and Recommendation

Before finalizing The Study, propositions in following aspects are pronounced as the Conclusion and Recommendation.

- Procedure for authorization of the Rehabilitation Plan
- Methodology for utilization of the Plan and clarification of responsible organization
- The way to diffuse the concept of the Plan
- Necessity of review and reconstruction of the Plan, etc.

1.8 REPORTS

In order to build consensus among the relevant parties, following reports are prepared and discussed.

【Inception Report】

The Study Team will conduct the Preliminary and Preparatory study to collect the existing materials and information available in Japan, and arrange, analyze and study them. And consequently, the basic policy, methodology and process of The Study will be compiled in an inception report.

A steering committee will be created for the purpose of sharing and discussing The Study contents with Kinshasa Provincial Government. Discussions will be held with the steering committee with respect to The Study implementation plan described in the Inception Report.

【Interim Report】

Based on The Study in phase 1, urban rehabilitation plan for the target commune is prepared as an Interim report and discussed with the concerned parties of Kinshasa Provincial Government.

【Draft Final Report】

The findings of The Study will be compiled in a draft final report and the draft final report will be explained and discussed with concerned parties of Kinshasa Provincial Government.

To collect the comments from the participants, The Study Team shall hold the seminar in which the related organisations, such as the Government of the DRC and Donors participate for the explanation of the results of The Study.

【Final Report】

In due consideration of the results of the explanation, discussions and subsequent comments of the draft final report, a final report will be prepared and submitted.

1.9 STUDY SCHEDULE

The schedule of The Study is shown in Fig. 1.8.1. The Study consists of two phases. Major components of each phase are as follows;

Phase 1 (March, 2008 ~September, 2008)

Drawing up the draft development plan in N'djili commune and selecting and designing the pilot project.

Phase 2 (October, 2008 ~ March, 2010)

Implementation of pilot projects and finalization of development plan in N'djili

Proposal of methodology for the rehabilitation of Kinshasa Province based on the experience in N'djili

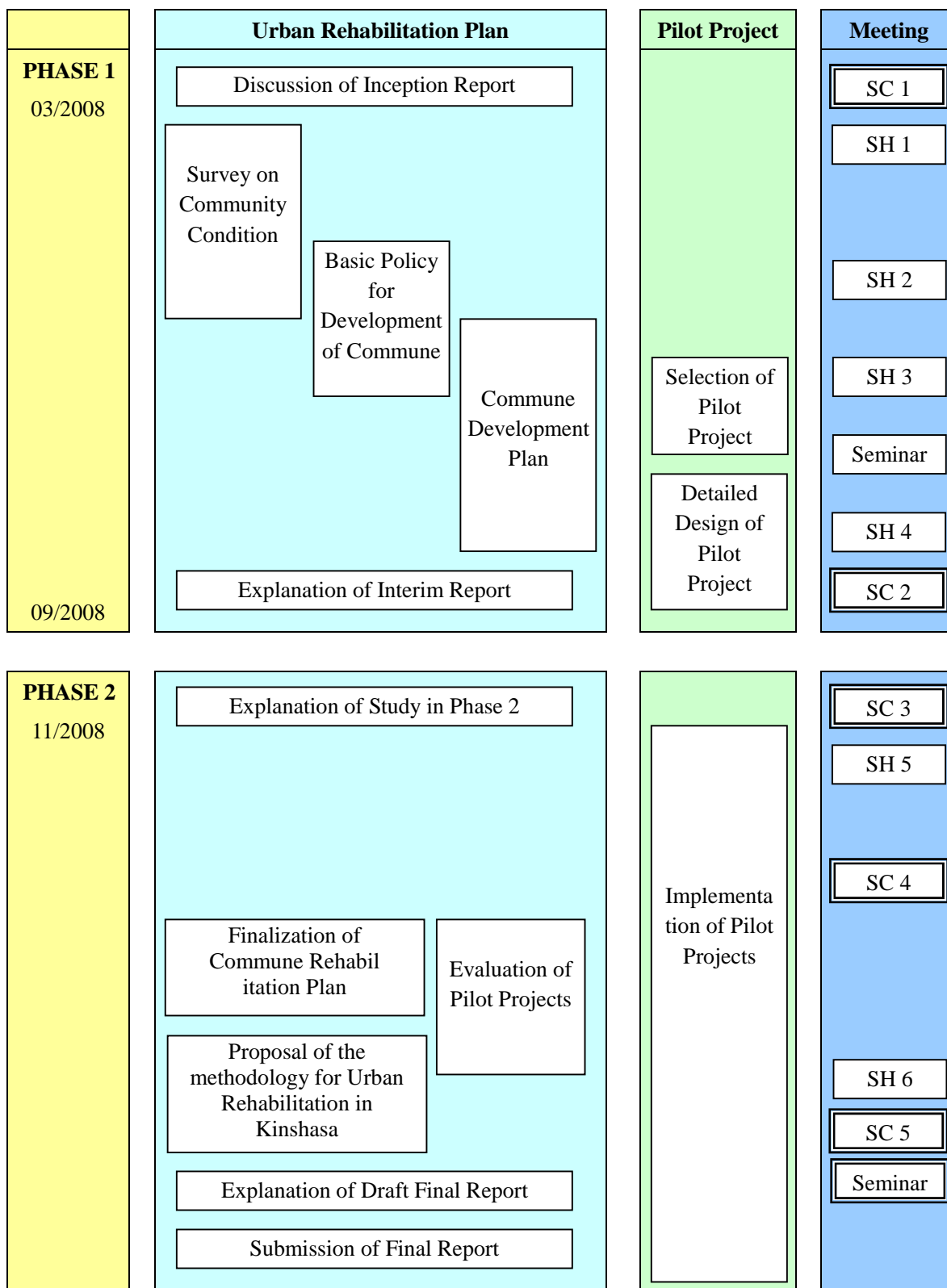


Fig. 1.9.1 Study Schedule

1.10 STUDY ORGANIZATION

1.10.1 Study Organization

The Study is conducted under close cooperation with the Kinshasa Provincial Government and N'djili commune. Kinshasa Provincial Government is represented by the Ministry of Plan, Budget, Public Works and Infrastructures (formerly the Ministry of Reconstruction and Plan), and N'djili commune is represented by commune office. The Study Team is organized by The JICA Study Team, the members of Kinshasa Provincial Government and N'djili commune.

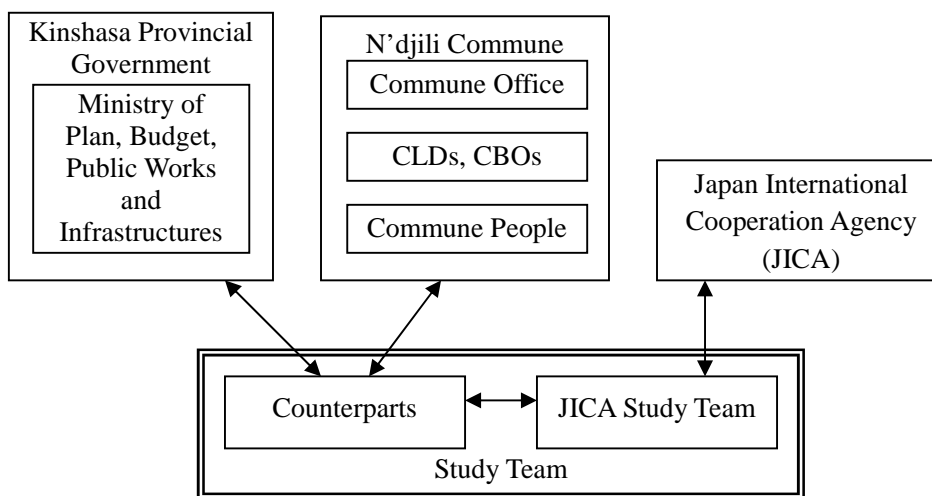


Fig. 1.10.1 Study Organization Chart

1.10.2 Meetings

Two forms of significant meetings are held during The Study period. One is Stake Holder Meeting (SHM) and the other is Steering Committee meetings (SC). The objectives and participants of meetings are shown below;

Table 1.10.1 Schedule of Stakeholder Meetings (SHM)

Type of Meeting	Objectives	Date	Participants
The 1st SHM	-Establishment of scheme of community participation. -Explanation of policy of urban rehabilitation plan -Collecting information from inhabitants regarding current situation in the commune	25 April 2008	Kinshasa provincial government, Njili commune government and representative of 13 quarters, quarter leaders, CLD leaders, NGO leaders
The 2nd SHM	-Explanation of result of social survey -Exchange of opinions with participants	4 June 2008	
The 3rd SHM	-Explanation of selection of pilot project -Exchange of opinions with participants	20 August 2008	
Seminar	-Explanation of result of social survey, existing problems and potential in N'djili Commune, -Exchange of opinions with participants	3 September 2008	
The 4th SHM	-Explanation of infrastructure development plan and urban rehabilitation plan -Exchange of opinions with participants -Explanation of outline of pilot project, predicted impacts, mitigation measures and resettlement action plan -Exchange opinions with participants and project affected persons	17 September 2008	
The 5th SHM	-Explanation of study in phase 2 -Explanation of Pilot projects Civic education Clean up campaign Rehabilitation of Av. Luemba Road rehabilitation by HIMO	12 October 2008	
Seminar	-Explanation of Implementation Plan -Explanation of results of Pilot Project -Sensitization for solidarity	21 January 2010	

Table 1.10.2 Schedule of Steering Committee Meetings (SC)

Type of Meeting	Objectives	Date	Participants
The 1st SC	-Explanation of scope and schedule of the study -Explanation of policy of urban rehabilitation plan -Collecting information from relevant authorities	9 April 2008	Kinshasa provincial government, Njili commune government, relevant ministry of national government and relevant donors
The 2nd SC	-Explanation of infrastructure development plan and urban rehabilitation plan -Exchange of opinions with participants -Explanation of outline of pilot project, predicted impacts, mitigation measures and resettlement action plan	24 September 2008	
The 3rd SC	-Explanation of study in phase 2 -Explanation of Pilot projects Civic education Clean up campaign Rehabilitation of Av. Luemba Road rehabilitation by HIMO	25 October 2008	
The 4th SC	-Explanation of character of the master plan -Explanation of concept and program of action plan in each field -Midterm report of pilot projects	3 June 2009	
Seminar	-Submission of Draft Final Report -Explanation of Implementation Plan -Explanation of results of Pilot Project	20 January 2010	

CHAPTER 2

REVIEWING OF EXISTING DEVELOPMENT POLICIES AND STRATEGIES

CHAPTER 2 : REVIEWING OF EXISTING DEVELOPMENT POLICIES AND STRATEGIES

2.1 DEVELOPMENT PLANS BY THE GOVERNMENT

2.1.1 National Development Plans

(1) Poverty Reduction Strategy Papers (PRSP)

The Congolese Government has set out an ambitious vision for the country's development. This vision is articulated in the PRSP, which was presented on July 2006. It emphasizes the need to break with past practices and to ensure a dramatic improvement of living conditions throughout the country, as a condition for sustained peace and eventual economic recovery. The PRSP builds on the 2001 Interim PRSP and like the Interim PRSP (which was endorsed by all Congolese political forces at the onset of the peace process) it enjoys broad support among all key constituencies.

The PRSP was prepared through a genuine and extensive consultation process. Each district prepared a district-level PRSP through an extensive grassroots consultation process managed by specialized Non Governmental Organizations (NGO). These documents were consolidated into provincial-level PRSPs, and eventually into the national PRSP. Civil society (including faith-based organizations, labour unions, NGOs, women groups, youth associations, and community representatives), the private sector, public institutions (national and local), and political representatives – in total, about 35,000 people – participated in this exercise. This process increased ownership of the reform agenda by a broad part of the population. In a post-conflict environment, this process has provided a framework for refocusing the national dialogue towards a forward-looking agenda. The breadth of the PRSP consultation process made it possible not only to develop ownership of the poverty reduction agenda among all key constituencies, but also to mobilize the country's energy in support of a socially-oriented, forward-looking agenda – which is essential as the country moves away from conflict and years of mismanagement which have left a legacy of acute political and social tensions.

In the face of a formidable set of constraints, the Congolese have articulated priorities around five strategic pillars: (i) promoting good governance and consolidating peace; (ii) consolidating macroeconomic stability and economic growth; (iii) improving access to social services and reducing vulnerability; (iv) combating HIV/AIDS; and (v) promoting community dynamics. These pillars are closely related and interdependent, and progress in one area is conditional to advances in others – e.g., between growth and state reform, between social services delivery,

state reform, and community dynamics. While the articulation of key priorities around these themes provides a useful analytical framework, they need to be understood as complementary parts of a single, holistic strategy.

The PRSP sets an ambitious development policy agenda, to be implemented with public capital and pro-poor spending estimated at US\$3.4 billion for the first three-year period (2006-08). Public investment is projected to increase from US\$236 million (3 percent of GDP) in 2005 to US\$1.3 billion (13 percent of GDP) in 2008. Even if financing of this magnitude is forthcoming, it is not clear that the country has the capacity to absorb such a rapid expansion in public investment. The Government now needs to develop a working plan with specific actions, costing, timing, and definition of the entity in charge at least for the first year, and preferably for the first few years. The plan should be developed by the existing entities for planning and budgeting, so as to integrate the poverty reduction process into the country's national and local systems.

This plan should: (i) take into account the realistic amount of financial and human resources available, which means that the reform agenda included in the PRSP should be prioritized and properly sequenced; (ii) assign priorities even among the actions included in this plan, so that less urgent programmes can be cut or postponed, should the available financing fall short (the Government has already started this prioritizing exercise); (iii) clarify the links among the overall goals, the proposed programmes, the macroeconomic framework, and the progress indicators; (iv) develop a matrix of goals, programmes, progress indicators, and the entity in charge, which the PRSP does not have currently; and (v) include an external debt management strategy in anticipation of potential additional space for borrowing post-HIPC/Multilateral Debt Relief Initiative (MDRI). Preparing the working plan will also help prioritize the needed capacity reinforcement programme.

(2) Millennium Development Goals (MDGs)

DRC is likely to miss most of the Millennium Development Goals by 2015. While detailed statistical information is lacking, available indicators suggest that the conflict has caused "development in reverse" in the social sectors. Life expectancy stands at 43 years; the under-5 mortality is above 205 per thousand. DRC's Human Development Index declined by more than 10 percent in the last ten years – and DRC now ranks 167 out of 177 rated countries. Progress made between independence and the early 1990s has largely vanished.

Table 2.1.1 Targets in 2015 and Current Status of MDGs in DRC

Millennium Development Goal	1990	Target	Status	Remark
Eradicate extreme poverty and hunger	80.0%		71.0%	
Achieve universal primary education	54.4%	100%	64.0%	
Promote gender equality		100%	0.78	primary female
			0.58	Secondary
Reduce child mortality	205	69	205	Per 1,000
Improve maternal health	1,300	975	990	Per 100,000
Combat HIV/AIDS, malaria and other diseases	<4%		3.2%	
Ensure environmental sustainability Forest Area	62.0%		59.0%	
Proportion of people without sustainable access to safe drinking water	36	18	78	Base level in 1980

Source: PRSP

DRC has some of the worst social indicators in the world. All MDG indicators illustrate the catastrophic situation in DRC with regards to key social indicators. Nationally, these poor indicators show little sign of improving. During the conflicts of the past decade most MDG indicators have deteriorated, some, very sharply. Despite expectations that conditions would improve markedly during the Transitional Government, there has been virtually no progress in reversing negative social trends, in part, because of the almost total collapse of state services.

As a result, in the water and sanitation sector, the vast majority of the population still does not have access to clean water and sanitation; in education, between 5-7 million children of primary school age do not attend school and on average, a Congolese person visits a health facility once every 6-7 years. However, in recent years, there have been signs of improvements in utilization rates including immunization rates in areas receiving humanitarian and development support. The challenge facing the Government and the international community is how to scale up these successes so that DRC will reach the majority of MDGs in a reasonable period of time.

The DRC Government is committed to improving social indicators. In demonstrating its commitment to achieve the MDGs and acknowledging the importance of human capital in poverty reduction, the Government has devoted an entire pillar of the PRSP to developing the social sectors. The strategy proposed by the Government focuses, primarily, on improving access to basic services and reducing vulnerability. Poor social indicators are due to low consumption levels of services. The causes of DRC's poor social indicators are numerous and interrelated. Poor health outcomes, for example, are the result of high poverty rates, inadequate nutritional status, low educational levels and conflict. Whilst many factors are important, the main reason why DRC's social indicators are some of the worst in the world is because most people, particularly poor people, consume so few basic services. High child mortality rates are directly related to children not using basic curative and preventive health services. The same is true in education, where the decline in literacy rates is directly related to low attendance and retention rates in schools.

(3) Development Strategies

Following development strategies prioritizing five sectors had been declared by the President, which might govern the regional development plan to be proposed in this study.

- a) Rehabilitation of rural infrastructure including the road network
- b) Health and sanitation
- c) Education, training and human security
- d) Creation of employment opportunity and poverty alleviation
- e) Access to the water and electricity

2.1.2 Provincial Development Plans

Kinshasa Provincial Development Plan for the period 2007-2011 was prepared in May 2007. The strategy for the regional development stipulated in the plan is consistent with the Poverty Reduction Strategy Paper adopted in mid-2006, which is based on the following five pillars: promoting good governance and consolidating peace; consolidating macroeconomic stability and economic growth; improving access to social services and reducing vulnerability; combating HIV/AIDS; and promoting community dynamics. The Development Objective is to help DRC actions to be taken for the urgent post-elections challenges by: (i) providing resources to maintain macro-economic stability and to fund critical expenditures in the immediate future; and (ii) addressing urgent rehabilitation and social needs in Kinshasa, which is key to political and social stability. It is expected to help the creation of an environment in which reforms can be sustained and to prevent political and economic regression, which may otherwise result in social instability, civil unrest and possibly reversion to the conflict.

(1) Objective

The town of Kinshasa has defined its global objective and subsequent sectarian consequences. After having conducted the diagnosis, the urban government has come to notice that the socio-economic situation is in a tremendous deterioration. The situation was engendered by factors both internal and external, from a long time ago (colonial era) and recently, summarized by a representative indicator of the situation of individual welfare, namely, the real daily income per capita. This average income is 0.72 \$ US against a minimum of 1\$US. In other words, with very weak daily income, the majority of people in Kinshasa can not have access to main commodities including health, education, food, transport, housing, etc. In order to overcome the above constraints, the fight against poverty and considerable poverty reduction by undertaking appropriate strategies and actions is essential. That is only the way that would contribute to increase in income. Considering the above, the global objective and its sectarian consequences of the program should be both qualitative and quantitative. Regarding its quality, the global objective is to rehabilitate the long time living conditions of the inhabitants in Kinshasa,

especially by modifying the 5 pillars of the state objectives into more concrete actions which for the provincial government constitute the 7 following principles:

- 1)Sanitation**
- 2)Access to portable water**
- 3)Support to educational sector**
- 4)Support to health sector**
- 5)Civil protection, citizenship and integration**
- 6)Rehabilitation and construction of local infrastructures as well as adequate lodgings;**
- 7)Good governance**

These priorities follow such various actions to be taken:

- Action of the provincial government should be devoted to priorities of the state and the central government;
- Appropriateness to the real and urgent identified needs
- Take into account human resources, equipment and funds available for this purpose.

Regarding the quantity, the objectives mentioned above are defined and positioned at the level of 4.7% of Gross Domestic Product for the global objective, and 3 to 12% for sectarian objectives. In fact, the general objective can be summarized in the way that the respective organization concerned should search for the financial resources. Also, this task is characterized by various productions achieved in different economic sectors. The Value added or the production is summed in Gross Domestic Product. The higher the Goss Domestic Product with the reserve of a subsequent evolvment of demographic growth rate, the richer the inhabitants of the community become. Particularly for Kinshasa, with such program based on the strong political intention and ambitious undertaking, the main objective can only be achieved provided that it is characterized by the positive evolvment of Gross Domestic Product that can generate the real income per capita.

(2) Strategy

To achieve the global and sectarian objectives as stated above, appropriate strategies will be prerequisite. For the current program, a series of general strategies subject to the options, have been prepared among the following 8 principles:

- 1) Collection of needs of the people, which was achieved at commune meetings carried out by the Governor of Kinshasa. The program is what the inhabitants of Kinshasa desire.
- 2) Management of the economic and social situation so as to establish a network of collection and exploitation for the statistic data
- 3) Funding of sectarian actions to effectively contribute to the planned evolvement for global objective. This funding will derive from resources of the town, but also through internal and external partnership.
- 4) Partnership with private sector for the implementation of global context to ensure the attractive environment for promoting investment.
- 5) Appropriate approach to 5 state pillars and to the subsequent Provincial Government program.
- 6) Transparency and entirely regulated mechanism designed for realization of good governance and accountability to Kinshasa inhabitants through its representation of the Provincial Assembly.
- 7) Technical and human resources capacity building and rehabilitation of work conditions.
- 8) Tackle and implementation of various reforms for investment promotion that can generate favourable income.

2.1.3 Communal Development Plans

N'djili Communal Development Plan for the period 2007-2011 was prepared in November 2006. Its primary strategic objective is to stabilize highly volatile communities by harnessing local dynamism. In N'djili Commune where the potential for renewed conflict is high, community-based programmes which reinforce existing solidarity networks will be supported as the quickest way to improve conditions and promote reconciliation. Initiatives aimed at creating jobs, supporting local government, reducing violence, re-constructing market and feeder roads and reducing communal tensions will be implemented through partnerships with local and non-governmental organizations. To reduce administrative costs, partners already providing emergency and humanitarian assistance will be used.

(1) Overall Approach

Various approaches will be selected to stabilize highly volatile communities, to contribute to human security and to increase the effectiveness of poverty-reduction programmes by involving and building the capacity of community groups. Although early attention needs to be given to stabilizing high-risk areas through community-based programmes, local participation is also important for improving human security and ensuring equitable poverty reduction in the medium-term. Stabilizing volatile communities will be one of the highest priorities in the post-election period. Outbreaks of localized conflict could easily ignite widespread violence and jeopardize efforts by the new Government to build an inclusive political, social and economic culture.

In the absence of state services and effective public administration, communities themselves

will need to play a leading role in their own stabilization and recovery, particularly in the early stages, when large-scale national development programmes are not yet in place. In the medium-term, as conditions improve and state authority is extended, communities will continue to play a decisive role in poverty-reduction programmes, participating in their planning, monitoring and implementation. Their involvement will promote decentralized decision-making in the delivery of public goods and can be used to develop national policies and legal and institutional frameworks for local governance. Community involvement will be crucial for ensuring that poverty-reduction programmes take into account differences at the local level related to age, ethnicity, civil status and above all, gender.

Community organizations have long been providing local services in the absence of state-run public services and are able to contribute effectively to stabilization and poverty-reduction in the years ahead. Whether implemented their own initiatives or contributing to national programmes, community-based organizations are vehicles for ensuring local participation in development programmes. Various studies have shown that community organizations are particularly effective in areas with high levels of instability and vulnerability. In addition to identifying and addressing needs, these organizations, which empower local populations, can have a positive spill over effect on national political life by fostering trust and promoting practices of good governance at the community level.

(2) Action Program

The first step to identify outstanding problems and solutions started from the actualization of collected data during the implementation of the studies, focusing on the development endogen and participative of N'djili in September 2002. Then, about 30 leaders of departments and services of the commune and quarter leaders completed the long lists identifying the particular problems prevailing over the commune in October and November. The consulting team later has identified possible projects proposed. In conclusion, the following priority projects were selected by the Burgomaster's office in due course.

Table 2.1.2 List of Projects for Action Program

Sectors	Problems	Solutions	Projects	Costs (US\$)
I. Economy, commerce, currency	<ul style="list-style-type: none"> - Lack of funds for business operation - Informal economy - Harassment - Limited training - Currency - Unstableness - Limited land use 	<ul style="list-style-type: none"> - Increase funding of small and medium entrepreneurs - Formalize Economy -Organize training and management - Create a commercial centre 	1. Micro credit with priority for women	30,000
			<ul style="list-style-type: none"> 2. Training of managers 3. Shopping centre, market, square 	10,000
II Urbanism and housing	<ul style="list-style-type: none"> - High population density - Illegal occupation of 	<ul style="list-style-type: none"> - Construction of social houses, - Relocation of 	<ul style="list-style-type: none"> 4. Social housing 5. Rehabilitation party halls 	15,000

CHAPTER 2 REVIEWING OF EXISTING DEVELOPMENT POLICIES AND STRATEGIES

	<ul style="list-style-type: none"> channels, markets, public leisure spaces, warehouse and markets, halls for parties - Lack of quarters offices 	<ul style="list-style-type: none"> occupants - Clean Sewage - Free Halls for parties - Build offices for quarters 	6.Construction of quarters offices and public services	15,000
III Transport and communication	<ul style="list-style-type: none"> -Isolation, Obstacles for transport - Lack of public and private transport company - Road police harassment 	<ul style="list-style-type: none"> - Bridge on river N'djili at CECOMAF area - Opening of the new Boulevard-Elf Mangobo - Create a public private transport company - Decentralize the organization of transport at the level of commune - Road rehabilitation 	7. Creation of communal transport company in partnership with the private	50,000
IV. Health and hygiene	<ul style="list-style-type: none"> - Lack of sanitation - Insufficient public and private latrines - Inadequate diseases control - Insufficient medical education - Lack of sanitation service - Inexistence of public dumping site - Lack of ambulance 	<ul style="list-style-type: none"> - Mobilization of quarters - Education on public and private latrines - Health education - Disinfection campaign - Mobilisation on public dustbin - Commune ambulance 	8.Sanitary education and fight against Aids 9. Construction of public latrines 10.Rehabilitation of drainage 11.Dumping site of garbage 12.Ambulance	2,600 5,000 5,000 10,000
V. Water and energy	<ul style="list-style-type: none"> - Insufficient water supply - Inadequate water for consumption - Forfeit billing - Scheduled power cut - No public lights 	<ul style="list-style-type: none"> - Rehabilitation of pipes & networks - Mobilization for water boiling 	13.Public water wells 14.Awareness of water boiling 15.Public water tap 16. Public lights	2,600
VI Agricultures	<ul style="list-style-type: none"> - Difficulties to access irrigated area - Lack and high cost of agricultural and veterinary ingredients fertilizers - Irrigation system destroyed - Presence of agricultural brokers 	<ul style="list-style-type: none"> - Rehabilitation of roads - Organize and train farmers - Reconstruct irrigation - Create a commercial, agricultural and veterinary centre 	17.Rehabilitation of agricultural roads of quarters CECOMAF (N'djili-Sanda) 18. Organization of farmers 19. Repair of dikes + irrigation system 20.Production centre of animal food stuff & fish cultivation	
VII. Environment	<ul style="list-style-type: none"> - Generalized public and private insalubrities - Daily and night noise - Air pollution, - Water pollution, regular floods, cutting trees, suppression of green spaces 	<ul style="list-style-type: none"> - Educate public hygiene - Mobilization to human rights, educate environment - Construction of ditches - Rehabilitate public 	21.Education on public hygiene in quarters 22.Education on environment 23 Flood prevention Q2,5,8,9,12 24.Rehabilitation of public parks	2,600 5,000

CHAPTER 2 REVIEWING OF EXISTING DEVELOPMENT POLICIES AND STRATEGIES

	<ul style="list-style-type: none"> - Lack of public parks - Erosion 	<ul style="list-style-type: none"> parks and cutting trees - Fight against erosion 	25 Anti-erosive fight	
VIII Youth and sports	<ul style="list-style-type: none"> - Unemployment - Delinquency and prostitution of young - Occupation of lands for plays and leisure - Insufficient spaces for sports and equipment 	<ul style="list-style-type: none"> - Financial aid by associations and churches - Communal counsel of young - Construct a complex place for various sport activities 	26 Revitalization of vocational training centres 27 Commune counsel for youth 28 Build a complex place for various sport activities (Site: Ste Therese)	5,000 (DRC Government)
IX Education	<ul style="list-style-type: none"> - Deterioration of facilities - Low enrolment of girls - Lack of commitment by the state - Financial load by parents - Lack of universities and colleges 	<ul style="list-style-type: none"> - Public school rehabilitation and power supply - Priority to girls - Creation of colleges and universities 	29. School rehabilitation (Kamina, Q1; Sumbi, Q3; Likasi, Q6; Yanda, Q13. 30.Enrollment of vulnerable girls 31 School facilities supply	30,000 10,000 5,000
X. Culture and arts	<ul style="list-style-type: none"> - Lack of public library - Lack of halls or entertainment - Lack of qualified human resources 	<ul style="list-style-type: none"> - Create a public communal library - Rehabilitate for entertainment - Recruitment of qualified personnel 	32. Creation of public commune library 33.Rehabilitation of infrastructures for entertainment 34 Hiring trained guides for cultural activities	10,000
XI Population and civil status	<ul style="list-style-type: none"> Lack of documentation tool Demography is not available Lack of reliable census Lack of efficient control of population movement Death and birth not claimed 	<ul style="list-style-type: none"> Equip with computers Training and procurement Regular census Decentralization of services I quarters 	35.Compturization of administration 36.Data bank of inhabitants	10,000 2,000
XII Administration	<ul style="list-style-type: none"> - Harassment - Lack of collaboration with Commune & Quarters - Interference - Hierarchy - Low wages - Lack of hardware for administration - Limited administration - Lack of communication tool 	<ul style="list-style-type: none"> - Moral education - Suggest laws - Efficiently decentralize - Pay sufficient salaries & fees - Communication equipment 	37.Education about human rights 38. Decentralization and cooperative service for development 39.Communication equipment	2,600

Source: N'djili Communal Development Plan

Note) 39 projects were identified and the costs have been estimated for the total costs: 227,400\$US.

2.2 RELEVANT POLICIES FOR COMMUNITY DEVELOPMENT

Relevant Plans/Policies by the National Government and Provincial Government for the commune development are shown as follows;

2.2.1 Urban Infrastructure (Roads)

Existing PRSP-KINSHASA and PROVINCIAL GOVERNMENT PROGRAMME proposed actions for road rehabilitation works and public transport programs.

Name of Plan	Item	Description
PRSP KINSHASA PROVINCE	Objective	Facilitate passenger and goods traffic through Kinshasa Capital City
	Strategies	<ul style="list-style-type: none"> • Rehabilitation of roads and decayed drainage works, • Construction of concrete or bitumen intercommoned roads, • Rehabilitation and construction of inter-quarter or intercommoned crossing over roads
	Priority Actions	<ol style="list-style-type: none"> 1) Rehabilitate or restore the following roads - <i>The details are omitted</i> 2) Execute related works - <i>The details are omitted</i> 3) Rehabilitation: unpaved intercommoned roads have been stabilized - <i>The details are omitted</i> 4) Constructing bitumen roads Avenue Bibwa/2nd Entrance N'djili (segment between Lumumba Bulverde. – Mangobo Market place) - <i>The rest are omitted</i> 5) Rehabilitate crossing over works - <i>The details are omitted</i> 6) Construct crossing over works - <i>The details are omitted</i>
PROVINCIAL GOVERNMENT PROGRAMME : 2007 – 2011	Actions	Kinshasa Capital City has got a total number of cars/trucks of more or less 160,000 vehicles half of which are more than 20 years old concentrated on 2,800 km of more or less practical roads thus creating traffic jams. Everyday, about 160,000 vehicles provide transportation for about 2,000,000 Kinshasa people commuting from dormitory-communes to the Gombe Administrative and Business Center. So, 2,000,000 people imply the average need for 2,000 autobuses.

2.2.2 Health & Sanitation

Existing DRC-PRSP, PRSP-KINSHASA and PROVINCIAL GOVERNMENT PROGRAMME emphasised importance of “Health Zones” development and clean-up activities/education for environmental improvement.

DRC – PRSP	Objective	rehabilitating and implementing new local/close health structures (hospitals, health centres, pharmacies, etc.), development of human resources through basic training and in-job advanced courses, improving working conditions of the health staff, supplying basic pharmaceutical products and equipment for hospitals, health centres and university clinics.
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	Activity	<p>Health Zone Development</p> <p>The development of Health Zones is the main line of the strategy to reinforce the Health System. It aims at improving the functionality level of hospitals and health centres in order to provide quality health cares to the population.</p> <p>(ii) promoting human resources development, (iii) rationalizing the functioning of health structures, (iv) improving health coverage of the Health Zone and the quality of medical cares, (v) promoting community partnership in the implementation of health policy,</p>
PROVINCIAL GOVERNMENT PROGRAMME : 2007 – 2011	Actions	<ul style="list-style-type: none"> • Designing waste water evacuation Plan as well as sanitary where they are not available, • Develop and renew tree property by setting up ‘ Kinshasa Landscape Plan ‘ and ‘Kinshasa Green Space Scheme’ • Create green spaces for children 5parks, botanic areas) • Create 3 public discharges/dumping sites controlled and a dozen of intermediary and transit dumping sites, • Organize collection of household refuse by private assisted people, • Create waste selection and treatment /management centres, • Reactivate and reinforce Communal Improvement/ Cleaning up Brigades
PRSP – KINSHASA PROVINCE	Objective	<ul style="list-style-type: none"> • Restore Kinshasa yesteryear/old years beauty • Put an end to erosions through the city.
	Strategies	<ul style="list-style-type: none"> • Implementation of manual works • Evacuation of rubbish and other waste • Cleaning out hydrographical basins • Establishing Urban and Municipal Salubrity Brigades • Fighting vectors • Organizing Sanitary and Education Campaign • Removing sand from the streets <p>Stabilizing erosion points.</p>
	Priority Actions	<ol style="list-style-type: none"> 1) Clean and remove weeds from the streets and public areas in the city - <i>The details are omitted</i> 2) Evacuate rubbish and other waste - <i>The details are omitted</i> 3) Clean the hydrographical basins - <i>The details are omitted</i> 4) Construct public latrines: 600,000, works to take 3 years 5) Set up Urban and Municipal Salubrity Brigades: 3,000,000. All this shall be done within one year. 6) Fight disease vectors - <i>The details are omitted</i> 7) Organize sanitary and metrological Education Campaigns: 201,150 8) Undertake sand-clearing of Matete, evacuating sand from Kinsenso: 200,000 9) Stabilizing erosions - <i>The details are omitted</i>

2.2.3 Education & Citizenship

Existing DRC-PRSP and PROVINCIAL GOVERNMENT PROGRAMME indicated educational targets, such as classroom capacity, to be attained.

DRC – PRSP	Universal Primary Education	
	Objective	Increasing school attendance from 64.1% in 2006 to 80% in 2008, and 100% from now to 2015.
	Actions	(i) adjustment and systematization of the classroom capacity to 40 pupils, (ii) systematization of the double supply work or session for urban and semi-urban areas, (iii) annual rehabilitation of 10% of classrooms and equipping them with school furniture, (iv) continued awareness-raising campaign and information of parents and communities on positive impact of Education for all children in co-operation with development partners.
	Secondary Education	
	Objective	Extending the secondary trunk in order to enable more students finishing eight years of school training to reduce access to the second cycle and improve the quality of education. School attendance gross rate (mainly for schoolgirls) should be increased from 23% to 33% for the period stretching from now to 2015
	Actions	(i) adjustment and systematization of the classroom capacity to 40 pupils, (ii) systematization of the double supply work or session for urban and semi-urban areas, (iii) annual rehabilitation of 10% of classrooms and equipping them with school furniture, (iv) continued awareness-raising campaign and information of parents and communities on positive impact of Education for all children in co-operation with development partners.
	Non-Formal Education	
	Objective	to develop national literacy policy/strategy aimed at reducing considerably the difference between women and men illiteracy rate by 2015. considerably reducing by 2015, the rate of children (especially girls aged from 8 to 14) that are out of the formal school system.
	Actions	Vocational and learning and training should be organized for non-school attending young people in order to reintegrate them in the production circuit.
	PROVINCIAL GOVERNMENT PROGRAMME : 2007 – 2011	Actions

2.2.4 Water and Energy

Existing DRC-PRSP emphasise necessity of facility rehabilitation works.

DRC – PRSP	Objective	Mobilizing its huge water resources; ensure their suitability for drinking, and to distribute them to the population. The reconstruction of the water sector and sanitation is one of the first priorities of the Growth and Poverty Reduction Strategy.
	Actions	In the first instance, there will be rehabilitation of existing infrastructures, thus facilitating access to a greater number, building capacities of water production units, improving water-points management by promoting community and private sector participation, reinforcing existing sanitation programmes and extending them to national level. (i) reforms to be undertaken in water and sanitation sector, (ii) to water needs identification or inventory for urban and rural populations,

2.3 DEVELOPMENT ASSISTANCE BY DONORS

In the fiscal year of 2003-2004, DRC received sum of US\$ 3,183 million Development Assistance by donors, defined as International Organization or Industrialized Countries. That amount was second largest Development Assistance: second only to Iraq. Regarding DRC, USA was the leading provider among those donors, followed respectively by European countries in descending order, namely; France, Italy and UK. Particularly, as a background to the process of peace keeping and post conflict economic recovery in DRC, Development Assistance for DRC focuses on urgent rehabilitation program for Kinshasa and eastern provinces.

2.3.1 Assistance Frameworks and Policies

In order to assist more efficiency support and upgrade synergy effects, the donors set up its development policies and strategies under their assistance frameworks and action plans. Those frameworks and action plans are as follows:

(1) Country Assistance Framework (CAF)

Country Assistance Framework (CAF) was compiled for a common agenda among donors to support CRD, based on the Poverty Reduction Strategic Paper as “Document de la Strategie de corrossiance et de Reduction de la Pauvrete” (DRSP) officially submitted by CRD to World Bank in June 2006. CAF targeted that main support sectors are 1) Good Governance, 2) Economic Development, 3) Basic Social Service (Health, Education, Water, Hygiene, Social Affairs, etc), 4) HIV/AIDS, and 5) Community Development, under the Assistant Guidance of DSRP.

Four years project cost of CAF (including pledge stage), 2006 to 2010, is as follows (Million US\$).

- Good Governance, 370

- Government Budget Support, 300
- Economic Development, 320
- Electricity, 320
- Transportation Infrastructure, 355
- Basic Social Service, (Health 450, Education 300, Water & Hygiene 200, Social Affairs 3, etc),
- HIV/AIDS, 335
- Community Development, 320

(2) Humanitarian Action Plan (HAP)

Instead, CAF is a common framework principally focused on development assistance for poverty reduction approach among donors. Humanitarian Action Plan (HAP) is clarified as a somehow urgent policy or strategy for post conflicts, natural disaster preventions, and infectious diseases. Particularly, it focuses on the support of peace keeping operation and refugee protection works at the eastern provisions.

2.3.2 Development Assistance in Kinshasa City

International Organizations, such as WB, UNICEF, UNDP, UNHCR, UNEPA, UNESCO, support assistance of Health, Hygiene, Education and Community Development sectors in Kinshasa City. Bilateral Development Assistance disbursed those sectors as well through the collaboration with Belgium (CTB), UK (DFID), USA (USAID), and Germany (GTZ).

(1) World Bank (WB)

Based on CAF, World Bank (WB) supports urgent rehabilitation programs including governance support with cooperation of African Development Bank (AfDB) and Europe Union (EU).

(2) UNICEF

UNICEF has started Education, Water Supply and Hygiene projects since April 2007, through the Community Development Grants by Japanese Government. The Projects consist of 104 school rehabilitation programs including 44 primarily schools. Concerning Water Supply and Hygiene sectors, UNICEF support a Hygiene education model at the project schools known as “Healthy school”. The “Healthy school” would be designed as “Healthy Village” at the project sites with collaboration of rehabilitation programs for water resource facilities, and latrines of Healthy Centre in communities.

(3) Belgium (Cooperation Technique Belge; CTB)

Cooperation Technique Belge (CTB), an international technical cooperation agency of Belgium,

implemented “Support Programme for Community Development Initiative (PAIDECO)” at 5 provinces including Kinshasa city. Community development assistance by CTB has existed since 2000. Basically, PAIDECO focus on capacity development of local government/resource by the approach of community development. The purpose of PAIDECO is building up “Good Governance” through advocate activities of decentralization. In Kinshasa, PAIDECO targeted at Kinsenso and Kimbanseke communes.

PAIDECO consists of 2 pattern investments. One is short term investment for infrastructure efficiency, and latter is medium-long term investment to activate local economy with capacity development of community associations. Based on resident’s requests/plans, PAIDECO supports mainly primarily school, dispensary construction, erosion protection, and rehabilitation of road, bridge projects.

Furthermore, the CTB-placed provincial level Development Committee consisted of members of Central Government, Provincial Government, and CTB. In addition, CTB set up the commune level Development Committee as Commission Communal Development (CCD), promoting not only government officials but also citizens. Basically, development need analysis and prioritization of the sectors was compiled by community involvement/bottom-up approach. At the quarter level, the CTB-placed Commission Local Development (CLD) consisted of regional representatives among women groups, church representatives, e.t.c. to ensure bottom-up approach. Based on own criteria and proposals from communes, CTB finally selected PAIDECO projects. Per quarter level project cost is 50,000 Euros while commune level is 100,000 Euros.

Other projects coordinated by CTB are as follows:

- Urban Social Fund- Kinshasa.
- Food aid for vulnerable population in Kinshasa.

(4) UK (The Department for International Development; DFID)

The Department for International Development (DFID) has various support activities for DRC. The supported sectors include Humanity Support, Peace Keeping Operation, Education, Health/Hygiene, Legal Framework Institution, Agriculture/Food, and Environment.

To compile various data of Kinshasa residents, DFID will start City Profile Survey to analyze characteristics of dwellers in the city for utilization of community planning.

(5) USA (United State Agency for International Development; USAID)

Principally, the Development Assistance from United States Agency for International Development (USAID) is geared towards Peace Keeping Operations. Through the activities of United Nations known as PKO, USAID donates an amount of about 200 million US\$/year. For community development, USAID mainly supports/encourages education sector by emphasising

primary education for citizens.

(6) Germany (Deutsche Gesellschaft für Technische Zusammenarbeit; GTZ)

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) officially opened a DRC Office in 1985. Since its establishment, GTZ has continued to keeping its effort to assist cooperation including the period of civil conflict. At present, the on-going projects of GTZ are 1) enhancement of democratic sector with civil societies, 2) health, hygiene, and HIV/AIDS prevention, 3) environment conservation with proper management of natural resources, 4) water supply, sewerage and sanitation. GTZ weights high priority on the community development by encouragement of resident initiatives.

2.3.3 Development Assistance in the N'djili Commune

In the N'djili Commune, Development Assistances are supported by CTB and China and UN-HABITAT.

(1) Development Assistances by CTB

Previously, CTB assisted institutional setup of CLD and CCD for N'djili. The staff of each organization is 30 members respectively. N'djili, however, is not a designated project site of PAIDECO, N'djili could not receive any more assistance from CTB. Therefore, residents have expectations for more active captioned associations. In 2007, N'djili prepared N'djili commune development plan as "Plan Communal de Development de N'djili", by making the most of CLD and CCD without any intervention of CTB or other donors.

In N'djili commune, CTB implemented road rehabilitation projects on Cecomaf road. The Cecomaf road is a 2.2km long pavement (asphalt) road with drainage works from Airport Road southwards alongside the N'djili River.

(2) Development Assistance by China

China constructed The China-DRC Friendship Hospital in 2007. The hospital, which is equipped with advanced standard facilities, is designated as Tsgangu district's reference hospital.

(3) Development Assistance by UN-HABITAT

UN-HABITAT (The United Nations Human Settlements Programme) is implementing capacity development project in N'djili commune and Masina commune for commune officers, CLD leaders and NGOs from November, 2008. Implementation period is two years. Content of capacity building consists of the following modules;

Module 1: Local leadership

Module 2: Local economic governance

Module 3: Participation for communal development

Local economic governance, module 2, aims at establishment of economically independent commune administration by capacity development for securing commune budget and appropriate execution of budget towards forthcoming decentralization.

CHAPTER 3

GENERAL CONDITION OF KINSHASA PROVINCE

CHAPTER 3 : GENERAL CONDITION OF KINSHASA PROVINCE

3.1 NATIONAL CONDITION

3.1.1 Location

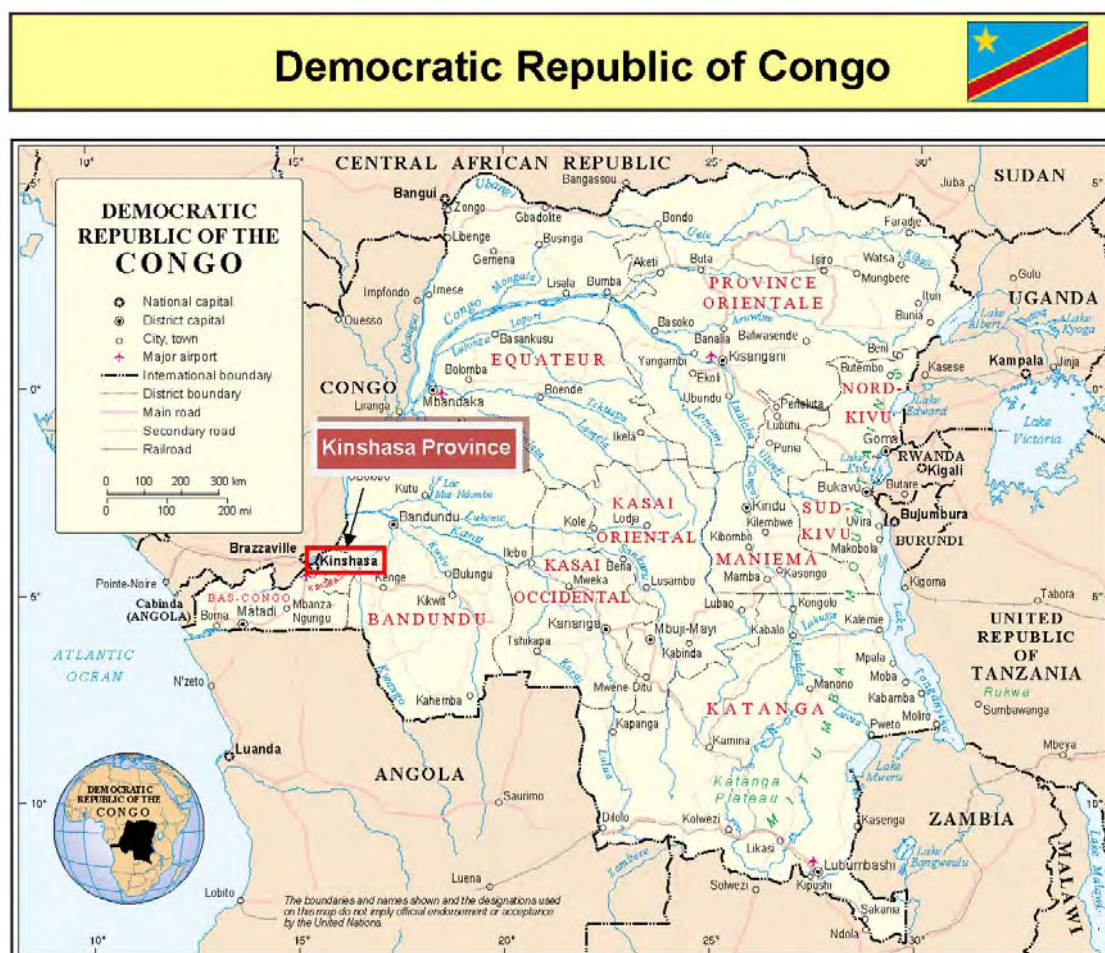


Fig. 3.1.1 Location Map

Kinshasa is the capital of the Democratic Republic of Congo, and it is the central city for political and economic matters, located at $15^{\circ} 21'17''$ South, $4^{\circ} 23'26''$ East. The population of the Democratic Republic of Congo is approximately 60 million. Within this population, there are about 320,000 people in the Ndjili commune with the population of Kinshasa about 6,300,000 people.

Kinshasa is located in an alluvial plain of about 700 km upstream from the Atlantic Ocean of the Congo River, with an altitude in the range of - 550 m to 300 m above sea level. The Congo basin system is the main source of the drinking water supply. The water level of the Congo River tends to increase during the rainy season, which begins around November.

3.1.2 Climate

The climate of the Democratic Republic of Congo consists of two seasons; the rainy season and the dry season. The rainy season lasts from November through April, and May through October. METELSAT, L'agence nationale de météorologie et télédétection par satellite, is in charge of the weather survey. The temperature and rainfall data of Kinshasa are as follows in Table 3.1.1 and Table 3.1.2. The annual average precipitation for the past ten years in Kinshasa is 1,600 mm.

Table 3.1.1 Temperatures Maximum Averages

Year	J	F	M	A	M	J	J	A	S	O	N	D	Average
1997	29.0	29.5	30.3	30.8	29.5	26.8	26.6	28.7	30.9	30.7	30.1	29.7	29.4
1998	29.8	31.5	31.7	32.2	31.4	29.0	28.1	28.7	29.8	30.6	30.9	30.0	30.3
1999	29.6	31.0	31.6	31.7	29.1	28.0	27.2	27.5	29.3	29.6	29.9	29.7	29.5
2000	30.2	30.0	31.6	31.5	30.7	27.2	27.1	27.0	29.0	29.3	30.1	29.4	29.4
2001	29.9	30.2	31.4	31.3	30.3	27.6	26.6	27.5	30.1	30.4	30.8	30.0	29.7
2002	30.1	30.4	31.6	31.6	31.0	28.0	26.7	28.0	30.2	29.4	30.1	29.8	29.7
2003	29.2	31.0	31.3	31.4	30.5	28.7	28.3	29.1	29.8	30.4	29.8	29.7	29.9
2004	30.4	31.0	31.4	31.2	30.5	27.5	27.3	28.6	30.8	31.1	29.7	29.7	29.9
2005	30.4	31.4	31.8	31.9	29.8	26.9	27.5	29.2	30.8	30.3	30.3	29.5	30.0
2006	30.4	31.0	31.8	31.5	30.0	30.1	28.1	28.5	29.6	30.3	29.6	29.0	30.0
2007	30.3	31.0	32.0	31.7	30.8	28.0	27.3	27.3	29.6	29.8	29.5	29.4	29.7

Source; METELSAT

Table 3.1.2 Temperatures Minimum Averages

Year	J	F	M	A	M	J	J	A	S	O	N	D	Average
1997	21.1	20.8	20.9	21.0	20.7	19.0	17.6	18.7	20.4	21.2	21.1	21.2	20.3
1998	21.5	22.3	21.9	22.2	21.7	20.3	18.9	19.3	20.4	21.1	21.1	20.9	21.0
1999	20.9	20.7	20.9	21.0	20.4	19.5	18.4	18.7	19.6	20.1	20.4	20.4	20.1
2000	20.4	20.1	21.1	20.6	20.7	19.0	17.4	17.6	19.3	20.0	20.6	21.0	19.8
2001	20.9	21.3	21.2	21.3	21.0	19.7	17.9	17.7	19.4	21.3	22.2	22.2	20.5
2002	21.8	21.8	22.2	22.0	21.7	19.6	18.9	19.4	20.3	20.9	21.0	20.9	20.9
2003	21.4	21.3	21.2	21.5	21.3	19.1	18.4	18.7	19.4	20.6	20.1	20.2	20.3
2004	21.8	22.1	22.4	22.0	20.1	19.5	18.8	19.3	20.8	21.3	21.4	21.5	20.9
2005	21.8	22.3	22.0	21.9	21.0	18.7	18.4	18.6	20.0	20.6	20.6	21.5	20.6
2006	21.8	22.4	22.2	22.0	21.2	21.2	19.4	19.0	20.5	21.4	21.3	21.5	21.2
2007	21.9	21.5	21.2	21.6	21.6	18.9	18.3	19.1	20.2	20.4	20.5	20.8	20.5

Source; METELSAT

Table 3.1.3 Total Quantity of Rain in Millimetres

Year	J	F	M	A	M	J	J	A	S	O	N	D	Average
1997	220.8	88.3	243.5	220.3	108.1	0.0	0.0	2.8	4.3	275.4	273.1	252.8	1,689.4
1998	330.4	168.8	388.1	435.9	75.8	19.8	0.0	0.0	61.7	129.9	206.0	203.9	2,020.3
1999	182.8	126.3	229.0	133.1	146.0	21.6	1.4	1.1	54.2	98.9	325.6	282.4	1,602.4
2000	234.8	298.8	61.9	222.4	94.7	0.0	0.0	0.0	81.2	137.4	271.4	22.5	1,425.1
2001	103.1	130.8	332.4	156.6	543.3	2.6	1.1	0.0	28.8	73.2	162.4	112.4	1,646.7
2002	209.0	257.8	74.3	225.1	215.4	44.4	4.7	0.8	73.4	117.4	311.8	298.1	1,832.2
2003	318.5	201.8	112.7	188.7	21.8	3.0	1.0	0.0	33.6	129.0	202.2	108.9	1,321.2
2004	172.2	205.8	242.4	152.0	1.4	0.4	0.1	8.4	10.2	143.3	145.1	188.7	1,270.0
2005	92.4	57.2	144.4	171.4	86.0	2.7	0.0	0.0	25.4	126.9	257.8	248.2	1,212.4
2006	110.5	137.1	239.2	260.8	107.1	3.2	0.0	10.6	19.1	353.2	334.2	283.8	1,858.8
2007	159.9	125.3	245.0	271.7	102.2	0.0	0.0	56.4	29.2	371.7	220.9	205.8	1,788.1
Average	194.0	163.5	210.3	221.6	136.5	8.9	0.8	7.3	38.3	177.8	246.4	200.7	1,606.1

Source; METELSAT

3.1.3 Geology

The surface stratum of Kinshasa is comprised of sand and silt clay by river sediment. A sandstone layer exists 6 m-10 m underneath of the earth's surface.

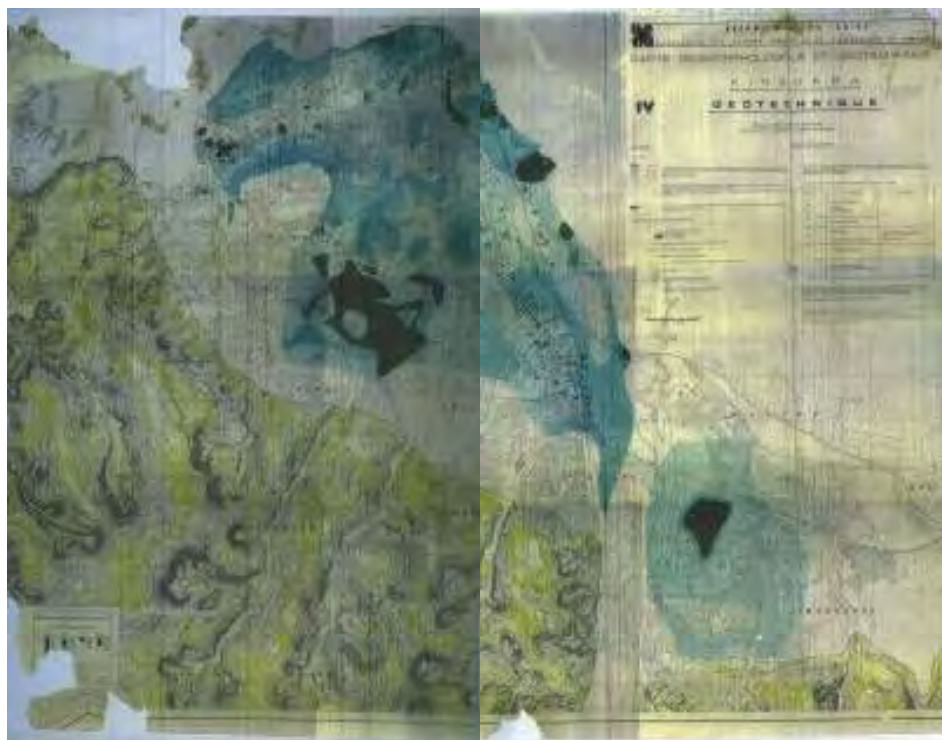


Fig. 3.1.2 Geological Map

Source; Office de Routes

3.2 ADMINISTRATIVE SYSTEM

At present, DRC has 11 provinces within its own territory, including the Kinshasa Province, which is the sole province withholding a special status in the DRC. The city's capital Kinshasa consists of four districts: Lukunga, Funa, Tshangu and Mont-Amba. These districts are only geographical areas, free of political and administrative functions, as there are no District Commissioners. Consequently, communes report directly to Kinshasa's Provincial Level, whereas in the other provinces, reports are sent by territories through their respective districts, and then from the latter to the Provincial level.

There are urban Divisions for the various Ministries. These have so far been functioned under the Authority of the Central Government. However, after the Decentralization Law was promulgated by the President of the Republic in July of 2008, some functions that were falling under the responsibility of the Central Government were shifted to Kinshasa's Provincial Government. It should be noted that the Central Government consists of more Ministries than the Provincial Level, as most functions at the Central Government level are combined into one Ministry at the Provincial Level. Kinshasa's Local Government has 10 ministries and within them is the Urban Divisions, which runs as follows for the respective ministries:

- **Ministry of Plan, Budget, Public Works and Infrastructure:** a. Urban Division of Plans, b. Urban Division of Infrastructures and Public Works, c. Urban Division of Budget d. Geographical Institute.
- **Ministry of Economy & Finances:** a. Economy, b. Finance, c. External Trade, Industries, Small & Medium – Size Enterprises.
- **Ministry of Population, Security & Decentralization:** a. Population, b. Security, c. Decentralization, d. Justice, e. Veterans or Ex-Servicemen.
- **Ministry of Agriculture & Rural Development:** a. Agriculture, b. Rural Development, c. DVDA
- **Ministry of Transport, Mining & Energy:** a. Transport, b. Mining, c. Energy, d. Hydrocarbons.
- **Ministry of Land Use, Land Development & Habitat:** a. Land use, b. Land Development/Planning & Habitats.
- **Ministry of Education, Information, Gender & Family:** a. Urban Division of Education/EPSP (Nursery, Primary, Secondary & Vocational School: Kinshasa-East, Kin-West & Kin-Centre), b. Information, c. Gender & Family.
- **Ministry of Health & Social Affairs:** a. Health, b. Social Affairs, c. Hygiene.
- **Ministry Civil Service & Labour:** a. Civil Service, b. Labour, c. Social Security Provisions, d. Labour Inspection.
- **Ministry of Sports, Culture & Arts:** a. Sports & Leisure, b. Culture & Arts, c. Tourism, d. Youth.

Administrative Organization Chart of Kinshasa Province is shown in Fig.3.2.1.

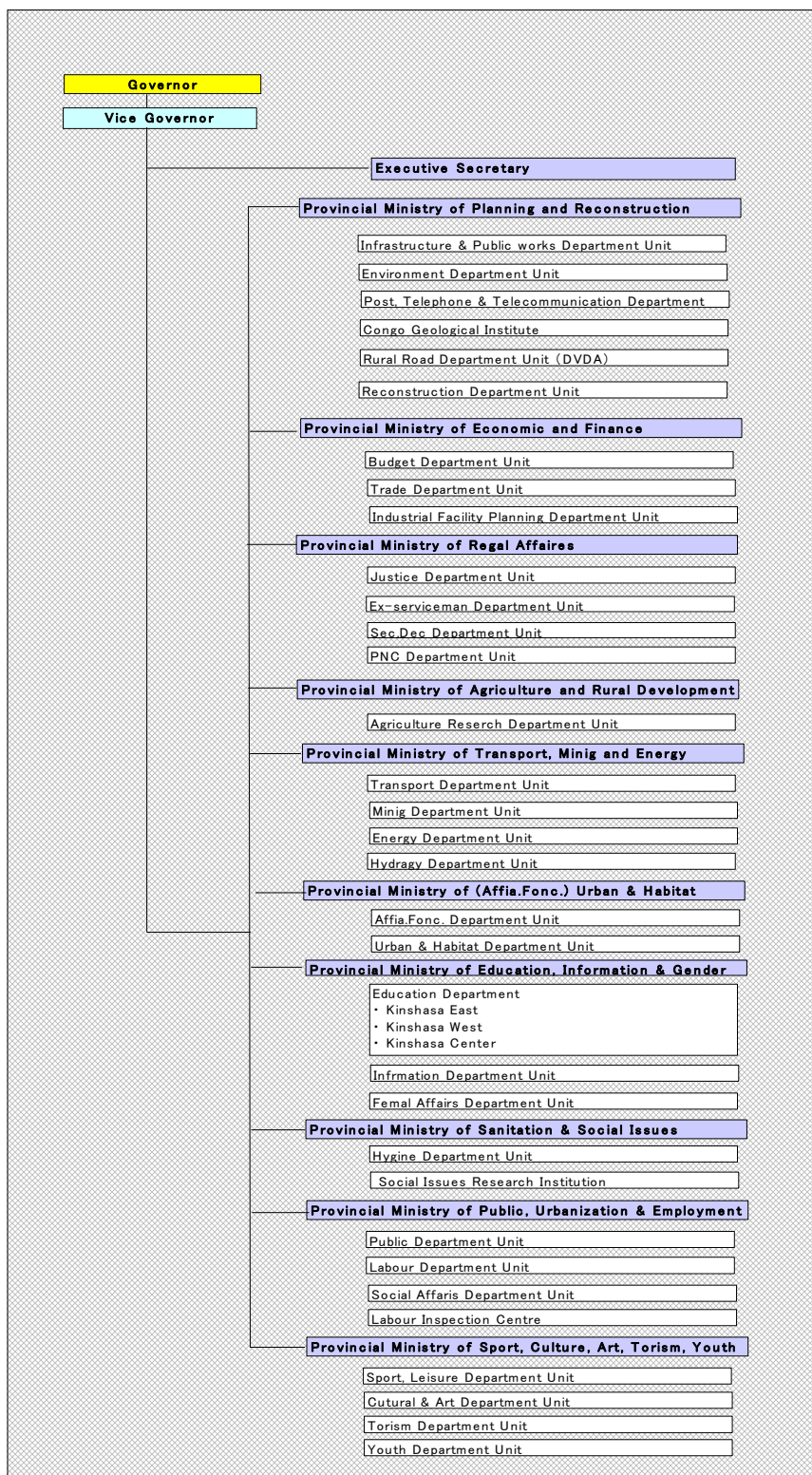


Fig. 3.2.1 Organizational Chart of Kinshasa Province

Source: Kinshasa Province (2008)

(1) Community Organization

Generally, the community unit/entity in Kinshasa Province is classified on a commune basis. At present, Kinshasa Province manages a total of 24 communes. In the case of the N'djili commune, it is directed by the burgomaster, a representative of the commune, with 28 public departments. Moreover, the N'djili commune has 1 commune administration office and 23 administrative branch offices.

The habitat zone under the commune is referred to as "Quarter," which has its own Quarter leaders respectively. For further information of the N'djili commune and its organizational chart, refer to "ACTION PLAN CHAPTER 2: PRESENT CONDITIONS AND ISSUES OF THE N' DJILI COMMUNE."

(2) Financial Resource

The town of Kinshasa is facing a crucial problem concerning their fiscal revenue. In fact, according to the Province's own statistical data, the town collects an annual average of only 25 million US dollars, while the fiscal expenditure requires more annual resources. There is clearly inefficiency in income collection structures and mechanisms.

The causes are as follows:

- Lack of obligation for tax paying by inhabitants;
- Inadequate fiscal regulations;
- Misuse of collected revenue;
- Lack of execution of sanctions;
- Lack of facilities to revitalize collection services;
- Lack of organization capability of collection services.

3.3 SOCIO-ECONOMIC CONDITIONS

3.3.1 Population

According to the household survey conducted by the National Institute of Statistics (INS) in 2004, 51.2% of the population of Kinshasa City is composed of women. The majority of the population consists of the younger generation and more than half (51.3%) of the individuals are below 20 years old, of which 97.9% are Congolese, and 71% of whom originated from Kinshasa or its surrounding provinces.

Table 3.3.1 Demography of Kinshasa

	Commune	Population	Surface (km ²)	Density/km ²
1	Bandalungwa	184,140	6.80	27,079
2	Barumbu	111,540	4.60	24,248
3	Bumbu	235,851	5.30	44,500
4	Gombe	37,152	1.92	19,350
5	Kalamu	295,800	6.60	44,818
6	Kasa-Vubu	140,484	5.00	28,097
7	Kimbanseke	854,135	76.90	11,107
8	Kinshasa	119,652	2.90	41,259
9	Kintambo	99,764	3.90	25,581
10	Kisenso	320,850	16.60	19,328
11	Lemba	319,610	23.70	13,486
12	Limete	316,710	27.10	11,687
13	Lingwala	79,092	2.90	27,273
14	Makala	240,170	12.00	20,014
15	Maluku	213,400	7,948.80	27
16	Masina	558,900	69.70	8,019
17	Matete	250,588	4.90	51,140
18	Ndjili	320,762	9.43	34,020
19	Ngaba	159,669	4.00	39,917
20	Ngfulamount	254,400	358.90	709
21	Ngaliema	691,380	81.70	8,462
22	Ngiri-Ngiri	142,520	3.40	41,918
23	N'Sele	162,900	179.80	906
24	Selembao	278,256	23.20	11,994
	Total	6,387,725	8,880.05	719

Source: INS/REGIDISO/N'djili Commune

3.3.2 Land Use

(1) Existing Land Use Plan

The following two plans are provided as a land-use master plan that concerns Kinshasa City and the N'djili commune now. These plans were determined in the 1960-70's. Therefore, the plan is not completely appropriate for the present urban situation.

1)"Schema Directeur d'Amenagement et d'Urbanisme"

This master plan targets Kinshasa's Economic Region (REK: Region Economique de Kinshasa). The Study of the plan started in 1972, and its outline was provided in 1975. B.E.A.U. (Bureau d'Etude d'Amenagements Urbains) was chiefly involved in the planning and survey of this master plan. This plan is the latest master plan targeting the whole city.

The plan aims to complete its objective by the year 1990. The contents are as follows:

a)Objectives of the Plan

The objectives of the plan are the following three points:

- To control the expansion of the city.
- To provide a well-appointed inhabited area corresponding to the employment situation.
- To introduce an appropriate traffic system corresponding to the demand of commune level.

b)Planning the Target Year of the Master Plan

The following two years were set as a planning target period.

- The project that should be executed within five years (until 1980) is set as a priority project
- The strategic plan is provided for a term of 15 years (until 1990).

c)Population Framework

The population of Kinshasa in 1975 when the master plan was provided is estimated to have been 1.75 million. In the plan, two scenarios that assume 4.5 million or 3.63 million people for the population in 1990 are compared. The idea of securing employment that corresponded to a population increase of 3.8 million people is a problem which is regarded in the population increase of the former scenario. However, a new development of 3.8 million residents was finally planned.

d)Content Concerning the Land Use Plan

The following three contents are provided as a measure of urban development corresponding to the population growth. The objected urbanization area is as shown in Fig 3.3.1.

i) High land utilization of the existing city

Effective utilization of the land must attempt to deal with 710,000 new residents. The population density of 240 persons/ha for flat ground is set at the diagonal degree of 4% or less for the planning index in the plan. Also 50 to 150 persons/ha for sloped land at the diagonal degree of 4-8% is assumed.

ii) Development in the eastern part of the city

Urban development corresponding to 1.21 million residents is proposed by the means of advancing the development to the eastern side of N'djili airport. Its planning index for the population density was set at 240 persons per hectare in flat ground and 150 persons per hectare as an average for the

whole planning area.

iii) Development in suburban area

The development for the population of 245,000 people was proposed by developing the surrounding area of the existing urban area.

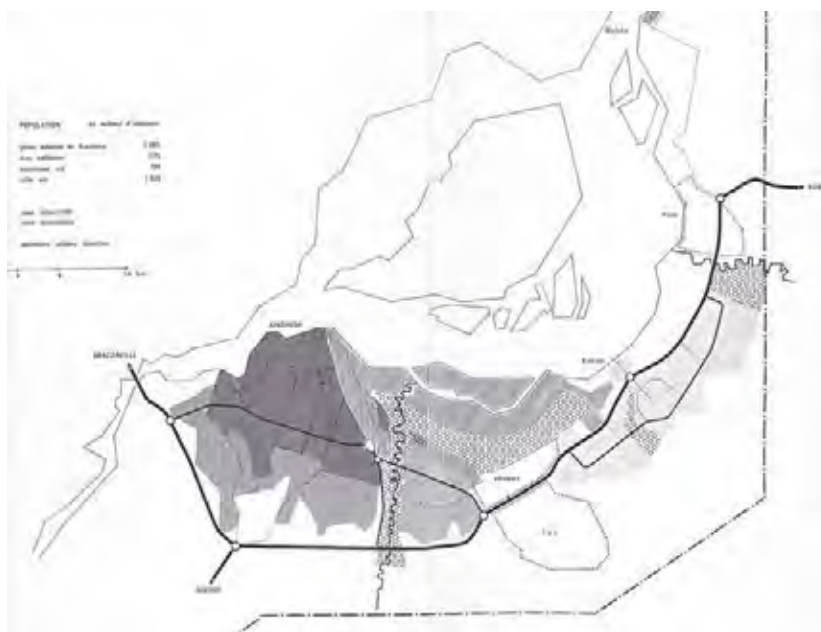


Fig. 3.3.1 Distribution of the Population

Source: SDAU Kinshasa (BEAU, 1975)

e)Other Planning Contents

In the master plan, fundamental transport links were proposed in response to the population distribution plan to each district. The contents of the main proposal are as follows:

- i) Construction of the outer expressway which surrounds the urban area
- ii) Improvement of the expressway inside of the city (strengthening traffic between the eastern region and central city based on the present Bld. Lumumba)
- iii) Strengthening the main transport links between districts.

These contents were organised as shown in Fig.3.3.2.

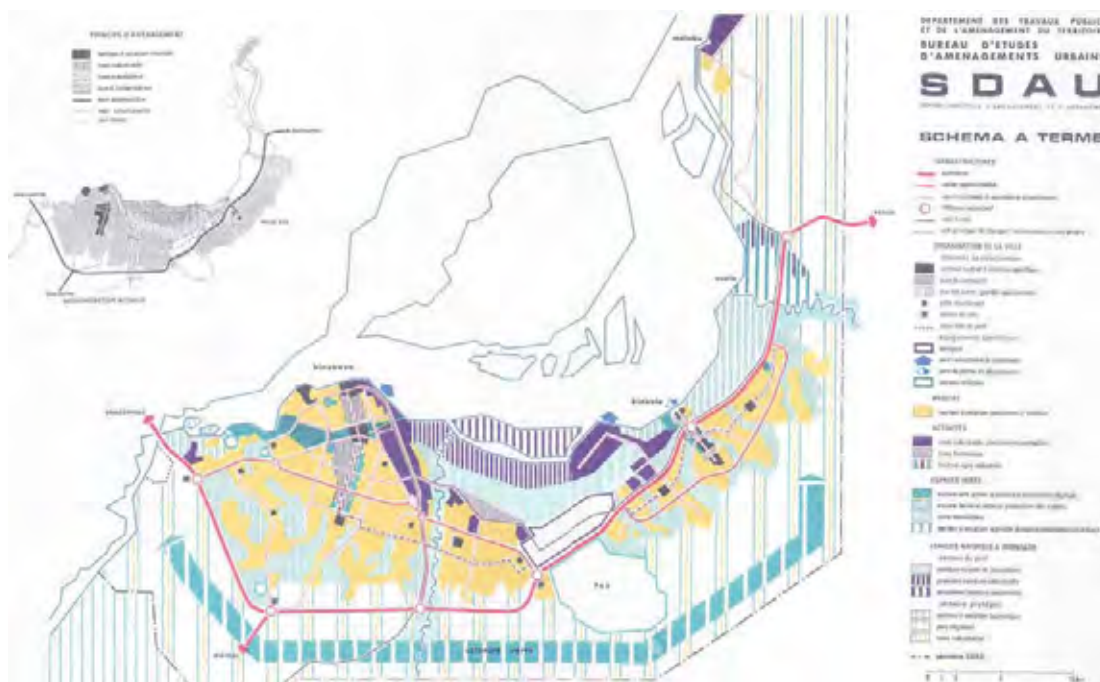


Fig. 3.3.2 Urban Master Plan for the Final Term

Source: SDAU Kinshasa (BEAU, 1975)

2)"Agglomeration de Ndjili: plan particulier d'aménagement"

The district master plan was intended for each of the communes; N'djili, Masina, and the present Kinbanseke, which was provided in 1969 before the decision of the city master plan was provided in 1975, which was intended for REK. This master plan was provided as a planning document based on governmental ordinance concerning urban planning (Decret du 20 juin 1957 sur l'urbanisme) supported by the French institution. This document is composed of planning documents, drawings, and documents of the city's planning regulations.

a)Composition and Content of Planning Document

i) Study of the population

The future population was estimated based on the results of an investigation on the size of the population, the age distribution and the increasing rate. The population of the N'djili commune in 1967 was estimated at 80,000 persons. The population of ancient quarters (Quarter 1-7) was estimated at 54,370 persons, the population of the new quarters (Quarter 8-13) was assumed to be 25,630 persons. Besides this, the population including Masina and Kinbansake was estimated at a total of 160,000 persons. It was expected that this population would double in 12 years, and would become 325,000 persons by 1979.

ii) Housing

The investigation concerning the situation of the modality of a typical site, the housing unit, electricity, the water supply and drains was executed. The study describes that the site of 16*20 m

is standard for N'djili's commune, except for Quarter 7; the typical house site for Quarter 7 is 400~500 sqm.

iii) Employment and alternative migrations

The investigation concerning the resident's employment and work situation was also completed. A migration movement investigation, including the traffic census was also executed. These results are shown in the document.

iv) Structure of urban space and land use

The urban structure was analyzed for the target area including the Masina and Kinbansake communes. Furthermore, the distribution of commercial facilities, schools, administrative facilities, and the industrial installation was also surveyed.

b) Plan Drawing

The district development plan intended for three communes was prepared (Fig. 3.3.3). The land-use plan and improvement scheme plan for the Pilot Project site are shown in the plan drawing. The planning document which explains the planning process from results of the surveys to concrete projects cannot be obtained. However, whether it exists or not cannot be confirmed.



Fig. 3.3.3 Distinctive Urban Master Plan for N'djili Area

source: Agglomeration de N'Djili plan particulier d'aménagement (BERU, 1969)

3)Other Plans

The following two urban master plans have been planned before the provision of the above-mentioned master plans. The contents of these master plans are reflected in the master plans mentioned in 1).

a)"le plan 1950"

It was planned when the population of the entire Kinshasa City reached 100,000. The plan was intended for southeastward development. It proposed the construction of N'djili airport, the Lemba commune's present university and the creation of industrial zones in Limete. Also, it proposed the N'djili commune as a satellite city of Kinshasa and the enhancement of its administrative function. A radial street network was also proposed in this plan.

b)"le plan regional 1967"

A social survey in the region was ongoing at the time of the provision of this plan. Its following developmental policies influenced the contents of the Kinshasa plan of 1975.

- To improve the urban functions and to advance the effective land use.
- To control the sprawl of the city in the foothills of the hills that surrounds Kinshasa City.
- To develop the satellite city after advancing the city's development in the eastern area.

(2)Structure of Existing Land Use

The land use situation of Kinshasa City of today is shown as in Fig. 3.3.4. It doesn't describe the situation besides the range shown in the figure because no allowance is provided for The Study Team to access the site and due to a lack of possibility for a site visit survey.

1)Central Business District (CBD)

The central business district of Kinshasa City is located in the centre area of the Gombe commune, near the Kinshasa port. Many offices of business facilities, government agencies and world enterprises, commercial establishments, embassies, etc. are located in this area. The streets in this district are mostly paved and high-rise buildings are located here. Most of the main facilities are located in this area, although some of the governmental facilities are located in other communes, such as Limete or other areas of the Gombe commune.

2)Former Residential Areas

The following areas of this category were already urbanised areas at the time of the decision of the master plan in 1975. The residential quarter in the Gombe district had a population density of 190 persons per hectare (R1). In the Lingwara, Kinshasa, and Barumbu communes, the population density was about 250-300 persons per hectare. In these communes, many of the buildings are one-storied houses. A small-scale shop and a few kiosks are located within the neighbourhood, and its urban space gives the impression of a complex environment. Furthermore, the condition of the roads and drainage facilities is poor (R2). The Bumbu, Kalamu, Kasa-vubu and Ngri-Ngri

communes are located south of the Executive Office of the President (Presidential Palace). The population density of these communes reaches 280-450 persons per hectare, though these communes are residential compounds comparatively located on flat lands. It is one of the highest populated districts in Kinshasa city (R3). The population density of the Matete commune, which is located between the Limete interchange and N'djili River is also high and reaches 500 persons per hectare. This is twice as high as the planning index in 1975 (R4) in density. As for the above-mentioned communes, the N'djili commune is one of the residential areas that are located along Bld. Lmumba in the eastern district of Kinshasa City.

3) Residential Extension Area

After the 1970s, the development of the residential quarters was advanced, especially south of Kinshasa City, as the urban population increased. Most of these residential areas are located on sloping land. The population density of the Bandalungwa, Kintambo, Makala commune (E1), and the Kinsenso communes (E2) is 200-300 persons per hectare, as the density is rather high on sloping land. Educational facilities and farmland occupy part of the land in these communes. Also, many residential compounds are densely located on scarce land on the ridge. New quarters of the N'djili commune (Quarter 8-13) were recently developed, as well as those adjoining the Kimbansake and Masina communes. Because the administration area of these communes is wide, the population density is calculated at a rather lower rate than that of the urbanised area. However, the population density of these communes becomes 300-400pers/ha for the urbanised area. Many of the buildings are one-storied houses (E3).

4) Industrial Zone

There are large-scale industrial blocks (200*200 m or more) arranged in the eastern part of the Limete commune. They also formed the only industrial zone in Kinshasa City (I2). Besides this, industrial facilities are located around the mouth of Lubudi River (I1) and N'djili airport. Small-scale craft workshops are located in the above-mentioned residential housing area. The above-mentioned districts are connected by Bld. Lmumba and the streets expand from the boulevard toward the foothill. The condition of these streets, except for Bld. Lmumba, is bad. Therefore, even in the case of accessing the adjacent communes, traffic movement is difficult due to the undulating terrain in Kinshasa.

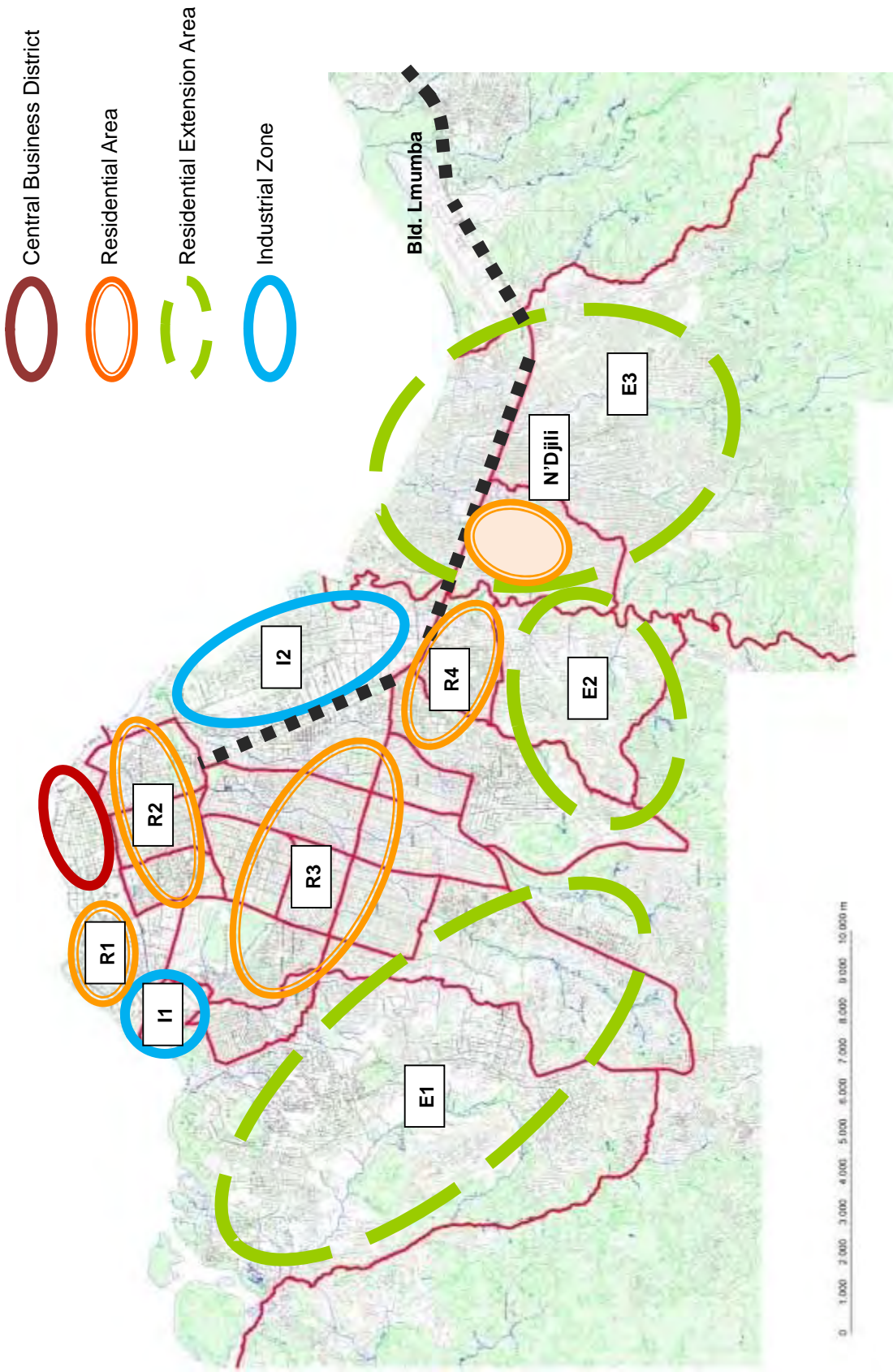


Fig. 3.3.4 Structure of Existing Land Use

(3) Legal System Concerning Urban Planning, Construction and Land Sanction

The legal system concerning urban planning, construction and land sanction, was confirmed within the range of the provided documents and information given to The Study Team during The Study period as shown in Fig. 3.3.5. The current legal system is composed of mainly two systems; the land transaction system and the urban planning/construction system. The documents and information were collected through related experts and The Study is as follows:

[Related experts]

- The chief of the office of I.T.P. (Infrastructure and Public Work Office)
- The representative of the office for delivering construction permits in the town planning division for land planning and the habitat in Tshangu district
- The national director of BEAU (Urban Planning Office)

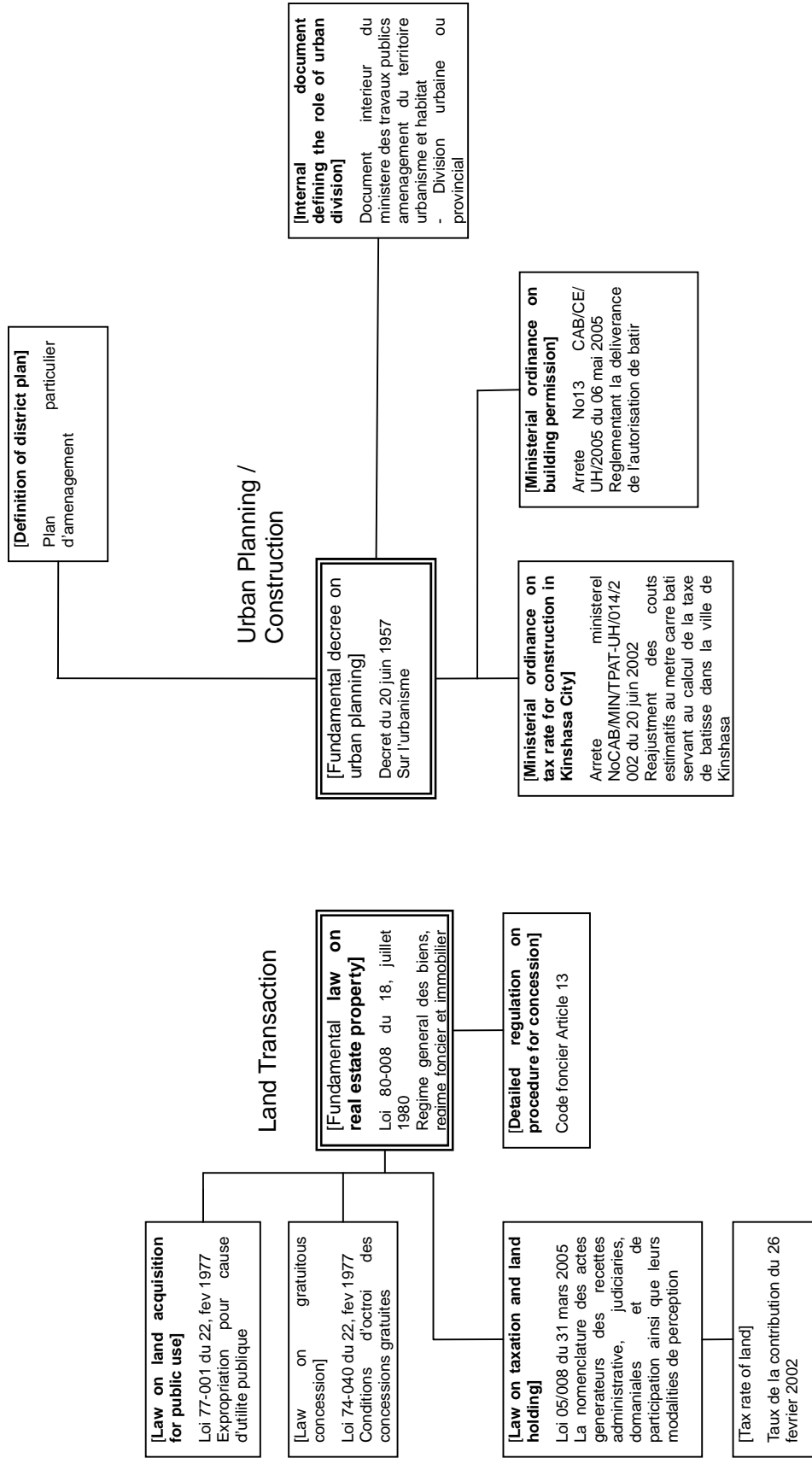


Fig. 3.3.5 Structure of the Legal System on Urban Planning, Construction and Land Transaction

(4) Land Use Control System and Building Permission

1) Relevant Law

Urban planning in the Democratic Republic of Congo is provided based on the decree 'Decret du 20 juin 1957 sur l'urbanisme (1957)'. This decree consists of the following six parts:

- i) District plan (Plans d'aménagement locaux and particuliers)
- ii) Regional plan (Plans régionaux d'aménagement)
- iii) National plan and general regulations (Plan general du Congo Belge et des regles generales d'aménagement)
- iv) Relationship between the above-mentioned three plans
- v) General regulation
- vi) Supplementary provision

Based on this decree, 'Plan d'aménagement locaux and particuliers (District plan)' is provided. A general matter and procedure concerning the contents of the plan are provided by the decree. Also, concrete content is provided by 'Agglomération de NDJILI: plan particulier d'aménagement (1969)'.

2) Regulations Based on Law

a) Land Use Classification

The decree provides the land use classification shown in Table 3.3.2. In the decree, it is provided that a land use and architectural act can be restricted based on these classifications.

Table 3.3.2 Land Use Classification of the Decree

Francais (original description)	English (Translated)
a-1 L'affection generale des diverses zones du territoire	a-1 The general affects of the various zones in the territory
- habitation	- residential
-industrie	- industry
- agriculture	- agriculture
- autre usage	- other use
a-2 emplacements approximatifs reserves a une affection determinee	a-2 sites approximately reserved for determined affects
- champs d'aviation	- aviation field
- jardins publics	- public gardens
- squares	- squares
- plaines de sports et jeux	- sport field
- parcs et espaces libres divers	- parks and various open spaces
- zone vertes	- green space
- reserves boisees	- reserved wood
- etablisements culturels	- cultural facilities
- edifices	- large structures
- services publics	- public service facilities
- monuments	- monuments

a-3 voirie principale - voirie par terre - voirie par rail - voirie par eau	a-3 principle road network - road network - transport network by rail - transport network by water
--	---

Source : Decret du 20 juin 1957 sur l'urbanisme (1957)

b)Other Regulations

The decree chiefly provides the procedure for planning at each level. Therefore, concrete regulations and its index are not provided, except that of the above-mentioned land use classification.

3)Regulation Based on Land Use Plan

The individual district plan of the N'djili commune provides the following contents:

a)Land Use Classification

The following land use classification is provided for the present N'djili commune area.

- urban centers
- high density residential zone (180-225pers/ha)
- residential zone (90 pers/ha)
- craft precedence zone
- agricultural zone
- forest zone
- urban transport
- urban promotion zone

Land use classification provided only for the adjoining Masina and Kinbansake communes is not described in the above-mentioned classification. A concrete content of the limitation according to each land use is as follows: Residential zone: Construction of housing, educational facilities, commercial facilities, medical treatment facilities and administrative facilities is admitted. Moreover, the light industrial facilities, which influences negligible ambience to its surrounding can be constructed. Forest zone: Construction act is prohibited principally.

b)Other Regulations

The decree is composed of individual articles of regulations on urban planning matters and technical standards for building construction. The former are provided for forming an orderly urban environment from the urban planning point of view. Generally, these consist of regulations on land use, building volume and locations of public facilities. The decree includes the following individual regulations on urban planning matters:

The multilayer building: Ministry of Public Works permits to the construction of the multilayer

building (buildings other than the one-storied house construction) excluding a special district, and its agreement is needed for the construction. (ART. 15)

The minimum unit of the site: It is prohibited to divide the site into less than 300 square meters. (ART. 28)

The building capacity limitation: As the maximum values of building, the number of rooms is limited according to each land use classification. Four is provided in N 'Djili commune and six for high density district. (ART 29)

The location of public facilities: It is provided that a medical facility, a hospital, a social facility and sports facility should be located 100m or more away from the trunk road. (ART 40)

The latter provides technical standards for the building. They consist of standards of location in a lot, distance from other buildings in a lot, width of a lot, duty to connect the water supply network and so on. These articles are provided in order to secure the safety of the constructed buildings and hygienic environment. Therefore, the standards should be studied as part of the urban planning.

4)Administration to Construction and Development

The actual administrative management providing the construction permits and land transactions are confirmed through following resources:

[Results of interview]

- Responses of the interview to represent the office for delivering construction permits in the town planning division for land planning and habitats within Tshangu district
- Responses of the interview to the national director of BEAU (Urban Planning Office)

[Internal documents]

- Internal documents of provincial Ministry of Plan, Budget, Public Works and Infrastructures for providing their roles
- Internal documents of provincial ministry of land affairs, urban planning and housing for providing their roles

Both approval for the transactions in land and the delivery of construction permission are in the jurisdiction service of the town planning division (Tshangu district for the N'djili commune). The construction permission for the multilayer building is under the Ministry of Urbanism. The town planning division belongs to the district office, which has jurisdiction over five communes, including N'djili. The standards for permission were confirmed through the interview with the representative of the office for delivering construction permits in the town planning division. Some of the regulations are defined based on legislation. Furthermore, the restrictions described in 'Agglomeration de N'djili: plan particulier d'aménagement' mentioned in 3.3.2, (1), 1) are not used as a criteria, and the content is not acknowledged as an official

document. The content confirmed by the interview is shown in the following:

a)Transactions of Land

The report to the urbanism division is required for transactions of land and the division of the site, etc. After investigating the current state of land of which the application was received, and setting up the boundary marker, the urbanism division issues the property right profit proof. The application documents are kept in the office. One fiscal franc (corresponds to \$1) per square meter is required for the registration fee of land. Besides this, a defrayal (about 50 USD) to the investigator is also necessary. The point to be checked by the urbanism division is land ownership, the boundary between private and public, and the confirmation of the lot size. There cannot be dealings over land divided into less than 300 square meters. However, this less than minimum required land area is actually divided by the poor and sold off.

b)Construction Permission

The construction permission for a one-storey building is issued by the governor, and a multilayer building is issued by the Ministry of Urbanism. It is necessary to follow a procedure for each organization at quarter level (land title document), commune level (land ownership confirmation), and district level (urbanism division, plot occupation certificate) for obtaining permission. For permission, it is necessary to pay the application fee, the technical fee of 30% of the construction expense and the document filing fee (50 to 100 USD). The cost of this architectural construction expense is decided with the construction estimate attached to the application. Also, its scale and grade will be considered.

The urban division examines the building coverage ratio of the application document. The ratio which exceeds 40% is not permitted. Also, there are other issues which are judged according to the site and the surrounding situation. When applying for a building where the total floor surface is more than 150 square meters, a qualified architect's signature is required. This signature is not required for the construction of buildings with less than 150 square meters of total floor surface, even if it is a multilayered floor building.

c)Administrative System

The urbanism division that has jurisdiction over the N'djili commune has two architectural engineers and four city planning engineers as the staff. The undersized unit makes it difficult to take control of all the related issues of the five communes, consisting of about two million people or more in the eastern part of Kinshasa, resulting in insufficiency in management and supervision.

(5) Approach on the Master Plan Revision

1) Movement Concerning the Master Plan Revision

The revision of the urban master plan of Kinshasa City is thought to be on matters of weight, (also within the government). Its revision is examined, including the possibility of the support from the recent French institution. The conference on TOR concerning this work will advance between the relative ministries in July 2008. In the case that this discussion advances well, the content of TOR is expected to be made public within 1-2 months, (during September or October of 2008.)

2) Policy of Planning

Regarding the revision of the master plan of Kinshasa City, an official discussion is not assembled. And neither a distribution of the population nor setting of the future population has been examined. Therefore, an official judgment about the planning policy for the future has not been announced. The following statements have been obtained from each person in charge of the city planning in BEAU (Bureau d'Etude Amenagement Urbain) as matters to be considered for the master plan revision.

- The future plan of Kinshasa City should consider the development in the eastern side and the western side in accordance to the redevelopment in the ancient urban area.
- The continuing examination of urban development in the eastern side, beyond N'djili and Kinbanseke commune, is more necessary as proposed in a past master plan. As for a new city on the eastern area, the development scale is thought to be about 1.3 million people.
- Detailed investigation has not been examined for the western side of Kinshasa City. For this area, a capacious developmental plan accepting a larger population is expected. It is necessary to pursue an advanced study.
- The southern part is a foothill and there is no place that is appropriate for the development of urbanization progresses within the area. Problems such as the erosion of soil and difficult accesses exist. Urbanization progresses to the vicinity of the boundary with Bas Congo and the reservoir.

For the city master plan revision, the above-mentioned matters should be taken into account together with the transportation plan.

(6) Issues on Urban Planning/Development

The problems of the Kinshasa province concerning land issues, land use, and urban environment are shown as in Table 3.3.3. The problems which mainly exist are within the

contents of the current urban plans and the insufficiency of the legal system. Also, relative problems mentioned in Action Plan 2.8 are advised to be referred.

Table 3.3.3 Issues Regarding Urban Planning and Land Use

Problems on Existing Urban Plans of Kinshasa Province
- Inconsistency between Kinshasa's city plan, commune land use plan, and actual urban condition (outdated)
- Lack of a development policy at the city level as a whole
- Lack of reliable census and other relevant information
- No detailed plan or planning regulations (except for two limited districts for the N'djili commune)
- Inadequate planning index for local life style (too modernized)

1) Inconsistency Between the City Plan, Commune Land Use Plan, and Actual Urban Condition

The land use master plan for the Kinshasa province and the N'djili commune had been provided in the 1960-70s. Since that period of time, the population has greatly increased and urbanised areas have also been extended. Therefore, the plans do not correspond to the actual urban condition. Before studying the new land use plan for N'djili, The Study of the master plan for the entire Kinshasa province level must be completed and then the related major policies decided upon. Until the master plan of Kinshasa has been provided, it is difficult to decide on major matters such as the distribution of the population, new developments for the housing supply, and inter-communal road networks. Under these matters, presenting a rough policy at the commune level about city planning and land use will not help under the current situation. Subjects of planning are limited, such as the proposition of environmental improvement on living conditions at the current neighbourhood level, problem analysis concerning the long-run, and measures concerning these matters.

2) Lack of Concrete Developmental Policy

There are many communes in the Kinshasa province that have higher population densities than that of the N'djili commune. Regarding the future development of N'djili, issues at the Kinshasa province level should be decided in advance, such as the population distribution policy of the Kinshasa province, actions for the housing supply, and the location of new developments. These policies should be studied at the provincial level with concrete actions and plans.

3) Lack of Reliable Census

Relating to the provision of the plan at the provincial level, it is expected to grasp the outlines of the actual urban conditions of the Kinshasa province. The Study applied a concise survey

within the commune to grasp the current population, its distribution, and the current land use. Also, some missing information was taken into account based on these results. This type of survey, including other methods, should be applied to other communes for The Study and decision at the provincial level.

4)Limited Planned Area in the District Master Plan of N'djili

The district master plan of N'djili drew two limited study area plans as a model plan for redevelopment. In these limited areas, the plan has not yet been applied nor developed. The plan is also not generalized. For other areas except for these two areas, the plan confirms the circumstances during that moment of time, and a concrete proposition for the improvement of the urban area has not yet been presented.

5)Planning Index Adapting to the Local Circumstances

In the Kinshasa province, a district plan with detailed planning indexes has seldom been provided. The plan for Gombe's western area is the only district plan with detailed indexes, which The Study Team was able to retrieve from a D.R.C. expert. The planning index of the district master plan of Gombe's western area includes the building's coverage ratio, ratio of the building's volume to lot, limitation of the building's height, etcetera. These planning indexes are considered to be gradually applied to the N'djili commune for the long-term. However, it seems difficult to apply all of these indexes immediately to the newly constructed buildings in the commune, due to incompatible local conditions. Considering the local conditions and the capability of the application, effective items of planning should be discussed and decided. Moreover, related land use matters such as policies for intermingled land use should be discussed with residents during the same period of time.

3.4 SECTOR CONDITIONS

3.4.1 Urban Infrastructure

3.4.1.1 Roads

(1) Existing Plan

1) Existing Road Conditions

a) Road Category and Road Classification

There are 4 road categories in the DRC as shown as the following:

- *Primary Road*
- *Secondary Road*
- *Tertiary Road*
- *Local Road*

Roads in the DRC are administrated by different jurisdiction ministries according to each road classification.

Table 3.4.1 Jurisdiction Administrative System for each Road Classification

Road Classification	Jurisdiction Administration
National Roads	Road Agency, Ministry of Infrastructure, Public Works and Reconstruction
Urban Roads	OVD, Ministry of Infrastructure, Public Works and Reconstruction
Rural Roads	DVDA, Ministry of Rural Development

b) Existing Road Conditions in Kinshasa

According to the Local Development Plan for Primary Roads in Kinshasa, existing road conditions for primary roads in Kinshasa are shown in Fig. 3.4.1.

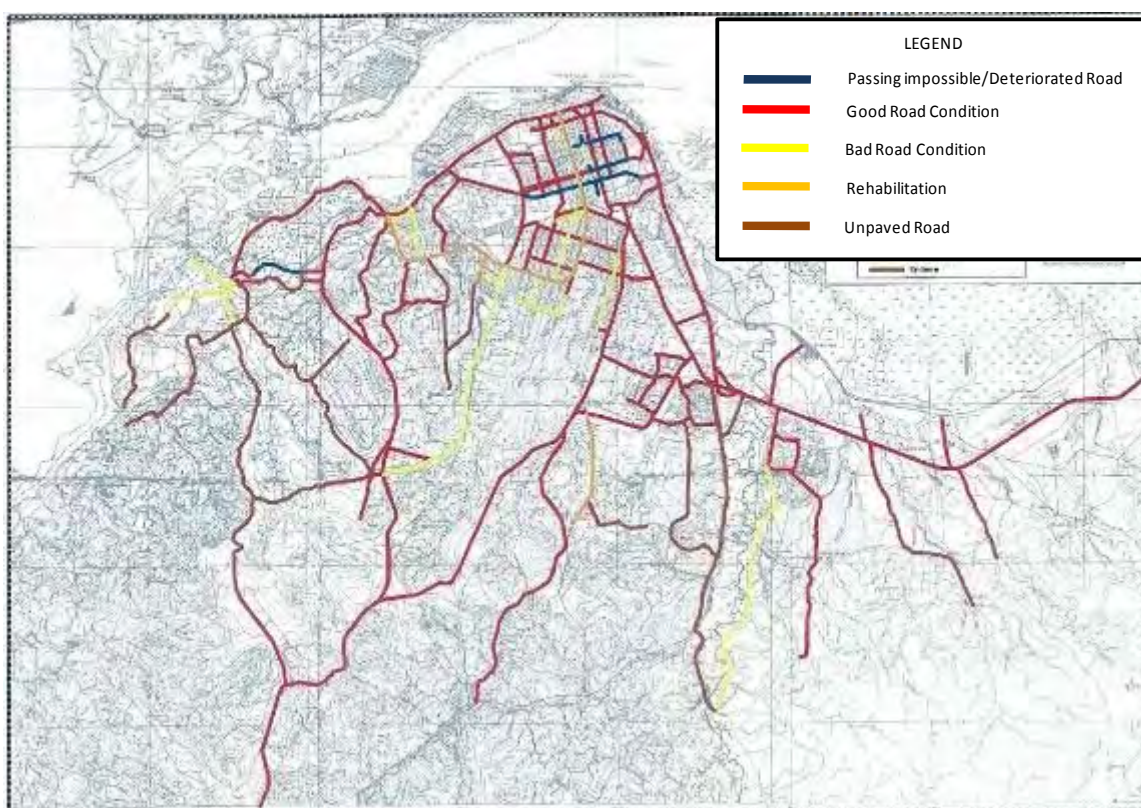


Fig. 3.4.1 Existing Primary Road Conditions in Kinshasa

Source: Division Urbaine des Transports et Voies de Communication, Ville de Kinshasa(2008)

Table 3.4.2 Urban Paved Roads in Kinshasa

Road Category	Paved Road Length (km)	No. of Roads
Primary Road	174 km	51
Secondary Road	143 km	103
Tertiary Road	98 km	154
Local Road	133 km	496
Total Length (km)	548 km	804

Source: Division Urbaine des Transports et Voies de Communication, Ville de Kinshasa(2008)

2) Road Rehabilitation and Improvement Plan in Kinshasa

i) Primary Roads in Kinshasa

BEAU has a primary road rehabilitation and improvement plan in Kinshasa. The number of primary roads required for rehabilitation and improvement are 38 roads, 169.45 km in total length, with an estimated cost of 167,537,850 USD. In particular, 14 of the roads, which are 68.79 km in total length, require severe rehabilitation and improvement. The cost of this severe road work is estimated at 74,597,900 USD. The location map for road rehabilitation and improvement for primary roads in Kinshasa by BEAU is shown in Fig. 3.4.2. World Bank, EU,

CTB, AfDB, and China are the sponsors for the road rehabilitation project in Kinshasa City. The road project map by each donor in Kinshasa is shown in Fig. 3.4.3.



**Fig. 3.4.2 Rehabilitation and Improvement Project for Primary Roads in Kinshasa
by BEAU**

Source: Division Urbaine des Transports et Voies de Communication, Ville de Kinshasa(2008)



Fig. 3.4.3 Road Project Map by each Donor in Kinshasa

Source: Division Urbaine des Transports et Voies de Communication, Ville de Kinshasa(2008)

DVDA have rural road rehabilitation programmes in 6 of the communes in Kinshasa from the years 2008-2011. Fifty-six of the rural roads, consisting of 1,404.2 km in total length for Mont Ngafula, Maluku, N’sele, N’djili, Kimbanseke and Masina communes, will be rehabilitated for 4 years. The total implementation cost is approximately 8,795,185 USD.

Table 3.4.3 Rehabilitation Programme for Rural Roads in Kinshasa (Year 2008-2011)

Commune	Mont Ngafula	Maluku	N’sele	N’djili	Kimbanseke	Masina	Total
Year 2008	4 roads/78 km 486,720 USD	4 roads/155 km 967,200 USD	2 roads/72.5 km 452,400 USD	2 roads/22 km 137,280 USD	2 roads/13 km 81,120 USD		14 roads/340.5 km 2,124,720 USD
Year 2009	4 roads/91 km 567,832 USD	4 roads/252 km 1,591,200 USD	1 road/12 km 74,880 USD	N.A.	2 roads/4.2 km 35,474 km	3 roads/17 km 106,074 USD	14 roads/376.2 km 2,375,460 USD
Year 2010	4 roads/56 km 349,440 USD	5 roads/220 km 1,372,805 USD	2 roads/76 km 474,240 USD	1 road/3 km 18,720 USD	2 roads/13.5 km 84,240 USD		14 roads/368.5 km 2,299,445 USD
Year 2011	3 roads/72 km 449,280 USD	3 roads/121 km 755,040 USD	4 roads/97 km 605,280 USD	1 road/6 km 37,440 USD	3 roads/23 km 143,520 USD		14 roads/319 km 1,990,560 USD
Total	15 roads/297 km 1,853,272 USD	16 roads/748 km 4,686,245 USD	9 roads/257.5 km 1,606,800 USD	4 roads/31 km 193,440 USD	9 roads/53.7 km 344,354 USD	3 roads/17 km 106,074 USD	56 roads/1,404.2 km 8,790,185 USD

Source: Division Urbaine des Transports et Voies de Communication, Ville de Kinshasa(2008)

3.4.1.2 Administrative System for Road Sector

The administrative system for the road sector becomes complicated between the Central

Government and the Local Government, such as Kinshasa's Provincial Government. Essentially, jurisdiction of the road administration for urban roads in Kinshasa is under OVD, the Ministry of Infrastructure, Public Works and Reconstruction. Jurisdiction of the road administration for rural roads in Kinshasa is under DVDA, Ministry of Rural Development. However, regarding the decentralization policy, the road administrative system will shift from the central government to the local government gradually. Related road administrative organisation charts are shown from Fig. 3.4.4 through Fig. 3.4.8.

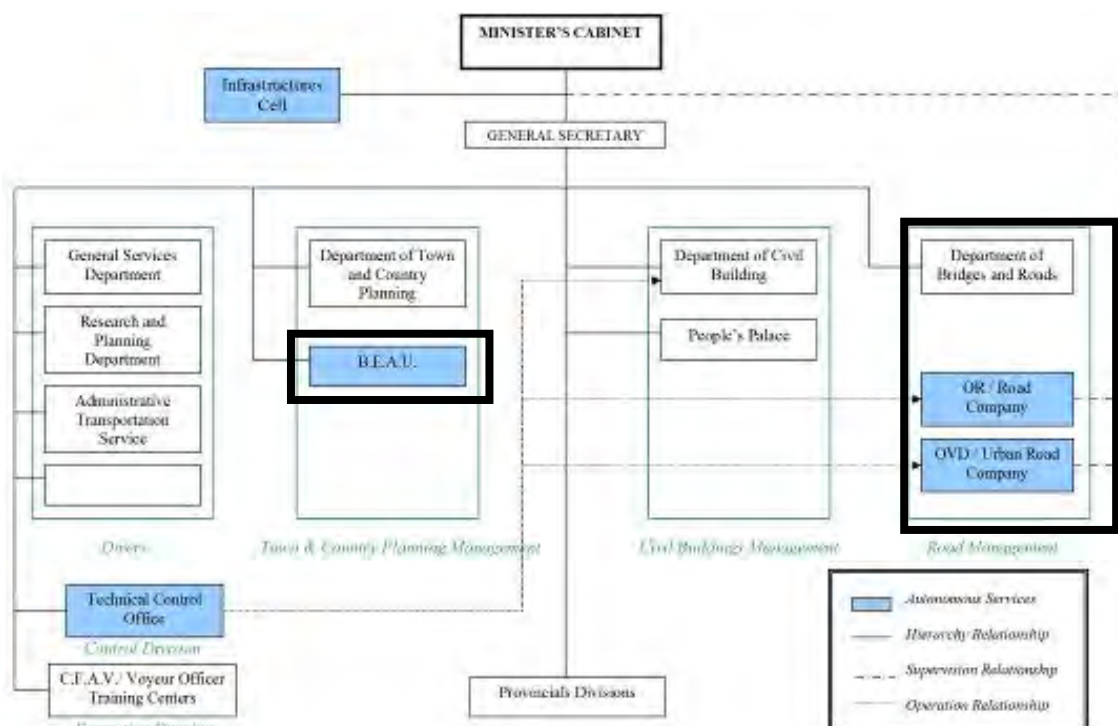


Fig. 3.4.4 Organisation Chart for the Ministry of Infrastructure, Public Works and Reconstruction

Source: Division Urbaine des Transports et Voies de Communication, Ville de Kinshasa(2008)

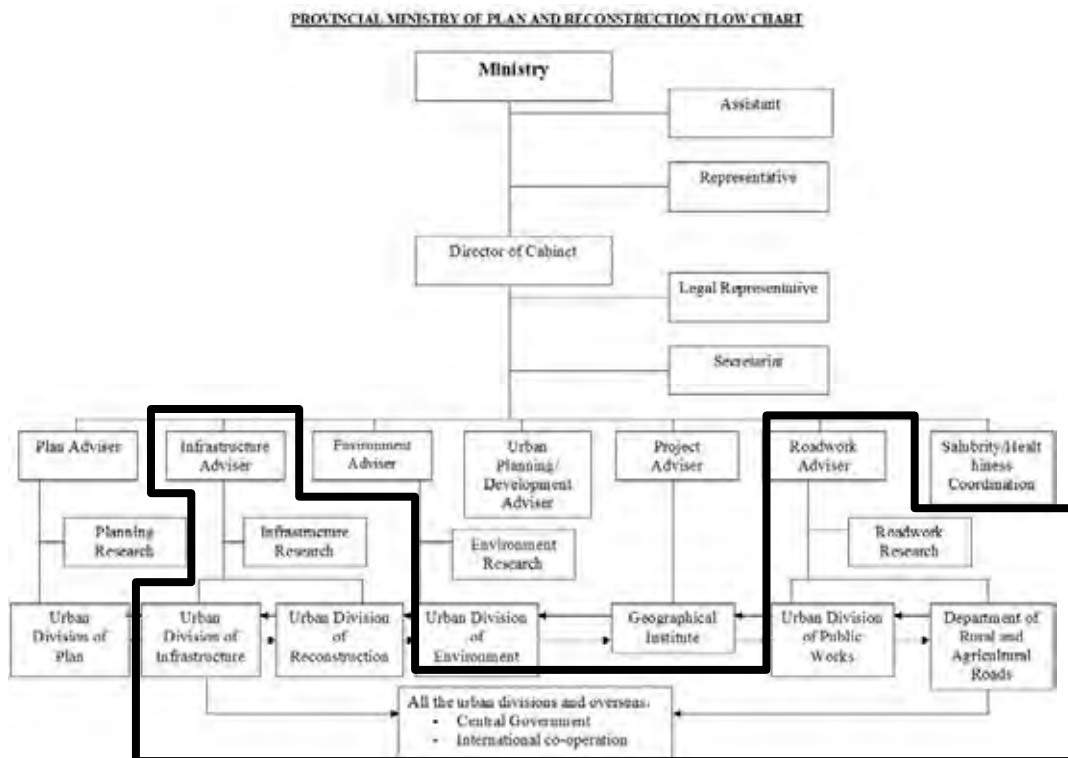


Fig.3.4.5 Organisational Chart for the Ministry of Plan, Budget, Public Works and Infrastructures under Kinshasa’s Provincial Government

Source: Division Urbaine des Transports et Voies de Communication, Ville de Kinshasa(2008)

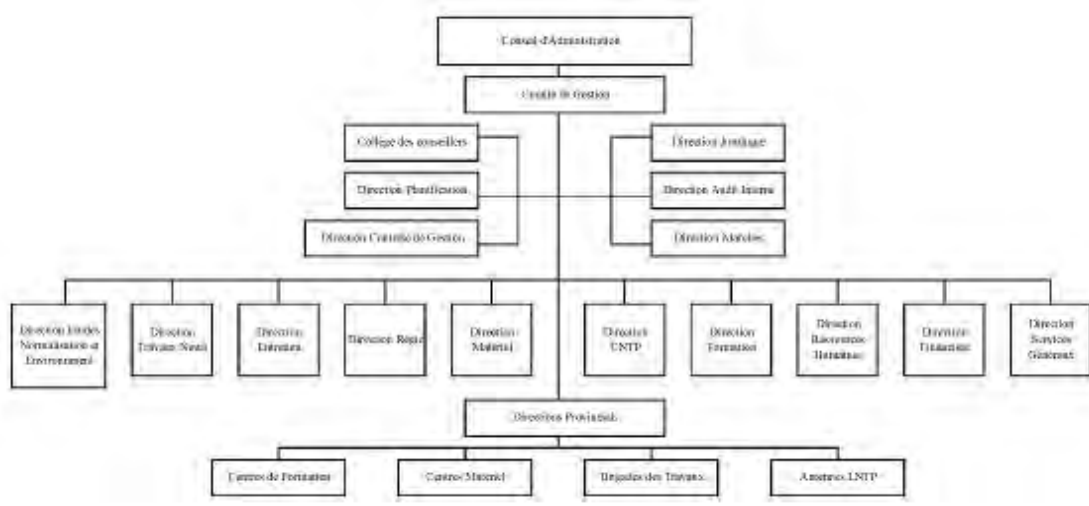


Fig. 3.4.6 Organisation Chart for the Road Agency (Office des Routes)

Source: Division Urbaine des Transports et Voies de Communication, Ville de Kinshasa(2008)

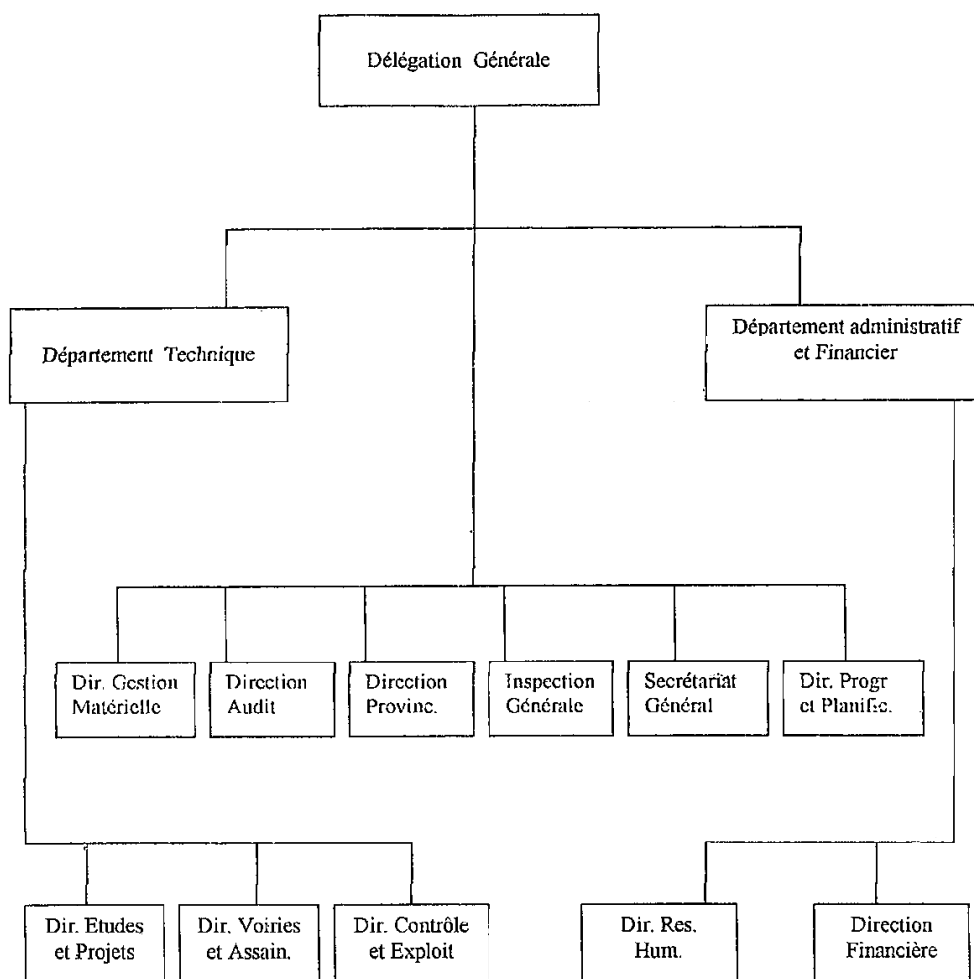


Fig. 3.4.7 Organisation Chart for OVD under the Ministry of Infrastructure, Public Works and Reconstruction

Source: Division Urbaine des Transports et Voies de Communication, Ville de Kinshasa(2008)

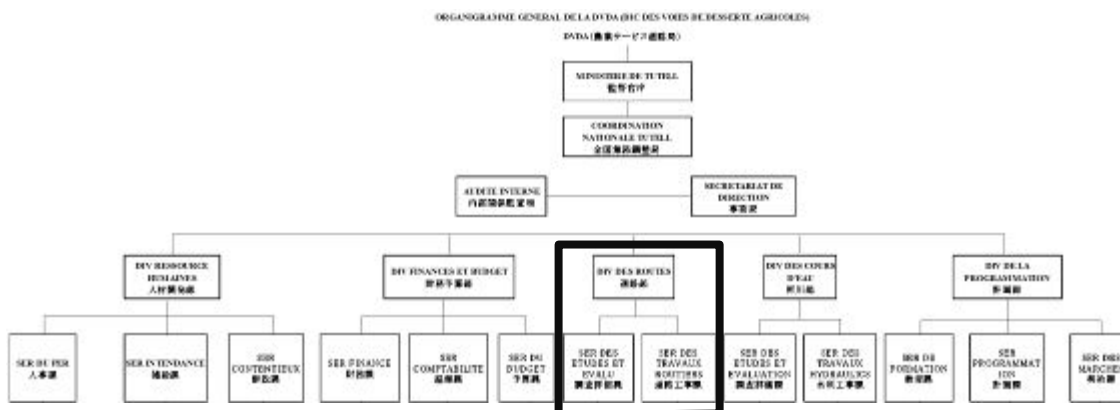


Fig. 3.4.8 Organisation Chart for DVDA under the Ministry of Rural Development

Source: Division Urbaine des Transports et Voies de Communication, Ville de Kinshasa(2008)

3.4.1.3 Car Ownership

(1) System of Car Ownership

The vehicle registration system is managed by DGI (Direction générale d'Impôts) for each province in the DRC. The required registration tax is 35 to 50 USD yearly.

(2) Member of Vehicle Registrations

In the Kinshasa province, there are currently 160,000 registered vehicles. The numbers of registrations have increased approximately by thirty percent since 2005. As for the classification of the types of vehicles, sedans, minibuses, buses, and trucks are registered within the Kinshasa province. However, some of the minibuses are not registered formally, and are included in the number of sedans.

3.4.1.4 Existing Networks and Traffic Volume

(1) Existing Networks

The map showing the main road networks in Kinshasa province is shown below. "Boulevard Lumumba" connects from downtown of Kinshasa province to N'djili Airport and "Boulevard Poids lourds," a port area in the eastern part of downtown to the intersection of Limete in the suburbia. "Route de Matadi" from Kinshasa to Matadi, "Boulevard du 30 Juin", "Avenue Pierre Mulele," and "Avenue Kasavubu" are the central routes in Kinshasa, while "Boulevard Triomphal" and "Boulevard Sendwe" face the stadium and exist as Kinshasa's main arterial road.

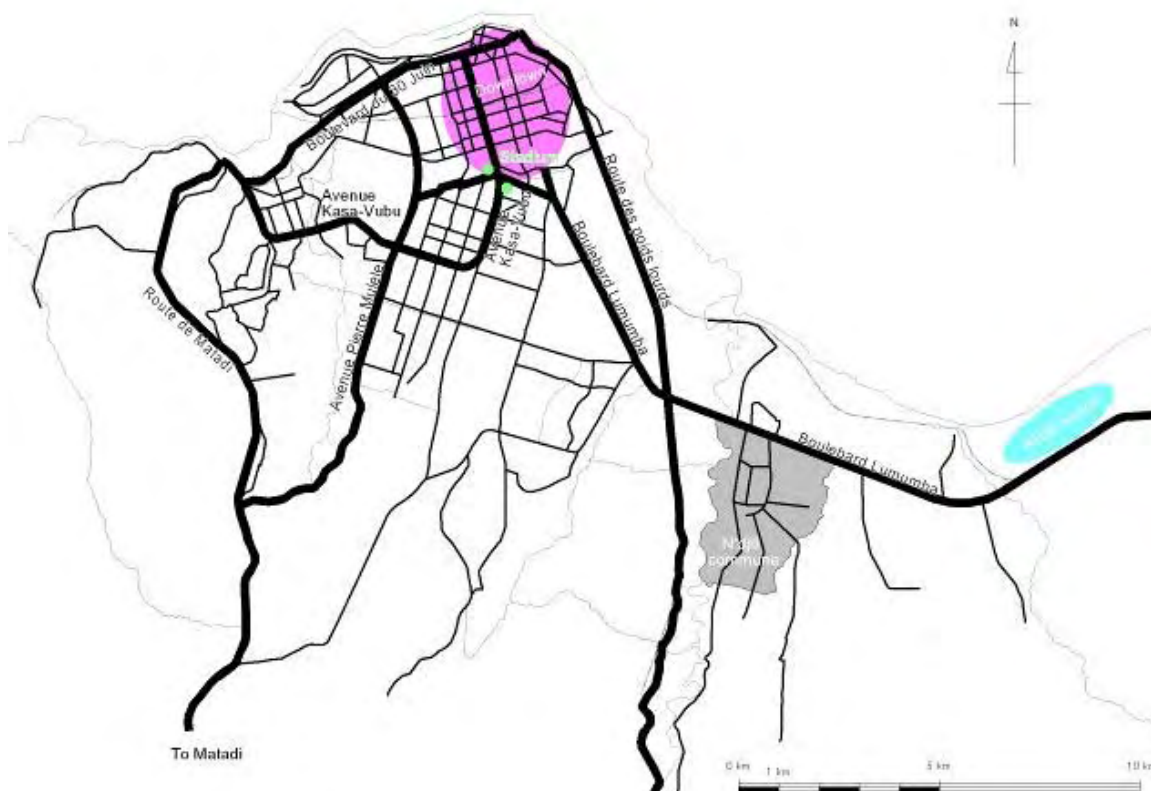


Fig.3.4.9 Road Networks in Kinshasa

Source: Division Urbaine des Transports et Voies de Communication, Ville de Kinshasa(2008)

(2)Existing Traffic Volume Results

The results of the traffic survey in “Edude de reforme du cadre institutionnel des transports urbains en Republic Democratique Congo, 2005” is shown in the following map and table. The heaviest traffic volume tracked on Boulevard du Juin was 35,749 vehicles/12h. The second was 33,975 vehicles/12h at the west side of the Limete intersection on Boulevard Lumumba to N’djili airport at 33,975 vehicles/12h, and the third was 23,221 vehicles/12h at the east side of Limete intersection.

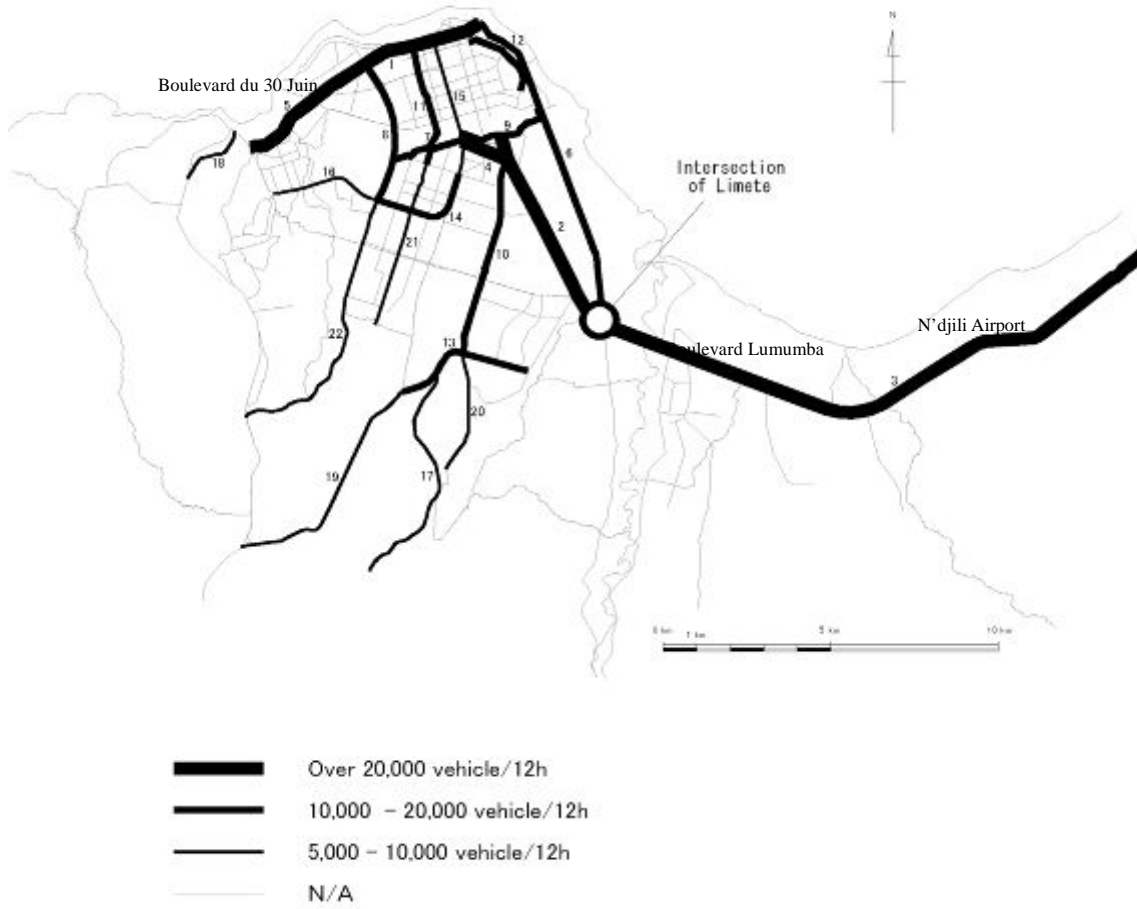


Fig.3.4.10 Traffic Volume in Kinshasa

Source: *Etude de reforme du cadre institutionnel des transports urbains en Republic Democratique Congo*

Table 3.4.4 Traffic Volume in Kinshasa

No	Street Name	Traffic Volume (Vehicle/12h)	No	Street Name	Traffic Volume (Vehicle/12h)
1	Boulevard du 30 Juin	35,749	16	Avenue Kasavubu	9,079
2	Boulevard Lumumba	33,975	17	Route de Livulu	8,553
3	Boulevard Lumumba	23,221	18	Avenue des Exuries	7,478
4	Boulevard Sendwe	22,381	19	Avenue pass	6,667
5	Avenue du Colonel Mondjiba	20,608	20	Route du Campus	5,905
6	Route des poids lourds	19,967	21	Avenue Assossa	5,721
7	Boulevard Triomphal	17,307	22	Avenue Pierre mulele	5,229
8	Avenue Pierre mulele	17,232			
9	Avenue Militants	17,034			
10	Avenue de l'Universite	16,213			
11	Avenue Huileries	15,823			
12	Avenue Kabasele	15,248			
13	Avenue pass	14,286			
14	Avenue Kasavubu	12,665			
15	Avenue Kasavubu(one way)	9,411			

Source: Etude de reforme du cadre institutionnel des transports urbains en Republic Democratique Congo

(3) Traffic Accidents

The number of traffic accidents and victims involved are shown in the chart below. Although the number of traffic accidents in the last decade was consistent until 2006, the number has increased to 3,674 cases in 2007 (an increase of 959 cases from 2006). The number of victims involved per accident is shown in the bar chart below, peaking in 2004 and decreasing ever since, as the ratio shown in 2007 1.5 persons/accident. However, the total numbers of victims involved are increasing; 361 people have died from traffic accidents, 3,901 people were seriously injured and 1,330 people had minor injuries to count.

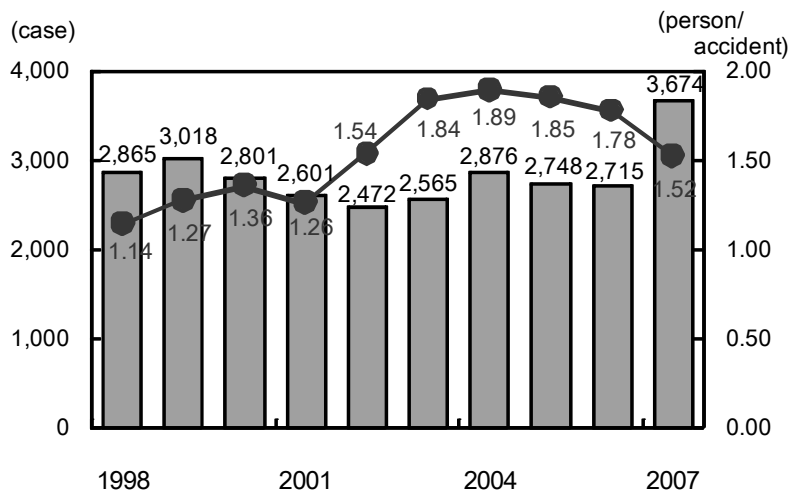


Fig. 3.4.11 Number of Traffic Accidents and Victims Involved per Accident

Source: *Etude de reforme du cadre institutionnel des transports urbains en Republic Democratique Congo*

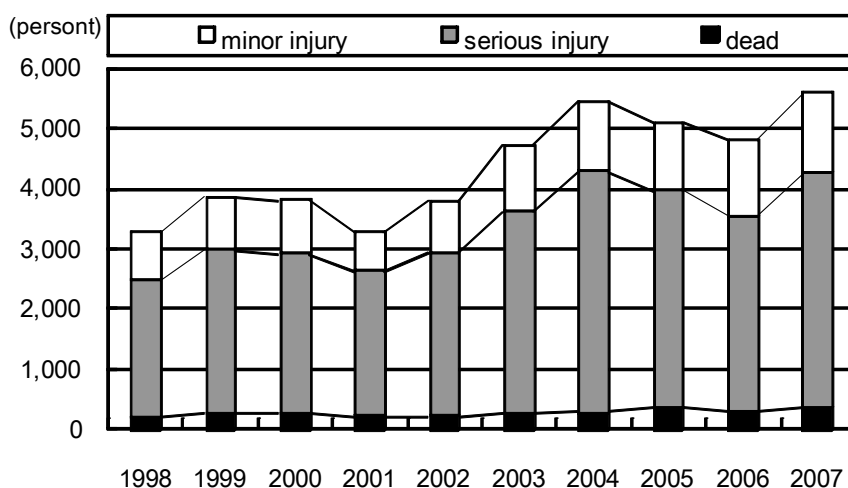


Fig.3.4.12 Victims Injury Level Status

Source: *Etude de reforme du cadre institutionnel des transports urbains en Republic Democratique Congo*

3.4.1.5 Public Transport (Railways, Buses, and Ports)

(1) Railway

There are three railway lines in Kinshasa, Gare Centrale-N'djili Airport, Gare Centrale-Kasangulu-Matadi (Bas Congo province), and Gare Centrale-Kitambo-Kinsuka. However, Gare Centrale-Kitambo-Kinsuka is not operational because of the condition of the current system and the lack of available engines. Trains are operated by ONATRA (Office National de TRAsport). Regarding stations, Gare Centrale-N'djili Airport has 10 stations, while Gare Centrale-Kasangulu-Matadi has 9 stations. Two trains are scheduled in the morning and only one train in the evening for Gare Centrale-N'djili Airport, while the other train is

scheduled for both ways in Gare Centrale-Kasangulu-Matadi.

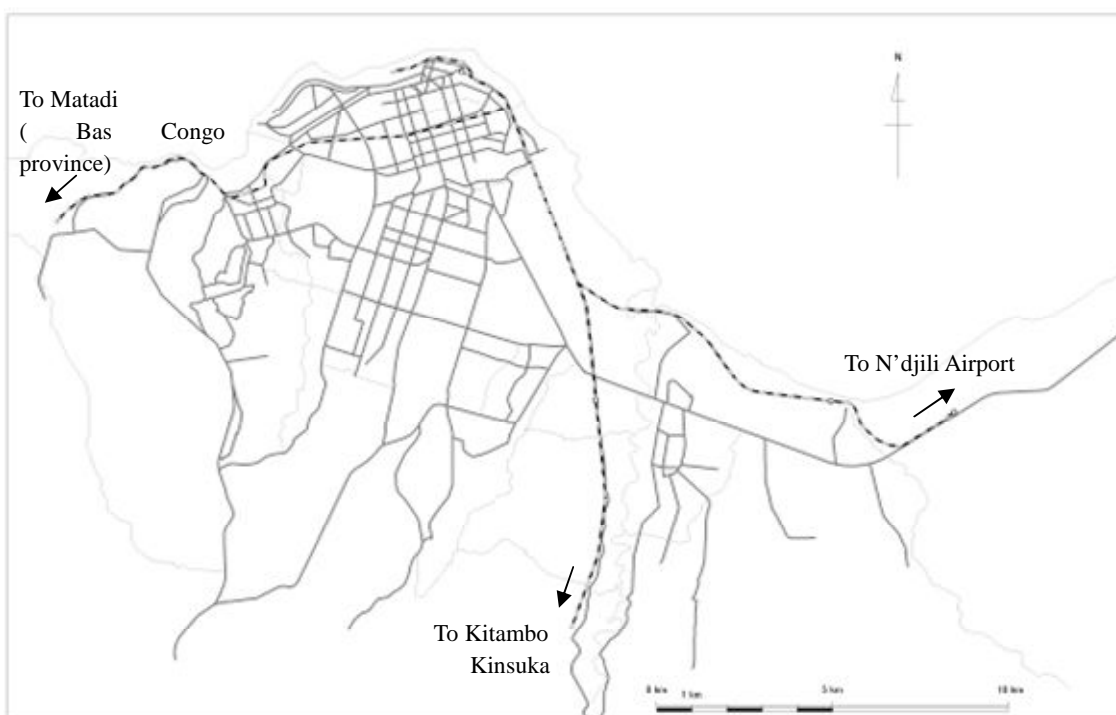


Fig. 3.4.13 Train Network of Kinshasa

Source: Etude de reforme du cadre institutionnel des transports urbains en Republic Democratique Cong

(2) Bus

The bus operation system is managed by public corporations such as CITY TRAIN and RETRANS KIN, or by private companies and/or owner-drivers. Among the buses being managed by public corporations, CITY TRAIN operates the inner city lines and intercity lines. RETRANS KIN is managed by the Kinshasa province and operates only in inner city lines. The Buses operated by CITY TRAIN and RETRANS KIN were donated by Korean Aid. The bus routes are operated by CITY TRAIN and are shown in the next pages. Minibuses are operated by private companies and/or owner-drivers. As for the private companies, CONGOBUS and JEFFERYTRAVELASE have many buses within Kinshasa. The capacity of passengers for a minibus is 12-16 people, and 3 or 4 lines of benches are provided for a maximum of 4 people per bench.

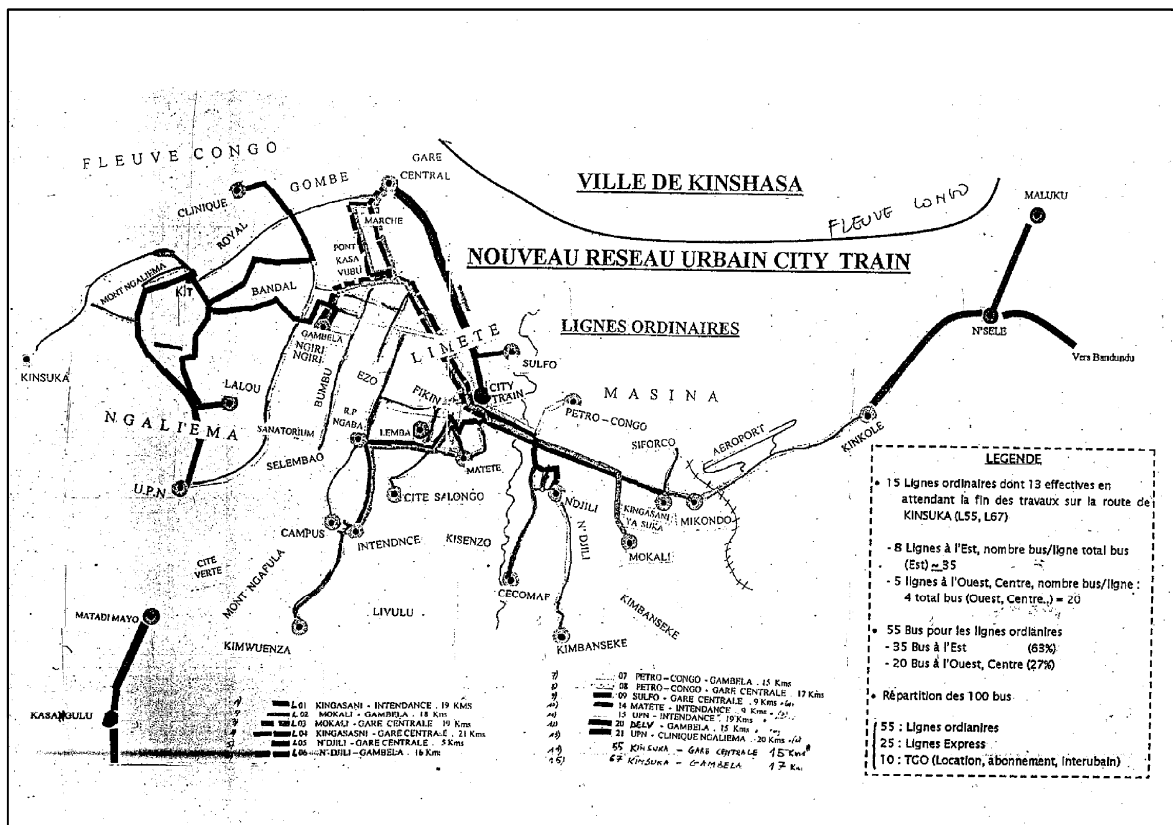


Fig. 3.4.14 Bus Route of CITY TRAIN

Source: Etude de reforme du cadre institutionnel des transports urbains en Republic Democratique Congo

(3) Ports

There are a total of four public ports in Kinshasa. ONATRA operates three ports and the other one is operated by RVF (Regie des Voies Fluviales). There are more than 50 private ports operated by private companies. As for the public port for passengers and the water line from Kinshasa to Brazzaville (Republic of Congo), Ngobila Beach is operated by ONATRA, which is expected to be approximately 10 minutes. Regarding the cargo, agricultural crops are transported from the countryside to Kinshasa and manufactured products are transported from Kinshasa to the countryside in return.

3.4.2 Health and Sanitation

3.4.2.1 Health

(1) Existing Plan

1) Government Priority Action Programme (PAP) for the Health Sector

National Ministry of Planning and UNDP (United Nations Development Programme), formulate the “GOVERNMENT PRIORITY ACTION PROGRAMME (PAP),” in “PRSP (Poverty Reduction Strategy Paper)”. The vision is articulated in PAP, which was presented in August of 2007. The target years are set from July of 2007 to December of 2008. The post-conflict social situation in the DRC is economically at its lowest level. The health and education sectors, along with accessibility to safe water in a safe environment with almost a non-existing social security, need urgent attention and well-balanced action plans.

To rehabilitate the basic infrastructures and to restore the quality of social services to an ever-growing population requires the set up of an aggressive policy or strategy in the sector in partnership with community organizations, NGOs, churches and the civil society, which is currently very active within this sector. Efforts shall be concentrated on substantial improvement of access to the population in quality health care and education, safe water access and maintaining a safe environment. Social security and protection of vulnerable groups shall also be improved. The attendance rate of Health Centres per patient per year has increased by 10% from 2008-2009 (20% in 2008 and 30% in 2009). The legal and normative framework is revised for the health sector. The Strategy for Rehabilitating the Health Sector (SRSS) and guides for planning and reinforcing the development of the health system have been updated and disseminated.

2) “Five-Year Health Plan for the Kinshasa Province: 2008–2012, Health Development Plans for Kinshasa's Provincial Government”

The FIVE-YEAR HEALTH PLAN was prepared through UNICEF and WHO in collaboration with BDOM, Salvation Army Church, Rotary Club and Kinshasa Health Inspection in 2007. The general objective is to improve the medical situation of the population for the Province of Kinshasa. Specific objectives are: 1.) To revitalize the health zones to correct the distortions, for recovering its function as preliminary unit of health and sanitation activities; 2.) To reorganize the intermediate level of Health and Sanitation sector; 3.) To rationalize the finances of the health sector; 4.) To reinforce the intra and intersector partnership; 5.) To develop human resources for health and 6.) to reinforce the research of the system of health.

3.4.2.2 Administrative System for Health Sector

(1) General Administrative Condition

Almost all the HGRs (Hopital general de reference) do not manage to distinguish the differences between PMA (Medical assisted procreation or artificial insemination), which is related to Health Center (centre de sante) and the PCA (Patient controlled analgesia), which are supposed to ensure the population. The population which is geographically inaccessible to the services of a Health Center is primarily localized in the health zone within rural and semi-rural areas such as Maluku 1 and 2, and Nsele and Mont Ngafula 1 and 2. About half of the population is not covered by Health Center offering a PMA. Out of the 35 health zones in the city, 5 of them presents a coverage rate lower or equal to 25%, 13 with a coverage rate higher than 25% and lower or equal to 50%, 11 with a coverage rate higher than 50% and lower than 75%, and 6 with higher than 75% and lower or equal at 100%. A suspect case of avian influenza has not yet been notified in the health zone of Barumbu. The results of the analysis did not confirm the diagnosis.

- A measles epidemic was controlled in the health zone of Maluku I with laboratory results confirmed.
- A Gastro entérite epidemic of E.Coli enteropathogene in health zones of Maluku I, Limete and Lingwalahospitalized those with serious symptoms in Bondeko private clinics while other patients in CS of the ZS were respectively under the monitoring of head doctors in the ZS.
- The cases of having bloody diarrhoea in the health zone of Makala suggested a bloody diarrhoea epidemic. Fortunately, the laboratory results did not confirm this and it instead turned out to be amoebiasis.
- A hemorrhagic suspicion of fever in the health zones of Lemba and Limete. The results from taking blood samples made it possible to test the population, and it turned out to be gingivitis.

The reports of the health zones were completed 100%. On the other hand, the completeness of promptitude was low at 54.3%. These reports, once compiled at the intermediate level, are transmitted to the central level (fourth direction). Out of the 35 ZS's of the city, 5 present a coverage rate lower or equal to 25%, 13 with a coverage rate higher than 25% and lower or equal to 50%, 11 with a coverage rate higher than 50% and lower than 75%, and 6 with a coverage rate higher than 75% and lower or equal to 100%. The medical coverage refers to the construction of new structures in care, as to the rehabilitation of the existing structures and private contract.

According to the level of importance for the population of Kinshasa in 2007, which rose to 6,151,770 inhabitants, the city should have 41-62 hospitals in presumption, considering that

HGR is responsible for covering approximately 100,000-150,000 inhabitants. The town of Kinshasa to date lays out 54 HGR* of which that of PCA is only 40% due to the lack of four traditional medical departments emergency and intensive care services.

*(HGR: Hospital General Reference)

(2)Administrative System

Related Health Administrative Organisation Chart are Shown in Figure 3.4.15

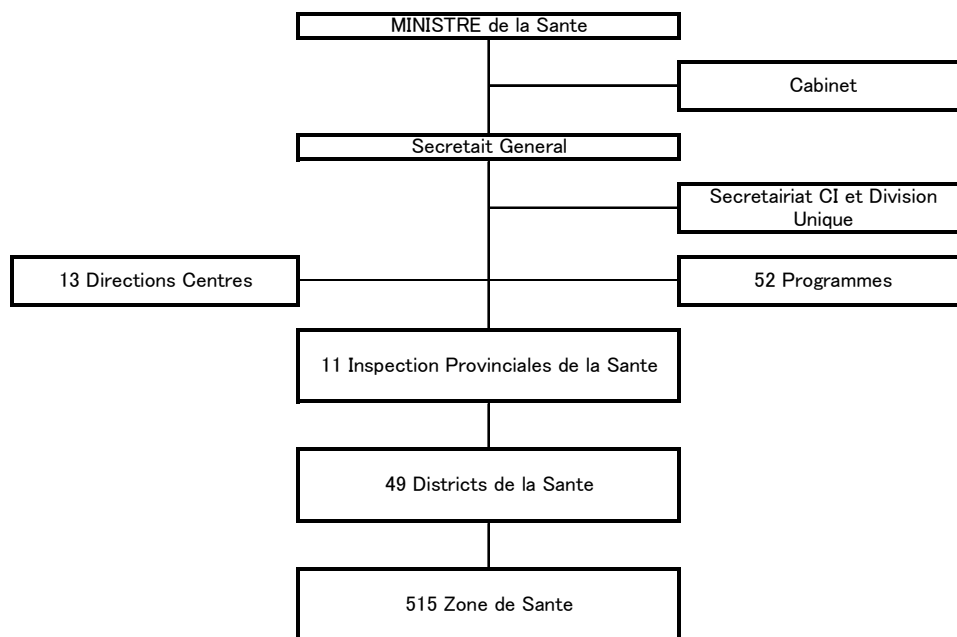


Fig. 3.4.15 Health Administrative Organisation Chart

Source: Inspection Provinciale de la Santé

(3)Organization of Health Zone

Organization Chart of Health Zone is shown on Fig.3.4.16.

ORGANIGRAMME DU BUREAU CENTRAL DE LA ZONE DE SANTE

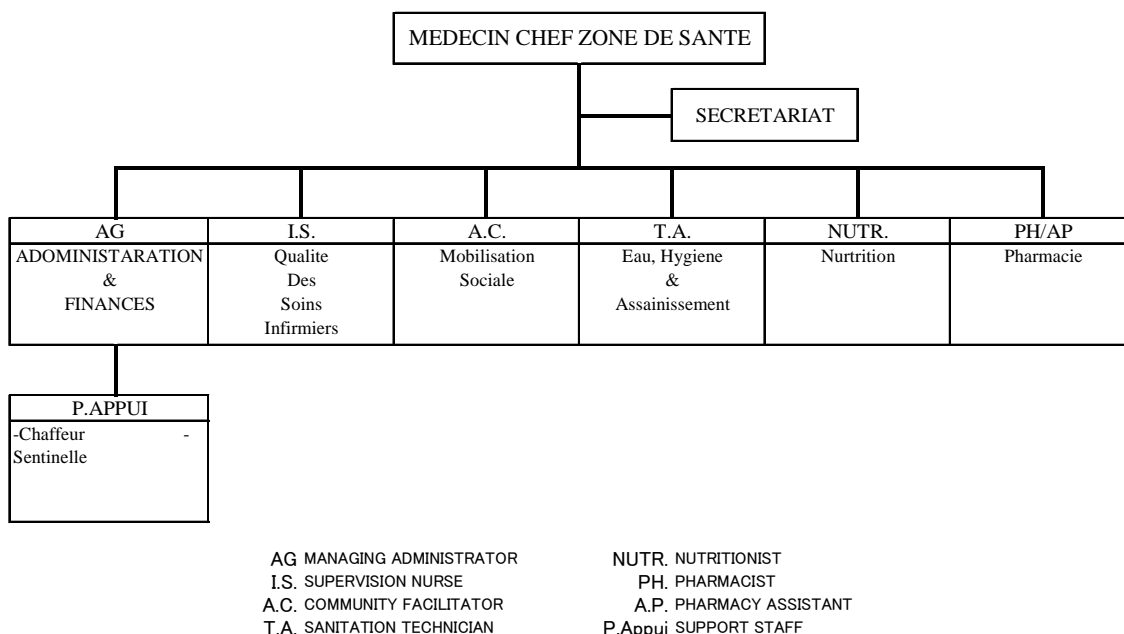


Fig. 3.4.16 Organization Chart for Health Zone

Source: Inspection Provinciale de la Santé

(4) Budget

According to the provincial inspection section of Kinshasa, the budget for health and sanitation is approximately 4.2% of the national budget of the DRC. However, this amount is actually less than 2%. Annually, 3 US dollars per person is required to receive decent medical services.

3.4.2.3 Health Facilities and Donors

(1) Health Facilities

Total number of facilities, beds and doctors in the province of Kinshasa is as follows:

Table 3.4.5 Total number of facilities, beds, and doctors in the province of Kinshasa

District of Sanitation	No. of Facility	No. of Bed	No. of Doctor
FUNA	243	1,522	193
GOMBE	201	772	146
KALAMU	553	2,626	108
LUKUNGA	307	1,740	49
NDJILI	376	2,097	330
NSELE	56	243	—
TOTAL	1736	9000	826

Source : Inspection Provinciale de la Santé

(2) Health Zone

The province of Kinshasa has thirty-five Health Zones in six health districts.

Table 3.4.6 Health Zones in the Kinshasa Province

LISTE DES ZONES DE SANTE
DE LA VILLE-PROVINCE DE

District Sabitaire	No.	Zone De Sante
FUNA	1	BUMBU
	2	KASA-VUBU
	3	MAKALA
	4	NGIRI NGIRI
GOMBE	5	BARUMBU
	6	GOMBE
	7	KINSHASA
	8	LINGWALA
	9	POLICE
KALAMU	10	KALAMU I
	11	KALAMU II
	12	KINGABWA
	13	KISENSO
	14	LIMETE
	15	LEMBA
	16	MATETE
	17	NGABA
LUKUNGA	18	BANDALUNGWA
	19	BINZA METEO
	20	BINZA OZONE
	21	KINTAMBO
	22	KOKOLO
	23	MONT NGAFULA I
	24	MONT NGAFULA II
	25	SELEMBAO
NDJILI	26	BIYELA
	27	KIKIMI
	28	KIMBANSEKE
	29	KINGASANI
	30	MASINA I
	31	MASINA II
	32	NDJILI
NSELE	33	MALUKU I
	34	MALUKU II
	35	NSELE

Source : Inspection Provinciale de la Santé

(3) Donors

The following donors participate in health and sanitation program activities in the province of Kinshasa:

UNICEF, CEMUBAC, PMURR, MMN, ROTARY, IRC and PROSAKI

3.4.2.4 Main Diseases

The principal problems of health in the city are: paludism, typhoid fever, and tuberculosis. Two epidemics were declared in 2005 in the province: one was measles and the other, gastro-enteritis. Suspicious cases of *monkey pox* were reported in the health zones of Ndjili, Ngiri-Ngiri, Masina I and Masina II. Additionally, suspicious cases of viral hemorrhagic fever were notified by the health zone of Gombe. It should however be noted that maternal and infant mortality during delivery have decreased in recent years.

Table 3.4.7 Epidemiologic Situation of the Province (2005)

Diseases	Cases	Deaths	Lethality
PALUDISM	2,112,834	4,650	0.20 %
TYPHOID FEVER	376,991	208	0.05%
MEASLES	161,005	1425	0.80%
MENINGITIS	4,060	405	9.90%
BLOODY DIARRHEA	2,384	20	0.83%
WHOOPIING COUGH	674	1	0,90%
NNT (Neo Natal Tetanos)	128	11	8.60%
AFP(Acuite Fraccid Paralysis)	0	0	0.00%
CHOLERA	0	0	0.00%

Source : Inspection Provinciale de la Santé

Table 3.4.8 Epidemiologic Situation of the Province (2006)

Disease	Case	Death	Lethality
Paudalism	810,546	1,897	0.20%
Fever Typhoide	147,716	71	0.04%
Measles	13,388	148	1.10%
Meningitis	1,329	166	12.40%
Bloody Diarrhee	704	12	1.70%
Ehooping-Cough	111	0	0%
NNT	30	8	26.60%
AFP	27	1	3.70%
Cholera	1	0	0%
Gastro Enterite	8,512	180	2.10%
FHV	0	0	0%
Typhus	0	0	0%
Plag	0	0	0%
Yellow Fever	0	0	0%

Source : Inspection Provinciale de la Santé

The data listed above is related only to the structures of health which are reported regularly.

- The data of big hospitals were not available at the time
- Medical training is not integrated and does not report their data to the associated level
- Health services are not generally used by the population. Reasons to explain this situation consist of economic, geographical and cultural inaccessibility of the population to receive proper healthcare in addition to the bad quality of the services in health structures.

3.4.2.5 Existing Issues

The medical system in the city of Kinshasa has several issues:

- The in-coordination of interventions of specific partners regarding development

- Lack of control by the IPS (Specialized Nurse Practician) in Kinshasa of the provincial coordination actions of specialized programs, though it is placed under its responsibility
- Unrealistic planning which does not suit the health system
- Poor distribution of partner interventions in the ZS
- Poor management of allocated resources
- Disrespect of the administrative procedures and the medical standards in operation of various services
- The insufficiency of control and inspection of the services
- The weak participation of the State in financing the health sector
- Lack of manpower for health sector; especially within the hospitals
- Lack of the medicine and biomedical equipment in structures concerning care
- The absence of in-house training programs for the profit of the hospital personnel
- Poor quality of care offered by various structures of health
- Inaccessibility of the majority of the population to essential care
- Inexistence of contingency plans or counteractive measures against epidemics or regarding emergencies.

(IPS: Specialized Nurse Practician)

3.4.2.6 Sewage

(1) Existing Plan

There is no sewerage system development plan or development priority of sewer network system and treatment plant is relatively low in Kinshasa.

(2) Administrative System

It is based on the program of "PMURR" (2006) which was funded by the World Bank under which it was decided that environmental improvement of the Kinshasa province would be undertaken by CNAEA. The program included plans and implementation of environmental improvement projects. Main ministries of the provincial government, for example, Ministry of Finance, Ministry of Planning, Ministry of Environment, Ministry of Nature, Conservation and Tourism, and Ministry of Public Health, share the enforcement of planning and projects concerning the city's environment (human waste, sewage and rain drainage, solid waste disposal, etc). The assignment of each ministry is determined by the National Committee of Water Action and Sanitation (CNAEA), which is under the control of the Ministry of Planning. In the Democratic Republic of the Congo, the laws and regulations concerning the sewage are not established.

(3) Existing conditions

The Kinshasa province does not have any sewage system which collects domestic wastewater or human wastes by a pipe network. Basically, it is eliminated through an on-site treatment and disposal system or is discharged into a drainage canal or tributary rivers of the Congo River. Existing situation of disposal is described below.

1) Human Waste (Toilet facilities)

The situation of the treatment and disposal of human wastes in the Kinshasa province can be summarized as follows:

- The rate of toilet installations within each household has reached about 97%, and there is no public toilet used for everyday living activities at home.
- Three types of sanitation systems are commonly used, and these include the pit latrine, septic tank and isolated tank (vault toilet) system.
- Of the installed toilets in each household, 63% are pit latrines, 24% are a septic tank type, and 13% are of the isolated tank type, respectively.

The existing situation of toilet installations in the Kinshasa province is shown in Table 3.4.9.

Table 3.4.9 Existing Situation of Toilet Installation in the Kinshasa Province

Commune	Population	Number of toilet facilities			
		Pit Latrine	Septic tank	Insulated pit	Total
GOMBE	40,000	-	900	-	900
LIMETE	266,000	5,800	5,203	14,997	26,000
NGALIEMA	588,000	29,800	22,074	7,728	59,602
BARUMBU	97,000	550	2,744	4,356	7,650
KINSHASA	93,000	6,000	4,170	1,760	11,930
KINTAMBO	80,000	3,400	3,012	1,988	8,400
LINGWALA	64,000	3,400	2,076	1,324	6,800
KALAMU	171,000	6,000	7,916	6,184	20,100
KASA-VUBU	80,000	2,800	4,800	1,800	9,400
NGIRI-NGIRI	110,000	6,200	4,000	2,200	12,400
BANDALUNGWA	145,000	4,200	8,100	2,700	15,000
LEMBA	223,000	15,120	3,701	1,299	20,120
MATETE	196,000	4,335	9,750	3,250	17,335
NDJILI	332,000	37,000	29,600	7,400	74,000
BUMBU	276,000	17,800	10,980	920	29,700
MAKALA	180,000	18,300	734	266	19,300
NGABA	117,000	8,010	4,262	1,078	13,350
SELEMBAO	223,000	19,800	4,351	609	24,760
KIMBANSEKE	683,000	59,100	9,494	5,306	73,900
KISENSO	271,000	25,300	1,680	1,120	28,100
MASINA	399,000	59,100	6,400	8,400	73,900
MALUKU	242,000	24,603	875	1,626	27,104
MONTO-NGAFULA	226,000	22,977	1,902	2,874	27,753
N'SELE	158,000	16,063	2,559	4,756	23,378
Total	5,260,000	395,658	151,283	83,941	630,882

Source: The studies for the realization of the plan of actions for the purification of the city of Kinshasa (2006)

The pit latrine toilet can be used continuously by the disposal of faecal sludge (usually dry

sludge), which accumulates every six months to one year. Otherwise, a pit latrine can be used by re-installation at the adjoining location. Therefore, pit latrines are low cost toilet facilities which are very easy to install and use. However, in the case when the groundwater level is high, environmental living problems occur, which include the possibility of well water contamination, sanitation problems, bad smells, and the possible occurrence of some plagues.

On the other hand, toilets with septic tanks and isolated tanks require the removal of faecal sludge (liquid sludge) periodically. These types do not face the above-mentioned problems however. Furthermore, a treatment plant for generated faecal sludge is required. The provincial government has a plan to build a sludge treatment plant in a solid waste landfill site at present.

2) Domestic Wastewater

As mentioned above, the Kinshasa province has no sewage pipe system. Therefore, the discharge pattern of wastewater (mainly domestic wastewater) in the Kinshasa province can roughly be classified into the following two types:

- In the partial urban areas and peri-urban areas of the Kinshasa province, a water tap is usually in the form of a yard connection. In this case, domestic wastewater from the household is sprinkled out into yard. Therefore, it is not discharged into the drainage canal and it usually permeates into the soil.
- In households of urbanized areas, a water tap is usually in the form of a house connection. Usually, a drainpipe is installed and wastewater is discharged into the drainage ditch or the river through the drainpipe.

Urban areas of Kinshasa are located in the alluvial terrace of the Congo River and many tributary rivers are flowing into the Congo River. These tributary rivers carry out the role of a drainage canal. The wastewater, which flows into the drainage ditch or the river, is finally discharged through these tributary rivers to the Congo River. (Refer to Figure 1.1.1) Consequently, although many drainage ditches and rivers of the urban area are polluted by wastewater from households, it has not caused significant water pollution in the Congo River. Although it is estimated that Kinshasa's central area has a higher population density and higher commercial activity and therefore has large amounts of wastewater discharge, the serious situation where sewage overflows into the road cannot be recognized. Due to these situations, the establishment of a sewerage system in the urban area of Kinshasa is required in the near future.

3) Rainwater

The rainwater drainage system in the Kinshasa province performs effectively due to the high infiltration capacity of soil and dense Congo River network. (Refer to Figure 1.1.1) Urban

areas of the Kinshasa province are developed along the Congo River and rainwater is eliminated through the road drainage canal and the tributary rivers of the Congo River. However, in case of intense rainfall, temporary floods occur on the roads of the urban areas, but are eliminated within a short time. It is presumed that serious flood damages do not occur. However, there are instances of traffic disruption and hindrance as a result of road inundation.

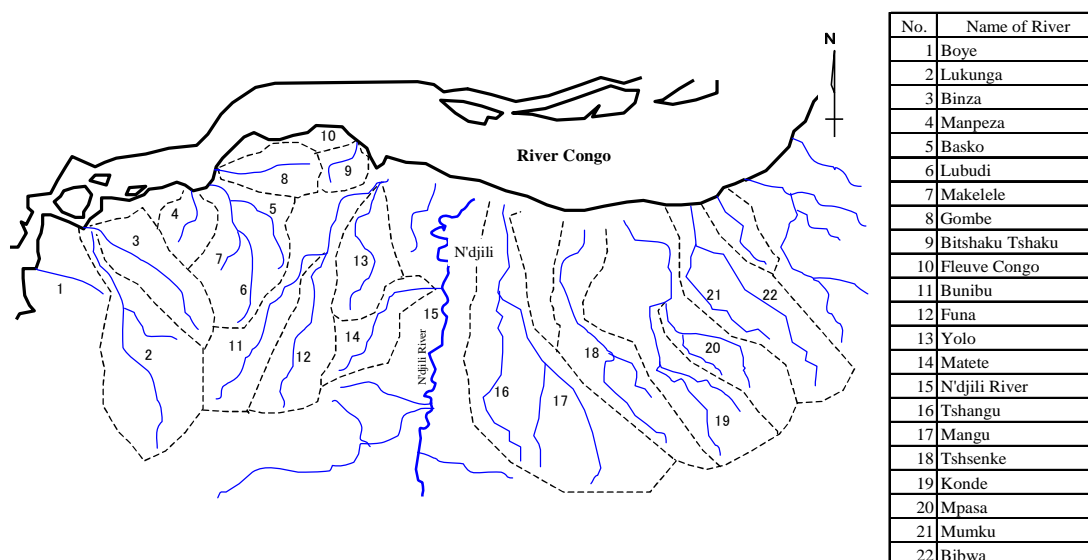


Fig.3.4.17 River Network of Congo River and its Tributary

Source: *The studies for the realization of the plan of actions for the purification of the city of Kinshasa (2006)*

3.4.2.7 Waste Disposal

(1) Existing Plan

Kinshasa's provincial government has a plan to promote the privatization of the solid waste collection service. In addition, it plans to dispose of the collected solid waste to a final disposal site provided by Kinshasa's provincial government. However, there is no final public disposal site in operation now, and two of the final disposal sites in the eastern and western area of the Kinshasa province are under construction or preparation phases for future operations. Regarding the solid waste collection service, one private company has started a collection service in central area of Kinshasa. Moreover, Kinshasa's provincial government has a plan to start a solid waste collection service with two or more private companies and plans to expand the collection service zone in the future. The outline of on-going projects regarding final solid waste landfill sites and solid waste collection services by private companies are mentioned below.

(2) Administrative System

As described in the section on sewage, a single administrative organization, which takes charge

of planning and implementation concerning solid waste management, cannot be found. The Ministry of Planning, Ministry of Environment, Ministry of Nature, Conservation and Tourism, Ministry of Funds, and Ministry of Public Health are in charge of planning and the implementation of the improvement of the environment respectively. The National Committee of Water Action and Sanitation (CNAEA) determine the assignment to each ministry, which is under the control of the Ministry of Planning.

Although construction of a final disposal site is within the completion stage, it is still pending on the source of revenue which is needed for the operation to start. Thus, the implementation of the project in this sector also depends on donor assistance. Furthermore, the laws and regulations concerning solid waste management of the Democratic Republic of the Congo are not established.

3.4.2.8 Existing Conditions

The current situation is that most solid waste collections and disposals (except for road cleaning) are not carried out in Kinshasa. Private companies carry out the solid waste collection service in only some areas of the Kinshasa province. However, since collection is very expensive, the solid waste collection service is intended only for households of high economic status. On the other hand, the solid waste from households of medium or low economic status is collected by individual solid waste collectors using a handcart, and it is disposed near the dumping site. As for the solid waste in peri-urban areas and urban areas, similarly, (although the landfill is performed within housing areas using some solid wastes), many wastes are disposed near the dumping site. Since suitable solid waste collections and disposals are not performed, problems such as sanitary problems and inappropriate disposals related to solid waste have occurred.

In the Kinshasa province, about 5,000 ton/day of solid waste is generated, and out of that, 500 ton/day (about 10%) requires a specific type of disposal process. For the remaining 90%, proper disposal is not performed and it is thrown away into open solid waste dumping sites or rivers in the city. Consequently, it is presumed that about one million tons of solid waste per year accumulates at inappropriate locations in the Kinshasa province.

The per capita solid waste generation and future population in the Kinshasa province are described in the report for the studies of the realization of the plan of actions for the purification of the city of Kinshasa. Based on these figures, the amount of solid waste generation at present and future times is calculated as 6,300m³/day and 11,900m³/day, respectively. This quantity is very large and therefore an immediate implementation of a solid waste management plan is desired.

Table 3.4.10 Estimation of Solid Waste Generation in the Kinshasa Province

Year	Population	Solid waste generation (volume)		Solid waste generation (weight)	
		Per capita generation (litter/cap/day)	Volume (m ³ /day)	Per capita generation (kg/cap/day)	Weight (ton/day)
2005	5,260,000	1.19	6,259	0.41	2,157
2015	7,300,000	1.31	9,563	0.46	3,358
2020	8,600,000	1.38	11,868	0.48	4,128

Source: The studies for the realization of the plan of actions for the purification of the city of Kinshasa (2006)

(1) On-going Projects on Final Solid Waste Landfill Site

The Kinshasa's provincial government selected two places from the proposed six final solid waste landfill sites in the studies for the realization of the plan of actions for cleaning the living environment in the city of Kinshasa. Currently, the construction of two final solid waste landfill sites in Mpasa and Mitendi are being carried out. The outline of the two landfill sites is listed below.

Table 3.4.11 Outline of Solid Waste Landfill Site in the Kinshasa Province

Items	MPASA	MITENDI
Distance from the Town centre	This site is located 35 km from Town Centre Kinshasa City eastern part	This site is located 29 km from Town Centre Kinshasa City eastern part
Schedule/Progress	Under preparation Phase for operations	Under Construction Phase
Area of Final Dumping Sites	250 ha	135 ha
Construction costs	35 millions USD	7 millions USD

Source: The studies for the realization of the plan of actions for the purification of the city of Kinshasa (2006) *: Information obtained from Kinshasa's provincial government

Kinshasa's provincial government recommends the construction of a transitional site in each commune. The plan is to reduce solid waste by the recycling of valuables and the composting of organic matter at the transitional site, while the remaining solid waste is to be disposed of in the final landfill site. Kinshasa's provincial government plans to have each commune take charge of their own solid waste collection and be responsible for the disposal and recycling at the transitional site while the provincial government takes charge of the disposal and management at a solid waste landfill site. Although the plan is designed for each commune to participate in solid waste collection services, public and private corporations are also possible options to carry out the same functions, which the provincial government recommends in the later stage.

In addition to the projects listed above, the following projects related to the solid waste

management system are planned for future implementation.

- Reconstruction of the transitional solid waste sites at the old markets of each commune
- Construction of an experimental facility for the composition and implementation of the experimental project
- Kinshasa's urban area rehabilitation project by EU
- Matete commune's waste collection management by Brussels expert training projects (5 communes selected) in Italy by EU through the company ITALCON
- Community Development Initiatives Support program (PAIDECO) in the communes of Kisenso and Kimbanseke by the TBC
- River cleaning projects of Kinshasa by the provincial government funds through the company AGRIKIN.

(2) Solid Waste Collection Service by the Private Company POUBELKIN

A solid waste collection service company (POUBELKIN) was established in the Kinshasa province and solid waste collection services started in the Gombe and Ngaliema communes in 2008. Currently, the company is only a solid waste collection service company but the establishment of a new service company is expected in the future. The outline is described below.

- Collection method: Door-to-door collection by a motorcycle with a tractor (80 sets in possession). Separate collection is carried out using two types of plastic bags (yellow and blue colours).
- Collection frequency: Twice a week
- Collection fee: 1 USD per plastic bag (capacity is 60 liters)
- Conveyance: Solid waste is to be transported to the transitional site, where it is conveyed to a final landfill site by truck (four-sets in possession).
- Disposal site: At present, there are two solid waste storage places. The stored solid waste at these places will be conveyed and disposed of in final solid waste landfill sites in Mpsa or Mitendi.
- Amount of collected solid waste:
- 40,000 – 50,000 bags/month (approximately 100 m³/day)
- Number of Employees: 200 persons (including 150 collection workers)
- Collection area: Mainly the Gombe and Ngaliema communes, and some areas of Barumbu, Limete, Bandalungwa and Selembao.
- Recycling of plastics: POUBELKIN has a small treatment plant for recycling and reuse of plastic bags in Limete. Experimental recycling has already begun.

3.4.3 Education and Citizenship

3.4.3.1 Education

(1) Existing Plans

1) Government Priority Action Programme (PAP) for the Education Sector

The vision is articulated in the PAP, which was presented in August, 2007. Target period set from July, 2007 to December, 2008.

a) Strategic and operational management has been improved in the education sector.

- National Education Strategy and long-term sector programme (SWAPs) involving all the stakeholders have been set up
- Development and implementation of the National Education Strategy and a long-term sector programme (SWAPs)
- Development of the new parent act in the education sector
- Public finance mechanisms involving validation of the numbers of teachers have been improved. A simplified salary system, more equitable and more transparent, is presented to the public sector to ensure the quality of teachers and that they are regularly paid according to reforms and norms
- Set up of a management system for the teachers' census
- Development of a teachers' nominative list in the framework of budgeting and payroll
- Inclusion of 15,000 primary school teachers on the payroll
- Improvement of teachers' salary scale and clarification of the expenditure chain
- Development of School Mapping
- Annual Publication of Basic Education Statistics
- Providing primary teachers with educational materials
- Set up of efficient local governance in schools

b) Level of funding of the public education sector has increased and the financial management improved

- Donors' financial contributions are aligned with the National Education Strategy
- Establishment of the Annual Monitoring System of Donor contributions, grants, and other funding sources in the education sector
- Mid-term expenditure framework for the education sector has been formulated
- Launch of mid-term Funding Strategy (MTF) of the education sector
- Government budget allocated to the education sector has immediately increased by 10% and intends to increase this amount by at least 20% in 2010

- Increase of the government's contribution by 10% to be allocated to the education sector
- Budget control systems have been developed in order to ensure that public funds reach beneficiaries

c)Level of funding of the public education sector has been increased and the financial management improved

- Primary school fees are progressively being abolished starting from parents' contribution to school operations including other fees
- Target communication and social sensitization campaigns to increase the demand for girls' education and other marginalized and vulnerable children are organized

d)The coverage and the quality of services at primary and secondary school levels have been improved.

- Increase of the government's contribution by 10% to be allocated to the education sector
- 11,000 new teachers and 1,000 new school inspectors and administrators have been hired and have attended refreshment courses for deployment in non-covered areas
- 4,000 classrooms have been rehabilitated and equipped on an annual basis
- Reading manuals by subject course are provided to every student at the primary school level
- Rehabilitating and equipping 4,000 classrooms per year and installing water and sanitation systems in the target schools
- Reading manuals by subject course are provided to every student at the primary school level
- Introducing local languages at the primary school level

e)Higher and vocational education is rationalized and revitalized.

- A strategy for technical education and vocational training is being developed
- Adoption of a strategy for vocational and technical tertiary training
- Partnership mechanisms between the industrial sector and universities have been established
- Developing and adopting a partnership framework between the industrial sector, universities and the training centres
- Relationships between the industrial sector and vocational training centres have been established
- Continuing High School and University Education Reforms

Existing plan for the education sector in the province of Kinshasa will be implemented based on “Government Priority Action Programme (PAP).” But the above-mentioned plan shows just the concept, target or policy in the education sector at the national level. It does not signify the steps on how to achieve the target, nor any realistic method to obtain the objective. A more detailed and concrete action plan is required.

3.4.3.2 Administrative System for Educational Sector

The plan of new construction and improvement works for public schools can be designated by the division of construction and rehabilitation of MEPSP. A nominated School list for improvements proposed by donors shall be technically evaluated by the division of construction and rehabilitation and submitted to the Ministry of Public Works for tendering. A related education administrative organisation chart for the province of Kinshasa is shown in Fig 3.4.18.

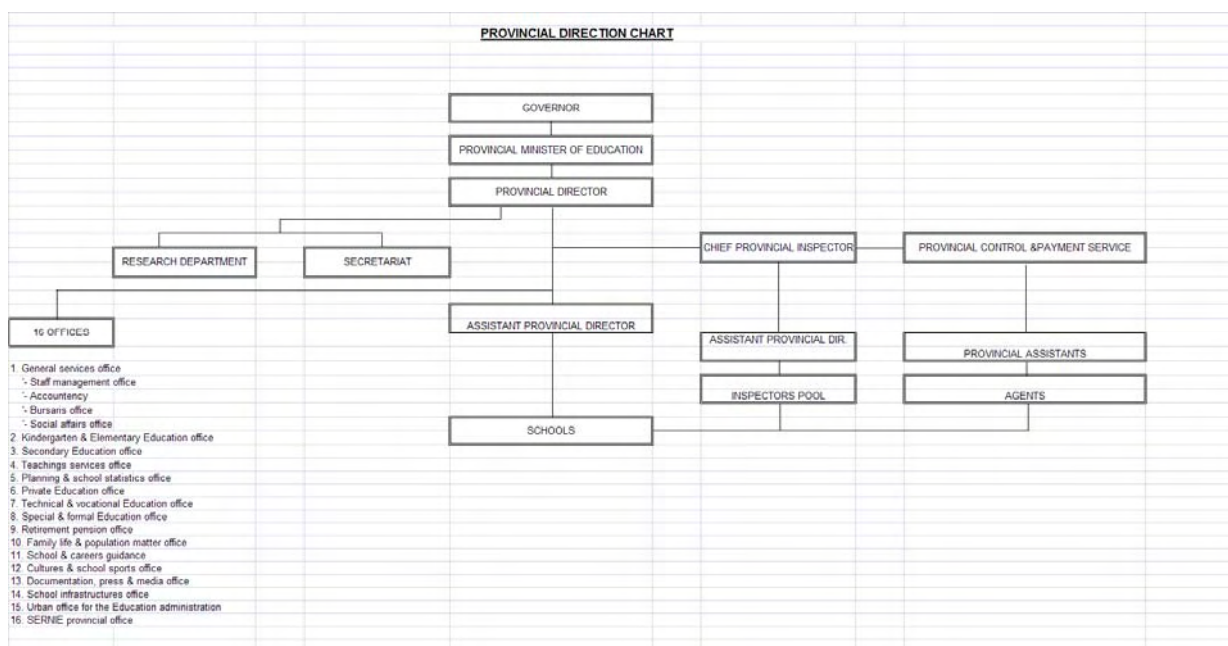


Fig. 3.4.18 Education Administrative Organisation Chart for the Province of Kinshasa

Source: Ministère de l'enseignement primaire, secondaire et professionnel

3.4.3.3 Schools and Students

(1) Schools and Students in Kinshasa Province

Primary and secondary school are within jurisdiction of the Ministry of Education of Primary, Secondary and Professional (Ministère del Enseignement Primaire, Secondaire et

Professionnel, MEPSP). The primary and secondary education systems of DRC consist of six years of primary education and six years of secondary education. In secondary education, the first two years is for basic compulsory subjects and the other four years is for specific subjects including vocational training subjects based on selected courses. According to the statistic data from MEPSP (2008), the number of students in primary school is 778,216 (10.8% in all of RDC), secondary school is 431,022 (14.8% in all of RDC). The school attendance rate is 57.8% for primary school and 37.4% for secondary school. Public schools consist of two different categories, one type is managed by only the government and the other type is managed in collaboration with religious corporations. The number of students in private school is approximately twenty percent (20% of the total students.)

School statistics are shown in Table 3.4.12.

Table 3.4.12 School's Statistical Data in the Kinshasa Province

	Kindergarten	Primary School	Secondary School
No. of School	889	2,300	1,413
No. of Class	2,231	21,054	13,921
No. of Students	51,569	778,216	431,022
No. of Girls	26,292	390,278	209,808
No. of Teachers	2,726	20,693	24,816
No. of Female Teachers	2,231	7,145	3,245

Source: Inspection Provinciale de la Sante

(2) Number of Schools in each Commune

This shows that the schools in the eastern and western parts of the zones in the province are more than those in the central zone. In particular, the communes of Kimbanseke, Masina, Limite, and N'djili have many primary and secondary schools.

**Table 3.4.13 Number of Schools in each Commune of the Kinshasa
Province**

N°	COMMUNE	SCHOOLS											
		Nursery Education				Elementary Education				Secondary Education			
		Public	Private	Church	total	Public	Private	Church	total	Public	Private	Church	total
A.	<u>KIN - EAST</u>												
	MASINA	0	37	8	45	7	90	48	145	7	75	28	120
	MATETE	1	33	1	35	7	44	22	73	5	39	11	55
	KISENSO	0	18	1	19	4	36	35	77	4	30	16	50
	N'DJILI	0	42	0	42	12	68	35	116	11	50	23	84
	KIMBANSEKE	0	28	0	28	14	183	92	290	6	83	58	146
	LIMETE	1	51	4	56	4	68	21	138	7	76	18	101
	N'SELE	1	16	3	20	7	58	31	96	5	30	18	53
	MALUKU	0	4	0	4	23	10	45	78	10	4	24	38
B.	<u>KIN-CENTER</u>												
	LINGWALA	0	54	0	54	7	28	2	37	1	18	5	24
	KALAMU	0	59	3	62	13	68	18	99	4	34	9	47
	NGIRI-NGIRI	0	29	0	29	9	32	14	55	8	24	1	33
	BARUMBU	0	26	2	28	3	27	14	44	2	10	9	21
	KINSHASA	0	24	0	24	1	26	16	43	1	16	9	26
	LEMBA	3	57	6	66	10	77	32	119	10	53	16	79
	NGABA	0	17	2	19	1	28	12	41	0	30	7	37
	KASA-VUBU	0	0	0	0	8	27	10	45	6	16	12	34
C.	<u>KIN-WEST</u>												
	GOMBE	2	24	1	27	4	22	12	38	6	15	12	33
	KINTAMBO	0	18	1	19	2	19	11	32	0	14	9	23
	SELEMBAO	0	53	0	53	6	129	17	152	4	48	10	62
	MAKALA	0	27	1	28	1	54	23	78	0	25	11	36
	NGALIEMA	1	106	7	114	9	224	75	309	8	130	53	191
	MONT-NGAFULA	0	56	4	60	4	125	46	175	2	67	33	102
	BANDALUNGWA	0	42	0	42	8	41	14	63	5	26	4	35
	BUMBU	0	41	0	41	1	61	15	77	5	39	8	52

Source: Ministère de l'enseignement primaire, secondaire et professionnel

3.4.3.4 Existing Issues

(1)Improvement of Accessibility to School

The schooling costs for children create financial burdens on parents, which make it difficult to send their children to school. Additionally, awareness of the importance of compulsory education is essentially needed. Enhancement of creating an attractive school with sportive and cultural activities can improve the quality of education and increase the number of teachers.

(2)School Attendance and Non-formal Education for Out-of-School Children

The average gross schooling rate of the population attending school in the province of Kinshasa is approximately 15.3%. Those whom are not attending school may be due to expensive school fees or family problems. There is high possibility that out-of-school children, including street children, are engaged in criminal activities. For the purpose of providing education for out-of-school children and to reduce juveniles or youth delinquencies, the present education system cannot be maintained. Non-formal education is needed for these children by using facilities such as churches, civil-based organisations or school classrooms before and after hours of formal education classes. Non-formal education includes literacy, accounting, and other life skills which depend not on age but on the level of the participants. Preferably, vocational trainings may need to be combined.

(3) Condition of the Teachers

The current monthly salaries of the teachers are not sufficient enough for living expenses. The average monthly salary for teachers of primary school is around 100 USD. Meanwhile, the Parent Association can fill in the deficit for the teachers. However, this payment is done irregularly. Since the average age of the teachers is around 44 years old, MEPSP shall provide a retirement allowance and pension for them. The ratio of retired employees is around 23% of the total number of teachers.

(4) Educational Material Costs

Educational text costs in the schools within the DRC are almost twice as much as those in the neighbouring countries. The patients shall cover the cost of the text. They shall bear 9-14 USD for primary school, and 14-42 USD for secondary school.

3.4.4 Industry and Employment

3.4.4.1 Industry

(1) Industry/Commerce

After the conflict in 1991 and 1993, and recent armed conflicts that have hampered economic development of the city, there has been intensive development of activities in farming and within the chemical and steel construction industry sector. In spite of the fact that main economic activities are carried out within the informal sector, the following facts were also observed.

- Small businesses were solely handled by foreigners;
- Suspension of industrial activities expansion;
- Low wages;
- Deterioration of the bank network in the urban area;
- Weak purchasing power;
- Lack of economic cooperation structure between authority and professional investment groups;
- Marginalization of agricultural activities in Kinshasa.

The causes of the problems listed above are as follows:

- The conflict brought a recurrent cause;
- Lack of competition due to high operational costs;
- Juridical and judiciary insecurity;
- Existence of heavy fiscal regulations;
- Fiscal embezzlement;
- Lack of enhancement of law on small business;
- Lack of sanction on foreigners backed up by officials (political and military);
- Insufficient money supply for civilians to operate business;
- Poor water and power supply;
- Difficulties in accessing finance;
- Lack of protection of savings
- Macro-economic network instability (high inflation rate and devaluation of local currency);
- Lack of organization capacity for business associations;

- Poor decision-making by the administration;
- Lack of rehabilitation of agricultural roads.

(2) Agricultural Sector

Agricultural activities play an important role in supplying the products which meet the demand of the people in Kinshasa. There are four centres of production for farming, namely; Kimwenza Valley, N'djili, and the Nswenge and Bateke Plateaus, which are used for food crops and cultivation (manioc, maize and vegetables). After rehabilitation and irrigation improvements, the Pool of the Malebo area, with a surface of more or less than 50,000 ha ranging from Kingabwa to Nsele, presented a production potential of 30,000 tons of rice every two to three times per year which covers 50% of the demands of the town's capital and which also creates 1,000 extra jobs in the sector.

As far as animal husbandry is concerned, it should be noted that small animals, poultry, pigs and cattle exist in farms around the town. However, the motivation for animal production within the farms is low while fishing seems to be a traditional activity in Kinshasa.

More than 60% of the surface of Kinshasa is rural or remote quarters. Urbanization of these quarters is anticipated in reference to the infrastructure development and rural equipment supply such as hydraulics, housing, roads and energy. Considering the current agricultural production, there is a deficit in the food supply due to the number of inhabitants, which has currently reached 8 million. The following problems should also be noted:

- Poor condition of agricultural roads ;
- Lack of infrastructure and appropriate conservation equipment, storage and product transformation
- Poor soil conditions
- Presence of multiple types of animal diseases
- Inefficiency of care networks and vulgarization;

The causes of these problems are as follows:

- Lack of supervision, training, equipment and motivated personnel;
- Lack of consideration of work within farming;
- Lack of land security;
- Administrative harassment;
- Deficient management and lack of funding;

- Difficulty in accessing fertilizers for agriculture, cultivation, and low productivity of work;
- Competition of local agricultural products by massive imports of rice, cultivating products and frozen fish.
- Essential immobilization of money in less equipped and utilized agricultural exploitations.

(3) Informal Sector

The informal sector is defined as the entities of production not having a national identification number (ID Number) and/or accounting formalized according to the norms of the Congolese Accounting Charter. According to a household survey conducted by INS in the third quarter of 2004, the region of Kinshasa accounted for 538,200 informal entities of production in shopkeeper branches. Trade accounted for 63.2% of production entities; industry 14.8%; services 12.3%; agricultural activities 7.5% and construction 2.2%. It is confirmed that the informal sector shares 70.9% of total employment.

The informal sector is characterized by the instability of these activities. More than 50% of the informal entities of production do not have specific works and 36.2% exercise their activities at home. This instability deprives access to public services (90.7% are deprived of water, 86.4% of electricity and 96.4% of the use of a telephone). More than 90% of the Units of Informal Production (UPI) are completely unknown when it comes to public services. In other words, they do not possess a national identification number and documents are not recorded officially. The proportion of informal operators that have some relation with the state is only 4%, which means that these persons do not maintain any current relations with public administrative services. In general, 16% of the UPI are ready to make records of their establishment by the administration. Furthermore, 44% of the UPI is willing and able to pay for the taxes on their activity. The results show that improvement in this area through the collaboration between these two parties is successful.

Major difficulties of the UPI are confronted when determining the working order of their activities when obtaining access to their credit. To carry out their activities, informal entities of production would like receive benefits from the support of a small pool of investors. Less than 10% of UPI does not require any help. This proportion is most distinctive in the agricultural sector (30%), less in the commercial sector (18.5%) and services (17.5%). As a whole, 73.2%

of the UPI estimates that the future outlook is good, while 63% desire their children to take relief in areas which are identified within the construction sector (94.5%) and industries (78.4%).

3.4.4.2 Employment

The labour force rate, according to a household survey, indicates it is 42.5% (47.4% with the inclusion of unemployed persons). Of the labour force, men are 49.7% while women are 35.7%. The unemployment rate within Kinshasa is only of 6.3% with the majority of those out of work consisting mostly of women. The unemployment rate is highest among people in the age range of 25-29 years. This problem is most serious for those who are educated and those who are the heads of their households. More than half of the unemployed persons (54.8%) desire a decent job with a decent pay but only 7.9% succeed in finding one. The proportion of the people working less than 35 hours per week in an involuntary manner corresponds to the observable unemployment rate.

On this basis, the observable unemployment rate is 24.6%. Hourly wage costs are derived from the productivity of low work demand. This type of unemployment is defined as the unobservable unemployment rate. The level of income earned in main work activities accounts for this type of unemployment. Thus, the unobservable rate is 44.4%. By constructing a synthetic indicator of unemployment using the aggregation of different unemployment components, such as the observable and unobservable unemployment rates, we retrieve an overall unemployment rate of 74.2%. Unemployment is a serious problem in the labour market of Kinshasa.

Therefore, the employment opportunity is limited within Kinshasa even for those who are well-trained. The inflow of people coming from rural areas and displaced war veterans seeking work seem to increase the unemployment rate, due to discrimination practices such as racism and tribalism. Such immoral values are yet to be denounced by the laws of the province. More or less because of this dilemma, jobless people tend to return to their villages where living conditions are quite harsh. In recent times, survival within the province has become more difficult than in the past; with many jobless people and even workers such as teachers, tailors, and labourers seeking solutions to their money problems by shifting to the farming industry in far-off remote places. The results of the conditions described above are shown as follows:

- Low revenue for the unemployed

- Low income and irregular payment for those employed

The causes of these problems are as follows:

- Lack of a job creation policy
- Recurring conflicts
- Lack of political efforts (Economical and operational difficulties)
- Lack of the nation's financial support
- National dismissal
- Lack of adherence to existing regulations
- Lack of an income generating policy
- High rate of unemployment
- Lack of the implementation of designating a minimum wage law
- Lack of decent jobs and regular income basis

3.4.5 Water and Lifeline

3.4.5.1 Water Supply

(1)Existing Plans

The water supply's master plan of Kinshasa ("Programme Multisectoriel D'Urgence Pour la Rehabilitation et la Reconstruction "PMURRM", Plan Directeur D'Alimentation en Eau Potable de la Ville de Kinshasa, BCMI-No 11.06, D'cembre 2007") aims at the improvement of the water supply system in the Kinshasa province, which is formulated by the World Bank. The target year for the master plan is 2017, and the outline is briefly illustrated in Fig. 3.4.19.

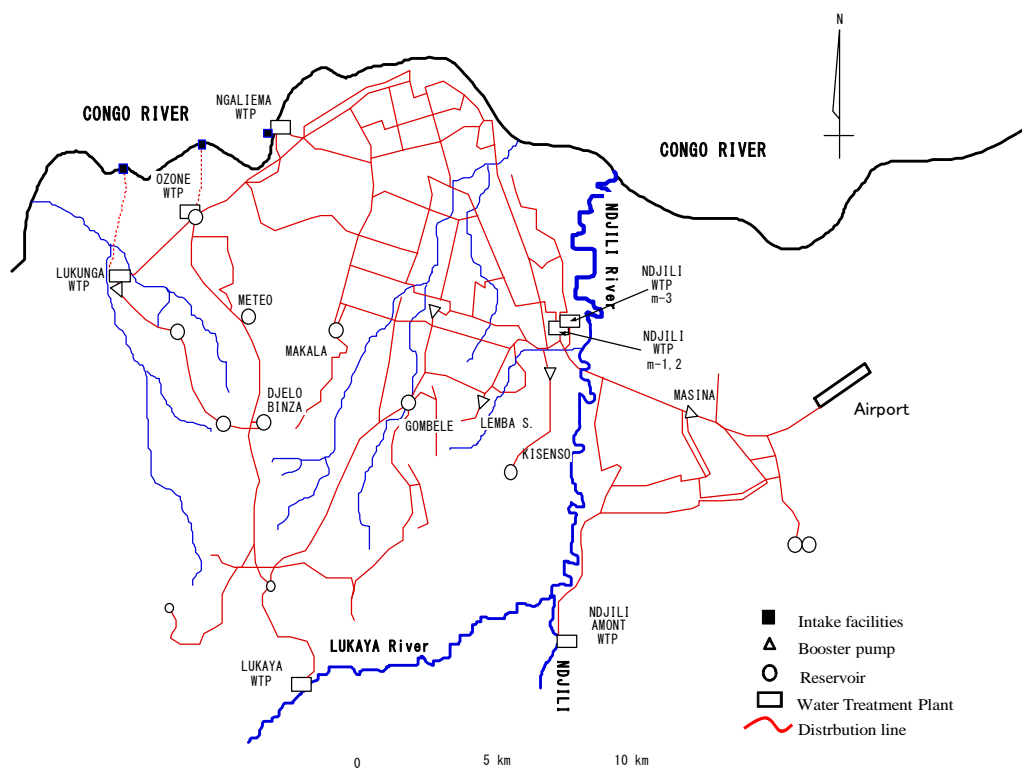


Fig. 3.4.19 Master Plan of the Water Supply in Kinshasa Province (2009–2017)

Source: REGIDESO

As of March 2009, accomplished projects and on-going projects in the water supply sector are as follows.

Table 3.4.14 On-going Projects in the Water Supply Sector

Donor	Schedule	Description of Project
WB	Completed	Rehabilitation : N'djili WTP Module 1 and 2 (220,000 m ³ /day)
EU	On-going	Rehabilitation : WTP Lukunga
WB	Completed	Construction : N'djili WTP Module 3 (110.000 m ³ /day)
WB	Completed	Construction : Reinforcing Conveyance line to Kinshasa Province Southern Area
EU	On-going	Rehabilitation : Distribution Network Improvement (secondary and tertiary pipes) in nine communes : Barumbu, Kinshasa, Lingwala, Ngiri-Ngiri, Bandalungwa, Kintambo, Matete, Makala and Lemba, including Matonge, Yolo and Ezo areas
JICA	On-going Survey	Extension : Ngaliema WTP (30,000 m ³ /day) Rehabilitation : Distribution Network Improvement in Kinshasa Central Area (under detailed examination)

Source: REGIDESO

REGIDESO is continuing with the development of the water supply system based on the water supply's master plan. However, the pace of planned development is greatly influenced by the source of revenue. Hence, the implementation of the projects included in the water supply's master plan is highly dependent on donor assistance.

(2) Institutional Framework and Administrative System

In this section, the institutional framework and administrative system of the waterworks in the Democratic Republic of the Congo are described under the four following points regarding waterworks.

- Water resources management
- Water sector's coordination and sanitation
- Supply of potable water that is institutionally subdivided into two sub sectors: urban and rural areas
- Reform of the water supply policy for urban areas

1) Water Resources Management

The Ministry of Environment is the institution in charge of natural resources such as the aquatic system. The water resources department of this Ministry is in charge of the management of water sources for water supply and sanitation for water pollution control.

2) Water Sector Coordination and Sanitation

The water sector's coordination is assured by the National Committee of Water Action and Sanitation (CNAEA), created under the Act 81-023 of February 1981. The CNAEA is under control of the Ministry of Planning that ensures supervision and the executive secretary is assigned to REGIDESO. The coordination task of CNAEA implies the following:

- Defining options, priorities and development strategies
- Mobilization of financial resources necessary for the implementation of various projects of the sector
- Evaluation and control of the implementation of rehabilitation programs of the sector, development and training with regard to the objectives of the countries in the sector.

3) Potable Water Supply

In the waterworks of the Democratic Republic of the Congo, REGIDESO is in charge of production, distribution and the commercialisation of the water supply in the urban area. REGIDESO is a public company with autonomous management and technically under control of the Ministry of Energy which is under control of the Ministry of Portfolio as far as the administration is concerned. Potable water supply in rural areas is under the responsibility of three kinds of agencies including public institutions, private institutions and NGO's. The rural Hydraulic National Service (SNHR) has mainly managed the water supply of rural areas, while SNHR is under control of the Ministry of Rural Development. In addition, the Ministry of Health has also participated in the management of the water supply of rural areas for the safety of supplied water and its sanitation.

4) Reform of the Water Supply Policy for Urban Areas

The reform of the potable water supply sector in urban areas is led by the sub-sectarian water group work (SGTSEAU) run by the Ministry of Energy. The SGTSEAU has recently been formed for the purpose of reforming programs in companies and is supervised by the piloting committee of reforms of companies (also called as COPIREP.) The assignment of SGSEAU includes the following key points:

- Review and diagnosis of the technical, financial, commercial, and social situations of the company's places under the control of the Ministry of Energy, including REGIDESO
- To design, elaborate, and propose the strategies and programs for reform and/or various relevant measures
- To prepare and propose projects concerning the laws and regulations of the general energy sector

An institutional chart of the water sector in the Democratic Republic of the Congo is shown in Fig. 3.4.20.

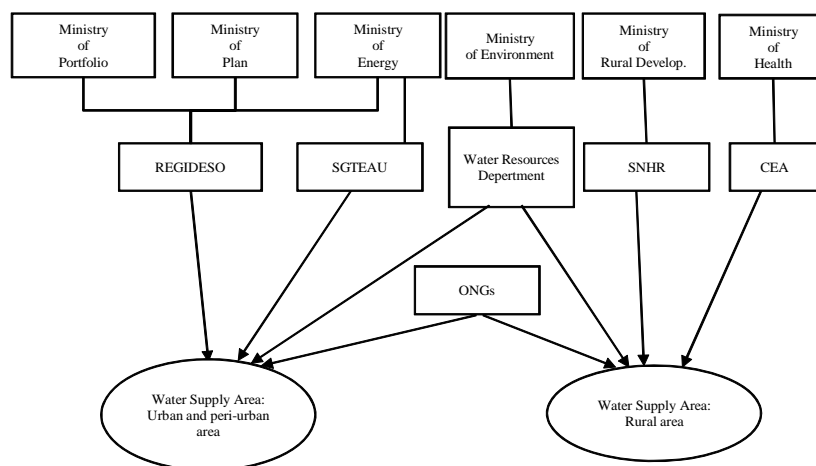


Fig. 3.4.20 Institutional Chart of the Water Sector in the Democratic Republic of the Congo

Source: REGIDESO

(3)The REGIDESO

As mentioned above, the public company REGIDESO is the main organization involved in the water supply sector of the urban area. The historical background of REGIDESO dates back to the creation of an autonomous public company (with civil personnel named under the water and electricity service of Belgian Congo and Rwanda- Burundi) by the royal law act as the predecessor of REGIDESO in 1939. After independence, Creation by law act No. 66-460 of

August 25, 1966, a new autonomous public institution comprised of civil personnel named Water and Electricity Supply of the Republic Democratic of Congo or REGIDESO was established in 1966.

The REGIDESO organization of the Democratic Republic of the Congo consists of headquarters and 11 branch offices, with branch offices located in each province. The branch office of the Kinshasa province is divided into seven divisions comprising of a technical division, financial division and five supply divisions. The supply division consists of five regional divisions including north, west, south, east (1) and east (2). The organization chart of REGIDESO in the Kinshasa province is shown in Fig. 3.4.21.

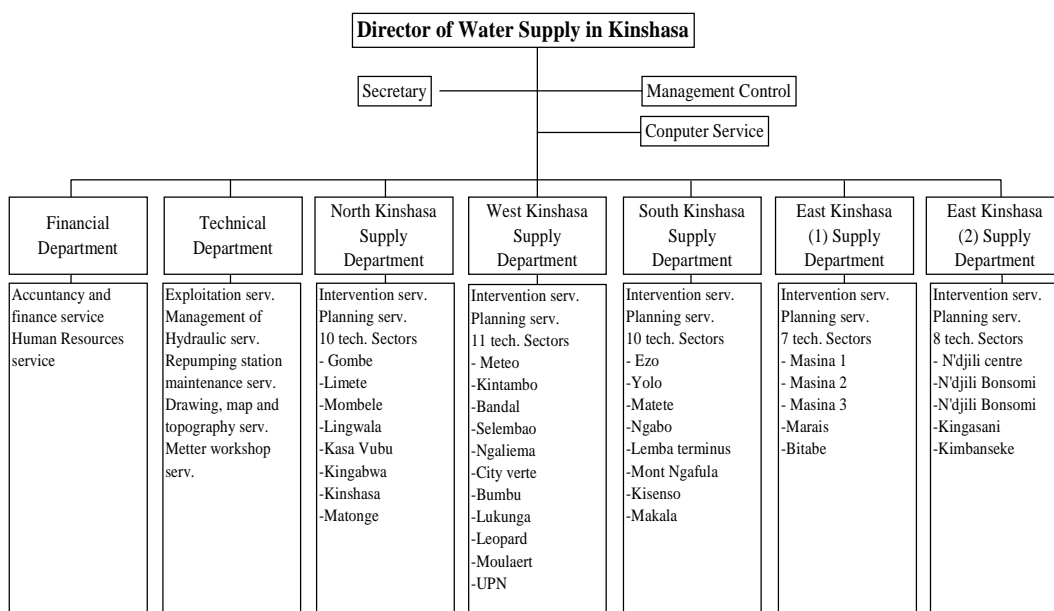


Fig. 3.4.21 Organizational Chart of DEGIDESO in the Kinshasa Province

Source: REGIDESO

1) Regulations and Institutions

In the Democratic Republic of the Congo, the laws and regulations related to water are not well established. Presently, cooperation of a German assisted organization was obtained but it's currently in its development stage. The Guideline for Drinking Water Quality of WHO is used as a drinking water standard in water supply services in the Democratic Republic of the Congo. On the other hand, there is nothing that was fixed systematically concerning the design criteria for the waterworks facilities.

2) Existing Conditions

Water supply services of the Kinshasa province were initiated from the central area of the Kinshasa province in the latter half of the 1930s. In 1939, Lukunga WTP commenced

operations as a water treatment plant for the water supply in the Kinshasa province, and subsequently, Ngaliema WTP operated from 1952. Presently, the water supply system in the Kinshasa province consists of five water treatment plants and water source wells, with a total quantity of treated water of 432,000m³/day. Major water sources for the water supply consist of surface water from the Congo River and N'djili River, a tributary of the Congo River. The outline of the water supply facilities are shown in Table 3.4.15.–Table 3.4.17.

Table 3.4.15 Existing Water Facilities in the Kinshasa Province

Name	Operation Inaugural year	Capacity of WTP (m ³ /day)	Actual Production (m ³ /day)
WTP N'djili	1972, 1983,2008	330.000	360.000
WTP Ngaliema	1952, 1990	86.400	108.000
WTP Lukunga	1939	42.000	50.000
WTP Lukaya	2006	18.000	24.000
Maluku pumping Station	-	2.400	2.650
Mitendi pumping Station	-	-	1.920
Kinkole pumping Station	-	-	720
Total	-	378.400	547.290

Source: REGIDESO

Kinshasa's distribution network includes five pumping stations with a service reservoir and five booster type pumping stations.

Table 3.4.16 Existing Service Reservoir in the Kinshasa Province

Name	Capacity of Service Reservoir (m ³ /day)	Capacity of Pumping Station (m ³ /day)		
		Average pressure	Low pressure	High pressure
Ozone Reservoir	7,500	6,120	72,000	33,000
Meteo Reservoir	3,300	-	12,000	18,900
Njelo-Binza Reservoir	2,500	1,000	-	-
Gombele Reservoir	2,500	8,050	5,400	-
Makala Reservoir	24,000	4,000	-	-
Kintambo PS	-	28,000	-	-
Yolo PS	-	24,000	-	-
Lemba PS	-	8,550	-	-
Kisenso PS	-	4,370	-	-
Masina PS	-	28,500	-	-

Source: REGIDESO

Table 3.4.17 Existing Distribution Network in the Kinshasa Province

Item	Total Pipe Length (km)	Remarks
Primary Network	255	Pipe diameter is from 300 mm to 1,200 mm.
Secondary Network	446	Pipe diameter is from 100 mm to 250 mm.
Tertiary Network	2,050	Pipe diameter is from 50 mm to 90 mm.
Connection Network	1,628	Pipe diameter is from 37mm to 50mm.

Source: REGIDESO

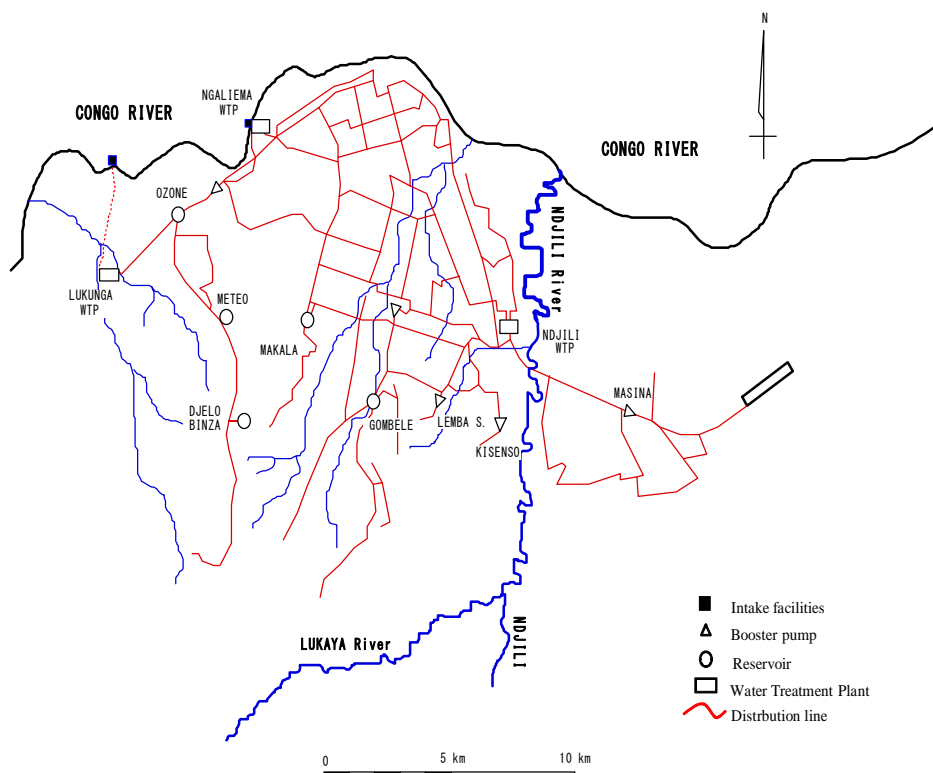


Fig. 3.4.22 Existing Conditions of the Water Supply

Source: REGIDESO

Existing conditions of the water supply service of Kinshasa is shown in Table 3.4.18. From the table, it is observed that communes (No. 1 through No. 10) in the central area of Kinshasa have access to water supply services in general. However, it is also shown that a large number of the population in the surrounding communes have difficulty obtaining access to the water supply services. This indicates that it is necessary to expand the water supply services considerably from now on.

**Table 3.4.18 Existing Conditions of Water Supply Services in the
Kinshasa Province**

	Commune	Population (2005)	Served population (with House connection)		Population which can access a neighboring water supply tap.		Population which cannot access any water supply service.	
1	GOMBE	36,000	36000	100%	0	0%	0	0%
2	BARUMBU	110,000	66670	61%	43,330	39%	0	0%
3	KINSHASA	118,000	75945	64%	42,055	36%	0	0%
4	LINGWALA	78,000	49171	63%	28,829	37%	0	0%
5	KASA-VUBU	138,000	59904	43%	73,500	53%	4596	3%
6	NGIRI-NGIRI	140,000	74321	53%	65,679	47%	0	0%
7	KALAMU	290,000	134261	46%	144,900	50%	10839	4%
8	LIMETE	306,000	160066	52%	145,934	48%	0	0%
9	BANDALUNGWA	180,000	116759	65%	63,241	35%	0	0%
10	KINTAMBO	98,000	77836	79%	20,164	21%	0	0%
11	NGALIEMA	668,000	269225	40%	305,500	46%	93275	14%
12	MATETE	244,000	114357	47%	114,500	47%	15143	6%
13	NGABA	157,000	50632	32%	47,700	30%	58668	37%
14	MAKALA	235,000	85797	37%	86,200	37%	63003	27%
15	BUMBU	231,000	89638	39%	53,600	23%	87762	38%
16	KISENSO	310,000	60834	20%	100,000	32%	149166	48%
17	MALUKU	200,000	13537	7%	34,800	17%	151663	76%
18	SELEBAO	272,000	67051	25%	72,000	27%	132939	49%
19	MONTO-NGAFULA	240,000	47704	20%	21,500	9%	170796	71%
20	NDJILI	350,000	192301	55%	96,600	28%	61099	18%
21	KIMBANSEKE	819,000	230516	28%	169,500	21%	418984	51%
22	MASINA	540,000	294923	55%	229,500	43%	15577	3%
23	N'SELE	150,000	6082	4%	0	0%	143918	96%
24	LEMBA	310,000	172928	56%	137,072	44%	0	0%
	Total	6,220,000	2,546,458	41%	2,096,104	34%	1,577,428	25%

Source:REGIDESO

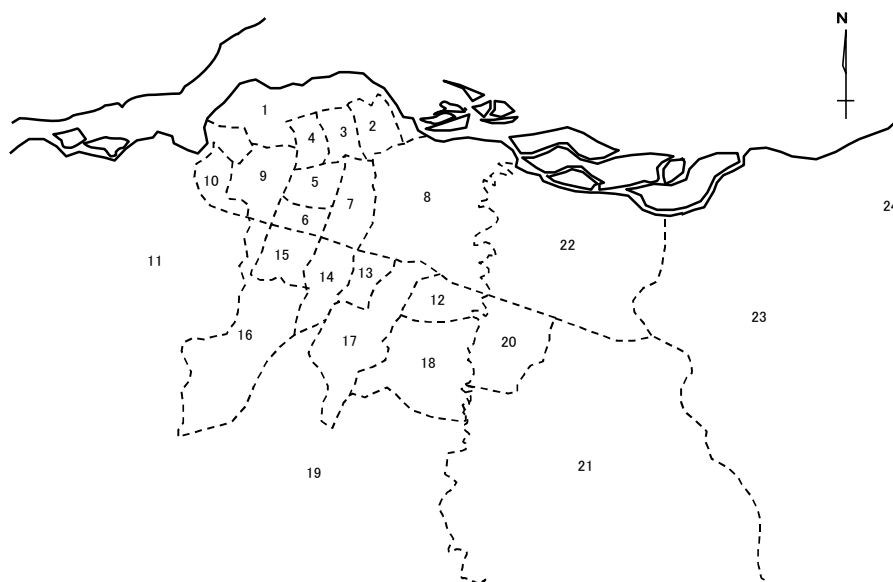


Fig. 3.4.23 Location of the Communes in the Kinshasa Province (Sketch Map)

Source:REGIDESO

According to information from REGIDESO, it is reported that the dissatisfaction level relating

to the existing level of water supply services has risen in 17 of the 24 communes in the Kinshasa Province. These 17 communes are Kinshasa, Barumbu, Lingwala, Matete, Bandzungwa, Ngiri-Ngiri, Kalamu, Kintambo, Lemba, Makla, Kasa-Vubu and Gombe. The following main issues have been reported in these communes.

- Supplied water cannot be properly received
- Supplied water can only be received at night
- The water supply is intermittent

The above-mentioned problems are influenced by the factors listed below.

- Insufficiency of production
- Distribution network has insufficient capacity
- Deterioration in the condition of the network

Additionally, construction and maintenance of the water infrastructure has not been able to keep pace with the increase of the population or rapid urbanization. Furthermore, it is expected that the advancement of deterioration in the condition of water service facilities has reached a serious level.

3.4.5.2 Electricity

Concerning the plan of the electric facilities in the Democratic Republic of the Congo, it is thought that a plan regarding extension and rehabilitation is required for all the institutions of power generation, power transmission, power distribution and electric supply. However, the implementation depends on the source of revenue and the assistance of a donor as well as the development projects of other sectors. Therefore, due to the current circumstances, the implementation of the planned projects cannot advance. Existing conditions of the electric power supply in the Kinshasa province, including urgent problems, ongoing or planned projects and the administrative system are mentioned below.

(1) Existing Conditions of the Electric Power Supply in the Kinshasa Province

As for the construction of infrastructure of the electricity in Kinshasa, construction was started from the 1950s, and improvement of the electric power system has progressed. However, it is reported that a problems have arisen regarding the electric power supply as a result of the rapid increase in electricity demand due to urbanization and the increase of the population. Furthermore, obstacles created by superannuation of electric facilities have also arisen. In this section, the power situation of the Kinshasa province is described. Kinshasa's electricity networks consist of various stations; wiring substations sectioning MT (Medium voltage) and BT (Low voltage) stations and network stations for public lighting.

The HT and BT network in the Kinshasa province includes eight injector centres HT/MT and 22 secondary centres MT/MT (substations). Distributions are as follows:

- One injector HT/MT (Maluku Centre and G substations east of town (Masina, (RVA), Kinkole, N'sele, Maluku East, Maluku City)
- One injector (Gombe centre) HT/MT and G stations in the north (Gombe, Golf, CDA, Ndolo, Broad Cash Service)
- Four injectors (Badiadingi, Utexco, Lingwala, Mutendi) HT/MT and five substations in the west (Badiadingi, Kinshasa, Makala, Devinière, Bandal)
- Two injectors (centre, Liminga, Funa) of HT/MT and five substations in the south (Kingabwa, Limete, Lemba, Campus, Sendwe)

The total power installed in the centres amounts to 842.5 MVA and 450 MVA for the substations, with 82 sectioning combers for MT, 1,202 km of cable network MT, 1,638 MT/BT substations, of which 728 substations are for public distribution, 26,980 km of BT cable networks and 1,239 BT sectioning combers.

Three MT (average voltage) networks (30, 20 and 6.6 KV) in the Kinshasa province consist of the following facilities:

- 13 transformers in HT (High voltage)/MT (Medium voltage) Centres,
- 38 transformers in MT substations
- 760 transformers in installed public areas
- 764 transformers in private substations
- 146 transformers in stations
- 49 links 30 KV
- 19 links 20 KV
- 256 links 6.6 KV

However, the current inventory of the electrical infrastructure is not enough to meet the demands of the Kinshasa province. About 206 substations out of the total of 749 substations are over loaded operating during selective power cuts. The following deteriorations of the electric power services have occurred.

- Voltage drop (up to 172V)
- Over voltage (up to 268 V or more)
- Unstable supply
- Flickering and electric power failure

The regional distribution of unmet electricity demands shows that the largest demand is recorded within the eastern part of the Kinshasa province. This is attributable to the location of

many industrial areas mainly within the southern area (the Limete commune) and also within a major part of Eastern Kinshasa (the N'sele and Maluku communes). Similarly, the city consists mainly of domestic areas with high charge densities in the northern part and low charge densities in the western part. In general, the demand for electricity is continuously increasing within the city due to the population increase and emergence of small industries and businesses. It is estimated that there is an annual increase in the demand for energy at a rate of 3%.

Thus, the electric power supply service levels of each commune are characterized by the differences between local electricity demand and electric infrastructure. The electric power supply condition of each commune is shown in Table 3.4.19.

Table 3.4.19 The Electric Power Supply Condition of Communes in the Kinshasa Province

Commune	Condition of the Power Supply
Gombe commune	The Condition is relatively normal and the electricity network well planned. Electrical charge ratio is increasing due to new construction.
Bandal, Kintambo, Lemba ONL, Matete, Kalamu, and Kasa-Vubu communes	These areas/communes are well supplied with electricity, and the feeder charge ratio is higher than 100%. BT (Low voltage) network is worn-out. Electrical substations are generally overloaded.
Bumbu, Selembao, Ngaba, and Makala communes	This area is not well supplied with electricity, and infrastructure is not sufficient enough. BT cables are overloaded and worn-out.
N'djili commune	Electrical installations are not sufficient enough. Electrical substations, MT cables and BT/Low voltage cables are overloaded.
Kisenso, Mbanza Lemba, and Kimbanseke communes	This area is poorly electrified and consists of insufficient infrastructure. Electrical substations and feeders are overloaded.
Masina commune	This area is still under new construction including changes in electrification and the increase of electric charges.
Kinshasa, Barumbu, and Lingwala communes	This area is poorly electrified and consists of insufficient electric infrastructure. Electrical substations and feeders are overloaded.
N'sele and Maluku communes	This area is under expansion but still consists of insufficient electric infrastructure.

Source: SNEL

The problems of the electric supply services in Kinshasa are not only due to the interior difficulties within the State of Kinshasa but also to issues related to power generation and transmissions.

(2) Low Production Capacity

The Kinshasa province is essentially supplied by hydro electrical dams located in the Bas-Congo province; that is Inga I, Inga II and Zongo with an installed power of 351 MW,

1,424 MW and 75 MW, (a total 1,850 MW respectively.) However, the available capacity is restricted to approximately 650 MW due to several non-operational machines.

(3) Low Capacity of Transit Power

The transportation of energy from production centers to Kinshasa is provided by:

- A 220 kV line between the INGA Hydroelectric Dam and Kinshasa, with a distance of 262 km and a total transit capacity of approximately 600 MVA. It is currently being operated without N-1 security.
- A 132 kV line between ZONGO – BADIADINGI, with a distance of 59 km and a 50 MVA transit capacity (without N-1 security),
- A 70 kV line between ZONGO – GOMBE, with a distance of 80 km and without a 26MVA transit capacity.

Due to electric consumption in the Bas-Congo province, the available capacity for the Kinshasa province is at a demand which is estimated at approximately 615 MW. Any interruption to supply on this line would cut the power supply to Kinshasa.

(4) Urgent Problems of Electric Power Supply in the Kinshasa Province

Urgent problems regarding rehabilitation to be solved for the improvement of the electric power supply in the Kinshasa province are itemized below.

- 1) Rehabilitation of 30 KV for Kinshasa's Electricity Loop
- 2) The increase of the capacity of substations: Devinière, Kinsuka, Limete and Golf
- 3) Rehabilitation of the Electricity Network (20 KV and 6.6 KV)
- 4) The increase of the capacity of the Lemba Substation
- 5) The rehabilitation of public lights
- 6) The rehabilitation of BT/Low tension and accessories for the Kinshasa province to prevent incidences of electrocution casualties, especially during the rain.

The most urgent projects are item numbers 2) and 6).

- The increase of the capacity of two substations
- The rehabilitation of BT/Low tension and accessories (the rehabilitation of low tension and accessories to a large extent related to the increase of the capacity of the substations)

(5) Ongoing Projects and Planned Projects

Contents of the programme /components are shown below.

- PMURR (Programme Multisectoriel d'Urgence de Reconstruction et Réhabilitation: Multisector Emergency Programme for Reconstruction and Rehabilitation) funded by the World Bank

- 30 new electric substations in Kinshasa
- Five new stations
- PMDE: (Projet des Marchés Domestiques de l'Electricité = Local Electricity Distribution Project)

(6)Administrative system

The Ministry of Energy is in charge of project planning concerned with the electric power supply of the Democratic Republic of the Congo, and the electric power public corporation (SNEL), which is under the control of the Ministry of Transportation and Communications, and is in charge of administration and operations/maintenances of electric infrastructure (refer to Figure 3.3.7). The national company for electricity (SNEL) was created by Law No. 70-033 of May 16th. 1970 and with regard to the law-act No. 78-196 of May 5th 1978, its objective includes production, transportation and the distribution of electric power.

The SNEL has four regional distribution departments in the Kinshasa province (DDK) with 23 CVSs allocated to each DDK. The Network Distribution Management of Kinshasa is done by 23 CVSs.

- Department of North Kinshasa Gombe, Barumbu, Kinshasa, Lingwala, Kasa vubu and Ngiri Ngiri
- Department of West Kinshasa Ngaliema, Kintambo, Bumbu, Selembao, Mont-Ngafula and Bandalungwa
- Department of South Kinshasa Limete, Lemba, Ngaba, Matete and Kalamu
- Department of East Kinshasa Kimbanseke, Masina, Matete, Kisenso, Ndjili and Nsele

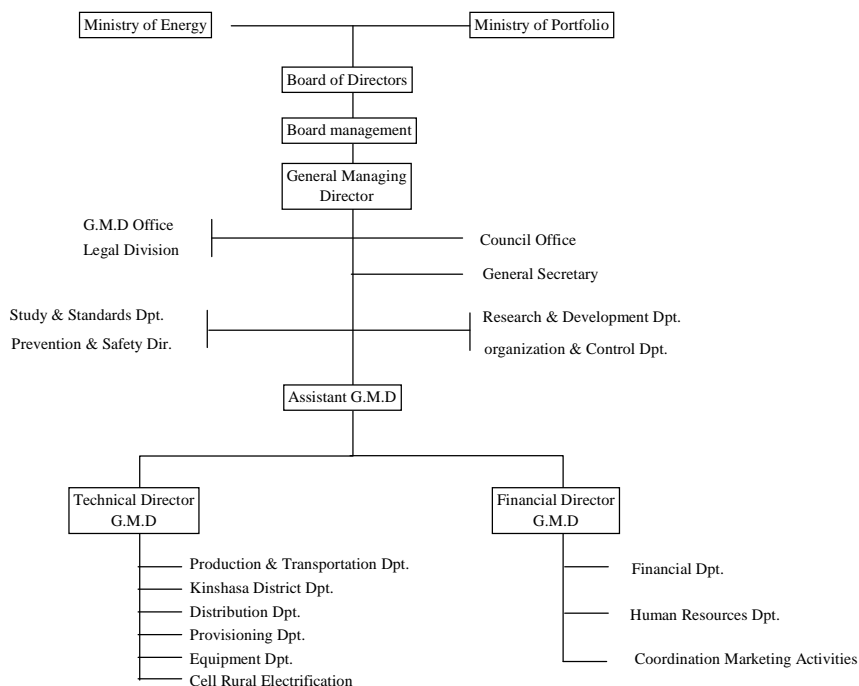


Fig. 3.4.24 Administrative Chart of SNEL

Source: SNEL

3.5 ENVIRONMENTAL MANAGEMENT SYSTEM IN CONGO

3.5.1 National Environmental Strategy

On August 13, 2002, the government of the DRC adopted the National Environmental Action Plan (PNAE) and the National Strategy and Action Plan on Biological Diversity, which define the political framework and the management strategy of the environment in general and biological diversity.

The PNAE outlines the environmental issues in the DRC in regards to sustainable development and identifies natural resource degradation issues within the legislative and institutional frameworks and the national development strategy. It describes the priority environmental issues and presents the national priorities to be addressed over the upcoming years. The PNAE initiated actions in the short- and mid-term, and these actions were distributed in the following eight areas: i) institutional development; ii) water resource management; iii) land resource management; iv) air and atmosphere pollution; v) urban environment management; vi) natural ecosystems; vii) cultural and historical heritage; viii) natural disasters. Because the PNAE was developed in 1997, updates have been recommended in order to take into account the requirements arising from new international conventions on the environment such as Kyoto Protocol, Cartagena Protocol, Convention and Protocol of Basle, Stockholm Convention, Rotterdam Convention and Ramsar Convention.

The National Strategy and Action Plan on Biological Diversity was developed in 1999 and updated in October, 2001. The National Strategy and Action Plan is a management tool which aims at conservation and the sustainable use of the biological resources. Its formulation took into account the following considerations: i) Building institutional capacities in conservation and sustainable use of biological diversity; ii) Improving the management capacities by educational measures, training, research and consolidation of the institutions; iii) Mobilizing the internal resources, developing training programs and a legislation on biodiversity resource management; iv) Making the population aware of conservation and the sustainable use of biological resources; v) Revitalizing the co-operation with other countries in regards to sustainable management of the environment in general and biological diversity in particular.

3.5.2 Environmental Legislation and Regulations

A basic environmental law has not been prepared in the DRC. The environmental quality standards on air, water, soil and noise have not been enacted. However, the Constitution of the DRC along with sectoral laws and decrees, establish the environmental management, issues and protection. The main environment-related laws and decrees are as follows:

- The Constitution of DRC (18 February 2006)
- Forestry Code (Law 011/2002 of 29 August 2002)
- Mining Code (Law 007/2002 of 11 July 2002)
- Ministerial Decree on Environmental and Social Impact Assessment of PMURR (Ministerial decree No. 037/CAB/MIN/ECN - EF/2004 of June 24, 2004)
- Modifies and Completes Ministerial decree No. 037/CAB/MIN/ECN - EF/2004 (Decree No. 013/CAB/MIN/ECN - EF/2005 of March 16, 2005)
- Ministerial Decree on Obligation of Environmental and Social Assessment of the Projects in DRC JO. DRC No. 22 (Ministerial decree No. 043/CAB/MIN/ECN - EF/2006 of December 08, 2006)
- Ministerial Decree on Creation, Organization and Working of "Group of Environmental Studies of the Congo (GEEC)", (Ministerial decree No. 044/CAB/MIN/ECN - EF/2006 of December 08, 2006)
- Territorial Water Law (Law 74-009 of 10 July 1974)
- Statutory Community of Property, Regulation on Land and Property (Law 73-021 of 20 July 1973)
- Modifies and Completes Law 73-021 (Law 80-008 of 18 July 1980)
- Ministerial Decree on Creation of the Institutional Support Environmental Cell to the Ministry of Environment, Nature Conservation and Tourism. (Ministerial Decree 052/CAB/MIN/ ECN- T/02/JEB/08 of 12 February 2008)

- Law on “Zairian Institute for the Conservation of Nature (IZCN)” particularly responsible for the protection of the fauna and flora (Law 75-023 of 22 July 1975)

3.5.3 Environmental Impact Assessment (EIA) System

The laws related to the EIA system in the DRC are as follows:

- Decree No. 013/CAB/MIN/ECN - EF/2005 of March 16, 2005
- Ministerial decree No. 043/CAB/MIN/ECN - EF/2006 of December 08, 2006
- Ministerial decree No. 044/CAB/MIN/ECN - EF/2006 of December 08, 2006

“Decree No. 013/CAB/MIN/ECN - EF/2005” is the legal text on general rules of EIA and the modified and completed decree of “Ministerial decree No. 037/CAB/MIN/ECN - EF/2004” that was prepared in “Programme Multisectoriel d’Urgence de Réhabilitation et de Reconstruction (PMURR)” by World Bank. “Ministerial decree No. 043/CAB/MIN/ECN - EF/2006” is the basic legal text of the EIA system. “Ministerial decree No. 044/CAB/MIN/ECN - EF/2006” establishes the organization and role of “Groupe d’Etudes Environnementales du Congo (GEEC)” that mainly manages the EIA system in development projects. According to these decrees, the proponent of the development projects must conduct the EIA study and prepare the EIA report in advance of the implementation. GEEC is responsible for the validation of EIA studies and the validation tax. However, with regard to public projects without serious negative environmental impacts implemented by the local governments, the environmental management is under the jurisdiction of the local governments in compliance with the local government’s law (Law 08/012) enacted in 2008.

Because the official guidelines have not been prepared in the DRC, the actual project components subjected to the environmental and social impact assessment and the required level of The Study depending on the project impacts have not been defined yet. The recent studies on environmental and social impact assessment in large scale projects have referred to the guidelines of the donating organizations such as the World Bank and African Development Bank. Also, in JICA’s projects, the studies on environmental and social considerations need to refer to the Congolese legislation as well as JICA’s Guidelines.

3.5.4 Land Acquisition for Public Utility

The land ownership system in the DRC is established by “The Transitional constitution of April 3rd, 2003 (especially within article 9)” and “The law No 73-021 of July 20th, 1973 containing general regime of properties, real estate and the safeguard”. The land owners are divided into perpetual concessions and ordinary concessions which are renewable leases of a period of 25 years with annual fees due. However, the under-ground materials of the private domain are inalienable and imprescriptibly property of the state.

Land acquisition for public use is established by “The law No 77/01 of February, 1977 on expropriation for the purpose of public use”. The acquisition procedures contain the administrative phase and the judiciary phase which commences when the convention cannot be achieved. The compensation methods for the acquired land are preferably by equivalent substitute of land or cash payment. The compensation for other lost properties such as the buildings, facilities and agricultural products is cash payment by local evaluation.

The Congolese legislation is insufficient in terms of compensation compared with the international invocatory resettlement policies such as the World Bank OP.4.12. The important differences are as follows:

- The illegal occupants are not taken into account by the Congolese legislation and covered by the compensations.
- The control and evaluation process for lost properties is less considered in the Congolese legislation.
- The compensations for the economic rehabilitation are not covered in the Congolese legislation.
- The resolution of conflicts is less considered in the Congolese legislation.
- The vulnerable groups are not mentioned in the Congolese legislation.
- The participation of the affected people in the resettlement process is limited.
- The compensation alternatives are not foreseen in Congolese rights.

