

付 属 資 料

1. 要請書 (TERM OF REFERENCES)

2. SCOPE OF WORK 及び MINUTES OF MEETINGS

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1. 要請書 (TERM OF REFERENCES)

MINISTRY OF LOCAL GOVERNMENT

Telephone: 28411

When replying please quote

Ref. No. DPD 105/A/XIX/24
and date



DEPARTMENT OF URBAN DEVELOPMENT

P.O. Box 30004

NAIROBI

29th February, 1996

Mr. K. Sakai,
First Secretary,
Embassy of Japan,
P.O. Box 60202,
NAIROBI.

Dear Sir,

RE: KISUMU WATER SUPPLY AND SANITATION PROJECT

We refer to letter Ref. LLNKISU/96025 of 16th February, 1996 to Mr. D. R. Ongalo of Ministry of Finance and copied to me among others.

On behalf of the Ministry, I wish to thank you for the recommendations contained in the letter. We have acted as recommended and formal application will be forwarded from Mr. Ongalo's office.

In the meantime, enclosed please find the following documents:-

- i) Copy of the 1991 Feasibility study extract
- ii) An advance copy of the loan aid application.

If there is need for further elaboration on the loan aid application presentation, please let us know and we shall act immediately.

Yours faithfully,

ENG. F. J. MULLI
For: PERMANENT SECRETARY

Encs.

KISUMU MUNICIPAL COUNCIL

WATER AND SEWERAGE DEPARTMENT

KISUMU WATER SUPPLY

Revised 1991

1. A BRIEF HISTORY

The original water supply for Kisumu was a small gravity supply from the Kibos River at Kajulu, established in the 1920's. This was augmented prior to independence in two stages by a Lake Waterworks abstracting water from Lake Victoria at Hippo Point.

Under a KfW Funded project an increment to the Lake Water-works was completed in 1983 bringing these works to a theoretical output of 15,300 m³/day. The Works at that time comprised a very old works with output of 3,300 m³/day, an old works with output of 6,000 m³/day and the then newly completed works with an output of 9,000 m³/day.

In 1985 when the water demanded exceeded supply, KfW agreed to make available limited funds to improve the situation.

This included:

- 1986-87 An emergency works programme to repair pumping plant and to rehabilitate and improve on the "new works" components. As a result, output was raised from 9,000 m³/day to about 16,000 m³/day.
- 1988 An immediate works programme then upgraded the old treatment works, pumping and improved chemical dosing to achieve an output of about 20,700 m³/day.
- 1990 A short term works programme followed which, improved raw water pumping, and made improvements to the reticulation system to more equitably distribute the available water.

Originally included in the short term works was the upgrading of Kajulu Water Works from 1,200 m³/day to 2,500 m³/day. This however had to be dropped due to insufficient remaining KfW funds.

2. MASTER PLAN FOR WATER SUPPLY AND SANITATION

During 1985-86, Gauff Ingenieure undertook a Feasibility Study for Water and Sanitation for the Municipality of Kisumu funded by KfW. A seven volume report inclusive of an extensive data base was produced and made specific recommendations for water and sanitation expansion, the former to be based on a dam on the Kibos River with a subsequent gravity water supply into the urban parts of the Municipality. At that time, only very limited funds were available from an earlier KfW loan and these were then used to rehabilitate and expand the existing Lake Treatment Works from its theoretical 15,000 m³/day to 20,700 m³/day, as indicated above.

A reluctance to enter into a new funding phase was indicated by KfW and in the event the Government of Kenya did not put forward a request for such, notwithstanding pressure from the two line Ministry's involved, namely Local Government and Water.

3. PRELIMINARY DESIGN OF STAGE I PROJECT

Under the 1985 Consultancy Agreement, Gauff Ingenieure were to have carried out the preliminary design of the approved year 2005 project. In the event and due to KfW reluctance to fund the project, the outstanding Consultancy never having been officially cancelled.

4. THREE STAGE EXPANSION PROGRAMME TO YEAR 1995

In early 1991, Gauff Ingenieure put forward proposals for a three stage expansion programme which received a positive response technically from the Director of Water Development and general approval at Ministerial level from both the then Ministry of Water Development and the Ministry of Local Government.

The plan proposed:

(i) Intermediate stage to 1995

This would have involved the immediate design and implementation of a 10,000 m³/day increment to the Lake Water Works system, to be on line by end 1992.

(ii) Main Stage I 1995-2005

This required an urgent site investigation for a dam on the Kibos river above Kajulu followed by design and construction. The size of the dam and reservoir formed would have had sufficient storage capacity for the eventual supply of 40,000 m³/day. The project should have been on line by 1995/96.

(iii) Main Stage II 2005-2015

This was to involve the duplication of treatment and balancing storage and further gravity distribution for an increment of 20,000 m³/day.

The situation and proposal of 1991 is illustrated in figure 1.

5. WATER SUPPLY BEYOND YEAR 2015

The 1985-86 Water Feasibility Study looked beyond year 2015 and put forward outline proposals or the period thereafter, based on the Kibos dam option. The subsequent stages were seen to be:

- (i) Diversion of up to 20,000 m³/day from the Gorsor River into the Kibos River to achieve a sustainable yield of 12,000 m³/day.
- (ii) Diversion of up to 60,000 m³/day from the Yala river via the Gorsor to the Kibos through a River to achieve a sustainable yield of 120,000 m³/day.

It can therefore be stated that in terms of planning, the supply of water to Kisumu through a gravity scheme has therefore been catered for well into the 21st Century.

6. CURRENT SITUATION

In the event none of the foregoing has taken place. As a result, Kisumu still only received of the of 22,000 m³/day.

The present (1995) unrestricted average day demand was projected during the 1985-86 Feasibility Study to be of the order of 33,000 m³/day (exc. breweries) or 37,000 m³/day with breweries. Total peak day unrestricted demand was projected to be about 42,000 m³/day by 1995.

The situation is clearly critical and the town is now in desperate need of an expansion of its water supply.

7. REVISED INTERMEDIATE STAGE PROPOSED

To provide a short term alleviation to the situation a revised three part intermediate stage is now considered necessary. This would entail:-

- (i) The Council would take over the water intake and treatment works as constructed for the Kisumu Molasses Plant near Usoma, which project was abandoned more than 10 years ago and is under receivership. The works are gradually deteriorating through non-use and vandalism but could be relatively quickly be rehabilitated and brought on line to serve the northern Otonglo area and parts of the Lower Industrial area of the town. Ideally, a balancing reservoir should be constructed in the vicinity of Kodiaga prison and the lake water abstracted and treated by these works then pumped into such a reservoir.

The site and elevation of this balancing reservoir would be as proposed in the 1985-86 Feasibility Study so as to fit within the long term plan. These works would add an increment of about 10,000 m³/day to the Municipal water supply.

- (ii) Uprate the Kajulu Waterworks for 1,200 m³/day to 2,500 m³/day as originally intended under the Short Term Measures Programme.
- (iii) Uprate the Lake Waterworks from 20,700 m³/day as proposed in 1991 under the intermediate stage proposal.
- (iv) Undertake site investigation and preliminary design of the main stage I project to prepare the way for future funding of this project.

Items (i)-(iii) would provide a total water increment of about 21,000 m³/day to achieve a total supply of about 43,000 m³/day.

8. RECOMMENDED IMMEDIATE MEASURES UNDER KFW STUDY FUND

- (i) The Consultant should be instructed to investigate and prepare detailed costed proposals for the rehabilitation of the Molasses Factory water intake and treatment works and for its modification and development as a water supply for Kisumu town, so as to provide an increment of about 10,000 m³/day.
- (ii) They should be further instructed to revise and update their detailed proposals for the expansions of the Kajulu Waterworks system from 1,200 to 2,500 m³/day.
- (iii) The proposed increment of 10,000 m³/day to the Lake Waterworks system should be taken through detailed design and tender document preparation.
- (iv) Site investigations for the Kibos Dam, and the preliminary design of the stage I Kibos project should be undertaken to provide the basis for the seeking of financial support for this project.

9. PRELIMINARY COST ESTIMATES

- i) Rehabilitation of Molasses Factory Water etc at Usoma.
Increment about 10,000 m³/day

Until an investigation into the state of the units constructed in the early 1980's and abandoned for the last 10 years is made, it is difficult to put an estimate on the cost of rehabilitating these works. Tentatively a figure of US \$ 750,000 has been estimated.

To this would be added some US \$ 1,500,000 to provide the necessary pumping stations, tank main to Kodiaga and expansion of the reticulation system into the lower industrial area of the town.

Total (approx.) \$ 2,250,000

- ii) Kajulu Water Works Expansion
Increment 1,300 m³/day

Works involve minor intake modifications, duplication of initial length of raw water main, uprating of sedimentation tank by installation of a dispersion cone, rehabilitation of old pressure filters and duplication of initial sections of the treated water pipeline.

Estimated Cost \$ 250,000

- iii) Lake Water Works Uprating
Increment 10,000 m³/day

This works would comprise:-

New intake and raw water pumping station

Completion of part duplication of R.W.M.
undertaken, in part, under Short Term
Measures

New treatment works units incl. storage
and pumping

New Treated Water Rising Main

Kakamega Road Booster Station

Booster Rising Main to Site for Kakamega
Road Reservoirs

\$ 5,000,000

10. COST OF CONSULTANCY SERVICES

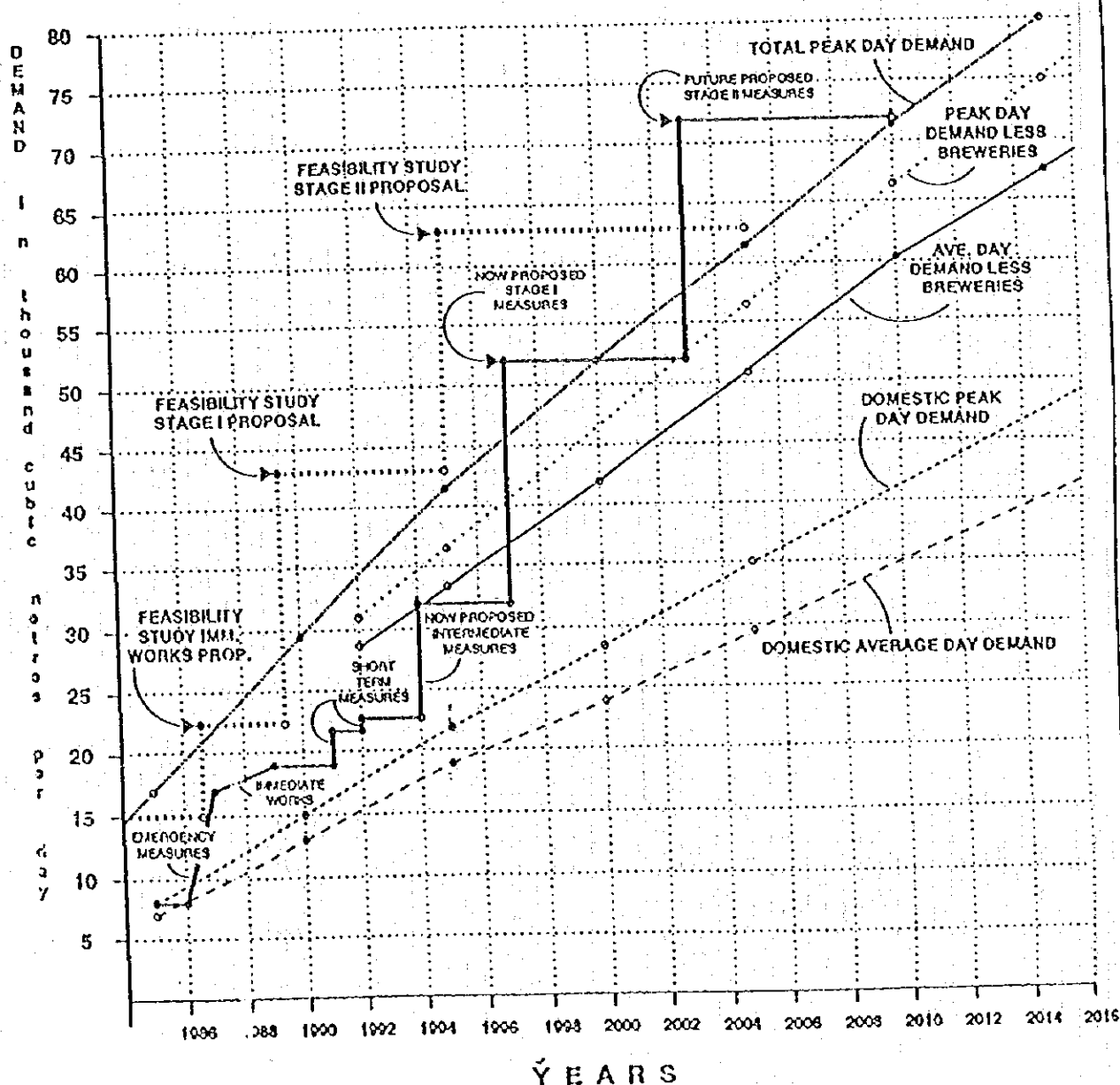
Again, very tentative budget estimates have been prepared as follows:-

i)	Usoma (Molasses) Water Works. Investigations and designs.	\$ 160,000
ii)	Kajulu Water Works Expansion re-assessment	\$ 20,000
iii)	Lake Water Works Investigations and design	<u>\$ 300,000</u>
	Sub-total	\$ 480,000
iv)	Supervision of Construction (15 months duration)	<u>\$ 330,000</u>
	TOTAL	<u>\$ 800,000</u>
v)	Site Investigations and Preliminary Design Stage I Kibos Dam Project (based on 4% of project cost of US \$ 37,000,000)	<u>\$ 1,500,000</u>

GRAPH 1

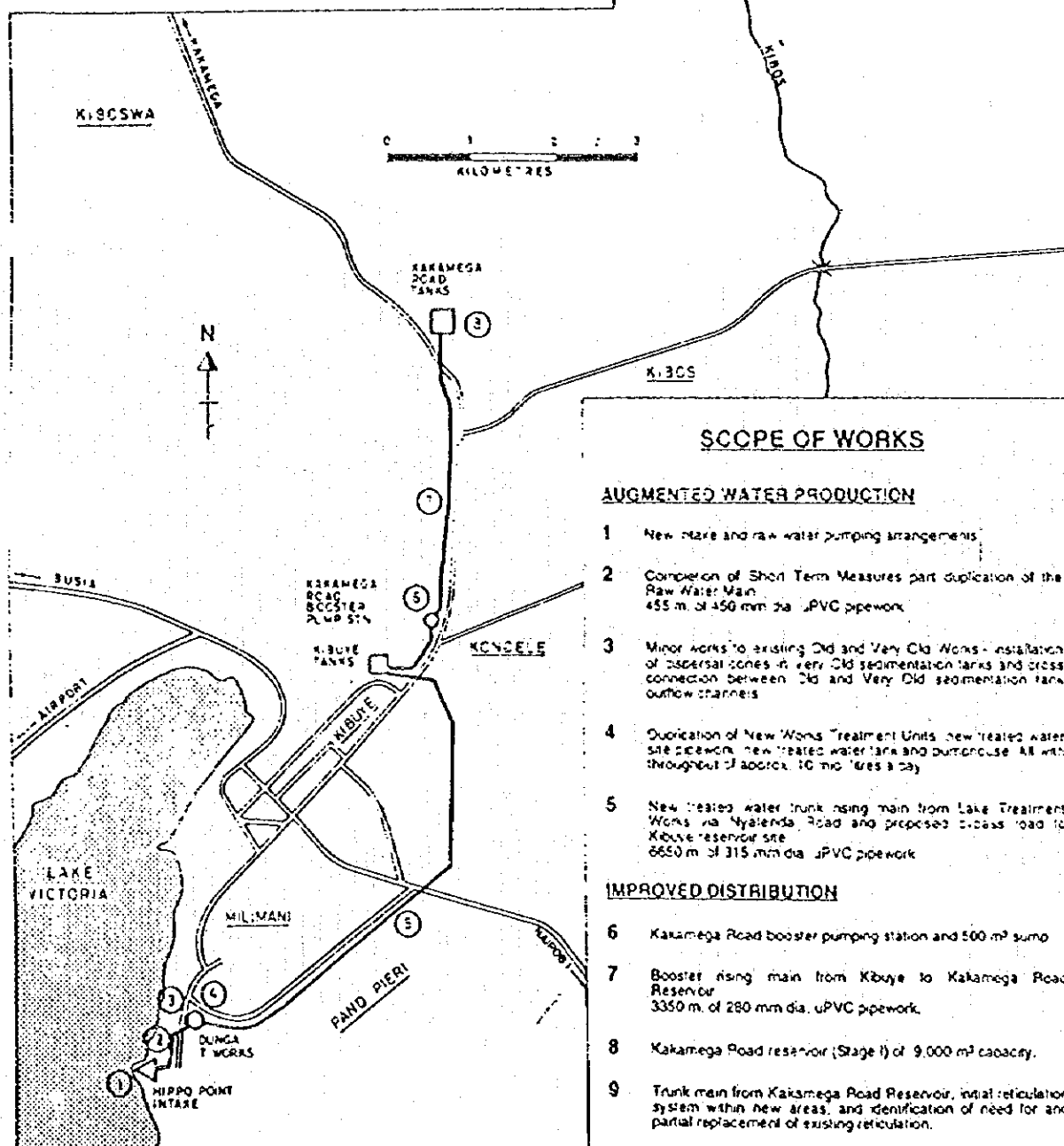
KEY

- FEASIBILITY STUDY EXPANSION PROGRAMME PROPOSALS 1985
- ACTUAL & REVISED EXPANSION PROGRAMME PROPOSALS
- PEAK DAY DEMAND PROJECTION FROM 1985 FEASIBILITY STUDY
- PROJECTED PEAK DAY DEMAND LESS WATER SUPPLY TO BREWERIES
- PROJECTED AVERAGE DAY DEMAND LESS WATER SUPPLY TO BREWERIES
- PROJECTED PEAK DAY DOMESTIC DEMAND
- PROJECTED AVERAGE DAY DOMESTIC DEMAND



in order to

Water Treatment	Water Production Mls (L/City)	Component Costs			Total Cost			
		No.	Description	Cost				
10 million lbs & city	KARALI 2.5	1	New motor & Pumphouse	0.68	4.54	9.02		
		2	New Water Main replacement	0.23				
		3	Impress existing Treatment Unit	0.28				
	JUNGA 30.0	4	New Treatment Unit & Pumphouse	2.52				
		5	Treating water using carb.	2.58				
	TOTAL		6	Karamaga Rd. booster Pump etc.	2.42		4.48	34
			7	Karamaga Road ring main	0.43			
			8	Karamaga Road Reservoir	0.82			
		32.5		9	Accession auger & other repairs		2.79	



KISUMU WATER SUPPLY INTERMEDIATE MEASURES

KISUMU WATER SUPPLY

AND

SANITATION PROJECT

APPLICATION FOR A LOAN AID

**Kisumu Municipal Council
Ministry of Local Government
GOVERNMENT OF KENYA**

February, 1996

Contents

- 1.0 Name of the Proposed Project**
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- 8.0 Implementation period**

APPLICATION FOR LOAN AID

1.0 Name of the proposed project:

Kisumu Water Supply and Sewerage project

2.0 Project Location:

Kisumu Municipality

3.0 Executing Agency:

Responsible Ministry: Ministry of Local Government

Implementing Agency: Municipal Council of Kisumu

4.0 Objective of the project:

The project is meant to improve:-

- i) the sanitation of Kisumu town
- ii) health of close to 300,000 current inhabitants of Kisumu town
- iii) the environmental condition of the town and Lake Victoria
- iv) economic growth within the town and its environs.

These will be achieved by:-

- i) increasing the quantity of portable water which currently meets less than 50% of the demand
- ii) by expanding the sewerage treatment facilities to cope with the increased water supply - thereby preserving the environment of the water body receiving the final effluent i.e. Lake Victoria.
- iii) appropriate technology transfer to ensure sustained operation and maintenance.

5.0 Background

Kisumu Municipality is the third largest urban centre in Kenya. It is situated on the Eastern shores of Lake Victoria some 831km from Nairobi the capital city of Kenya, along the National A1 Highway. Apart from being the capital of Nyanza Province, it is a centre of economic activities in the region as well as a gateway for trade and cooperation between Kenya, Uganda and Central Africa countries including Rwanda and Burundi that rely on the port of Mombasa for sea transportation. Recent reports and observations have revealed increased trade between the three East African states that share the shoreline of Lake Victoria.

5.1 Current Water Situation

Despite its proximity to the largest fresh water body in Africa - L. Victoria - the situation of portable water in the Municipality is rather bleak. Current water supply amounts to 21,700m³/day against a projected daily demand of 42,000m³. Water to the town is currently from two sources:-

5.1.1 Kajulu Water works

This is a gravitational system which draws water directly from unregulated Kibos River and nearby springs. It was constructed in the 1920's with a design capacity of 1,200m³/day. Due to reduced efficiency over the years, its current production capacity is about 950m³/day.

5.1.2 Lake Water works

This was initially constructed in 1956. Its capacity had been expanded over the years to the current 20,700m³/day. It utilises raw water pumped from Lake Victoria.

The high cost of electricity (power) for pumping has strained the operation and maintenance budget of the Municipality thereby aggravating an already bad situation.

5.1.3 Storage

There are basically two sets of reservoirs; a large one at Kibuye with a capacity of 7200m³ and a smaller one at Wtsons Bank which has a capacity of 2270m³. With improved water supply volume, there will be need to increase the storage capacity as well.

5.1.4 Reticulation

According to the 1986 feasibility study, the town has 87km of distribution mains 50mm diameter and above. These comprise different materials viz.; steel - 39%, uPVC - 31%, AC - 20% and coated steel 10%. By then 9 km of the steel piping was judged to have reached end of its economic life. The length must be much longer now 10 years later. So, there will be need to up-grade as well as expand the reticulation system.

5.1.5 Forecast of Water Demand

Based on population growth trend in the Municipality, water demand forecast is as per tables 1 and 2.

Table 1: Daily Water Demand Forecast

(Unit: m³/day)

Category	1985	1995	2005
Domestic	8,520	21,965	35,221
Institutional	2,572	3,240	5,057
Commercial	1,114	1,868	3,004
Industry, KBL & KICOMI	3,577	7,208	7,208
Industry, General	1,023	7,323	9,903
Total	16,806	41,604	60,393

Source: 1986 Feasibility study

Table 2: Daily Water Demand Forecast

Unit: m³/day

Category	1990	2000	2010
Urban domestic	23,747	49,948	81,440
Urban institutional and commerce	3,973	8,177	13,047
Rural domestic	1,309	2,609	4,745
Rural institutional	429	706	910
Livestock	1,149	2,407	4,289
Industry	6,259	9,051	12,288
Total	26,032	54,693	89,344

Source: National Water Master plan Sectoral Report D. 1992.

Both forecasts are based on 20 year demand projection. Ten years have elapsed since the feasibility study was carried out. Therefore the year 2015 would be a more practical year as of now.

During the period to the year 2015, the town might expand and cover most of the areas referred to as Rural in the National Water Master Plan report. This would mean a demand of between 90,000 - 100,000m³/day.

5.1.6 Sources of Water

Kisumu Municipality sits on the eastern shores of Lake Victoria. The latter is drained by a number of rivers including; Yala, Kibos, Nyando, Sondu, Nzoia etc. Past studies on possible water source for the Municipality have concentrated on the Lake and Kibos River. Due to cost of pumping from the Lake and a dam on river Kibos, both of which are expensive operations, it has become necessary to explore further a field for alternative water source. In December 1995, the Ministry of Construction, Infrastructure Development Institute of Japan observed in their preliminary study report on the Nyando river basin integrated water resources development project, that further survey could be carried out for water supply scheme for Kisumu Municipality from Nyando River. This and other potential water sources will require further study to come up with the most economical alternative.

5.2 Sewerage

- 5.2.1 The town is currently served by two sewerage treatment works - namely Nyalenda Waste Stabilisation ponds (WSP) which serve the South East sector and Conventional Treatment Works (CTW) which serves the North West sector. The latter include sewerage pumping stations.

The combined coverage is about 87% of the urban population.

5.2.2 Nyalenda Water Stabilisation Ponds

This has a theoretical design capacity of 3,060m³/day. It comprises 3 facultative and 6 maturation ponds.

5.2.3 Conventional Treatment Works

This has a treatment capacity of 6,840m³/day and comprises 6 primary sedimentation tanks, 4 biofilters, 6 humus tanks, sludge digestion and drying facilities.

The performance of these works is already impaired by overloading. The inflow into them is estimated at 9000m³/day.

5.2.4 Sewerage Generation

According to the 1986 feasibility study report on Kisumu Water Supply and Sanitation sewerage generation by year 20005 is projected at 35,150m³/day. This implies much higher volumes by the years 2010 and 2015 the latter being the expected planning year for the water supply.

It is therefore important that the current sewerage treatment facilities be expanded in line with the water supply volume.

This is even more important for environmental concerns and preservation of the aquatic ecology of Lake Victoria.

5.3 Technology Transfer

In an effort to improve water and sanitation services in the Municipality a Department of Water and Sewerage has been established. Technology transfer in form of capacity building for enhancement of operation and maintenance of the works would be an essential component of the proposed project.

6.0 Cost of Works

A JICA Development Study on Kisumu Water and Sewerage is expected to precede the project implementation .

In the view of the various alternative sources of water that will have to be surveyed, it is not viable to fix a cost on the project at this time. The expected study should include this as part of its recommendations.

7.0 Issues to be covered

For sustained long-term solution to water shortage in Kisumu, the following are among the important issues to be addressed:-

- i) Water intake - this could also include impounding at the river as well as river diversion
- ii) Raw water transmission mains
- iii) Water treatment facilities
- iv) Treated water mains
- v) Storage facilities
- vi) Distribution network
- vii) Up-dating or rehabilitation of the present distribution mains
- viii) Rehabilitation and expansion of sewerage treatment facilities
- ix) Operation and maintenance equipment for both water and sewerage facilities. This to include enhanced laboratory facilities.

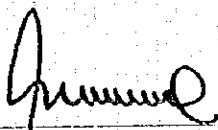
8.0 Implementation Period

Assuming that the JICA Development Study will be complete within one year (12 months), an experienced, well equipped contractor can complete the intended construction and procurement within 3 years (36 months). The whole project should be ready at the turn of the new century i.e. in the year 2000.

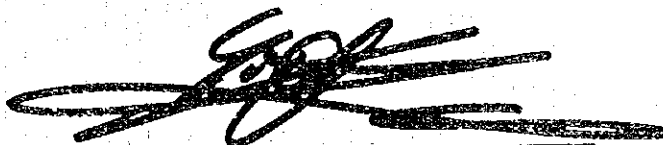
2. SCOPE OF WORK 及び MINUTES OF MEETINGS

THE SCOPE OF WORK
FOR
THE STUDY
ON
KISUMU WATER SUPPLY AND SEWERAGE SYSTEM
IN
THE REPUBLIC OF KENYA
AGREED UPON BETWEEN
THE MINISTRY OF LOCAL GOVERNMENT
(KISUMU MUNICIPAL COUNCIL)
AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY

Nairobi, January 30th 1997

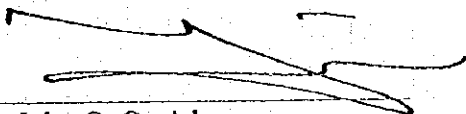


Mr. R. K. A. Siele E.B.S.
Permanent Secretary
Ministry of Local Government



Mr. Yoshiki Omura
Leader
Preparatory Study Team
Japan International Cooperation Agency

witnessed by



Mr. John O. Ong'ele
Town Clerk
Kisumu Municipal Council

countersigned by



Mr. J.K. Kinyua
Financial Secretary
Ministry of Finance

I. INTRODUCTION

In response to the request of the Government of the Republic of Kenya, the Government of Japan decided to conduct the Study on Kisumu Water Supply and Sewerage System in the Republic of Kenya (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

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

The present document sets forth the Scope of Work for the Study.

II. OBJECTIVES OF THE STUDY

The objectives of the Study are:

1. to formulate master plan of the target year of 2015,
2. to conduct a feasibility study for the first priority project/s identified in the Master Plan, and
3. to pursue technology transfer to counterpart personnel in the course of the Study.

III. STUDY AREA

The Study shall cover the area of Kisumu Municipality.

IV. SCOPE OF THE STUDY

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

PHASE I : FORMULATION OF MASTER PLAN

1. Collection and analysis of existing data and information on the water supply and sewerage sector in Kenya and the Study area:

-The National Background

- a. Country background
- b. Economic and health indicators
- c. Water resources and control
- d. Sector organization and developments
- e. Present service coverage and standards
- f. Sector goals
- g. Staffing requirements and training needs
- h. Financial implications
- i. Involvement of other donor agencies

- The Study area and the Need for a project
 - j. Project area
 - k. Population patterns
 - l. Economic and social conditions
 - m. Regional development prospects
 - n. Existing and future land use patterns
 - o. Sector institutions
 - p. Available water resources
 - q. Existing services and population served
 - r. Need for a project
- 2. Understanding of the existing services
 - a. Existing water supply and sewerage systems and population served including: performance of existing facilities, amount of waste water and its composition, metering, actual billing and revenue collection, and financial position of the Water and Sewerage Department of Kisumu Municipal Council.
 - b. Existing sanitation, drainage and solid waste services including: sanitation and hygiene facilities, toilet types, sewage collection and its disposal, flood damages, etc.
- 3. Preliminary field surveys and analysis
 - a. Preliminary environmental survey
 - b. Survey on public consciousness on public health and sanitation
 - c. Survey on willingness and affordability to pay
 - d. Water and waste water quality analysis
 - e. Site selection
- 4. Formulation of Master Plan
 - a. Determination of planning framework
 - b. Determination of basic policies, goals, targets, and strategies
 - c. Identification of the alternatives
 - d. Outline design for suggested facilities
 - e. Cost estimates (construction, operation and maintenance)
 - f. Evaluation of the alternatives from the viewpoints of:
 - public health,
 - technology,
 - society,
 - economy,
 - finance,
 - institution and
 - environment
 - g. Selection of the best alternative
 - h. Organizational and institutional plan
 - i. Capacity building plan
 - j. Financial projection
 - k. Implementation plan
- 5. Identification of the priority project/s

PHASE II: FEASIBILITY STUDY ON THE PRIORITY PROJECT/S

1. Collection and analysis of supplementary data and information on the Project area and beneficiaries
2. Supplementary field survey/s, as necessary
3. Formulation of the Project
 - a. Objectives
 - b. Description of the proposed project
 - c. Project beneficiaries and their perspective
 - d. Rehabilitation of existing water supply and sewerage systems
 - e. Integration of the project with existing and future systems
 - f. Executing agency and responsibilities for project implementation
 - g. Cost estimates broken down into foreign exchange and local currency
 - h. Implementation schedule
 - i. Operation and maintenance of the project
 - j. National industrial capability
 - k. Environmental impacts
4. Institutional and Financial Plan
 - a. Organization and Management
 - b. Staffing implications and training
 - c. Financial history of operating organization
 - d. Tariff, charges and revenue for services
 - e. Future financial situation
 - f. Financing plan
 - g. Need of engineering services
5. Evaluation of the Project

V. SCHEDULE OF THE STUDY

The tentative schedule of the Study is shown in the attached sheet of Annex-I.

VI. REPORTS

JICA shall prepare and submit the following reports in English to the Government of Kenya:

1. Inception Report:
Twenty (20) copies at the commencement of the first field survey in Kenya. This report contain the schedule and methodology of the Study as well as the outline of the field survey.
2. Progress Report (1):
Twenty (20) copies at the end of first field survey. This report will summarize the findings in the Phase I.

3. Interim Report:
Twenty (20) copies at the commencement of the second field survey. This report will contain the Master Plan, the outline of the urgent program and the study program for the Phase II.
4. Progress Report (2):
Twenty (20) copies at the end of the second field survey. This report will summarize the findings in the Phase II.
5. Draft Final Report:
Twenty (20) copies within three (3) months after the end of the second field survey. The Kenyan side shall submit their comments within one (1) month after the receipt of the Draft Final Report.
6. Final Report:
Fifty (50) copies within one (1) month after the receipt of the comments by the Kenyan side on the Draft Final Report.

VII. UNDERTAKINGS OF THE GOVERNMENT OF KENYA

1. To facilitate the smooth conduct of the Study, the Government of Kenya will take the following necessary measures:
 - a. To inform members of the Japanese study team (hereinafter referred to as "the Team") any existing risk in the Study area and to take any measures deemed necessary to secure the safety of the Team.
 - b. To permit the members of the Team to enter, leave and sojourn in Kenya for the duration of their assignment therein, and exempt them from foreign registration requirements and consular fees.
 - c. To exempt the members of the Team from taxes, duties, fees and any other charges on equipment, vehicles, and other materials brought into and out of Kenya for the conduct of the Study.
 - d. To exempt the members of the Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Team for their services in connection with the implementation of the Study.
 - e. To provide necessary facilities to the Team for the remittances as well as the utilization of the funds introduced into Kenya from Japan in connection with the implementation of the Study.
 - f. To take necessary action to obtain permission for the Team to enter into private properties or restricted areas for the implementation of the Study.
 - g. To secure permission for the Team to take all data and documents including photographs and maps after the authorization by responsible organizations concerned, related to the Study out of Kenya to Japan.

- h. To provide medical services in case of necessity, and the fees shall be chargeable to the members of the Team.
- 2. The Government of Kenya shall bear claims, if any arises, against the members of the Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the member of the Team.
- 3. The Ministry of Local Government and Kisumu Municipal Council shall act as counterpart agencies to the Team and also as a coordinating body in relation with other relevant organizations for the smooth implementation of the Study.
- 4. The Ministry of Local Government and Kisumu Municipal Council shall, at their own expense, provide the Team with the following, in cooperation with other relevant organizations:
 - a. Available data and information related to the Study,
 - b. Additional survey related to the Study, if necessary,
 - c. Counterpart personnel and supporting staff,
 - d. Suitable vehicles for the Team
 - e. Suitable office space with necessary equipment in Kisumu and Nairobi, and
 - f. Credentials or identification cards.

VIII. UNDERTAKINGS OF JICA

For the implementation of the Study, JICA shall take the following measures:

- 1. To dispatch, at its own expense, the study team to Kenya,
- 2. To pursue technology transfer to counterparts personnel in the course of the Study.

IX. CONSULTATION

JICA, the Ministry of Local Government and Kisumu Municipal Council will consult with each other in respect of any matter that may arise from or in connection with the Study.

ANNEX-I

The Study on Kisumu Water Supply and Sewerage System in the Republic of Kenya

TENTATIVE SCHEDULE

DESCRIPTION	MONTH																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
WORK IN KENYA	■	■	■	■	■	■	■	■	■	■	■			■				
WORK IN JAPAN	□					□						□	□		□			
REPORT PRESENTATION	▲				▲	▲					▲	▲	▲	▲		▲		
	IC/R				P/R(1)	IT/R					P/R(2)	DF/R	DF/R			F/R		
PHASE	PHASE I									PHASE II								

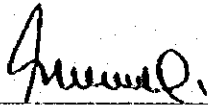
NOTE IC/R : Inception Report
P/R : Progress Report
IT/R : Interim Report
DF/I : Draft Final Report
F/R : Final Report

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MINUTES OF MEETING
ON
THE SCOPE OF WORK
FOR
THE STUDY
ON
KISUMU WATER SUPPLY AND SEWERAGE SYSTEM
IN
THE REPUBLIC OF KENYA
AGREED UPON BETWEEN
THE MINISTRY OF LOCAL GOVERNMENT
(KISUMU MUNICIPAL COUNCIL)
AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY

Nairobi, January 30th 1997

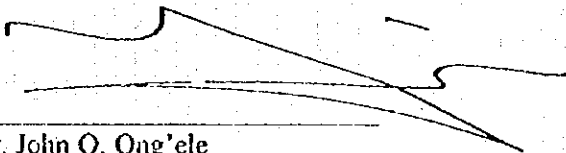


Mr. R.K.A. Siele E.B.S.
Permanent Secretary
The Ministry of Local Government



Mr. Yoshiki Omura
Leader
Preparatory Study Team
Japan International Cooperation Agency

Witnessed by



Mr. John O. Ong'ele
Town Clerk
Kisumu Municipal Council

Based on the official request of the Government of the Republic of Kenya, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the preparatory study team (hereinafter referred to as "the Preparatory Team") headed by Mr. Yoshiki Omura from 18th to 31st January, 1997 to discuss the Scope of Work for the study on Kisumu Water Supply and Sewerage System in the Republic of Kenya (hereinafter referred to as "the Study").

The Preparatory Team had a series of discussions with the Kenyan authorities concerned such as the Ministry of Local Government (hereinafter referred to as "MOLG") and Kisumu Municipal Council (hereinafter referred to as "the Council"). The list of those who attended these discussions is shown in the Annex. Both sides agreed on the Scope of Work for the Study. In addition, this document sets forth main items discussed and agreed upon.

1. Both sides agreed to revise the name of the Study from "The Study on Kisumu Water Supply and Sanitation Project" to "The Study on Kisumu Water Supply and Sewerage System." This will also include general drainage and on-site sanitation, but exclude solid waste management.
2. The Kenyan side requested for the Master Plan target year to be extended to the year 2020. The Preparatory Team agreed to convey the request to the JICA headquarters.
3. Both sides agreed that the Study area shall cover water supply and sewerage service areas within the boundary of Kisumu Municipality, and proposed water source development sites, which might be within or outside the Municipality.
4. The Kenyan side agreed to organize a "Steering Committee" to formulate the basic policy for the Study and to coordinate the concerned Kenyan institutions. The Committee will have the following characteristics in order to promote and facilitate cooperation among the institutions:
 - It shall be presided by the Director of the Urban Development Department of MOLG and shall comprise officers representing such authorities as Ministry of Land Reclamation, Regional and Water Development and the Council.
 - It shall be empowered to make decisions and take responsibilities for the recommendations of the Study.
5. To guarantee the smooth conduct of the Study and promote technology transfer through on-the-job training, the Kenyan side shall designate appropriate number of counterpart personnel on the full time basis such as:
 - a) Leader of the counterpart
 - b) Appropriate number of officers whose expertise relate to such fields as water supply, sewerage and drainage, water resource development, reticulation, leakage control, water quality analysis, mechanical engineering, environmental analysis, institution strengthening, business and financial planning, social mobilization and human resources development
 - c) Secretary/typist/office clerk
6. The Preparatory Team requested the Kenyan side to prepare an appropriate office space in Kisumu and Nairobi respectively. Each office should be equipped with the following:
 - a) Desks, chairs, filing cabinets, and other appropriate office furniture
 - b) Telephone and Facsimile
 - c) Other utilities as necessary

The Kenyan side accepted the above request by the Preparatory Team.

The Kenyan side requested JICA to provide the following:

- d) Photocopy machine with A-3 size carrier
- e) Air conditioner in Kisumu
- f) Cost of international communication

The Preparatory Team clarified that the request would be considered by JICA based on the strict evaluation of the necessity of these requirements to successful conduct the Study.

- 7. The Kenyan side agreed to provide one (1) saloon vehicle in Nairobi. In view of shortage of transportation facilities in Kisumu Municipality, the Kenyan side requested JICA to provide for necessary number of four-wheel drive vehicles for use by the Team in Kisumu.
- 8. The Kenyan side requested for training of counterpart personnel during working periods in Japan.

The Preparatory Team agreed to convey the request to the JICA headquarters.

- 9. The Kenyan side requested for the Team to hold seminar/s in the course of the Study.

The Preparatory Team agreed to convey the request to the JICA headquarters.

- 10. The Preparatory Team explained that the Final Report should be made accessible to the public.

- 11. Both sides discussed tentative schedule of the Study, and the Kenyan side requested that in view of current water and sewerage situation in Kisumu Municipality, the urgent need of quick intervention, and availability of data and information, the Study period should be shortened.

- 12. Both sides agreed that data collected during the Study will be made available to both parties.

- 13. The Kenyan side expressed the need of involving Kenyan consultants in the Study formally.

Annex

LIST OF ATTENDANTS

Kenyan Side

Eng. F.J. Mulli	Deputy Director, Urban Development Dept., MOLG
Mrs. S. Agoye	Under Secretary, (PF&EO), MOLG
Eng. N.N. Nyariki	Superintending Eng., UDD, MOLG
Mr. John O. Ong'ele	Town Clerk, Kisumu Municipal Council
Mr. B.R. Bifwoli	Town Treasurer, KMC
Mr. R.G. Ngigi	Ag. General Manager, Water and Sewerage Dept., KMC
Mr. Eliud E. Olwanda	Ag. Asst. Town Clerk, KMC
Dr. Fred Owino	Medical Officer of Health, KMC
Mr. Dominic Awiti	Sewerage Superintendent, KMC
Mr. Dunstan J. Momanyi	Chief Public Health Officer, KMC
Mr. George Wasonga	Chemist, KMC
Eng. W.O. Matigaro	Provincial Water Engineer, Nyanza Province

Japanese Side

Mr. Yoshiki Omura	Leader, Preparatory Study Team, JICA
Mr. Nobuaki Miyata	Task Officer, JICA
Mr. Takeshi Minami	Sewerage Engineer, JICA
Mr. Kiichiro Mimura	Water Supply Engineer, JICA
Mr. Tahei Inoue	Consultant, JICA
Mr. Kazuo Ono	Consultant, JICA
Mr. Haley H. Minakami	Consultant, JICA
Mr. Katsuyoshi Kitagawa	JICA Expert
Mr. Yoshiharu Yamada	Asst. Resident Representative, JICA, Kenya

3. 面会者リスト

Ministry of Local Government

Mr. R.K.A. Siele E.B.S.	Permanent Secretary
Mr. Salab	Undersecretary
Eng. F.J. Mulli	Deputy Director, Urban Development Dept.
Mrs. Sophie Agoye	Under Secretary, (PF&EO)
Eng. N.N. Nyariki	Superintending Eng., UDD

Ministry of Finance

Mr. J.K. Kanithi	Undersecretary, External Resource Dept.
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Ministry of Land Reclamation, Regional and Water Development

Mr. John Maina	Director, Planning Dept of Water
Mr. Mwaura	Development Division
Mr. Muiruri	Director, Sanitation Operation
北川勝義	派遣専門家、水道

Ministry of Environment and Natural Resources

Prof. Joseph B. Ojiambo	Head, National Secretariat for Lake Victoria Environmental Management Program
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Kenya National Environment Action Plan

Mrs. Verity M. Nyagah	Deputy Coordinator,
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Kenya Wildlife Service

Mr. Wilbur K. Ottichilo	Deputy Director, Biodiversity,
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Kisumu Municipal Council

Mr. Lawrence A. Oile	Mayor, Kisumu Municipality
Mr. John O. Ong'ele	Town Clerk
Mr. Eliud E. Olwanda	Ag. Asst. Town Clerk
Mr. B.R. Bifwoli	Town Treasurer
Mr. Elisha R. Otieno	Chief Accountant
Dr. Fred Owino	Medical Officer of Health
Mr. Dunstan J. Momanyi	Chief Public Health Officer
Mr. R.G. Ngigi	Ag. General Manager, Water and Sewerage Dept.

Mr. Cleophus Onyango	Water Superintendent
Mr. Dominic Awiti	Sewerage Superintendent
Mr. George Wasonga	Chemist
Mr. Frank Odhiambo	Chemist

Nyanza Province

Mr. Joseph K. Kaguthi, E.B.S.	Provincial Commissioner
Eng. W.O. Matagaro	Provincial Water Engineer

German Embassy

Dr. Ralf Schröder	Head, Dept for Economic Cooperation
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Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)

Mr. Neil A. MacDougall	Team Leader, Urban Water and Sanitation Management Project
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日本大使館

堀内伸介	大使
久保利夫	参事官/医務官
植松龍二	二等書記官

海外経済協力基金ナイロビ駐在員事務所

長峰美夫	主席駐在員
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国際協力事業団ケニア事務所

田上 実	所長
石田幸男	次長
山田良春	所員

JICA