



THE EFFECTIVENESS OF PUBLIC- PRIVATE PARTNERSHIP (
MANAGEMENT CONTRACT) IN PROVIDING WATER: NKANA
WEST, KITWE.

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A project report submitted to the Department of Geography at the University
of Zambia in partial fulfillment of the degree of B.A ed.

13th September, 2002.

DECLARATION.

I AGIANDU GITUS declare that this report has been composed and compiled by me and that the work recorded has been done by me, that the sources of all material referred to have been specifically acknowledged, and that the project report has not been accepted in any previous application for academic award.

Signature N. y. dw Date: 13th SEP, 2002.

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I wish to thank more sincerely the following people for their unselfish help rendered to me thereby necessitating the completion of this study.

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AHC and saur Management for availing to me all the required information pertinent to the project. Especially Mr E. Mutangama and Mr Nyirenda. More so, the residents of Nkana West for the maximum cooperation during data collection.

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ABSTRACT.

Following the privatization of ZCCM, there has been a change in the provision of water, that is, from ZCCM to AHC- MMS which in turn has engaged Saur International under management contract. Residents of Nkana West have been complaining about this arrangement that it is not efficient and that they are being billed for water which they do not use.

The study aimed at assessing the efficiency of management contract in the provision of water in Nkana West. Questionnaires and non scheduled interviews were used by the researcher in order to realize the objectives of the study. The sample size of 50 respondents was used. Cluster sampling was used with the combination of interval sampling in order to overcome the limitations of the former in not considering all the elements.

The study revealed that management contract was opted for by government in order to harness finances, knowledge of technologies, managerial efficiency and experience of the private operator so as to ensure sustainability in the provision of water to the former mine township. Among others, management contract offers the following advantages: management contract reduces the commercial risk to the private operator since it is not as complicated as other options like concessions; with the government remaining with the role of monitoring and evaluating the progress made by the private operator, residents can not be exploited by the former in terms of bills and tariffs.

During the tenure of ZCCM water supply was 24 hours service as indicated by the response from respondents. Following the transition in the provision of the service , AHC through Saur has tried to maintain the standards by ensuring that the area is supplied with water 24 hours. Most people indicated that they had water 24 hours, that is ,78% while 22% of the respondents did not.

Residents of Nkana West were not billed during the time of ZCCM .The advent of AHC brought about the billing system . Most of the people in the area are happy with the billing system, though there are problems like bills not being delivered in time and water not being metered.

Apart from the problems experienced in the billing system, residents of Nkana West complained of leakages, brown water especially during the rain season, and not being notified in advance about shutdowns when maintenance work of the water network was going on. A number of measures have been put in place in order to mitigate some of the problems experienced by the residents like holding meetings with civic leaders and meeting the community .

The partnership, that is, between AHC and Saur experiences some problems like that of not following their roles as outlined in the contract. A number of measures have been put in place in order to resolve them, for example, constant reference to the signed contract, and showing practical demonstration from each side to justify its course of action.

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CHAPTER ONE: INTRODUCTION

1.0 Overview

The end of the 20th century witnessed an unprecedented change in the pattern of human settlements. Today, more people live in cities and towns than in rural areas.

This rapid concentration of hundreds of millions of people has placed an extraordinary strain on the ability of government both at municipal and national levels.

According to Bennet (1998), for the poor in developing countries cities, the most threatening environmental problems are those to the home: lack of access to clean water, accumulating garbage, a lack of energy services. The World Health Organisation estimates that 25 to 30 percent of urban residents in Latin America, Africa, and the middle East lack access to potable water; more than one third in Asia are not serviced.

Deficiencies in the provision of water in cities and towns are caused by several factors: the rapidly increasing size of cities, the high concentration of the poor, and the inadequate management and technical skills of Municipalities and government agencies to deal with the accelerating growth in demand for water.

But at the core of the current breakdown is the issue of insufficient government resources. Governments especially in third world countries are in a dilemma in trying to improve both the quality and quantity of water to its citizens.

According to Bennet (1998), it is increasingly becoming clear that government cannot meet the continually growing demand for water services alone. New approaches to address these problems that involve collaboration among an increasing number of private parties are urgently needed. Hence, the only

essential ingredient is some degree of private participation in the delivery of traditionally public - domain services.

This study focuses on the effectiveness of public - private partnership (Management contract) in providing water in Nkana west, Kitwe.

1.1 Background to the study

Following the privatisation of Zambia Consolidated Copper Mine (ZCCM), new investors have been looking to the government of the Republic of Zambia (GRZ) to provide mechanisms that would ensure the continuation of an adequate and reliable range of vital urban services of their employees. The management contract (mc) has been seen as an initial step, a pilot endeavour in a longer term programme of options that have been instituted by the government of the Republic of Zambia to provide services on a commercial basis to achieve sustainability.

The assets of the then ZCCM has been entrusted to Asset Holding Company (AHC) - Mining Municipal services (MMS) which in turn has engaged a private operator under management contract to perform among other roles the following:- rehabilitating and maintaining the existing infrastructure, billing customers and collecting on behalf of AHC. AHC has been left with the responsibility of monitoring and evaluating the activities of the private operator.

The area under consideration, that is, Nkana west has been chosen because it is the former mine township where ZCCM used to supply water.

1.2 Statement of the problem

During the time when ZCCM was responsible for the provision of water, the area was adequately supplied with water. With the new arrangement in place, where AHC through the private operator (Saur International) has taken over the responsibility of providing water, there has been complaints from the residents of

Nkana west that the arrangement is not efficient and that they are being billed for water which they do not use. The purpose of this research is to find out whether the new arrangement has improved water provision to the area or not.

1.3 Aim

The aim of the study is to assess the efficiency of management contract in the provision of water.

1.4 Objectives

In order to achieve the aim, the following objectives were pursued:

- (i) To establish the reasons as to why management contract was deemed the convenient option in the provision of water to mine townships that is, Nkana west.
- (ii) To compare the frequency of water flow in Nkana west before and after AHC management contract, views of residents.
- (iii) To find out whether or not there has been an improvement in the distribution and settlement of bills.

1.5 Research question

Does the Private Operator ((PO) offer the best expertise to both manage and maintain water facilities thereby achieving effectiveness in the provision of water?

1.6 Rationale

The provision of water has been the major problem haunting municipalities mainly due to erratic funding from the government. It has been identified that major problems with the government (public) is that although they have the existing infrastructure, they lack the technical know - how and management skills, which can only be provided by the private sector. One of the main issue that has been identified is the lack of institutional and management capacity in the

public sector, that is, the capacity to operate and maintain successfully the water supply.

Therefore, this study will help to assess the effectiveness of management contract, which is one of the options in public - private partnership in the delivery of urban environmental services, and replicate the programme in other townships especially the councils that are experiencing a lot of financial problems.

On the other hand, the private will benefit as they undertake the same operations in future whether with the same company or others after the findings from this study.

The researcher will benefit in that this project is part of the inevitable requirement to complete the degree programme. More so, it will widen his scope of research for future endeavours. Other students intending to pursue the same or other options in the provision of water will benefit in their endeavour to fill the void.

1.7 Scope of the study

The study looks at management contract between AHC and Saur International. Emphatically, the study will consider this merger in relation to the beneficiaries (Customers in order to assess the effectiveness of this arrangement (MC) in the provision of water in the area.

Basically, there are five mine townships, that is, Nchanga, Nkana, Konkola, Mufulira and Luanshya. The area under consideration is Nkana especially Nkana west. All households in Nkana west to be considered through the sampling procedure to be employed in the study.

The areal extent is about 2500 acres of land and was established during my vocational employment with the company.

1.8 Definition of terms.

The study will use the following terms as measuring phenomena under investigation.

1.8.1 Public - private partnership (PPP)

"The term PPP describes a spectrum of possible relationships between public and private actors for the co - operation provision of infrastructure services," (Bennet, 1998:116)

1.8.2 Private operator (PO)

One hired by the public sector (government) to carry one or more specific tasks, for example, the PO can be given the responsibility of operating and collecting on behalf of the public (hire), project Appraisal document (2000).

1.8.3 Public sector

The one that hires the PO to perform various tasks. For example, AHC hiring saur (PO) under management contract. The role of the public sector among others is to monitor the performance of the PO and also to approve the plans of the PO, Project Appraisal document (2000).

1.8.4 Management contract.

Management contract is where ownership, and investment is the duty of the public, but operation is performed by the private operator. Tarrif collection can be done either by the public or private, (World Bank, 1994:8).

1.9 Preview of the organisation of the report

The report have seven chapters in all. The first chapter is the introduction which include the following:- background to the study; statement of the problem; aim;

objectives; research question; rationale; scope of the study; definition of terms and preview of the organisation of the report.

The second chapter looks at the literature review with the following subheading: PPP initiative; alternative approaches to project ownership; management contract in other countries; Zambian experience in PPP initiative.

The third chapter describes the study area, followed by the fourth chapter which is on the research method with the following sub-headings:- sources of data; primary sources; questionnaire; non scheduled interviews; secondary sources; sampling frame; sample size; sampling method; data processing; analysis and presentation and limitations and problems encountered during the research.

The fifth chapter looks at the results and research findings. Bar graphs and pie charts are used.

The sixth chapter is on discussion. Results are related to the objectives of the project and some points made in the literature review.

The seventh chapter is on the conclusion and recommendations.

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CHPATER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter is on the literature review. The major issues in the chapter which are presented respectively are: Public private partnership initiative; management contract in other countries; Zambian experience in PPP initiative in general and in water.

2.1 Public Private Partnership Initiative

The driving force behind increased private sector involvement in water supply services lies in the fact that demand has outstripped governments' abilities to meet the need of expanding mega - city populations. Broader recognition of the social and economic values of drinking water can harness the private sectors experience and financial resources to tackle the dilemma of urban water supply systems in developing countries, James (9998).

The rapid concentration of hundreds of millions of people in urban areas has placed an extra - ordinary strain on government. Many governments are simply finding that their existing water, sanitation and energy infrastructures are unable to service their rapid expanding populations. In addition, these governments are finding that their limited financial resources are not sufficient to cover the needed expansion of these services. Even where the governments do find the resources to subsidize public utilities, the service is often still poor and sectors of population largely unserved Bennet (1998). It is increasingly becoming clear that government can not meet the continually growing demand for water, waste and energy services acting along. "New approaches to address these problems that involve collaboration among an increasing number of private parties are urgently needed," (Bennet, 1998:2). The only essential ingredient is some degree of private - participation in the delivery of traditionally public domain services.

Through public - private partnership, the advantages of the private sector - innovation, access to finance, knowledge of technologies, managerial efficiency

are combined with the social responsibility, environmental awareness, and local knowledge of the public sector in an effort to solve urban problems, Bennet (1998). "In cities throughout Latin America and the world, private firms have demonstrated ability to help improve the operation of infrastructure services", (Bennet, 1998:3).

The millennium poses new challenges for the delivery of core environmental services to an increasing population and rural and urban authorities are faced with investigating innovative ways to supply these services, (Heitman, 1999:5). Urban water supply systems, therefore, have an enormous task ahead of them in providing basic drinking water services to expanding population. Twenty four out of fifty water utilities surveyed by the Asian Development Bank in 1997 involved some form of private sector participation in urban water supply systems, (Andrei, 1997:701).

Water utilities in the developing countries have been described as "bureaucratic, inefficient and corrupt," with as many as five times the number of employees per 1,000 connections in developing countries as in Europe, Economist (1998). In addition, large amounts of water are lost due to leaks and over consumption. Significant investments are required in order to improve and expand these failing services and facilities.

Private sector participation ranges from short - term, based contracts which tend to be more prevalent because they are more risk - neutral than to the sale of all assets to a private firm, (Haarmeyer, 1997:113). Under UNDP/Yale, there is a broad spectrum of options, which can be taken in public - private partnership.

2.2 Alternative approaches to project ownership

	Management contracts	Lease contracts	Build operate transfer (BOT) of Build operate on (B00) Concession	Fully utility concession	Asset sale
Responsibilities are Allocated:					
Ownership	Public	Public	Public	Public	Private
Investment	Public	Public	Private	Private	Private
Operation	Public	Private	Private	Private	Private
Tarrif collection	Private/Public	Private	Public	Private	Private

Source: HAARMEYER, D. and MODY, A. (1997), Private capital in water and sanitation " Finance and Development"

Operation, maintenance, and service contract are some of the options. The public sector essentially hires a private organisation to carry out one or more specified tasks for periods of five to seven years. The public sector remains the primary provider of the infrastructure service and only contracts out portions of its operation to the organisation. The private sector must provide the service at the agreed costs and must meet performance standards set by the public sector, (Bennet, 1998:116).

2.3 Management contract in other countries

Management contract were used in Mexico city to implement a loss detection programme, install water meters and rehabilitate the distribution system, the case reveal both the strengths and pitfalls of the incremental path to private participation. In Guinea, Significant operational efficiencies have been achieved, but the lack of clear delineation of responsibilities has recently led to the

deterioration in the relationship between the contractor and the government and an increase in unaccounted for water, (Haarmeyer, 1997: 557).

Facing huge inefficiencies and poor services, the government of cartagena liquidated the public water and sewerage utility. In its place, Acuacar company was created to serve the city's 750,000 inhabitants. Acuacar is owned by the government of cartagena (Colombia) and Aguas de Barcelona, a Spanish provider of water services. It has been awarded a 26 - year operation and maintenance contract, and assumed control of the system in 1995. The city of cartagena continues as the sole owner of the system, with sole responsibility for funding expansion, Bennet (1998). The new company is regulated, in theory, by a national commission, but in reality oversight responsibilities are unclear. "However, Acuacar has substantially invested in maintenance and rehabilitation thereby improving water quality," Bennet, 1998:12).

In Chile, the metropolitan company for sanitary works (EMOS) applies contracts with the private sector for two main groups of activities: those related to investments; and those dealing with management, quality control and general services, Bennet (1998). Contracts related to management quality control, and general services represent near 22% of the current expenditure in operation and maintenance. Management contract has been used in the maintenance of water treatment works and water supply and sewerage networks; water sampling and quality testing; meter reading and replacement and billing, Bennet (1998).

The experience of EMOS in Chile shows that the participation of private sector companies in activities that are quantifiable and of frequent occurrence provide optimum results. This arrangement offers the advantage of counting with the management flexibility of the private operators, and ensures public demand satisfaction by avoiding market distortion created by lack of competitiveness, (Gidman, 1995: 6).

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Municipalities as well as national governments need to develop their regulatory and legal capacity to effectively foster and participate in PPP. Projects can not succeed under prohibitive legal and local government need help building supportive legal and regulatory environment, Bennet (1998).

There is no shortage of potential project for the PPP approach. The key is to choose one with well established criteria that has real commitment from the local public and private partners to make it succeed, World Bank (1994).

The option can not work if there is no high level of political commitment. Discussions at the national level tend to be general in character, it is important to move quickly to the local level to work with those directly affected by the problems being addressed. Introduction by and approval from the central government is often necessary and useful, but project negotiations are best handled at the local level, where commitment tends to be stronger, World Bank (1994).

2.4 Zambian experience in PPP initiative

PPP initiative can be seen in many sectors of the economy in Zambia. For example, the Government of the Republic of Zambia (GRZ) has a general policy of privatising the works and services in the road sector. This implies that to the extent possible contractors will carry out all road works and that private consultants will carry out the designs and supervision of works. It is intended that authorities will become less involved in details preparation and supervision of works contracts and will devote more time to planning issues, Ministry of Government and Housing (2001).

However, the road authority remains responsible for appointing consultants that work is done according to specification and within budget, Ministry of Local Government and Housing (2001).

Phonix contractors international is part of the large Swedish group NCC (Nordic Construction Company) with 26000 employees and an annual turnover of approximately USD 5 billion, Phonix Post (2001). This company has been operating in Zambia since 1991. Phonix contractors is engaged in road construction, road rehabilitation, drainage construction and other civil engineering works. These activities are done in collaboration with the government. The main goal to be addressed by the partnership is to ensure construction rehabilitation, and maintenance of roads, Phonix Post (2001).

The sustainable Lusaka programme (SLP) in Zambia is part of the global Sustainable Cities Programme (SCP), a joint programme with the United Nations Environmental Programme (UNEP). The SCP provides municipal authorities and their partners with improved environmental planning and management capacity by building on the principles of Agenda 21 of the United Nations and the local human resources as a key partner, SLP (2002).

SLPs partnerships were often not smooth sailing because various institutions stuck to their norms and structures and did not prepare adequately for integration with others, SLP (2002).

The SLP aimed to build and enhance institutional structures at community level as pre-requisite for improved programme participation. This came out very well such that by the time pilot projects were being initiated, all the concerned communities had a Residential Development Committee (RDC) in place, SLP (2002).

The community solid waste management approach initiated by SLP made in roads into compounds and had quite effectively moved waste to the designated collection points, (SLP, 2002: 13).

Through SLP, there have been programmes work addressing water and sanitation in compounds in Lusaka, but water resource is still very scarce in most of the compounds, SLP (2002).

Water and sanitation were still a thorny issue in the livelihood and development of communities in the peri - urban areas. While on the short - term more boreholes managed through the community Based Enterprises (CBES) are proposed, in the long - term there is need for a clear strategy, which will enable surface water to be transported from an appropriate river system to the city in order to meet the demands of increasing population, SLP (2002).

In 1997, SLP launched programmes at community level in the provision of water in Ng'ombe, Mandevu, Malapodi and Kamanga. Kamanga is currently assisted by the Irish Aid and Ng'ombe came up with RDC.

Just like other options, management contract is a new thing in Zambia in the provision of water. Since independence and perhaps before, it has been the responsibility of councils to provide water to the citizens under the Ministry of Local government. Because of relying on government for funding which is erratic, the services offered have been poor.

In line with the current GRZ's policy of promoting a private sector based approach to the management of municipal assets, private companies have been formed like the Lusaka water and sewerage. This has been replicated in almost all provinces. However, ownership is still in the hands of the council.

However, much as these options can be of benefit, a lot of factors have to be taken into consideration before they are adopted. Knowing that the private sector is profit oriented most of the Zambians can not afford to pay for these services. Suffice to say the environment has to be assessed before any of these options is

adopted. For example, management contract can work in certain parts of the world and not in other parts of the world.

The main objective of the mine township services project (MTSP) is to facilitate the completion of the privatisation of Zambia Consolidated Copper Mine (ZCCM) by supporting the provision of efficient and reliable water supply services waste water services and solid waste management in five mine township during a transitional period following the privatisation. This objective will be accomplished by introducing a performance based management contract that promotes private sector partnership and commercialisation in the sector, Project Appraisal document (2000).

Suffice to say that management contract is currently being piloted in Kitwe (Former Mine township). There has been no research on the effectiveness of management contract in the provision of water in Nkana west. It is therefore the purpose of this research to fill the void.

CHAPTER THREE: STUDY AREA.

3.0 Introduction

This chapter is on the study area, that is, Nkana west. The major issues in the chapter are; the History of the area; location; demographic aspects; physical structure of Nkana west; social amenities and other facilities.

3.1 History

Kitwe's major economic activity is copper mining. The first shaft sunk at Nkana in 1928. Smelting operations begun in 1932 and the growth of the mining industry gave rise to townships in 1935. These mine townships are Miseshi, Wusakile, Wusakile East, Mindolo, Chachacha, Natwange, Mindolo North, Twibulishe, Chamboli and Nkana west. All were under Nkana Division of the then ZCCM limited, Kitwe council (2001). Fig 1

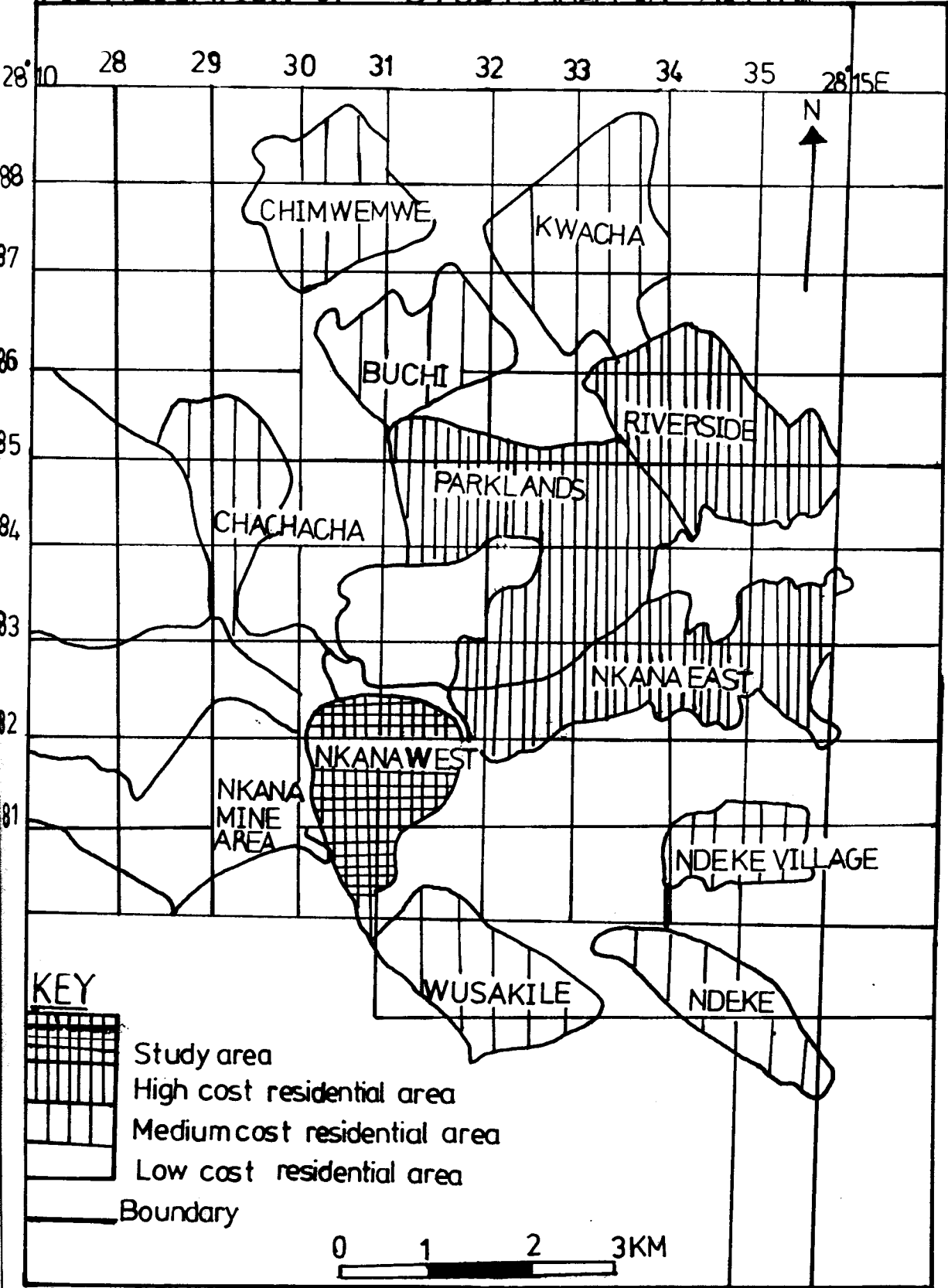
The area under consideration, that is, Nkana west was initially meant for whites who had managerial posts in the mines. It is a high cost residential area for miners. However, due to privatisation and home empowerment scheme which were introduced by the movement for multi - party government, all houses have been sold to the sitting tenants. On account of the above, the area is no longer inhabited by miners only. Owners of houses have either sold their houses or leased them after buying them. Notably, the area is still considered under former mine townships hence the responsibility of AHC to provide water to the area.

3.2 Location.

Kitwe lies between latitude 12° and 14° South and between longitude 28° and 29° east. It stands at a mean altitude of 1295 metres above the sea level, Kitwe council (2001).

The Northern and eastern boundaries of Nkana west is the rail line. The southern and the western boundaries are the mines (Mopani) and dumping site for the

FIG1: LOCATION OF STUDY AREA IN KITWE



SOURCE: Surveyor General, 1986.

mines. The North west boundary is the industrial area commonly known as Tecpro (Figure 2).

The extent of the area can be identified by the following beacons. Starting at beacon J.341, the south - western corners beacon of sub - division F of farm no. 839 (Nkana south land and mineral area), thence east wards and northwards along the boundaries of this sub divisions through beacon J.340 to beacom Z.642. Thence in a straight line in an easterly direction along the southern boundary of the railways (Nkana station) reserve through beacon Z.657, 0.1468, Z. 1469. Z.646 to Z.648 situated on the southern edge of the Rhodesia Railways. From the most northerly beacon of sub - division F of farm no. 839 (Nkana south land and mineral area), thence, westwards and south - wards along the boundary of his sub - division through beacons J.348, J.347, J.346, J.345, J. 344, J.343, J.342 to beacon J.341. The area is approximately 2500 acres, Ministry of local government inventory (1955) (Figure 2).

3.3 Demographic Aspects

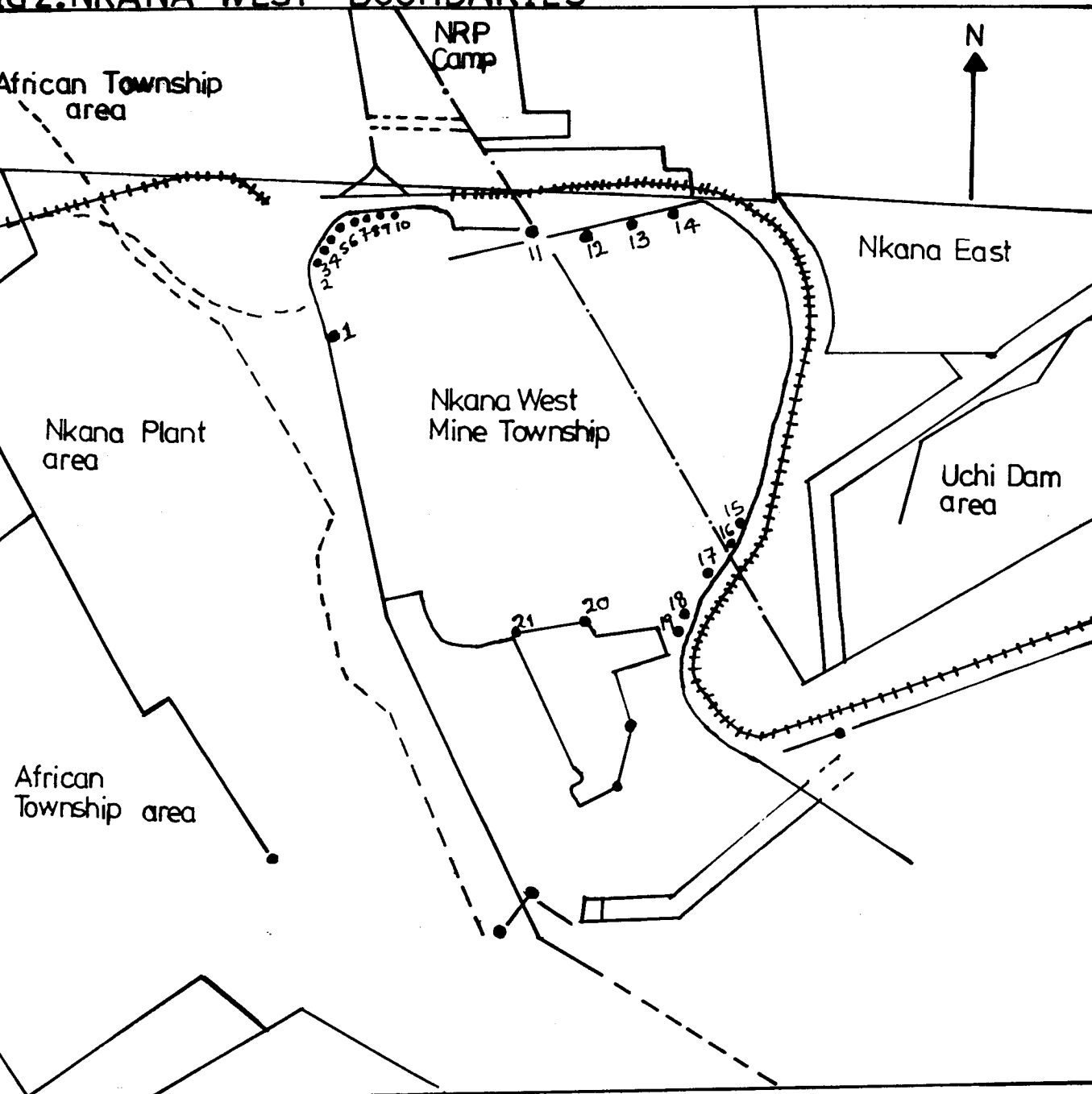
Kitwe district has five constituencies, that is, Chimwemwe, Kwacha, Kamfinsa, Nkana and Wusakili. The population of Kitwe now stands at between 1 million to 1.25 million inhabitants, Kitwe council (2001).

The area under consideration is in Rokana which include Nkana west, part of town and Nkana east. Rokana ward has about 3,334 households. Males are about 11,028, while females are about 10,494 bringing the total to 21,522, CSO (2001).

3.4 Physical structure of Nkana west.

Nkana west has approximately a total of about 610 houses. The whole area which is almost a square is clustered into twelve Avenues. These avenues have some streets in them. (Figure 3).

FIG 2: NKANA WEST BOUNDARIES

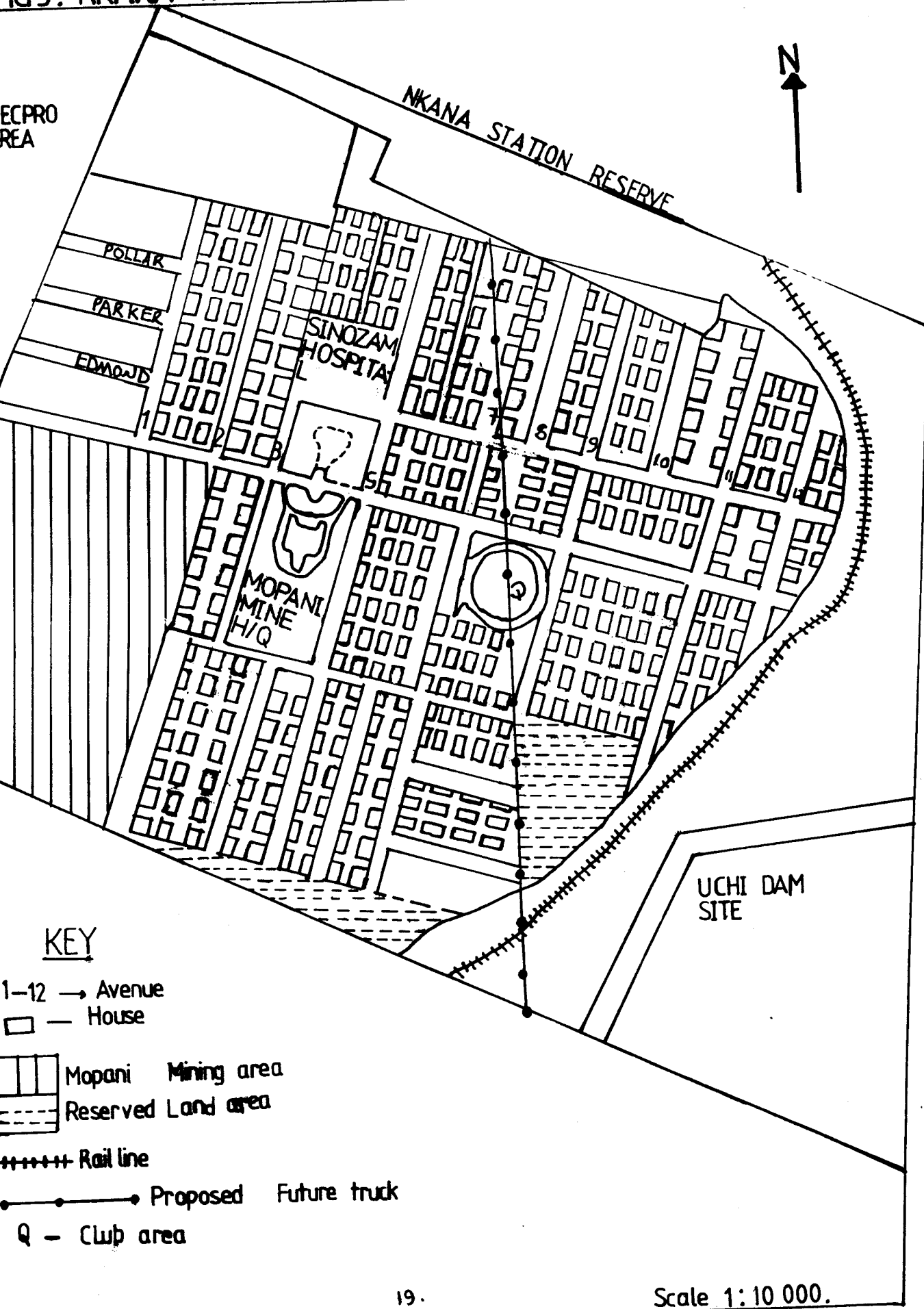


SOURCE: Ministry of Local Government, 1955.

KEY.

Beacon		
J34	14.Z464	----- Mine area boundary
J342	15.0414	----- Boundary
J343	16.0416	
J344	17.0420	+++++ Rail line
J345	18.01529	
J346	19.1527 Proposed future truck
J347	20.RU 263	
J348	21.RU 202	
J349		
J350		
Z64		
01468		
01469		

FIG3: NKANA WEST AVENUES.



SOURCE: Ministry of Local government inventory, 1955.

3.5 Social Amenities

As alluded to earlier, the area was meant for whites working for the mines. As such, the area has quite a number of pleasure resorts like the cricket club, diggers club, Tennis club, squash club e.t.c.

3.6 Other facilities

The area has a number of nursery schools and other schools like Rokana basic and Nkana secondary school.

Nkana west has a number of hospitals in the city Sinozam (former Nkana Mine Hospital), Mars international, care well, dental clinics and others.

The headquarters for Mopani Copper Mine is within the residential area in the central street opposite Sinozam private hospital.

CHAPTER FOUR: METHODOLOGY

4.0 Introduction

The aim of this chapter is to present the sources of data collection instruments, the sampling procedure. Methods of data analysis and presentation are also outlined. The latter part of this chapter is on the limitations of the study and problems encountered during the research.

4.1 Sources of data

Both primary and secondary sources of data were used during the study.

4.1.1 Primary sources.

Primary data was obtained using the following data collecting instruments: Questionnaires and non scheduled interviews.

4.1.1.1 Questionnaires

Questionnaires were administered in direct contact to the residents of Naka west. Through the questionnaires information on water supply both before and after AHC management contract was established fulfilling the second objective. Information on the distribution of water and billing system was also collected using questionnaires, thus achieving part of objective three.

The questionnaires were preferred because they helped the researcher during the actual data collection and even in the analysis of data obtained. Since the questionnaires were administered in direct contact, all questions were apply answered since mis - understanding and mis - interpretations of some words of questions was overcome due to the availability of the researcher to clarify all misconceptions. More so, questionnaires could be administered even to illiterate respondents.

4.1.1.2 Non Scheduled Interviews

Non scheduled interviews were conducted to collect data on the reasons as to why management contract was deemed the convenient options in the provision of water to the township (Nkana west). Information on water distribution and settlement of bills were collected using non scheduled interviews thus achieving objective three. The non scheduled interviews was targeted at AHC and Saur Management.

4.1.2 Secondary sources

Data on public private partnership initiative and management contract in other countries were gotten from the publications on public private partnership from Yale and UNDP available on PPP internet website.

Data on Zambian experience in PPP, initiative background to the study area and rationale were obtained from the Project Appraisal document for AHC. More information on PPP initiative in Zambia was gotten from the executive summary document for sustainable Lusaka programme (SLP).

Data on population in Kitwe was gotten from the central statistics office.

Details on the study area were obtained from National Archives and Kitwe city council library.

4.2 Sampling frame

This comprised a list obtained from the commercial office in the Eleventh Avenue. The company secretary was interviewed because all queries were referred to him by management and also saur representative.

4.3 Sample size

Apart from management for Saur and AHC, a total of 50 respondents were interviewed in Nkana west.

4.4 Sampling Method

There was a modification to the sampling method used. Cluster sampling was used since the township was discovered during the study that it is divided into clusters (avenues). With these avenues, there are streets. There are twelve (12) avenues. The first population which is more general comprised of avenues, followed by the population of houses within each and finally the actual sample size. This method ensured that every house in the population had an equal opportunity of being selected in the sample.

The size was arrived at using the formulae below.

The ratio of sample to population (f) is given by:

$$f = \frac{n}{N} \quad \begin{array}{l} n = \text{size of the sample} \\ N = \text{size of the population} \end{array}$$

$$\frac{50}{610} \text{ approx} = \frac{1}{12} = 8.3\%$$

The forth avenue had slightly a large sample size because of having a large population of houses.

$$\frac{8}{100} \times 50 = \frac{40}{10} = 4 \text{ respondents}$$

$$\frac{8}{100} \times 60 = \frac{48}{10} = 4.8 = 5$$

Table 1: Selection of Avenue sample size

AVENUE	POPULATION	SAMPLE SIZE
1	50	4
2	50	4
3	50	4
4	60	6
5	50	4
6	50	4
7	50	4
8	50	4
9	50	4
10	50	4
11	50	4
12	50	4
TOTAL	610	50

Since cluster sampling does not take into consideration individual sampling elements, interval sampling was employed. To reduce sampling error, within each avenue, interval sampling was employed starting with a randomly selected element in the population. This was done using labeled pieces of paper and the starting point was established and then continued with the sampling.

Interval (k) = size of population/size of sample

Interval (k) = $\frac{610}{50} = 12$

4.5 Data processing, Analysis and presentation

The data collected from the questionnaires was processed using a code system on a coding sheet. Descriptive and qualitative analysis is employed in the data analysis.

In the presentation of the data, graphs have been used, that is, bar graphs and pie charts.

4.6 Limitation and problems encountered during the research

The major limitation encountered during the study was that of relying on the old population list which the company uses in billing. Even the population given is still being worked out following the privatisation of the conglomerate hence transferring of ownership of water utilities. The company is in the process of creating a new data base for the township.

Since people have bought houses, there was a problem of locating houses some of which have no house numbers or any tag. More so, some houses are being demolished by owners for being too old.

Saur international management was not co - operative enough. However, the gap was filled in by the company secretary for AHC since questions were the same. More so, most of the information due to be collected was made available through the project Appraisal document.

During my vacation employment with the company most information was gotten from the inside from fellow employees since the researcher worked even in departments headed by saur managers.

CHAPTER FIVE: RESEARCH FINDINGS

5.0 Introduction

This chapter presents the results obtained during the research. The major issues contained in this chapter are: reasons for management contract option; constancy of water supply, that is, both before and after AHC; response to problems reported to the company; billing system; problems experienced by customer, the company and measures put in place in order to resolve them. As alluded to earlier in chapter one, the objectives of the study are:- to establish the reasons as to why management contract was deemed the convenient option in the provision of water to mining township, that is, Nkana West; to compare the frequency of water flow in Nkana West before and after AHC management contract through views of residents; find out whether or not there has been an improvement in the distribution and settlement of bills.

5.1 Reasons for management contract option

According to the company secretary, management contract was deemed convenient on account of the following reasons:

- a) Management contract is the best option when the political will to seek greater private participation is lacking. For example, other options like concession passes full responsibility to the private sector. In Zambia, the government's policy is to have the participation of both the public (government) and private. Therefore, management contract gives less visibility to the private sector. Other options like concession confers a long-term monopoly on the concessionaire.
- b) Management contract is a least step towards commercialization of water utilities as compared to other options like lease and concessions or built operate transfers. These other options are so complex and difficult to manage. Management contract is therefore easy to manage and roles of each partner can be distinctly drawn.

- c) For a nation which is still learning these options like Zambia, management contract enables the company to establish the status of water as an economic good and create a regulatory framework. Other options like concession requires more planning and more investment.
- d) Since what was expected by the investors in the mines was sustainability and not expansion management contract was deemed convenient since the existing asset base was already in place. Lease contract is much bigger step toward more full-fledged private sector involvement through concessions. Concessions are attractive option where large investment are needed.

Further, the (Company Secretary), alluded to the fact that management contract offer the following advantages:

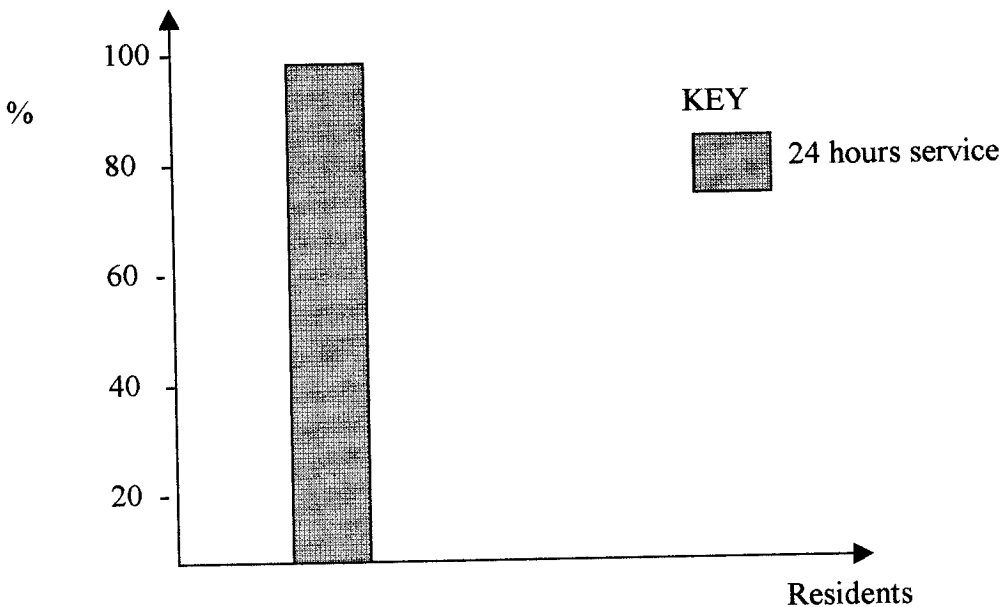
- i) With the government remaining with the role of monitoring and evaluating the progress made by the private operator residents can not be exploited by the former in terms of bills and tariffs. Management contract avails the political need for government to retain initial control of day to day service provision.
- ii) Through management contract, it is easier to ascertain the size and composition of the consumer base, the level of water consumption and the condition of the infrastructure thereby reducing the commercial risk to the private operator.
- iii) Given the private operator with a good tract record in the provision of water, sustainability can be achieved because the private operator would offer the expertise to both manage and maintain water facilities.

5.2 Constancy of supply before AHC

During the time when it was the sole responsibility of ZCCM, residents of Nkana West indicated that water was not an issue since they had it 24 hours. The

findings revealed that 100 percent of respondents had then a 24 hour supply of water by the company (ZCCM).

Fig 4 Hours of water supply before AHC



The graph (fig 4) illustrates what obtained during the time when ZCCM was responsible for water supply to its workers. It shows clearly that workers had water 24 hours. However, respondents indicated that pressure varied, that is, sometimes low and sometimes high.

5.2.1 Responses to water problems before AHC

Most respondents indicated that ZCCM used to respond quickly to water problems. However, 5 percent indicated that they were slow, but the company could certainly work on the reported case of water problem.

Fig 5: Response to problems before AHC

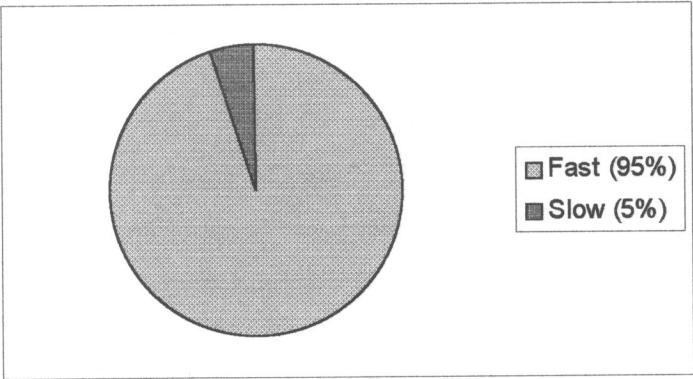


Fig 5 illustrates responses to water problems by ZCCM. As it can be inferred from the chart, 95 percent of customers indicated that the response was fast and 5 percent indicated that it was slow.

5.3 Information on service providers

The study reviewed that not all residents knew the exact time or period when ZCCM stopped providing the service. However, most of them are aware that there has been a change in the provision of water, that is, from ZCCM to AHC. Respondents who are aware of this change accounts for 98%, while only 2% for those who do not know,

Fig 6: Residents who don't/know their service provider

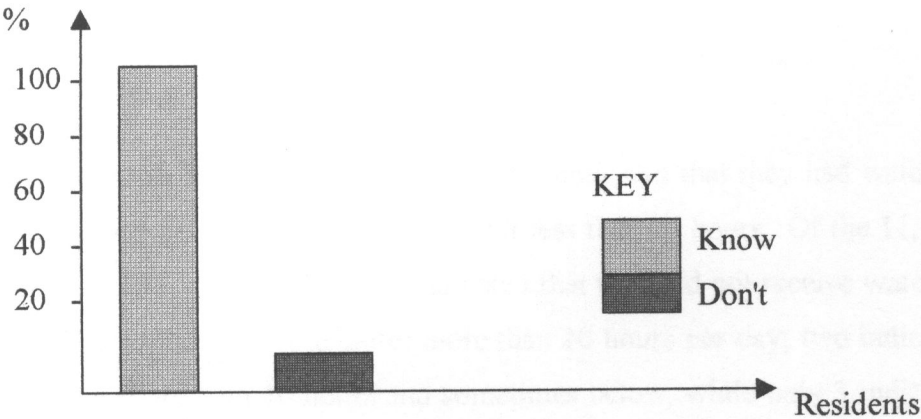


Fig 6 illustrates the percentage of people who know their service provider and those who do not. It was discovered also during the research that two surveys were done by the company to sensitize the residents of Nkana West about their existence. The company also sends out bi annual manuals.

5.4 Constancy of supply after AHC

This section looks at water supply after AHC took over from ZCCM. It presents the findings from both residents and company's perspective.

5.4.1 Constancy of water supply (Residents view)

Other places do not have water 24 hours service, for example Golf street flats. The percentage of respondents who indicated that they had water 24 hours accounts for 78%, while 22 percent indicated that they did not have water 24 hours.

Fig 7: Water supply 24 hours service or not

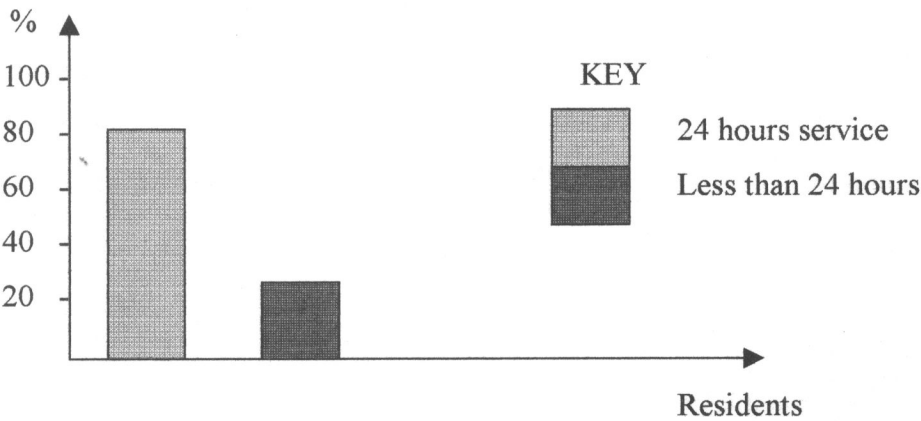


Fig 7 illustrates the percent of respondents who indicated that they had water 24 hours, and those who indicated that they had it less than 24 hours. Of the 11, that is, 22 percent of the respondents who indicated that they did not receive water 24 hours, 6 indicated they received water more than 10 hours per day; two indicated that sometimes more than 10 hours and sometimes below, while only 3 indicated that it was below 10 hours per day.

Fig 8: Hours of water supply (Resident views)

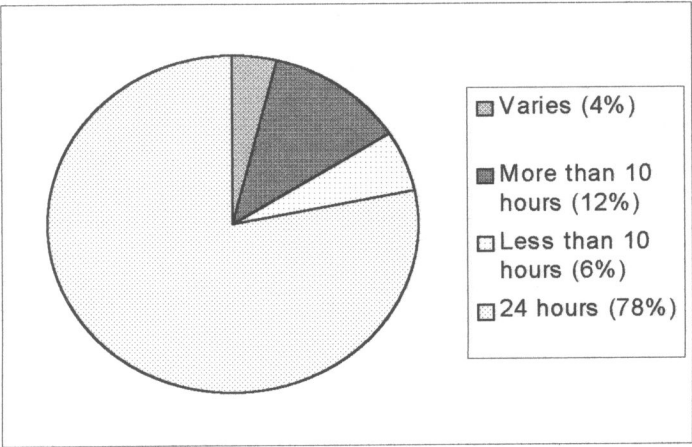


Fig 8 illustrated the hours of water supply according to the views of residents.

5.4.2 Constancy of water supply (company's view)

The table obtained from the Company Secretary/Saur management illustrates the constancy of water supply in all former mine townships in Kitwe. The details in the table include among other things the number of customers in each township, service per day, constancy of water supply per month and constancy of service per month.

TABLE 2 CONSTANCY OF WATER SUPPLY (2001)

TOWN	ARC CODE	TOWNSHIP	NO. RESIDENTS CUSTOMERS	% OF TOTAL TOWNS	% OF TOTAL CUSTOMERS	SERVICE TIME PER DAY		CONSTANCY OF SUPPLY PER DAY	CONSTANCY OF SUPPLY PER MONTH	CONSTANCY OF SERVICE X ^a OF COST PER MONTH	CONSTANCY OF SUPPLY PER MONTH
						FROM	TO				
KITWE	1.	Chachacha	462	5.25%	1.30	4.50	9.00	7.5	225	103,950	31.3%
	2.	Chamboi	2373	27.11	6.66	11.50	14.50	11	330	783,090	45.6%
	3.	Mindolo	31	0.35	0.09	4.50 11.50	9.00 14.50	7.5	225	6,975	31.3%
	4.	Mindolo Central	775	8.85	2.18	4.50	9.00	7.5	222	174,375	31.3%
	5.	Mindolo North	576	6.58	1.62	0.00	24.00	24	720	414,720	100%
	6.	Misheshi Mindolo	527	6.02	1.48	4.00 11.30	9.00 14.30	7.5	225	118,575	31.5%
	7.	Naiwange East	157	1.79	0.44	0.00	24.00	24	720	113,040	100.0%
	8.	Naiwange Main	337	3.87	0.95	4.50 11.50	9.00 14.50	7.5	222	75,825	31.3%
	9.	Nkana West	610	6.77	1.67	0.00	24.00	24	720	426,960	100.0%
	10.	Twibukishe	241	2.75	0.68	0.00	24.00	24	720	173,520	100.0%
	11.	Wusakile	2570	29.36	7.22	4.50	9.00	7.5	225	578,250	31.3%
	12.	Mukuba Natwange	111	1.27	0.31	0.00	24.00	24	720	79,920	100.00%
	TOTAL		8,753	100.0%	24.58				5,280	3,049,280	48.8%

SOURCE: AHC - MMS Monthly Report - November (2001)

Singling out the study area, that is, Nkana West, table two indicates that the area has water from 0.00 hours to 24 hours. Further, constancy of supply per day indicates 24 hours and supply per month is 100 percent. As can be deduced from figure four and five, table(2) shows a difference in the number of hours of supply. The company's view slightly differs from that of residents.

From the time the company started operating, the research revealed that the supply of water has been above 10 hours per day on average. Figure 6 gives the details from the time the company started operating in 2000 up to December 2001.

Fig 9: Average constancy of supply per day (hour)

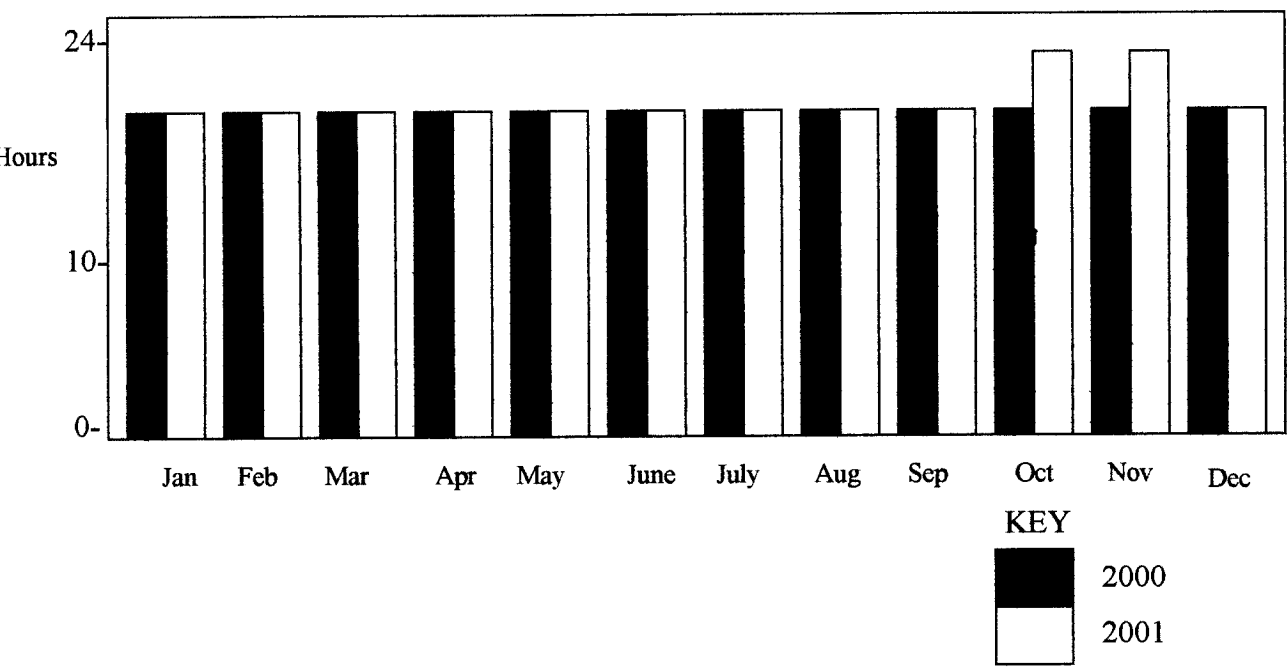


Fig 9 is extrapolated form table two and is showing the average constancy of supply per day (hour). As indicated in the figure, the trend is the same throughout the months in a year and only shows a change in the month of October and November 2001 when there was an increase. Further, it indicates that the average constancy of supply in all townships is above 10 hours per day.

5.4.3 Response to problems

Most of the respondents indicated that the response to problems reported was good especially that the company (AHC) has their commercial offices within the area in the 11th street.

Fig 10 Responses to water problems by the company

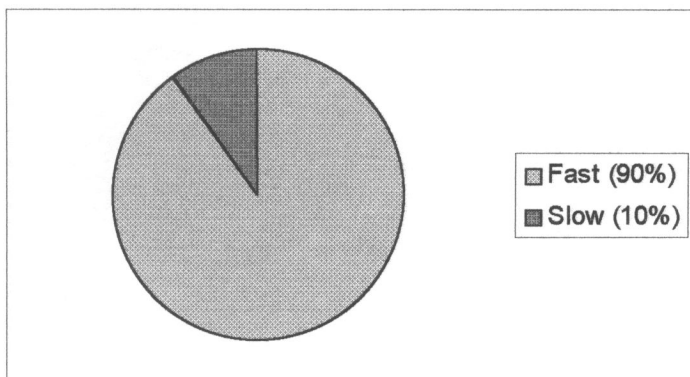


Fig 10 illustrates responses to water problems by AHC. As it can be inferred from the chart, 90% of the respondents indicated that the response was fast and only 10% indicated that it was slow.

5.5 Billing system

This sections looks at the distribution and settlement of bills both before and after AHC assumed responsibility.

5.5.1 Billing system before AHC

Before AHC, that is, during the time of ZCCM, respondents indicated that they did not receive any bills from the company. Further, they stated that water was being paid for by the company. If anything, they did not realise that they were paying for the commodity.

5.5.2 Billing System after AHC

Currently, the company delivers bills to its clients through their respective commercial offices in each townships.

Fig 11: Attitude of customers over the billing system

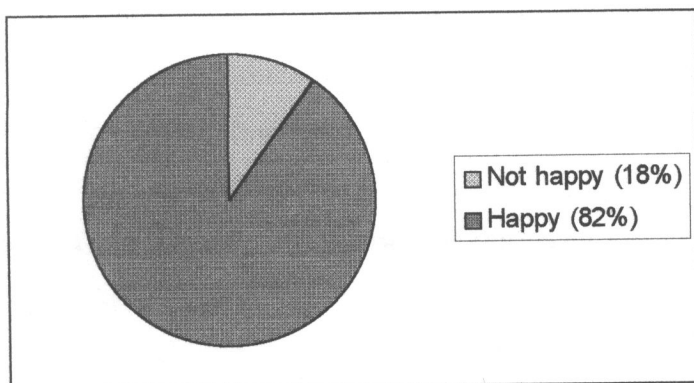


Figure 11 illustrates the attitude of customers over the billing system, that is, in terms of distribution of bills and settlement of bills. The percentage of respondents who were happy with the distribution of bills and the tariffs by the company accounted for 82, while 18 percent of the respondents indicated that they were not happy neither with the distribution nor the tariffs charged by the company. The reasons advanced over their unhappiness are:

- i) Bills not being delivered on time (sometimes a month after the due date).
- ii) The grace period given for the settlement of the bills, that is, two weeks not enough.
- iii) Water is not metered hence customers do not know the criteria used in determining the charges, that is, K35,000 per month.

5.5.3 Company's view over the Billing System

According to the company secretary, the company is aware of these problems and measures are being put in place to mitigate them like

employing more staffs at each commercial office to efficiently dispatch bills in time. Plans are underway to meter the water.

However, the study brought to view the following problem the company has with its clients in terms of water bills:- The company is at pain in trying to change the minds of the clients that services have to be paid for. According to the company secretary, Zambian people have not learnt that water is a commodity that has to be paid for. As a result some customers do not clear bills in time.

5.6 Customers Attitude towards the service.

After looking at the constancy of water supply and the billing system, the general attitude towards the service offered by the company was assessed. The study revealed the following:-

Fig 12: Attitude of customers over the service offered by AHC

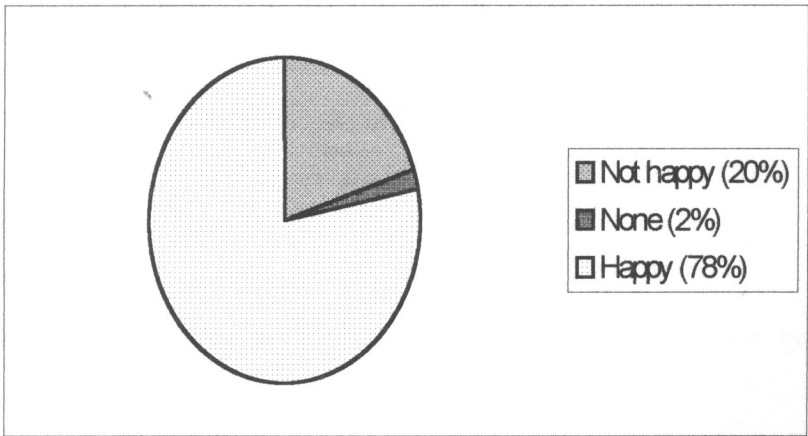


Fig 12 illustrates the attitude of customers over the service being offered by the company. It brings to view the fact that 78% of the customers are happy with the service being offered by the company, while 20 percent are not happy. About 2

percent of the respondents declined to state whether they were happy about the service or not.

In addition to the problems alluded to in the billing system, 20 percent of the respondents were not happy with the service offered by the company on accounting of the following:-

- (i) They are sometimes not notified in advance about shutdowns when maintenance of the water network is going on.
- (ii) The water is sometimes brown especially in the rain season.
- (iii) If sinks are blocked from inside (houses), they are asked to pay K8,000 for the line to be unblocked which used not be the case with ZCCM.
- (iv) There is a need to replace pipes because there is much leakages consequenting into low pressure
- (v) Some taps need fixing.
- (vi) Water provision is not 24 hours in some areas like the club street flats.

5.7 Company's response to the problems raised by the clients.

According to the company secretary, they are aware of the problems haunting their clients some of which he described as preconceived and some genuine. For example, blockages in the home is no longer the responsibility of the company since residents own the houses.

He further alluded to the fact that the company has since got a loan from the world Bank for the replacement of old pipes.

In order to resolve the problems raised by the clients, a number of measures have been put in place by the company:-

- (a) Holding meetings with civic leaders.
- (b) Meeting with the community

- (c) Quarterly distribution of customer information newsletter.

5.8 Problems of management contract between AHC and Saur.

The following problems were brought to view by both AHC and Saur management.

- (a) There is a tendency by both parties of not following their roles to the letter as provided for in the contract.
- (b) The private operator wants to carry the day even if it does not make sense since they are the experts.

5.8.1 Resolving of problems

According to the company secretary, problems between the public and private operator are resolved in the following ways:-

- (a) Constant reference to the signed contract.
- (b) Show practical demonstration from each side to justify its course of action.
- (c) Agreement reached, if not, AHC carries the day because the assets are theirs.

CHAPTER SIX: DISCUSSION

6.0 Introduction

This chapter is on the discussion of the results in the right of the points made in the literature review. Weaknesses as well as strengths of the investigation will be brought to view. The discussion basically is on the major issues raised in chapter five and will follow this sequence: reasons for management contract option ; constancy of water supply, that is both before and after AHC; response to problems reported to the company; billing system; problems experienced by customers, the company and measures put in place in order to resolve them.

6.1 Reasons for management contract option.

Considering the reasons revealed in the findings that is, opting for management contracts, it can be inferred that the government's intention was/is to allow the participation of the private sector in the provision of water. This stems from the fact that there is a realisation on the part of government that it cannot acting alone meet the need of expanding mega - city population. James (1998) argues that the driving force behind increased private sector involvement in water supply services lies in the fact that demand has outstripped government's abilities to meet the need of expanding mega - city populations. The researcher argues that the impetus by the Zambian government to involve the private sector in the provision of water does not lie in the realisation by government that it can not meet the demand alone, but in the fact that donors and lending organisation want it to be so. This can be seen in the way organisations like the World Bank has given the company (AHC) a lot of loans because it fulfills the conditions attached to these loans, that is public private partnership which is the global compaign.

It can, however, be noted that it is not wholly intended to leave the responsibility to the private sector alone. The reasons suggest that government still has keen interest in the provision of these services to its citizens in order to make sure that they are not exploited. As alluded to in chapter two, many countries like Mexico

and Chile have allowed private participation while the government remains at the helm. The public sector remains the primary provider of the infrastructure service and only contracts out portions of its operation to the private, Bennet (1998).

When compared to other options, the reasons of opting for management contract was purely on pilot basis. It would be unprudent and quite risk to embark on an option like concession which are complex and difficult to manage in the initial stage. For example, management contract were used in Mexico city to implement a loss detection programme, install water meters and rehabilitating the distribution system as an incremental path to private participation, Haarmeyer (1997).

Justifiable is also the reason that for a nation like Zambia, management contract enables the company to establish the status of water as an economic good and create a regulatory frame work. Bennet (1998), argues that municipalities as well as national governments need to develop their regulatory and legal capacity to effectively foster and participate in public - private partnership.

Taking Haarmeyers' (1997) argument that private sector participation ranges from short - term, based contract which tend to be more prevalent because they are more risk - neutral, than to the sale of all assets to a private firm, it is thus, not surprising that management contract was deemed convenient because it is easier to ascertain the size and composition of the consumer base, the level of water consumption and the condition of the infrastructure thereby reducing the commercial risk to the private operator.

Given the demand by new investors in the mining sector, that is, ensuring sustainability in the provision of water, it was imperative for government to find the private operator with a good track record in the provision of water since the private operator would offer the expertise to both manage and maintain water facilities. Bennet (1998), argues that through public - private partnership, the advantages of the private sector - innovation, access to finance, knowledge of

technologies, managerial efficiency are combined with the social responsibility, environmental awareness, and local knowledge of the public sector in an effort to solve urban problems.

6.2 Constancy of water supply before AHC and after.

Fig 4, reveals that water supply was 24 hours service during the time when it was the sole responsibility of ZCCM. All the respondents, that is, 50 represented by 100 percent in the fig indicated that they had water 24 hours. It can be argued therefore using the statistics that water was not a problem during the tenure of ZCCM. Notwithstanding this, pressure varied, that is, sometimes low and sometimes high.

Following the privatisation of the conglomerate, the results reveals that 98 percent of the respondents knew the transition, that is, from ZCCM to AHC, and only 2 percent did not know. From fig 6, it can be concluded that most people are aware of their new service providers. This is attributed to the fact that the company has done two surveys to sensitise people about their existence and the BI annual manuals that the company sends to its clients.

The researcher argues that apart from the two reasons given about the majority being aware of the transition, other factors are at play like economical transformations in the mining sector which cannot pass without notice. The researcher further argues that the two percent that do not know could be new in the area since most houses are being rented by owners who benefited from the housing empowerment initiative.

Fig 7, reveals that only 78 percent of the respondents had water 24 hours service after AHC took over, while 22 percent had no water 24 hours service. It can be deduced from fig 7 that the scenario changed in that there was a decline in the provision of water from ZCCM to AHC.

However, table 2, which shows constancy of water according to the company indicates that the areas has water 24 hours. It indicates that there is water from 0.00 hours to 24.00 hours. Fig 9 on the other hand reveals that water supply is above 10 hours on average everyday.

Views from the residents show that most people had water 24 hours while a smaller percentage did not have. On the contrary, the table from the company shows that the supply of water is 24 hours.

Comparing fig 4 to fig 7, results indicate that the scenario changed. It can be inferred that there has been a decline in the provision of the service by AHC. Harmeyer (1997) argues that strengths and pitfalls of the incremental path to private participation has been witnessed in countries like Mexico and other where such options seem to be failing in initial stages and picking later.

The company's assertion that the provision of water is 24 hours emanates from the fact that the machines at the central distribution unit in the 15th street responsible for the area are never switched off. The researcher also confirmed with the attendants that the area is among the few mine town ships which has water 24 hours service, that is, Mindolo North, Natwange East. Twibukishe and Natwange main.

While it can be refuted that the area has no water 24 hours service, the researcher would argue because the researcher discovered that the out put of the machines is reduced at night hence the source of problems especially for the club street area. The top most flats are affected hence the complaint that the provision of the service is not 24 hours.

Suffice to say, there has been no change in terms of supply. However, both cases reveal that pressure has been low in some areas within the area.

6.3 Response to reported problems both before and after AHC

Fig 5 reveals that the response to reported problems was faster during the tenure of ZCCM. However, 5 percent indicated that it was slow.

During the time of AHC, the response is also faster, but still 10 percent feel that it is not.

Comparing the response to problems, that is, now and before, the impression that can be sustained is that there is no much change though ZCCM's time indicates a lower percentage of slowness in terms of response. The researcher argues that the situation is as it is not because of advantages offered by the private operator, but because there is no much change in terms of personnel responsible for water. Most of those managing the utility have just been absorbed (employed) by AHC from former ZCCM. Admittedly, there has been a change in management where whites from the private operator (Saur) are leading most of the departments. Argueing further, in both eras, there still exists problems in response despite having a good number of people employed in maintenance, e.t.c. According to economist (1998), it is argued that water utilities in the developing countries have been described as "bureaucratic, inefficient and corrupt," with as many as five times the number of employees per 100 connections in developing countries as in Europe.

6.4 Billing system

During the time when it was the responsibility of ZCCM to provide water to the area, there were no bills hence residents did not realise that they were paying for the commodity.

However, when AHC took over there was an introduction of bills which used not to be the case preciously.

The study revealed that these bills are distributed through respective commercial offices in each township. As can be deduced from fig 11 about 82% of the customers are happy with the billing system while 18 percent are not.

From the reasons advanced by the customers who are un-happy, that is, bills not being delivered on time, the grace period given and the water which is not metered, it can be inferred that the problem stems from the company itself. The problem of not delivering bills in time affects the planning of customers.

On the other hand, management also complains about the reluctance of some clients to settle bills. As indicated by the findings in chapter five that the company is at pain in trying to change the minds of the clients that services have to be paid for. The attitude by some clients indicate that people still think that the commodity should not be paid for because of the precedence set by ZCCM. The researcher further argues that billing system could be a new phenomena to them hence the delay in settling the bills.

The other problem advanced is that of water not being metered hence customers do not know the criteria used in fixing the charges. As argued by Haarmeyer (1997), management contract were used in Mexico city to implement a loss detection programme, and to install meters. Management is aware of the problem of meters and is about to starting metering all water points in the area. On the charges, a fixed amount of about K35,000 per month is charges per house hold while anticipating meter installation.

The researcher anticipates that the situation is likely to be worse after the installation of meters. Since K35,000 is just too little an amount considering the amount of water consumed.

6.5 Problems experienced by clients

In addition to the problems arising from the billing system, respondents complained that they were not notified in advance whenever there was a shut down due to maintenance and that water was brown especially during the rain season. As revealed in chapter five, the company is aware of the problems, and it is no wonder that a number of measures have been put in place in order to address some of these problems like quarterly distribution of customer information newsletter and meetings with the community. As observed by the researcher at the water plant, a back washer machine has been introduced which was not there previously. The technology has been brought by the private operator to improve on the quality of water.

Other problems like blockage of sinks in houses, and charges levied, and also replacement of taps entails that people have not really appreciated the role they are to play as owners of the houses. They still think the new company should do as ZCCM used to. The responsibility of the company ends as the pipe joins the main lines in the house. To this end, suffice to validate the K8000 charged by the company since it is outside their operational zone.

As it can be viewed from the management contract in Colombia, Bennet (1997) argues that Acuacar (Company owned by government and Aguas de Barcelona) has substantially invested in maintenance and rehabilitation thereby improving both quantity and quality. It is not surprising for clients for AHC to demand for a replacement of pipes which can reduce the leaks thereby increasing the pressure. Economist (1998), argues that large amounts of water are lost due to leaks and over consumption.

Notwithstanding the above, the majority in Nkana west appreciates the service rendered by the company. As it is shown in fig 12, 78 percent are happy with the service being offered by the company. Suffice to say that one of the reasons could

be that they understand the transition which took place, that is from ZCCM to AHC and the role of AHC in offering the service.

6.6 Problems of management contract between AHC and Saur

Public private partnership though purported to enhance efficiency are not free from problems. Haarmeyer (1997) argues that in Guinea, significant operational efficiencies have been achieved, but lack of clear delineation in the relationship between the contractor and government. As with AHC and Saur, there is a tendency by both parties of not following their roles to the letter as provided for in the contract and the desire for the private operator to carry the day even if it does not make sense since they are experts. The researcher observes that both parties show a lower level of commitment to contract signed. More so, this may be as a result of lack of clear delineation of responsibility and absence of frame work essential for the sustainability of the partnership.

As can be inferred from the results, measures are put in place in order to resolve the problems between the public and the private operator such as constant reference to the signed contract, showing practical demonstration from each side to justify its course of action, agreement reached, if not, AHC carries the day because the assets are theirs. The researcher deems the latter measure as in appropriate since in partnership both parties should have equal rights and be guided purely by the regulatory framework.

Bennet (1998) also argues along these lines that the private sector must provide the service at the agreed costs and must meet performance standards set by the public sector. Most of the findings agree with what is contained in the literature review especially the reasons for opting for management contract. Some of the problems from both clients and company also agree with some points in the literature review. However, some do not because of the broadness of the literature review.

CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS

7.0 Introduction

The aim of this chapter is to summarize the major findings and to show whether the objectives have been realised or not. As alluded to earlier, the objectives of the study are: to establish the reasons as to why management contract was deemed the convenient option in the provision of water to mining townships; to compare the frequency of water flow in Nkana west before and after AHC management contract; find out whether or not there has been an improvement in the distribution and settlement of bills.

7.1 Conclusion

The most obvious conclusion that can be drawn from the study is that the new investors wanted sustainability in the provision of water to their employees. Government could not meet this demand acting alone hence the involvement of private participation through management contract. As can be seen from the results the supply of water to the area, that is, Nkana west has been sustained through management contract. However, before and after AHC management contract pressure continues to be low in some parts.

Considering the results, suffice to conclude that the objectives of the study have been achieved.

7.1.1 Management contract option

As can be seen in chapter five, a number of reasons have been outlined as to why management contract was deemed convenient option as compared to others. The reasons indicate clearly that government wanted to involve the private sector in the provision of water as a way of enhancing sustainability as evidenced during the tenure of ZCCM. However, the results further indicates government's unwillingness to wholly involve the private sector, instead to remain at the helm with the monitoring role.

7.1.2 Constancy of supply

The study shows that the frequency of water has been compared before and after AHC management contract and reveals that AHC is striving to ensure that a continuous supply of water is maintained as it used to be the case during ZCCM's time. In both eras, however, the response to problems reported by customers has been faster except that ZCCM used to be a little faster than AHC as indicated by respondents.

7.1.3 Service providers

Most of the people are aware of the transition that has taken place in the provision of water, that is, from ZCCM to AHC.

7.1.4 Billing system

A comparison could not be made between ZCCM and AHC billing system since the former never used to bill its employees over water. However, looking at the distribution of bills by AHC, most customers indicated that they were happy with both the distribution and tariffs charged by the company.

7.1.5 Problems with clients.

The study brought to view a number of problems experienced by residents such as blockages, leakages, low pressure, and bills not delivered in time. The company is aware of these problems and strategies have been put forth in order to mitigate them. A loan has since been secured from the world bank over metering the water and other repair works. On the other hand, communication has been improved between the company and clients, for example, quarterly distribution of customer information newsletter and holding meetings both with civic readers and the community.

7.1.6 Problems between AHC and Saur

The major problem identified between AHC and Saur International is that of not following their roles as provided for in the contract. As a way of resolving this, they keep on reminding each other and practical demonstration to justify its course of action.

In conclusion, public private partnership (management contract) is effective in the provision of water provided there is broad participation and reflecting the interests of all major stakeholders in project development. As discussed, AHC and Saur are trying to involve the community in decision making. The project though new in Zambia in the area of water is seen to be yielding fruits and this can be seen in the responses by clients. The majority are happy implying that to some extent the new company has maintained the standards as it used to be the case with ZCCM.

Since such programmes (PPP) are initiated by lending organisation (World Bank), it is easier to harness financial resources from them which is the major problem in developing countries in tackling the dilemma of urban water supply. AHC started with loans from the World Bank and nearly all its undertakings are funded by these organisation for a four year period.

More so, through management contract, the private sectors experience is harnessed. Suffice to say that the option, management contract through the private operator affords the expertise needed to both manage and maintain water facilities as can be viewed during the tenure of AHC. The company has managed to sustain the provision of water and the introduction of new machines in water purification like the back washer at the main water plant.

7.2 Recommendations

The following are the recommendation which can enhance the effectiveness of water provision in Nkana west by the company AHC.

- (1) There is a need by the company to immediately meter the water in order to avoid underestimates or overestimates in billing its customers.
- (2) The company should notify its customers in advance in case of any shutdowns when maintenance of the water network is going on. This will allow them to prepare and store enough water to use during the off supply period. Unless in cases of unplanned eventuality.
- (3) There is a need by the company to improve on communication with the clients.
- (4) There is a need of involving the community in decision making (bottom up approach) since they understand their environment better. Therefore, ways should be devised to collect views from customers time and again.
- (5) There is a need for the company to employ a resident industrial psychologist or counselor to whom members can talk to in order to iron out personal differences or grudges, stress management, conflict resolution etc.
- (6) The company should seek new ways of improving on the partnership, that is, between AHC and saur. Encourage innovation and creativity by, for example giving incentives from any brilliant and feasible suggestions.
- (7) Encourage a give - and take attitude among partners.

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UNIVERSITY OF ZAMBIA,
GEOGRAPHY DEPARTMENT.

I am a bonafide student of the University of Zambia carrying out research on the effectiveness of Public Private Partnership (Management contract) in the provision of water in Nkana West (Kitwe).

INSTRUCTIONS.

SECTION A

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SECTION B

3.(a) Do you know the company that is responsible for the delivery of water in your area?

Yes ☐

No ☐

(b) If the answer to Q3 (a) is yes, which organization/ company is that?.....

4. For how long has this company been providing this service to you ?

5. Who are the former providers of water to this area?

6. Are there some problems that you experience with your current service provider?

Yes ☐

No ☐

7. If the answer to the above question is yes, what are those problems?

.....
.....
.....

8.(a) Do you have water 24 hours service?

Yes ☐

No ☐

(b) If the answer is no, for how many hours do you have water?

(c) Do you think the water you receive is enough for your domestic use?

Yes ☐

No ☐

9. (a) Before your new service providers came in, was the provision of water 24 hours service?

Yes ☐

No ☐

(b) If the answer is no to Q9 (a), how many hours?

SECTION D

10. (a) If there is any water problem, is it easy to approach your service provide ?

.....
.....

(b) How quickly do they respond to your problem?

Fast ☐

very fast ☐

slow ☐

very slow ☐

11. Is there anything that you feel should be done by your service providers which they are not doing now?

Yes ☐

No ☐

12. If the answer to the above is yes, Please specify the things you would like to see/done

.....
.....
.....
.....
.....

13. Are you happy with the service? Yes ☐ No ☐

14. If no, what are the problems? Specify

.....
.....
.....

15. Are you happy with the billing system? Yes ☐ No ☐

16. If not, how different is the system from the previous one?

.....
.....
.....

THANK YOU FOR YOUR TIME.

APPENDIX 2.

NON SCHEDULED INTERVIEWS WITH MANAGEMENT, THAT IS,AHC- MMS AND SAUR INTERNATIONAL.

1. What led to this kind of an arrangement where there is a private operator and the Public ?
2. When did you start providing these services?
3. What are the roles of each partner, that is, AHC and SAUR INTERNATIONAL?
4. Are there some problems that you experience in your partnership?
5. If any, please specify?
6. How are these problems solved?
7. What problems do you experience with your customers?
8. How are these problems solved?
9. How do you disseminate information to them (customers)?
- 10 For how many hours per day do you provide water to your customers?
- 11 Is there any representative from the community who attends your meetings?
12. Is there any arrangement that tries to bring you together?
- 12 What kind of arrangement is there ?
- 13 What do you view as the future of this water provision arrangement?