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KENYA — FINLAND
RURAL WATER SUPPLY DEVELOPMENT
PROJECT IN WESTERN PROVINCE
OF KENYA

SOCIO ECONOMIC SURVEY
BUKHAYO CENTRAL LOCATION
BUSIA DISTRICT



KEFINCO

HELSINKI, FINLAND
KAKAMEGA, KENYA

824-KEWE90-8635

F.F.

BUKHAYO CENTRAL LOCATION

SOCIO ECONOMIC STUDY

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ACKNOWLEDGEMENT

I cannot possibly see how possible this study could have been without the efforts of many people who gave it support and guidance. They are so many - too many to thank individually. And so to them I wish to convey my sincere gratitude.

A few people however, deserve personal mention due to their personal touch throughout the period of the study. First and foremost Mrs Julia Kunguru, head of training and community development at K.E.F.I.N.C.O for her guidance and encouragement. To her I am most thankful.

Also, Brenda Rakama, head of socio-economic section together with Basil Murila, Jack Sika and Okumu for their co-operation and tireless back up especially with the field assistants. My thanks to them.

Equally I wish to return a word of thanks to all those in the civil service of Kenya both at the divisional and locational level who agreed to provide vital information without which no success would have been achieved. These include the D.O for Nambale the chief of Bukhayo Central location and his assistant-chiefs in their respective sub-locations.

1.0 INTRODUCTION

This socio-economic survey endeavours to establish background comprehensive information covering a wide range of both social and economic activities taking place in Bukhayo Central location. It also aims at assessing the level of resources obtaining here which may be used in the increase of water supply. The information collected will be put to further use in planning for provision of water.

2.0 RESEARCH METHODOLOGY

There were only two methods of research employed during this study. The first was the key informant method in which senior government officials at both the divisional and location level were interviewed for key information on the Bukhayo Central Location.

At the same time the survey method was also utilised during which questionnaires were administered to a sample size of 162 households selected at random across all the sub-location involved.

Secondary data was obtained from various published sources and included mainly the Busia district development plan for 1989-1993, and the farm management handbook for West Kenya.

3.0 BACKGROUND TO THE STUDY

This study is part of the overall government objective to provide water to rural communities as well as urban centres according to its policies. In this case reference is made to the Kenya-Finland Water Supply programme document of 1983 which emphasises the development and provision of water to rural communities in close co-operation between Kenya and Finland.

The target for this programme is to reach an estimated 400,000 people improve their socio-economic standards especially through the provision of portable water.

4.0 JUSTIFICATION OF THE STUDY

No meaningful development can take place in the absence of data. Together with data a feasibility study is normally prerequisite. The purpose of this study is to generate the information required to prepare a plan for the provision of water in Central Bukhayo location.

5.0 LOCATION AND PHYSIOGRAPHIC CHARACTERISTICS

5.1 LOCATION

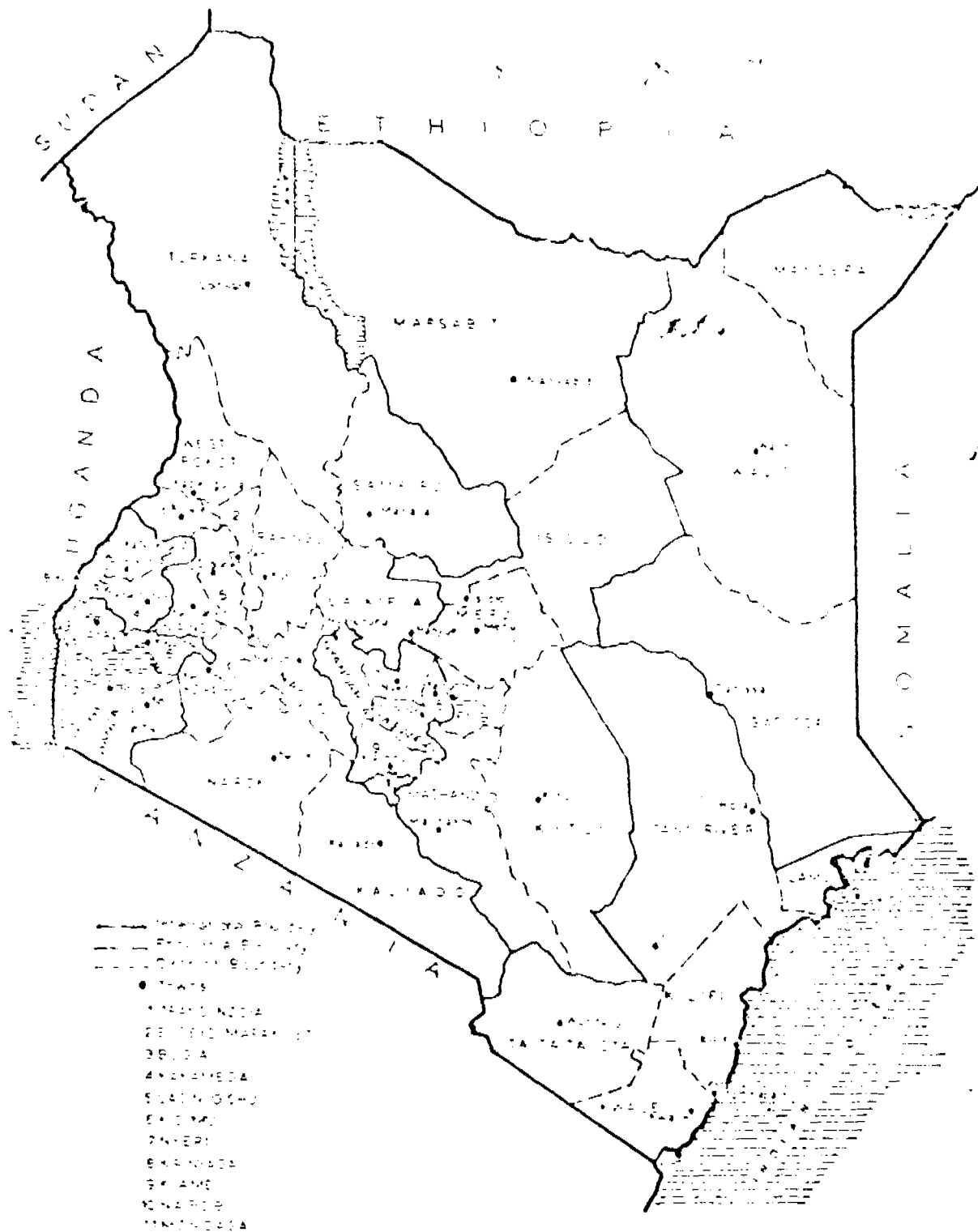
Bukhayo Central Location lies in Nambale division Busia district - Western Province of Kenya. It lies between west and east Bukhayo and to the north and south borders south teso and marachi central respectively.

5.2 PHYSIOGRAPHIC CHARACTERISTICS

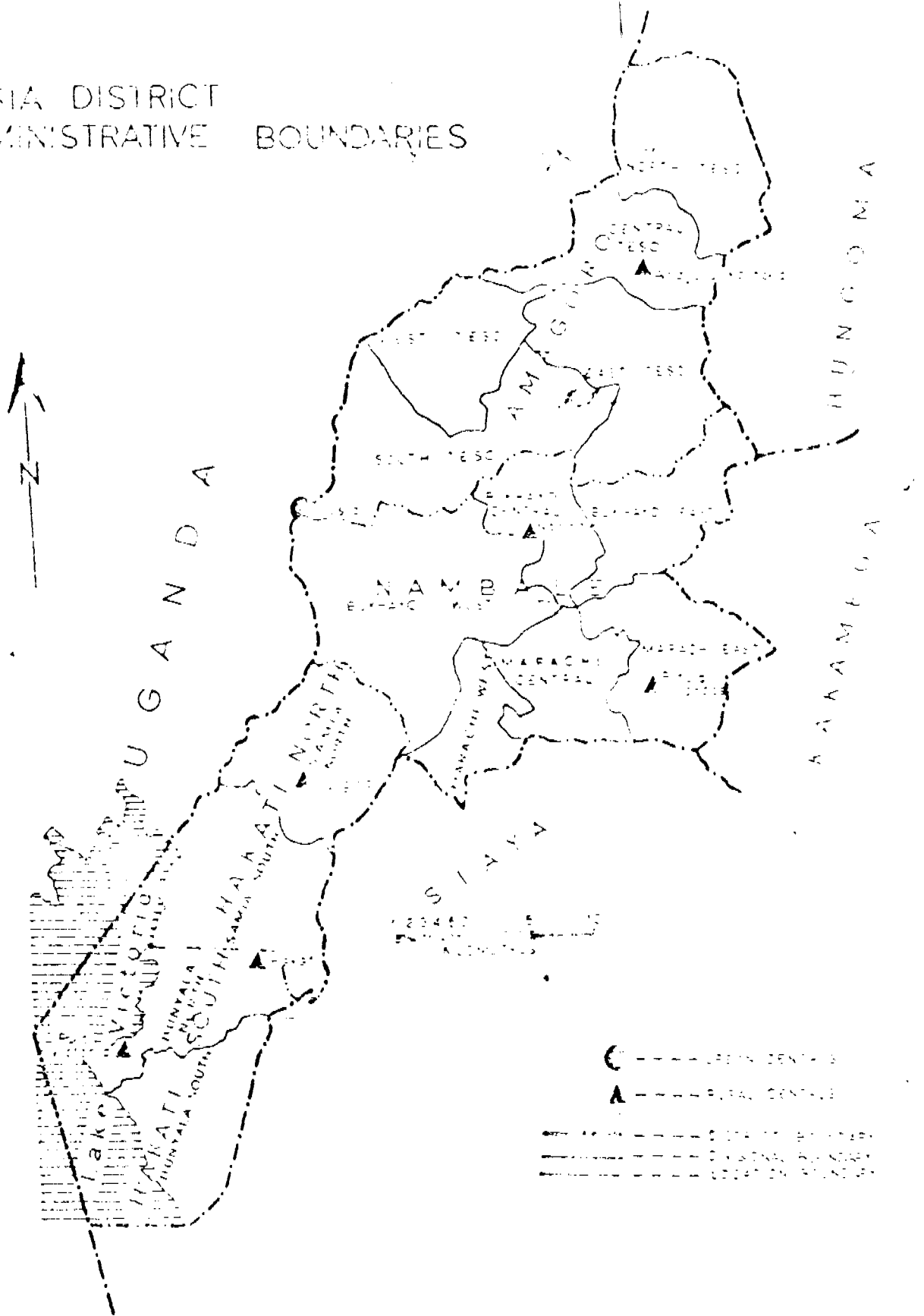
These are very similar to those in both Bukhayo West and East as they all lie in an analogous zone known as the lower midland sugarcane zone.

The altitudes lies between 1200-1500 metres above sea level and the topography is generally flat. Annual mean rainfall varies from 1430mm to 2000mm while the mean temperature are between 22.3°C and 20.5°C annually. They are very close to those of the rest of the district.

Location Of District



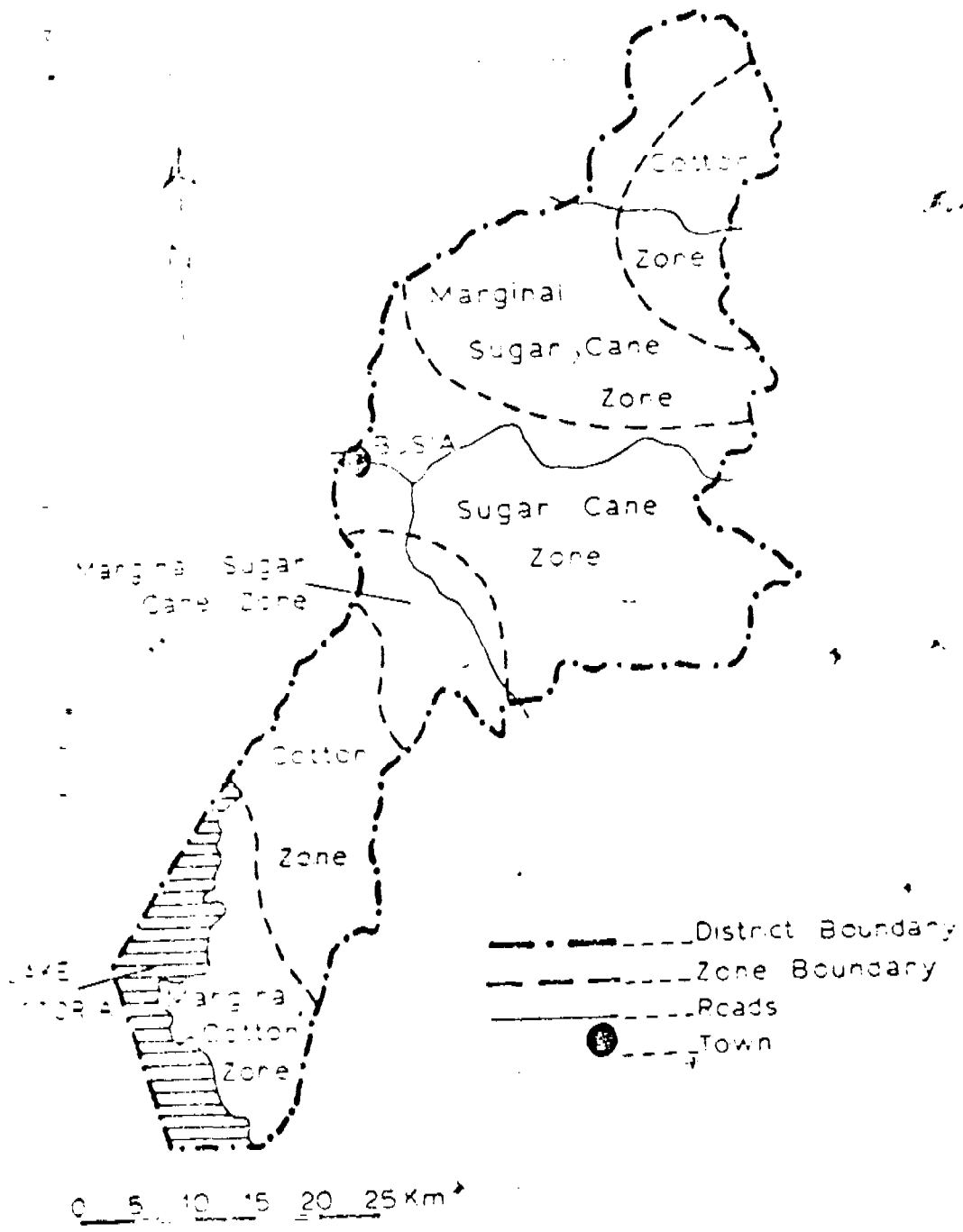
BUSIA DISTRICT ADMINISTRATIVE BOUNDARIES



○ — DISTRICT CENTER
 ▲ — SUB-COUNTY CENTER

————— DISTRICT BOUNDARY
 - - - - - SUB-COUNTY BOUNDARY
 - - - - - LOCALITY BOUNDARY

Busia District Simplified Agro-Ecological Zones



From Farm Management Handbook Of Kenya 1982

Four rivers cater for the drainage requirements of Bukhayo Central. These are, the sio river, the Nangeni, Lerekwe and Walanzi.

Soils are developed on granite and ranorondian sediments which after are mudston. They range from well drained deep, moderate deep, reddish brown to yellowish brown, friable clay over petrolintithe about 30% murrum. In some places deep and in others shallow an 10-40% murrum.

6.0 POPULATION PROFILE AND ADMINISTRATIVE STRUCTURE

6.1 POPULATION PROFILE

As at 1990, the projected population for Bukhayo Central stood at.

The distribution of this population as at 1988 was as below stated.

SUB-LOCATION	MALE	FEMALE	TOTAL NO OF HOUSEHOLDS
NAMBALE	3,290	3,525	6,815
MALANGA	3,781	4,360	8,141
KISOKO	3,317	3,638	6,955
SIEKUNYA	1,463	1,574	3,037

6.2 ADMINISTRATIVE STRUCTURE

Bukhayo Central has its headquarters at the Nambale divisional d headquarters. It has four sub-locations viz Nambale, Malanga, Kiosoko and Siekunya. The following chart illustrates the administrative structure in Bukhayo Central

BUKHAYO CENTRAL LOCATION

CHIEF

WILLIAM NDUBI

<u>MALANGA-SUB-LOCATION</u>		
<u>ASST. CHIEF</u>	<u>VILLAGE</u>	<u>VILLAGE ELDER</u>
<u>CHARLES MUSUMBA</u>	SIDENDE	HONORI BARASA
	MAKALE	OWERE OLENCO
	LEREKWE	KALISTO OPILI
	MALANGA	DICKSON MURUKA
	MAOLO	DINDI OKELLO
	MUKEMO	JACKSON AWORI
	MAKINA	ONGARIA OPILI

<u>NAMBALE-SUB-LOCATION</u>		
<u>ASST. CHIEF</u>	<u>VILLAGE</u>	<u>VILLAGE ELDER</u>
<u>NICHOLAS BAKA</u>	NAMBEEN	SIMON KWENA
	SIBEMBE WEST	CHRISTOPHER SIKUKU
	SIBEMBE EAST	GEORGE ONYOLA
	NAMISI	STEPHEN OLENCO

<u>KISOKO-SUB-LOCATION</u>		
<u>ASST. CHIEF</u>	<u>VILLAGE</u>	<u>VILLAGE ELDER</u>
<u>JUSTUS MUNYEKENYA</u>	EKISOKO	PIUS BARASA
	AMUKHUYA	ELIAKIM KODIA
	IKONDOKHERA	ALOIS OKEMO
	MUSOMA	OKELLO KAPWA
	NANDAFUBWA (B)	REI MAKOKHA
	NANDAFUBWA (A)	ODHLAMBO SOGORO
	SIEKUNYA	SIMON MAKOKHA

<u>SIEKUNYA-SUB-LOCATION</u>		
<u>ASST. CHIEF</u>	<u>VILLAGE</u>	<u>VILLAGE ELDER</u>
<u>PIEUPISU OUMA</u>	BUSITIVU	MATULUMAYO KWANDA
	MUSIDIBU	MARTHULUMAYO MAKUYALA

7.0 SUMMARY OF FINDINGS

7.1 WATER RESOURCES

7.1.1 WATER PROBLEMS

Access difficulties	48.1%
Siltation	11.1%
Seasonal reduction in quantity	33.3%
Dirty	23.5%
Congestion at water point	22.2%
Disrepair	4.3%
Animal Interference	0.6%
Bushy	0.6%

7.1.2 HOUSEHOLD WATER SOURCE

Roof catchment	11.7%
Piped water	4.3%
Protected springs	26.5%
Unprotected springs	24.7%
Shallow Well	17.3%
Boreholes	38.3%
Pond	1.9%
Stream/River	17.3%

7.1.3 DISTANCE FROM NEAREST CONSTRUCTED WATER POINT

Upto 500m	37.1%
500 - 1000	24.7%
1000 - 1500	18.5%
1500 - 2500	0.6%
Over - 500	0.7%

7.1.4 WATER USE

Drinking	87%
Laundry/Washing	96%
Cooking	90.7%
Bathing	90.1%
Watering livestock	35.2%
Irrigation	9.9%
Building construction	7.4%

7.1.5 INTENSITY OF SHARING WATER POINT

No of households	
10	16.7%
20	11.7%
30	18.5%
Over 30	51.2%

7.1.6 HOUSEHOLD DAILY WATER CONSUMPTION

No of jerricans	
5	33.7%
10	40.1%
15	9.9%
20	6.2%
Over 20	6.3%
Latrine coverage	95.1%
Community activity participation	67.3%

7.2.0 INCOME GENERATING ACTIVITIES

Sale of farm produce	91.7%
Sale of livestock	51.7%
Casual Labour	29%
Petty trade	28.4%
Regular employment	22.2%
Pension	11.1%
Other	2.5%

From the information above it is quite clear that as in most other location in Busia district that though agriculture as a sector of the economy is still not very highly developed, it still is the most important income of generating source. Sale of farm produce and livestock account for the two greatest sources of income. The other activities rank a distant second. Only 22.2% of the the samplly had regular employment.

7.3.0 DEVELOPMENT PROJECTS

Several projects are underway in Bukhayo Central Location. These are jointly run by both the community and several non governmental organization. The government too is involved through the District Development Committee especially in the provision of facilities for education, health centres

N.G.Os are involved include:-

- | | | |
|------------------------------|---|-------------|
| 1) Dispensaries construction | - | Action Aid |
| 2) Tree Nurseries | - | K.E.N.G.O |
| 3) Water Supply | - | KEFINCO |
| 4) Building schools | - | Action Aid. |

This list is not in itself exhaustive as there are many community/government projects going on all the time.

7.4.0

WOMEN GROUPS AND ACTIVITIES

Only seven women groups are registered in Bukhayo Central Location. Out of these, only one group's leader had any sort of training. The rest had very little if any education.

One thing in common was that their activities centre around agricultural activities viz, farming, posho mill operation, poultry keeping and fish keeping.

Other non agricultural activities include brickmaking and pottery. It is apparent that many groups may be operating without registration. It is also clear that the few registered groups could do with more enlightened leadership if any meaningful progress is expected of them. Those groups that are not yet registered need to be encouraged to do so so that their activities can be assessed and given both financial, material and technical support. A full list of the registered groups appears in the annex.

8.0

CONCLUSION AND RECOMMENDATION

8.1.0

WATER RESOURCES

It was observed from the survey that a lot of problems existed as far as provision of good clean water is concerned. There were difficulties in getting to good clean water. 48% of the interviewed people had this problem. 33% experienced seasonality or reduction of water depending on seasons while 23% and 22% found the water dirty or congestion at water points.

It is also apparent that protected, unprotected springs and boreholes were the major sources of water for domestic use. They accounted for 26.5%, 24.7% and 38% respectively. The rivers and streams accounted for only 17.3%. Piped water was available for only 4.3% of the population.

In terms of distance covered to a nearest water points, about 61% needed to walk upto 1km. This implies that water for most people is within reasonable walking distance.

RECOMMENDATION

With availability of resources, efforts should be made to reduce the walking distance to the nearest water point to at least 500 metres and then eventually to 250 metres to each household. The local citizens who have reasonable income should be encouraged to take advantage of any available credit facilities to buy water storage tanks and practice roof catchment. The survey revealed that only 11.7% engaged in this method of water harvesting.

Piped water should be considered mainly for public institutions like schools, health Centres as a matter of priority.

There will be need to increase existing water point to reduce number of households sharing a point which represented in the survey about 51.9% for over 30 households per water point.

8.2.0

ECONOMIN SITUATION

Livestock and agricultural produce still account for the bulk of income for the people of Bukhayo Central location. Sale of farm produce and livestock account for 91.9% and 51.9% of the respondents source of income. Casual labour accounts for 29% of the respondents source of revenue. Petty trade and regular employment account for 28.4% and 22.2% of the income generating sources for the interview sample.

RECOMMENDATION

Farm produce sales come once in a season and are not a very reliable source of income. Livestock sales is perhaps a more stable source of income.

Other activities could be added to the already existing ones. Among these could be dairy and poultry farming which are not yet advanced in the location and indeed within the district. With the coming of the proposed sugar factory at Nasewa, there should be increased sugar cane from the present 18% recorded from the survey to about 50%. This will mean a boost in the real incomes accruing to individual household. The production of maize and beans should also expand from the current Lackadaisical 18.5% and 4.9% respectively. Sorghum, cotton, rice and sunflower should be improved so as to generate more income.

8.3.0 ROADS

Central Bukhayo is very strategically placed with good road linkages with Amukura, Butula, Bungoma and Mumias respectively. The only comfortable road here is the Nambale-Amukura road. The rest are very poor. During the rainy period it is difficult to travel along the Busia/Bungoma road. It is potholed, muddy and corrugated. It is hoped that with new projects of a factory in the area, the road will actually be improved.

8.4.0 SCHOOLS

There are seemingly sufficient primary and nursery schools in Bukhayo Central Location. The secondary schools however only number three. Although statistics on enrollment have not been considered, three schools are too few for a location.

I wish to point out that these recommendations are not exhaustive in themselves but are formulated on the basis of information resulting from the survey. It would be important to make further enquiries to ascertain accurately the per capital incomes of the Bukhayo Central Location, school enrollment by sex and age, number of health facilities and nutritional status etc, if one has to come out with a fairly comprehensive background from planning even if only for the provision of water.

A N N E X

9.0

GENERAL INFORMATION BUKHAYO CENTRAL

WOMEN GROUPS

	Name of group	Name/Leadership	Level of Education Training	Activities
1	Bukheri	Hilda Mukitu	Book keeping	Farming
2	Wekhonye	Joyce Dindi	None	Posho milling Bee keeping
3	Furaha	Mary Mukitu	None	Bee keeping
4	Wazee Wa nyayo	Rose Omolo	None	Farming
5	Tanga Corner Farmers	Agnes Migeno	None	Fish Farming
6	Misoma	Isabella Obore	None	Brickmaking
7	Bumanyi	Ursula Omieno	None	Farming

RELIGIONS

Catholic	56.8%
Protestant	41.9%
Muslim	1.2%

LIVESTOCK PRODUCTION SECTOR

Cattle	982
Sheep	239
Goats	155
Pigs	53
Chicken	<u>6640</u>
TOTAL	8069

AGRICULTURE SECTOR

Sugar cane	18.5%
Coffee	11.2%
Cassava	12.3%
Maize	18.5%
Beans	4.9%
Potatoes	5.6%
Millet	9.3%
Rice	8.6%
Sorghum	2.4%
Cotton	32.7%
Sunflower	3%

SKILLED ARTISANS

SUB-LOCATION	NAME	TRADE
KISOKO	J. MAKOKHA	MASON
	A. WANDERA	CARPENTER
	E. KODIA	LOCAL FURNITURE
	A. OBORE	MASON
	J. NAHALI	CARPENTER
	A. MAKOKHA	MASON
	B. OLAWA	ROOFER
	H. WESONGA	MASON
	O. ODOLI	MASON
	S. OKEMBO	MASON
	A. OTIENO	CARPENTER
	B. OKIRIUS	BRIDGE REPAIRER
	P. WANJALA	MASON
	A. ONGOMA	MASON
	V. WABWIRE	CARPENTER
	J. SAKA	CARPENTER
	P. AKILA	MASON
	P. AKUMU	CARPENTER
I. OLANGO	MASON/CARPENTER	
NAMBALE	VINCENT KARANI	MASONRY
	ELISEYO KARANI	MASONRY
	LEVY AGWATA	BICYCLE REPAIRER
	FRANCIS OKUMU	MASONRY
	ALERI MAKHUMBA	MASONRY
	KAULUSI ONYOMA	CARPENTER
	SAMUEL OYO 'UIRA	MASON
MALANGA	FREDRICK NJOGO	ALL MASONS
	NASAU ODOUR	"
	AMOS OMINGO	"
	ALLJA OWOOR	"
	TIMOTHY OUMA	"
	ALFRED OLUOCHI	"
	LUCAS OKOTH	"
	JACKSON MAJODI	"
	FRANCIS OMILLA	"
	MASINDE NAMUSE	"
ODELAMBO MAROTHO	"	

EXISTING WATER POINTS

STRUCTURE	NO IF PRESENT	CONDITION
PROTECTED SPRINGS	18	FAIR
BOREHOLES	15	MANY DRYING MUDDY WATER
SHALLOW WELLS	17	A FEW OUT OF ORDER DIRTY WATER

PIPED WATER Nambale town water supply scheme

LATRINE COVERAGE

RIVERS

NAME	CONDITION
SIO RIVER	FAIR
NANG'ENI RIVER	FAIR
LEREKWE RIVER	FAIR
WALANZI RIVER	FAIR

INFRASTRUCTURE

NAME OF MAJOR ROADS	TYPE OF ROAD	CLASS
MUMIAS-NAMBALE-BUSIA	MURRAM	
AMUKURA-NAMBALE	MURRAM	
BUTULA - NAMBALE	MURRAM	

INFRASTRUCTURE

SUB-LOCATION	TELEPHONE	ELECTRICITY
MALANJA	NO	NO
KISOKO	YES	NO
SLEKUNYA	NO	NO
NAMBALE	YES	YES (under construction)

IDENTIFIED ARTISANS

SIEKUNYA SUB-LOCATION

<u>SUB-LOCATION</u>	<u>NAME</u>	<u>TRADE</u>
SIEKUNYA	ALFRED BARASA	CARPENTER
	GEORGE ETYANG	MASON
	GEORGE NG'ANDA	MASON
	FRANCIS OKUMU	CARPENTER
	KENETLI OMUNYINI	CARPENTER
	VICTOR JOHN MUGA	M.V.M *
	WILLINGTON JUMA	ELECTRICIAN
	MARK OLENYO	MASON
	JOHN BERSA	MASON
	SILVESTER MAKANA	M.V.M *
	MARK NYONGESA	MASON
	FOBLAN NYABOLA	MASON
	VITALIS OMASETE	CARPENTER
	DISMAS MUSUNGU	MASON
	TOMAS WANDERA	MASON
	JOSEPH WETA	CARPENTER
	PETER ONYANGO	CARPENTER
	CALISTUS MUSUUNU	MASON
	PETER MUBUKU	CARPENTER
	CHARLES MAKOMERE	JOINERY
	JOHN ODOURI	CARPENTER

* MOTOR VEHICLE MECHANIC

CONSTRUCTION MATERIAL AVAILABLE

CONSTRUCTION MATERIAL	UNIT PRICE	SOURCE
STONES		
BRICKS	1/- EACH	
CEMENT	115/- BAG	ALL AVAILABLE
SAND	120/- PER LORRY	IN NAMBALE AND
BLOCKS	4/- EACH	IN LOCAL RIVERS
PIPES	35/-	FOR SAND
IRON SHEETS	130/- - 190/-	

SCHOOLS

NURSERY	PRIMARY	SECONDARY
NANG'ENI	NANG'ENI	NAMBALE
SIBEMBE	SIBEMBE	KISOKO
SIDENDE	SIDENDE	MALANGA
MAOLO	MAOLO	
MALANGA	MALANGA	
MABUNGA	MABUNGA	
LWANYANGE	LWANYANGE	
NAMBALE (A)	NAMBALE	POLYTECHNICS
MAKINA	MAKINA	
MUKHUYA	MUKHUYA	
NAMBALE (B)	NAMBALE	NAMBALE
BUSIDIEU	BUSIDIEU	
KHWIRALE	KHWIRALE	SIDENDE
SEGERO	SEGERO	
TANGA CORNER	TANGA CORNER	
KISOKO GIRLS		
	KISOKO BOYS	

MARKETS

NAMBALE
 MALANGA
 TANGA CORNER
 KISOKO
 NANG'ENI