II. Findings of the Study and Interpretation of Data for Bauleni

2.1 Demographic Characteristics

There were 329 respondents who were heads of households in zones 8 and 13 in Bauleni compound. In the married households, either husband or wife was considered head of the household for the purpose of conducting the interview, depending on who was available at the time of the interview for the study.

2.1.1 Distribution by sex

The majority of the respondents (65%) were women. This was mainly because most men were out for either formal employment, informal income-generating activities or other business during data collection while most women were at or near home. Male respondents made up for the remaining 35% of the sample in Bauleni's zones 8 and 13.

2.1.2 Distribution by age

The study found that about two-thirds (61%) of the heads of household in Bauleni were young people aged between 20 and 34. Three-quarters (76.2%) were headed by young people aged up to forty years of age. A small percentage of the households (3.3%) were headed by people with less than 20 years of age, most of whom were orphaned children. Finally, less than one-third of the respondents belonged to the age group of 35 - 44 years and only 14.9% were in the age group of above 45 years.

Graph 1: Age of heads of household

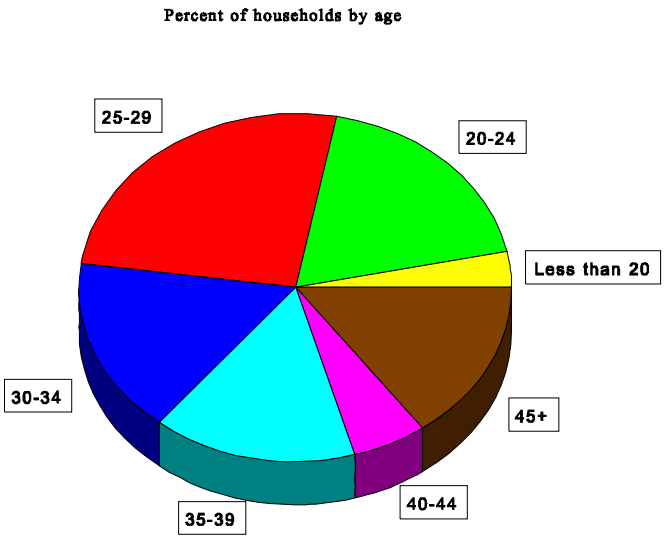


Table 1 Age groups of heads of household

Age groups	Number of households	Percent of households	Cumulative percent
Less than 20 yrs	11	3.3	3.3
20 - 24 yrs	62	18.8	22.2
25 - 29 yrs	85	25.8	48.0
30 - 34 yrs	54	16.4	64.4
35 - 39 yrs	50	15.2	79.6
40 - 44 yrs	18	5.5	85.1
45 + yrs	49	14.9	100.0
Total	329	100.0	

Source: Field data

2.1.3 Marital status of heads of household

In general, most of the heads of household (84.8%) in Bauleni were married, and only 15.2% were either single, widowed, divorced or separated. Comparison between male and female heads of household showed a slightly higher percent of male heads of household being married (86.1%) compared to 84.1% for female heads of household, and a significantly higher percentage of widowed female heads of household (9.3%) as compared to that of male heads of household (4.3%).

Graph 2: Marital status

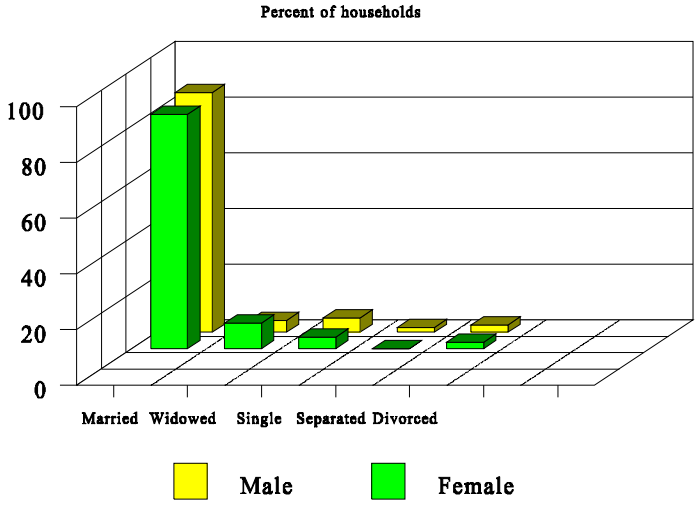


Table 2 Marital Status of heads of household, by gender

Marital status	Male		Female		Total	
	N of hlds	% of hlds	N of hlds	% of hlds	N of hlds	% of hlds
Married	99	86.1	180	84.1	279	84.8
Widowed	5	4.3	20	9.3	25	7.6
Single	6	5.2	9	4.2	15	4.6
Separated	2	1.7	0	0.0	2	0.6
Divorced	3	2.6	5	2.3	8	2.4
Total	115	100.0	214	100.0	329	100.0

Source: Field data

2.1.4 Years lived in Bauleni compound

Slightly more than half (51.4%) of the heads of household in the sample had lived in the compound for more than 5 years. One-third (31.9%) of the respondents had lived in the village for 1 to 5 years and 15.8% of the respondents were new to the compound, they had only lived there for less than one year. These two groups made almost half of the heads of household (47.7%) to be relatively newcomers to the compound, having lived there only up to 5 years. It needs to be noted that at the time of the study, Bauleni compound was a relatively new settlement compared to other settlements in Lusaka, having expanded rapidly in the preceding 10 years as a result of people migrating from other places especially the Copperbelt, to Lusaka, in search of employment and better standard of living.

Graph 3: Years lived in Bauleni compound

Table 3 Years lived in Bauleni compound

Number of years	Number of households	Percent of households	Cumulative percent
Less than a year	52	15.8	15.8
1 - 5 years	105	31.9	47.7
More than 5 years	169	51.4	99.1
No answer	3	0.9	100.0
Total	329	100.0	

Source: Field data

2.1.5 Number of people living in same household

Of the total number of households in the sample, half (50.1%) had 1 to 2 male members and slightly less than half (45.3%) had 1 to 2 female members. More than one-third (37.1%) of the households had 3 to 4 male members and slightly less than

one-third (33.8%) had 3 to 4 female members. Finally, 10.3% of the households had 5 and more male members while 11.6% of the households had 5 or more female members living there. Overall, there were slightly more male than female members in Bauleni's zones 8 and 13 households.

Graph 4: Number of people in same household

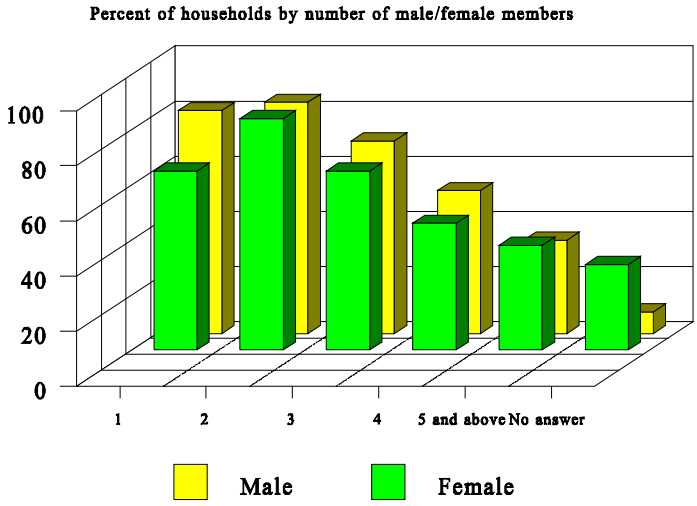


Table 4 Number of people living in same household

Number of people living in the household	Number of households		Percent of households	
	Male	Female	Male	Female
1	81	65	24.6	19.8
2	84	84	25.5	25.5
3	70	65	21.3	19.8
4	52	46	15.8	14.0
5 and above	34	38	10.3	11.6
No answer	8	31	2.4	9.4
Total	329	329	100.0	100.0

Source: Field data

2.1.6 Number of children per household

The most common pattern observed for the households in the sample (17.3%) was to have one child only, a finding that can be easily explained by the young age of the respondents themselves and their families. This percentage was followed very closely by households with 2 and 3 children (16.4% of each). Slightly less than one-quarter (21.9%) of the households had 4 to 5 children while 18% had 6 and above children. This finding agreed with the earlier one that most respondents in Bauleni's zones 8

and 13 were young people in child-bearing age.

Graph 5:Number of children in household

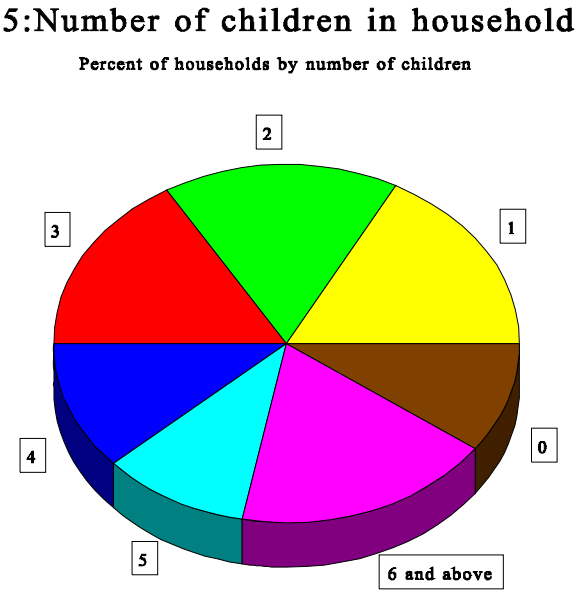


Table 5 Number of children in household

Number of children	Number of households	Percent of households	Cumulative percent
1	57	17.3	17.3
2	54	16.4	33.8
3	54	16.4	50.3
4	38	11.6	61.9
5	34	10.3	72.3
6	21	6.4	78.7
7 and above	38	11.6	90.2
0	32	9.7	100.0
Missing	1	0.3	
Total	329	100.0	

Source: Field data

2.2 ECONOMIC CHARACTERISTICS

2.2.1 Number of income-earning family members

The study found that most of the households (69.6%) did not have any income-earning female member. On the contrary, more than three-quarters (78.4%) of the households had at least one male member who was earning an income, as compared to one-fifth (20.1%) of the households in which there was one female member who was earning an income. There were only few households (9.4%) in which there was no male member who was earning an income. This finding, therefore, indicated that most of the income-earning members of Bauleni's zones 8 and 13 households were males.

Graph 6:Income earning family members

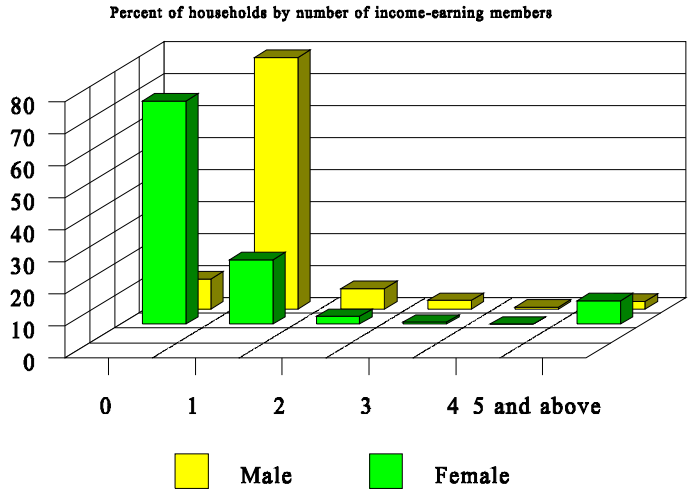


Table 6 Income earning family members

Number of family members	Number of households		Percent of households	
	Male	Female	Male	Female
0	31	229	9.4	69.6
1	258	66	78.4	20.1
2	21	8	6.4	2.4
3	9	2	2.7	0.6
4	2	0	0.6	0.0
5 and above	8	24	2.4	7.3
Total	329	329	100.0	100.0

Source: Field data

2.2.2 Type of Employment of Family Members

The main categories of employment identified for the male household members in Bauleni's zones 8 and 13 were office orderly for more than one-quarter (28.5%) of all the households, and artisan accounting for one-fifth (20.8%) of the households. Less than ten percent (9.7%) were engaged in petty trading, as compared to almost half (44%) of the female household members, for whom petty-trading was the main employment category. The second most prevalent employment type for women was found to be house keeping, occupying female employed members in almost one-quarter of the households (24%), usually in the high-income residential areas which were adjacent to Bauleni compound. It needs to be noted that more than one-third (38.3%) of the male household members earned their income through other type of employment which mainly was manual piece work, and the same was true for slightly more than one-quarter of the female income-earning household members (26%).

Graph 7: Type of employment

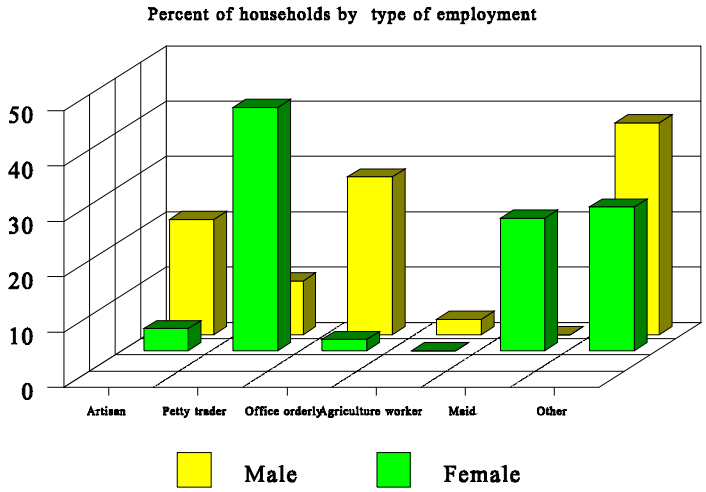


Table 7 Employment type of family members

Employment Category	Number of households		Percent of households	
	Male	Female	Male	Female
Artisan	62	4	20.8	4.0
Petty Trader	29	44	9.7	44.0
Office Orderly	85	2	28.5	2.0
Agriculture	8	0	2.7	0.0
Housekeeper	0	24	0.0	24.0
Other (usually piece worker)	114	26	38.3	26.0
Total*	298	100	100.0	100.0

Source: Field data

** Subtotal of households with income-earning members*

2.2.3 Number of unemployed family members

Slightly more than one-third (36.5%) of the households in Bauleni's zones 8 and 13 had no unemployed male members, as compared to about half (48.3%) of the households who had no unemployed female members. About one-third of the households had at least one unemployed male and/or one unemployed female member (33.7% and 31.3%, respectively). Finally, 12.8% of the households had five or more unemployed male members as compared to 5.5% of households with five or more unemployed female members. Almost equal percentages of the households had 2 to 4 unemployed male and/or female members (17.1% and 15%, respectively).

This finding indicated that there were more males than females who were unemployed members of the households, which could be explained by the fact that the type of employment was both formal and informal and many women operated a small business nearby their home or did piece-work.

Graph 8: Unemployed family members

Table 8 Unemployed family members

Number of unemployed family members	Number of households		Percent of households		Cumulative percent	
	Male	Female	Male	Female	Male	Female
1	111	103	33.7	31.3	33.7	31.3
2	28	19	8.5	5.8	42.2	37.1
3	14	17	4.3	5.2	46.5	42.2
4	14	13	4.3	4.0	50.8	46.2
5 and above	42	18	12.8	5.5	63.5	51.7
0	120	159	36.5	48.3	100.0	100.0
Total	329	329	100.0	100.0		

Source: Field data

2.2.4 Household Monthly Income

Only one-third of the households in Bauleni's zones 8 and 13 (31.6%) had an income of above K120,000.00 per month. On the other hand, more than two-thirds (68.4%) of the heads of household indicated a monthly income of no more than K120,000.00, a figure way below K250,000 per month, which could be used as the national poverty datum line for a household of six members in Zambia in 1999. It was striking that 13% of the households had a monthly income of no more than K50,000.

As shown in the following table, the study found that it was more likely for households headed by widowed, single or divorced women to be in the lowest category of monthly income (53.7% of all female widowed heads of household and 25% of single or divorced female heads of household). Households headed by single men were also more likely than other households headed by married, widowed, separated or divorced men to be in the lowest category of monthly income (48.6% of all male single heads of household), as these households were likely to be headed by

very young and orphaned males.

Graph 9: Household monthly income

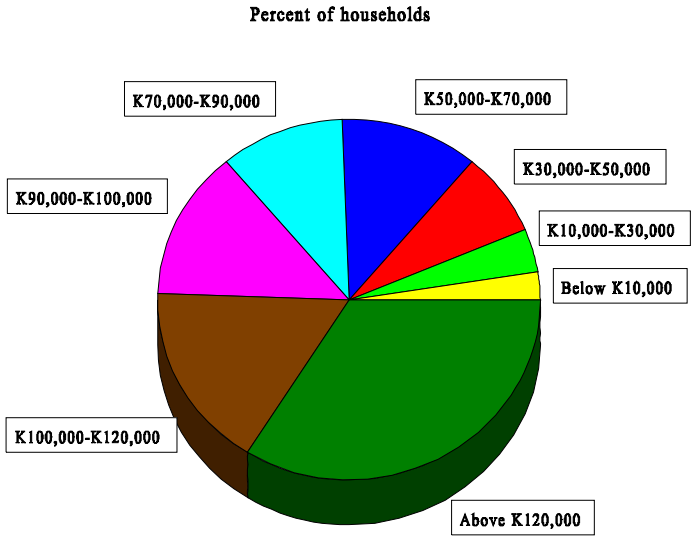


Table 9 Household monthly income by marital status of head of household

Income in thousand kwacha	Marital status of male heads, % of hlds					Marital status of female heads, % of hlds				Total
	Married	Single	Widowed	Separated	Divorced	Married	Single	Widowed	Divorced	
Below 10	3.2	0.0	0.0	0.0	0.0	1.7	12.5	6.3	0.0	2.4
10-30	4.3	20.0	0.0	0.0	0.0	2.9	0.0	28.6	0.0	3.6
30-50	5.4	28.6	0.0	0.0	0.0	6.4	12.5	18.8	25.0	7.0
50-70	11.8	0.0	20.0	0.0	0.0	12.2	12.5	6.3	25.0	10.9
70-90	9.7	16.7	0.0	0.0	33.3	90.9	12.5	6.3	0.0	10.0
90-100	6.5	0.0	0.0	0.0	0.0	18.6	0.0	18.8	0.0	12.5
100-120	17.2	33.3	40.0	0.0	0.0	14.5	37.5	12.5	50.0	15.8
Above 120	41.9	0.0	40.0	100.0	66.7	32.0	12.5	18.8	0.0	31.6
No answer	-	-	-	-	-	-	-	-	-	6.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Field data

2.2.5 Household Monthly Expenditure on Basic Needs

Mealie Meal: More than three-quarters of the households (77.8%) spent between K30,000 and K50,000 on mealie meal, the minimum amount needed for a normal consumption of mealie meal twice daily in a household of six members. Only 0.6% of the respondents spent over K120,000 per month on mealie meal, indicating a liberal consumption of three times per day. The variation between the two groups in expenditure on mealie meal depended on the size of the households as well as the availability of income.

Other Foods (i.e. meat, chicken, vegetables, etc.): Only a negligible percentage of the households (3.6%) spent above K120,000 monthly, an amount that safeguarded consumption of the basic nutritional items such as meat, chicken, fish, vegetables or milk. This finding indicated that the level of poverty and malnutrition in Bauleni's zones 8 and 13 was very high.

House Rent: One-third (30.7%) of the respondents spent between K10,000 and K30,000 on their house monthly rent, an expenditure that could provide the family with one or two rooms without electricity but with concrete floor and a plastered wall. Only 10.3% of the respondents spent between K30,000 and K50,000 on monthly rent which could provide them with two rooms with electricity or three rooms without electricity. Although the majority of the respondents (52%) owned their houses, most of the respondents who rented (44.4%) had serious problems of inadequate room space for proper accommodation of their families.

Education: More than one-third (40.4%) of the households indicated a monthly expenditure of K10,000 to K30,000 or less, which could pay for the education of up to three children in a family in Lusaka. An additional 10.6% spent between K30,000 and K70,000 monthly on children's education, while nearly half of the households (45.6%) had no expenditure on education because they had either no school-aged children or simply did not send any of their school-aged children to school, or they did not know how much they spent on their children's education.

Health: Almost half of the respondents (46.5%) indicated a monthly medical expenditure of less than K10,000, which could have afforded a family of about six, registration on the national medical insurance scheme. Slightly over one-third (36%) of the respondents, however, had no monthly expenditure on medical fees, and only 14.3% had a monthly medical expenditure between K10,000 and K30,000.

Transport: Nearly one-third (32.5%) of the respondents spent no money on transport, 28.9% of the respondents spent less than K10,000 on transport and over a third (38.5%) spent more than K10,000 on transport per month for either commuting to

work or doing business in town.

Charcoal: Almost one-third (30.1%) of the respondents spent less than K10,000 on charcoal per month, an expenditure that could provide the family with no more than cooking one meal per day, and 38% spent between K10,000 and K30,000 on charcoal per month, which could provide them with one or two 90-kg bags of charcoal with which the family could cook up to two meals per day. Another 30.4% indicated no expenditure on charcoal, a finding indicating availability of electricity in some of the households of the study and use of other forms of fuel such as firewood in some others.

Water: More than two-thirds (77.5%) of the respondents spent less than K10,000.00 on water. Only 3% spent between K10,000.00 and K30,000.00 on water per month, while 19.5% did not indicate any water monthly expenditure, partly because they did not pay for their daily water (13.1%) or because of other reasons.

Other items: Only one-quarter (24.8%) of the households in the study indicated some monthly expenditure on other household items such as clothing, furniture, personal or entertainment or other. This expenditure was usually not exceeding K30,000. On the other hand, three-quarters (75.1%) of the households did not indicate any expenditure, a finding that confirmed the depth of poverty in Bauleni's zones 8 and 13 where out of necessity monthly household expenditure was kept on basic needs only.

Overall, as the following graph also shows, the prevailing pattern for the households in Bauleni's zones 8 and 13 was to spend between K10,000 and K30,000 monthly for the most critical items of mealie meal, other foods, rent, charcoal and education and below K10,000 for medical fees, water and transport. About one-third of the households were spending in this pattern, thus indicating that the total monthly expenditure of these households on their basic needs was close to K180,000, and confirming the earlier finding of the study that 31.6% of the households had a monthly income exceeding K120,000. This also indicated that the remaining two-thirds of the households could not adequately cover their basic needs.

Graph 10: Household monthly expenditure on basic needs

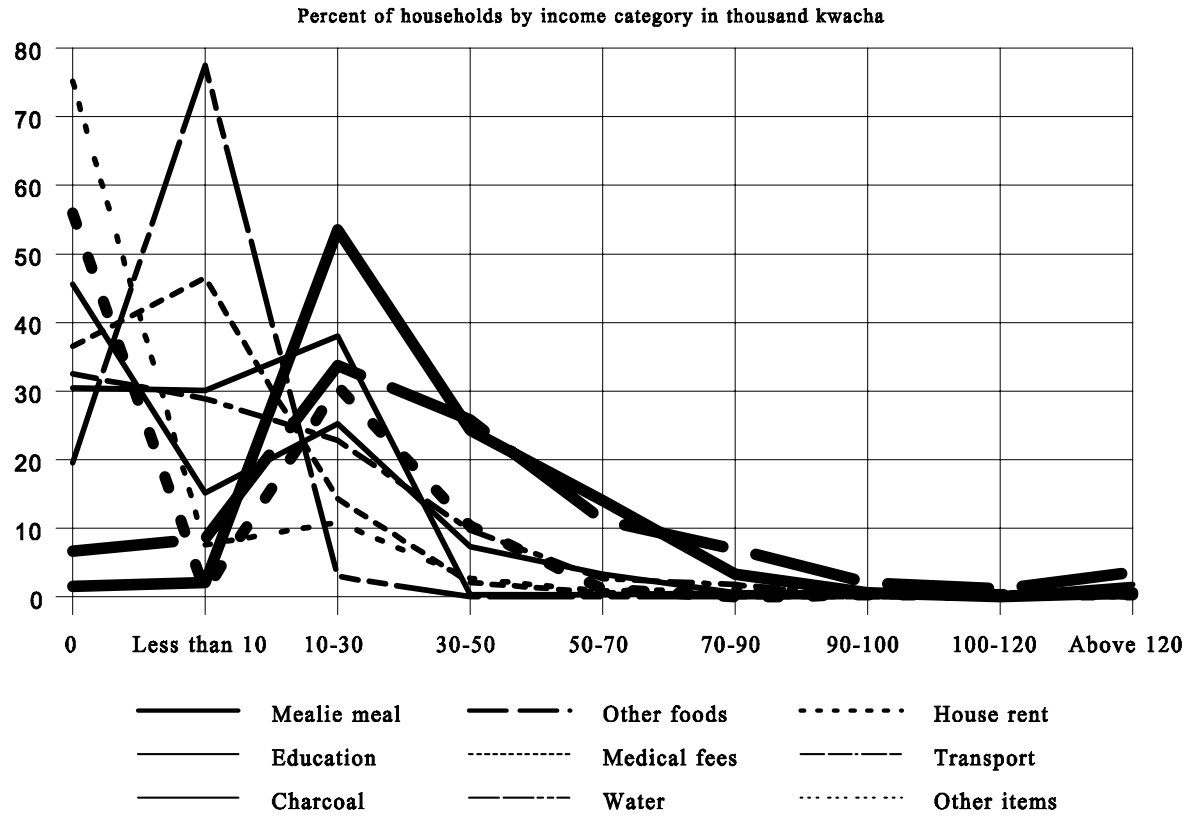


Table 10 Household monthly expenditure on basic needs

Expenditure category	Percent of households								
	Mealie meal	Other foods	House rent	Education	Medical Fees	Transport	Charcoal	Water	Other items
0/No answer	1.5	6.7	55.9	45.6	36.5	32.5	30.4	19.5	75.1
Below K10,000	2.1	8.5	0.9	15.2	46.5	28.9	30.1	77.5	7.6
K10,000 - K30,000	53.5	33.7	30.7	25.2	14.3	22.8	38.0	3.0	10.9
K30,000 - K50,000	24.3	25.8	10.3	7.3	2.1	9.7	0.3	0.0	2.7
K50,000 - K70,000	14.0	11.2	1.2	3.3	0.6	2.7	0.3	0.0	0.9
K70,000 - K90,000	3.3	7.0	0.0	0.6	0.0	1.8	0.6	0.0	1.2
K90,000- K100,000	0.6	2.1	0.3	0.6	0.0	0.3	0.0	0.0	0.9
K100,000- K120,000	0.0	1.2	0.3	0.3	0.0	0.6	0.3	0.0	0.6
Above K120,000	0.6	3.6	0.3	1.8	0.0	0.6	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Field data

2.2.6 Assets/property owned by household

The study found that slightly more than half (52%) of the household respondents

owned houses; 32.8% owned other items like radio, television sets, furniture and other household goods; 4.9% owned savings; and 3% owned livestock. The main assets and property, therefore, owned by the respondents were houses an household items.

Graph 11: Assets owned by household

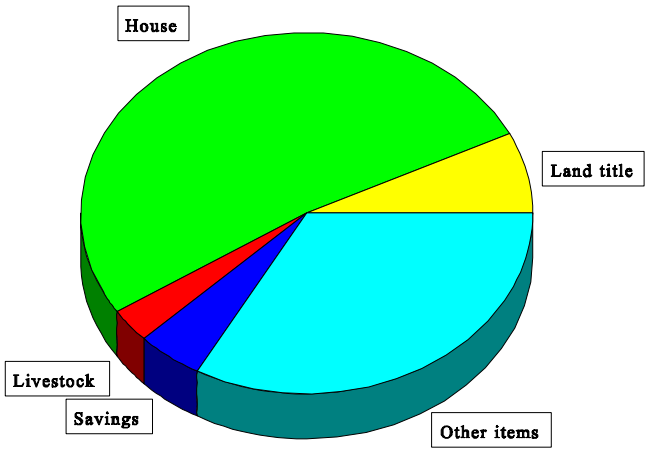


Table 11 Type of assets/property owned by household

Type of asset/property	Number of households	Percent of households
Land Title/Certificate	24	7.3
House	171	52.0
Livestock	10	3.0
Savings	16	4.9
Other	108	32.8
Total	329	100.0

Source: Field data

2.2.7 Renting or owning household house

It was found that in Bauleni's zones 8 and 13 the majority (52%) of the households owned the house they lived in, while 44.4% were renting and 3% were kept by relatives. Although more than half of the respondents indicated that they owned a house, only 7.3% had a title deed or occupancy certificate. Usually the City Council only provided an occupancy certificate and not a title deed to residents of unplanned and/or illegal settlements. It, therefore, follows that what the households were calling title deeds could be merely occupancy certificates because the place was an unplanned settlement.

Table 12 House ownership

Type of status	Number of households	Percent of households
Own House	171	52.0
Rent House	146	44.4
Kept by Family	10	3.0
Other	1	0.3
No answer	1	0.3
Total	329	100.0

Source: Field data

2.2.8 Owing A Debt

There was almost an equal distribution of respondents between those who were owing a debt and those who were not. Nearly half (49.5%) of the households indicated that they were owing debts, while almost another half (48.6%) indicated that they did not have any debt. Almost two-thirds (64.9%) of the debts were owed to friends and relatives, while 14.6% of the households had debts with usurers. In addition, 12.9 % had outstanding payments.

It needs to be clarified that in this type of settlement, people rarely borrowed money from Banks because of lack of collateral. Instead, *kaloba* was the common practice of borrowing and lending money. *Kaloba* was an informal credit scheme (or usury) between and among relatives, neighbours and associates, and it usually involved very high interest. People only fell back on *kaloba* mainly when they had no other alternatives.

2.2.9 Household daily intake of meals

Table 13 Household Daily Intake of Meals

Intake per day	Frequency	Percent
Once a day	15	4.6
Twice a day	97	29.5
Three times a day	216	65.7
No answer	1	.3
Total	329	100.0

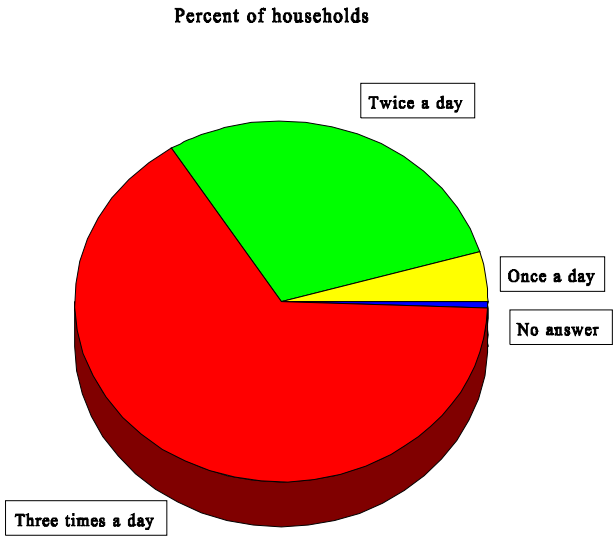
Source: Field data

Slightly less than two-thirds (65.7%) of the households indicated that they took 3 meals per day, and almost one-third (29.5%) took 2 meals (dinner and supper) per day. A small percentage of the households (4.6%) took 1 meal per day, usually supper, when all the household members were likely to be present.

These findings showed a picture of food consumption in Bauleni's zones 8 and 13 households, that did not agree with relevant findings on household expenditure or

weekly consumption of basic food items. The prevailing daily intake of 3 meals was not supported by data in Table 10 which indicated that, at best, there was a daily consumption of 2 meals for about one-third of the households. The explanation for the discrepancy could lie in the quantity and quality of those meals which could be inadequate and could even consist of seasonal fruit.

Graph 12: Household daily intake of meals



2.2.10 Household consumption of basic food items per week

It was found that Bauleni households in zones 8 and 13 generally had nshima twice a day (88.1% of the households), and cooking oil, vegetables and sugar daily (66%, 63.2% and 67.5%, respectively). One-third (34.0%) had milk 1 or 2 times a week and only 10.6% had milk daily. A little above one-third (39.5%) had eggs 1 or 2 times a week. More than a half (58.4%) had meat or chicken 1 or 2 times a week; and less than half (44.7%) had fish 1 to 2 times a week, while 10.9% had fish daily. Finally, one-fifth (20.7%) had fruit once a week, and only 13.4% had fruit daily. It needs to be noted that the quantity of these food items, like the frequency for some of them, was really inadequate to fully satisfy the household members who shared the meal, in order to fit into the household's budget.

Table 14 Household consumption of basic food items per week

Intake per week	Number of households								
	Milk	Meat/ Chicken	Eggs	Fish	Fruits	Nshima	Cooking Oil	Sugar	Vegetables
0	18.2	6.7	17.3	2.4	18.2	0.9	0.3	2.1	0.3
1	22.8	37.7	26.7	24.6	20.7	0.0	2.4	4.6	0.3
2	11.2	20.7	12.8	23.1	8.5	0.3	4.0	4.0	1.8
3	10.6	11.6	10.6	18.8	6.1	0.0	5.2	4.3	3.6
4	2.7	3.6	4.9	7.0	4.3	1.8	4.3	6.1	3.3
5	2.4	1.2	2.4	4.6	1.2	0.0	5.2	3.6	0.6
6	0.3	0.0	0.3	1.8	0.6	1.5	1.8	0.9	2.1
7	10.6	2.4	5.8	10.9	13.4	3.6	66.0	67.5	63.2
14	0.0	0.0	0.6	0.6	2.1	88.1	7.9	2.7	14.9
No answer	10.9	6.1	7.9	3.3	15.2	3.0	2.4	3.6	100.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Field data

2.2.11 Access to and control of household economy

For the majority of households (60.8%) access (i.e., income earning) was with the male head of the household or husband, while in 20.7% of the households access was with the female head of the household or wife, and only in 15.2% of the households was access with both husband and wife. However, in terms of control (i.e., decision-making to consume), in majority of households (47.7%) it was with the female head of the household or the wife, and only in 17.3% of the households did the male head of household or husband exercise control, and only in about one-third (31.9%) of the households was control exercised by both husband and wife.

This finding reflected the usual pattern in the general population in which more males than females earned income (access) and more females than males made decisions to consume (control). Control was usually exercised by females or wives because they were taking care of the family daily, maintained the household and knew better than their husbands what was needed in the home.

Table 15 Access to and control of household economy

Household member	Percent of households	
	Access	Control
Husband	60.8	17.3
Wife	20.7	47.7
Both	15.2	32.0
No answer	3.3	3.0
Total	100.0	100.0

Source: Field data

2.2.12 Business experience/credit and loan access

More than half of the respondents (57.8%) had some form of business experience most of which had to do with petty trading, usually in the informal sector while 40.4% indicated that they had no business experience at all.

Most of the respondents 87.2% indicated that they had no access to any credit or loan facility and only 12.5% indicated that they had access to a credit or loan facility. When asked if they were interested in getting access to credit or loan, almost two-thirds (72%) of the heads of household indicated that they would be interested and 23.7% indicated that they would not be interested in the credit or loan facility even if it was offered to them.

Table 16 Business experience/credit and loan access

Availability	Percent of households		
	Business experience	Access to credit/loan	Interested in getting credit/loan
Yes	57.8	12.5	72.0
No	40.4	87.2	23.7
No answer	1.8	0.3	4.3
Total	100.0	100.0	100.0

Source: Field data

2.2.13 Saving in bank account

Only about one-fifth of the households (21.3%) indicated that they were saving their money in a Bank while most of the households (76.3%) did not save any money in the Bank. The majority of respondents who did not save money in the Bank indicated that they were unable to save because they made very little money. When asked if they were interested in saving money in the Bank, 86.8% indicated that they would like to save money in the Bank while 13.2% indicated that they were not interested in saving money in the Bank.

Other than the fact that most households could not save money in the Bank because their income was small, there was also a cultural factor which favoured immediate consumption more than long-term investment and which was partially responsible for the absence of significant saving among the households. As this attitude had been widely spread among many people in the general population in the country, any successful income-generating activity needed to go along with training in basic business principles and an inculcation of a "culture of business and saving" in the people.

Table 17 Saving in bank account

Availability	Percent of households	
	Saving in bank account	Interested in saving in bank account
Yes	21.3	86.8
No	76.3	13.2
No answer	2.4	0.0
Total	100.0	100.0

Source: Field data

2.3 EDUCATIONAL CHARACTERISTICS

2.3.1 Educational level attained

The study found that one-eighth (13.1%) of the heads of household in Bauleni's zones 8 and 13 had no education at all. However, almost half (46.2%) of the heads of household had lower or upper primary education, more than one-third (34.6%) had junior or senior secondary education, and 3.6% had tertiary education. Literacy rate, therefore, of the heads of household in Bauleni's zones 8 and 13 was relatively high and comparable to the national average distribution of literacy.

Comparison between male and female heads of household also gave findings similar to the national distribution of literacy. That is, there were more female than male heads of household with no or lower primary education (30% as compared to 27%); and there were significantly fewer female than male heads of household with higher education of senior secondary or tertiary levels (16.3% as compared to 25.2%).

Graph 13: Educational level attained by heads of household

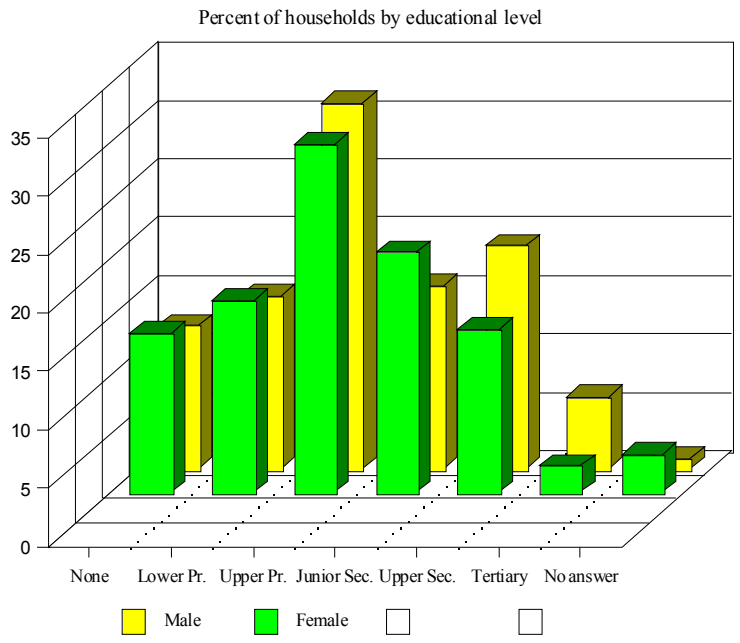


Table 18 Educational level attained by heads of household, by gender

Educational level	Male		Female		Total	
	N of hlds	% of hlds	N of hlds	% of hlds	N of hlds	% of hlds
None	14	12.2	29	13.6	43	13.1
Lower Primary	17	14.8	35	16.4	52	15.8
Upper Primary	36	31.3	64	29.9	100	30.4
Junior Secondary	18	15.7	44	20.6	62	18.8
Senior Secondary	22	19.1	30	14.0	52	15.8
Tertiary	7	6.1	5	2.3	12	3.6
No answer	1	0.9	7	3.3	8	2.4
Total	115	100.0	214	100.0	329	100.0

Source: Field data

2.3.2 School attendance

Generally, there were more households in Bauleni's zones 8 and 13 with male as compared to female school-aged children (61% and 45.2%, respectively). About half of the households (49.5%) had one or two male school-aged children as compared to only one-third (35.5%) of the households with one or two female school-aged children.

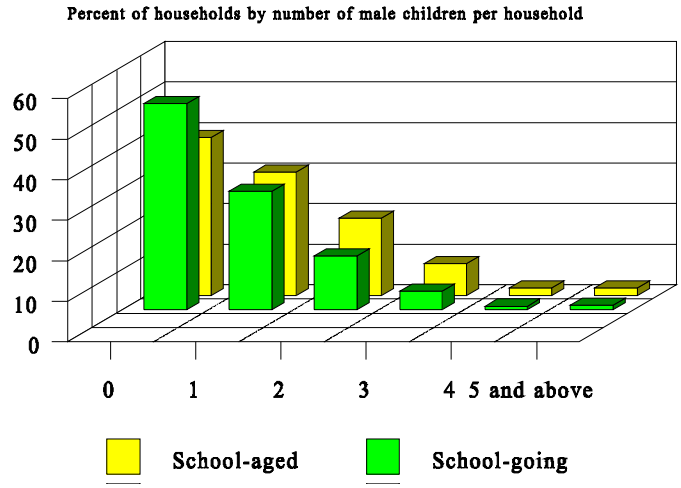
Table 19 School attendance

Number of children	Percent of households with school-aged children		Percent of households with children enroled in school		Percent of households with children out of school
	Male	Female	Male	Female	Male and female
0	38.9	54.7	50.8	63.5	68.1
1	30.4	24.3	29.2	23.1	13.7
2	19.1	11.2	13.3	8.8	11.2
3	7.9	6.7	4.6	2.4	4.3
4	1.8	1.5	0.9	1.2	1.8
5 and above	1.8	1.5	1.2	0.9	0.9
Total	100.0	100.0	100.0	100.0	100.0

Source: Field data

In slightly less than half of the households (42.5%) there were one or two school-going male children, as compared to less than one-third (31.9%) of the households which had one or two school-going female children.

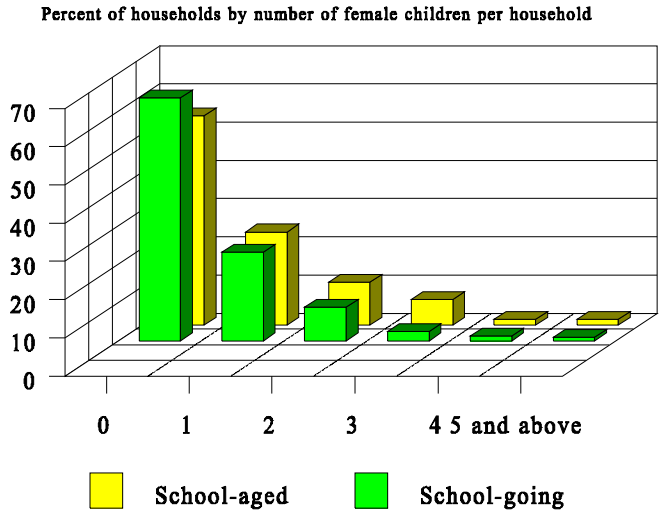
Graph 14: Male school attendance



Overall, the study found that compared to 61% of households which had male school-aged children, only 49.2% of the households had male children actually attending school. Similarly, compared to 45.2% of the households which had female school-aged children, only 36.4% had female children actually attending school. It was actually found that 31.9% of the households in Bauleni's zones 8 and 13 had school-aged children, male and/or female who did not attend school.

The study, therefore, highlighted a serious problem in the area that a good number of school-aged children, male and female, were actually not attending school for a number of reasons. The main reason (28.7%) offered by the heads of household as an explanation for their children not attending school, although in school-going age, was the high cost of schooling.

Graph 15: Female school attendance



However, more than half (61%) of the households with out-of-school children did not offer any explanation as to why this was happening. The same phenomenon was observed in relation to girls' school enrolment. The main reason (13.6%) offered to

explain why girls were remaining out of school was the existence of too many school-aged children in the family, although more than three-quarters of the respondents did not offer any explanation. These findings could be explained by the inability of parents to pay for school requisites on one hand, and on the other hand by a general attitude of reduced confidence in formal education by parents and outright parental ignorance about what formal education meant both in general and for their children's lives, in particular. The most probable cause of lack of confidence in formal education in the parents was the high and increasing number of school leavers who did not have employment.

Lack of confidence in formal education was particularly prevailing among parents regarding their daughters' education. Generally, school enrolment, retention and progression rates for female children in Zambia were much lower than that of male children. Female children were the last to enter school and the first to leave. There were many factors responsible for this imbalance, including cultural attitudes toward girls in society in general, early marriage for girls and household chores for girls at home.

Table 20 Reasons for school-aged children not attending school

Reason	Number of households	Percent of households
High cost of schooling	47	28.7
Was not admitted	14	8.5
No school near home	2	1.2
Child busy with domestic chores	1	0.6
Other	100	61.0
Total*	164	100.0

Source: Field data

** Subtotal of households with children out-of-school*

Table 21 Reasons for daughter not attending school

Reason	Number of households	Percent of households
Too many children	14	13.6
Busy with domestic chores	6	5.8
Boys have priority	1	1.0
Girls do not need education	1	1.0
Other	81	78.6
Total*	329	100.0

Source: Field data

** Subtotal of households with daughters out-of-school*

Finally, about one-third (32.0%) of the households had female and male children attending Grades One to Seven (usually one or two); less than ten percent (9.1%) of the households had female and male children who were attending Grades Eight and

Nine (usually one); and 7.9% of the households had female and male children who were attending Grades Ten to Twelve (usually one per household).

2.3.3 Type of School Attended

Two-thirds of the households were sending their school-going female and male children to a Government school as compared to a community school. Community schools were owned by the community and were generally cheaper than government schools. Preference for Government schools, however, could be explained on the basis that Government schools were much older and had better reputation than Community schools.

Table 22 Type of school attended

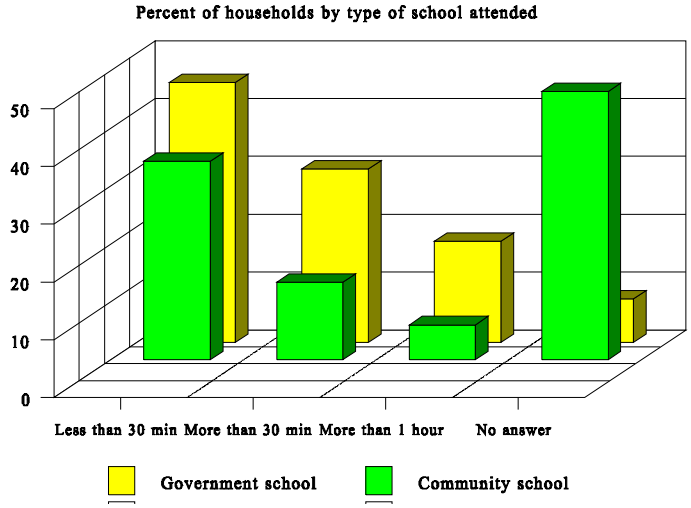
Number of children attending school	Households with children at government school		Households with children at community school	
	Number	Percent	Number	Percent
0	209	63.5	262	79.7
1 and above	120	36.5	67	20.3
Total	329	100.0	329	100.0

Source: Field data

2.3.4 Distance from school

Less than half (45.0%) of the respondents indicated that their children took less than 30 minutes to get to the Government school while 17.5% needed more than one hour to get to the school.

Graph 16: Distance from school



Regarding Community schools, one-third (34.3%) of the households indicated that their children took less than 30 minutes to reach school while only 6% of the respondents indicated that their children took more than one hour to get to the

Community school. Nearly half (46.3%), however, did not indicate distance their children had to cover to and from school.

Table 23 Distance from school

Time spent to reach school	Households with children at government school		Households with children at community school	
	Number	Percent	Number	Percent
Less than 30 minutes	54	45.0	23	34.3
More than 30 minutes	36	30.0	9	13.4
More than 1 hour	21	17.5	4	6.0
No answer	9	7.5	31	46.3
Total*	120	100.0	67	100.0

Source: Field data

** Subtotal of households with children attending either type of school*

2.3.5 Cost of schooling

It was found that the majority of households with children in government schools in Bauleni's zones 8 and 13 spent between K10,000 and K30,000 per term in school fees (48.3%); less than K10,000 in stationery (57.6%); and between K10,000 and K30,000 in uniforms (39.2%). One-fifth (20.8%) spent less than K10,000 in the PTA fund, and one-eighth (12.5%) in other expenditures related to their children's schooling. The majority of households with children at government schools, however, did not spend anything in PTA fund and did not have any other expenditures apart from fees, stationery and uniforms.

Table 24 Amount spent at government schools

Expenditure category	Percent of households				
	Fees	Stationery	Uniforms	PTA	Others
Less than K10,000	15.8	57.6	8.3	20.8	12.5
K10,000-K30,000	48.3	22.5	39.2	17.5	10.8
K30,000-K50,000	15.0	0.8	13.3	2.5	0.0
K50,000-K70,000	4.2	0.8	5.0	1.7	0.0
K70,000and above	5.0	0.0	7.5	0.0	0.0
No answer	11.7	18.3	26.7	57.5	76.7
Total*	100.0	100.0	100.0	100.0	100.0

Source: Field data

** Subtotal of households having children at government schools*

On the other hand, the majority of households with children at community schools did not spend anything or very little in school fees (61.2%) and stationery (64.1%); and nothing in uniforms, PTA fund or other expenditures related to children's schooling. About one-third of these households (31.3%) spent up to K30,000 in school fees and fewer than one-third (29.9%) spent less than K10,000 in stationery.

Table 25 Amount spent at community schools

Expenditure category	Percent of households				
	Fees	**Stationery**	**Uniforms**	**PTA**	**Others**
Less than K10,000	16.4	29.9	6.0	4.5	4.5
K10,000-K30,000	14.9	6.0	1.5	3.0	1.5
K30,000-K50,000	3.0	0.0	0.0	0.0	1.5
K50,000-K70,000	3.0	0.0	0.0	0.0	0.0
K70,000 and above	1.5	0.0	0.0	1.5	0.0
No answer	61.2	64.1	92.5	91.0	92.5
Total*	100.0	100.0	100.0	100.0	100.0

Source: Field data

** Subtotal of households having children at community schools*

The cost of schooling, therefore, was significantly higher at a government school than at a community school. The concept of a community school was at the time of the study relatively new in the country. It came up as a way for communities to supplement the effort of government in the provision of education. A community school was one which was built and run by the community itself with the supervision of government through the Ministry of Education. Generally, community schools were not only cheaper but also in some cases had lower reputation and prestige than government schools.

2.4 WATER CHARACTERISTICS

2.4.1 Source of Drinking Water

Almost two-thirds (72.3%) of the households drew their drinking water from a public tap while 20.1% drew their drinking water from a private tap. A small percentage of 2.1% drew drinking water from a stream. Only 1.8% of the respondents drew their drinking water from their own well, another household's well and other sources.

Almost all the households (98.2%) drew water from the same source for other uses than drinking.

Graph 17: Source of drinking water

Percent of households

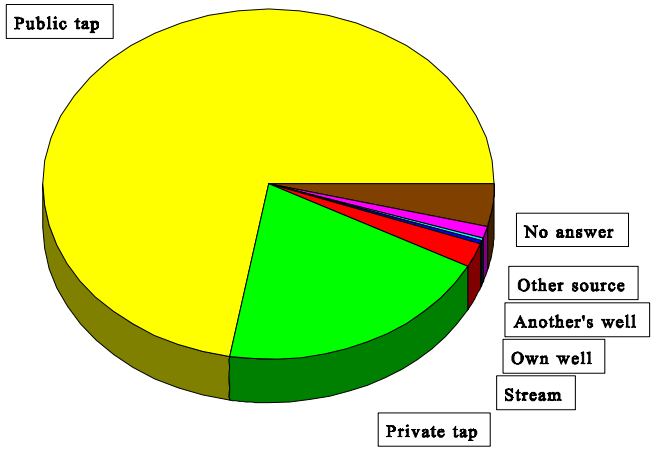


Table 26 Source of drinking water

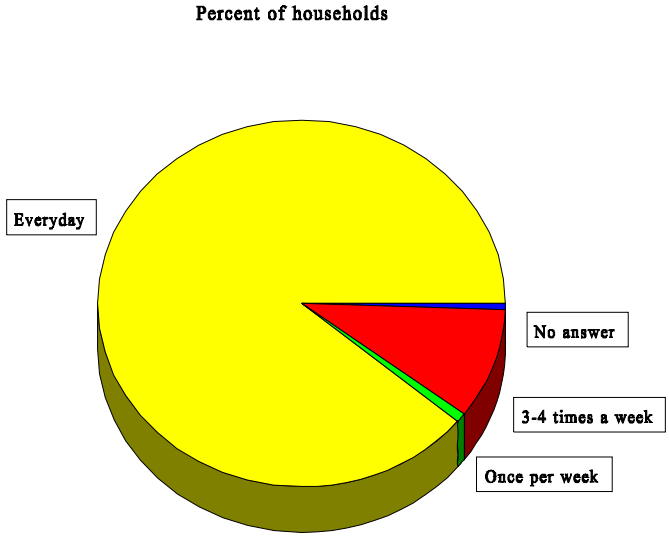
Source	Number of households	Percent of households
Public tap	238	72.3
Private tap	66	20.1
Stream	7	2.1
Own well	1	.3
Another household well	1	.3
Other source	4	1.2
No answer	12	3.6
Total	329	100.0

Source: Field data

2.4.2 Frequency of drawing water

Most of the households (89.1%) in Bauleni's zones 8 and 13 drew water daily from their source. Only less than ten per cent (9.7%) of the households drew water 3 to 4 times a week.

Graph 18: Frequency of drawing water



With regard to who drew water, two-thirds of the households (67.8%) indicated that the housewives were responsible for drawing water and 8.8% of the households indicated that daughters drew the water. Only in 3.3% of the households sons drew water while in 19.8% of the households it was other household members who did the drawing of water. According to traditional culture, drawing water was the responsibility of the female member of the family.

Table 27 Frequency of drawing water

Frequency of drawing water	Number of households	Percent of households
Everyday	293	89.1
3 - 4 times per week	32	9.7
Once per week	3	0.9
No answer	1	0.3
Total	329	100.0

Source: Field data

2.4.3 Time taken to water source and queue

Nearly half (45%) of the households in Bauleni's zones 8 and 13, took 5-15 minutes to walk to the drinking water source while approximately one-third (30.4%) took less than 5 minutes to the water source, indicating availability of a water source within their yard. A relatively small percentage (8.5%) took more than 30 minutes (i.e., a tiring distance to walk to the source of drinking water).

In addition, three-quarters (76.6%) of the households queued up for a period longer than 30 minutes in order to draw water, a finding that indicated congestion at the water sources (public taps) in Bauleni's zones 8 and 13. Only 5.5% drew water immediately, again indicating households with the water source within their yard and not being shared by many other households.

Graph 19: Time taken to water source and queue

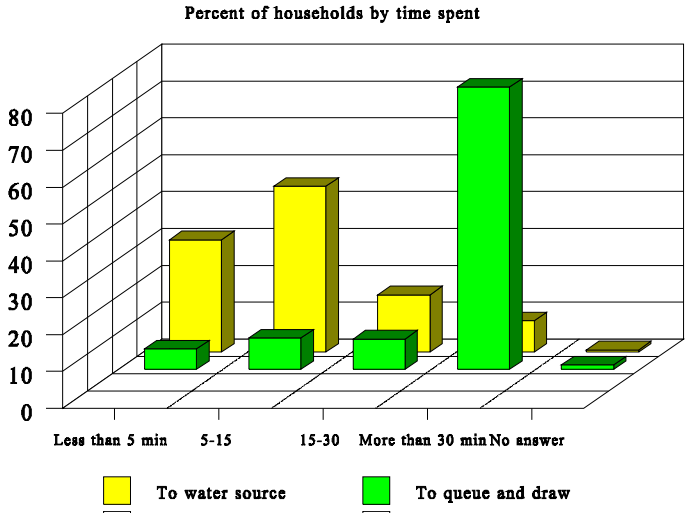


Table 28 Time taken to water source and queue

Time	Percent of households	
	Time taken to drinking water source	Time taken to queue and draw water
Less than 5 minutes	30.4	5.5
6 - 15 minutes	45.0	8.5
16 - 30 minutes	15.5	8.2
More than 30 minutes	8.5	76.6
No Answer	0.6	1.2
Total	100.0	100.0

Source: Field data

2.4.4 Quantity of water used daily

More than three-quarters (77.5%) of the households in Bauleni's zones 8 and 13, used up to 100 litres of water pre day for drinking and other household needs; 14.6% used 100 to 150 litres daily, and 7.9% used in excess of 150 litres daily.

Graph 20: Quantity of water used daily

Percent of households

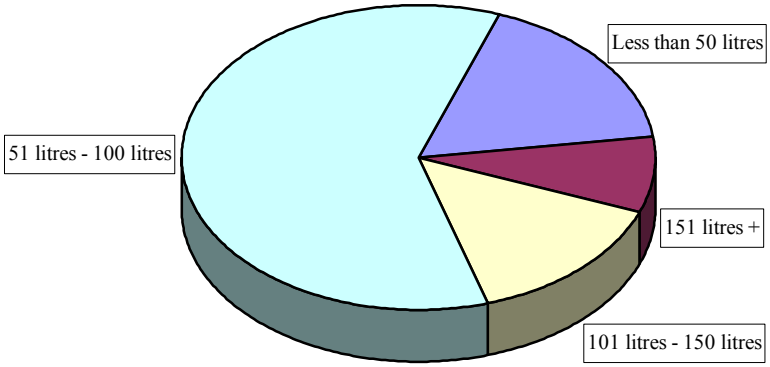


Table 29 Quantity of water used daily

Among of Water	Number of households	Percent of households
Less than 50 litres	57	17.3
51 litres - 100 litres	198	60.2
101 litres - 150 litres	48	14.6
151 litres +	26	7.9
Total	329	100.0

Source: Field data

2.4.5 Paying for Water

Generally, most households (84.5%) in Bauleni's zones 8 and 13 paid for their water. About one-eighth (15.2%), however, did not pay for drawing water for their household. This finding could be explained by use of other sources, where they did not have to pay or they had somebody else paying for their water. Overall, all the households (98.8%) in zones 8 and 13 in Bauleni paid less than K10,000 for their monthly water supply, an amount which most of them could afford.

2.4.6 Safe Water Facilities

Generally, all the respondents (98.5%) expressed the need for a safe water facility, mainly in the form of house connection to running water (54.1%) or provision of more stand pipes (43.5%).

Once a safe water facility was put in place, all (91.8%) of the respondents were willing to pay for water. Eight percent (7.9%) of the households indicated that they were not willing to pay for safe water facilities, and most of them (84.6%) explained that the reason was their inability to pay. Only an insignificant percentage indicated that water supply was unreliable. On the other hand, more than three quarters

(85.2%) of those that agreed to pay for water indicated that they could only afford to pay below K10,000 per month. An additional 11.2% indicated that they could pay between K10,000 and K15,000 per month. This was a reflection of what they were used to paying and their low income levels.

Table 30 Safe water facilities

Value label	Percent of households wanting safe water facilities	Percent of households willing to pay for water	Percent of households willing to participate in water project
Yes	98.5	91.8	96.4
No	1.5	7.9	3.6
No answer	0.0	0.3	0.0
Total	100.0	100.0	100.0

Source: Field data

Regarding participation in the water project, all (96.4%) of the households indicated that they were willing to participate in the project because water was a big problem in their area. A quarter of those who expressed unwillingness to participate, explained that providing water was the government's responsibility while the other reason given was lack of time or money.

It should be pointed out here that in the past, especially before the present government came into power, the general attitude of the people, in and outside of Bauleni, was that the government should provide them with free services and take care of them basically from cradle to the grave. People's attitude in this particular aspect, however, could change with education and training in order for the people to adopt new self-reliant practices.

2.4.7 Ways of participation in water project

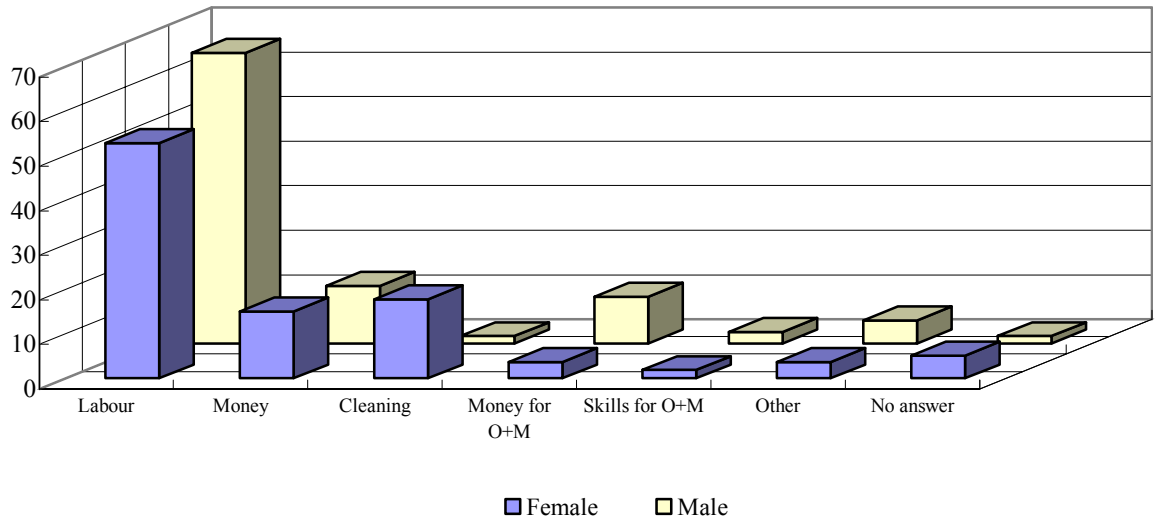
More than half (57.1%) of the households offered to participate in the water project through labour for construction while 12.2% offered to clean the surroundings. In addition, 20.3% offered to contribute money towards construction, operation and maintenance of the project. Finally, 6.4% offered skills and help of any kind. Male heads of household offered to participate mainly through labour for construction (65.3%) and money (23.5%), whereas female heads of household offered to participate mainly through labour for construction (52.8%), cleaning the surroundings (17.8%), and money for construction (15%).

Finally, it can be concluded that a safe water facility project was a major concern in Bauleni's zones 8 and 13, and most households recognized it to be so and they were also willing to pay for it and participate in it. It also appeared that the main form of

participation in the water project was through the contribution of labour as household income was generally low and skills limited.

Graph 21: Ways of participation in water projet

Percent of households by type of participation



The possibility of the households participating through the contribution of money and skilled labour only existed on a small-scale. With appropriate training in community participation, the study found the prospects to be high that even those who initially expressed unwillingness to participate in the water project could change their mind and eventually also participate.

Table 31 Ways of participation in water project by gender

Ways of participation	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Labour for construction	75	65.3	113	52.8	188	57.1
Money for construction	15	13.0	32	15.0	47	14.3
Clean surrounding	2	1.7	38	17.8	40	12.2
Money for operation and maintenance	12	10.5	8	3.7	20	6.1
Skills for operation and maintenance	3	2.6	4	1.9	7	2.1
Other	6	5.2	8	3.7	14	4.3
No answer	2	1.7	11	5.1	13	3.9
Total*	115	100.0	214	100.0	329	100.0

Source: Field data

** Subtotal of households willing to participate in water project*

2.5 HEALTH AND SANITATION PRACTICES

2.5.1 Water handling and storage

The study found that most of the households in Bauleni's zones 8 and 13 took precautions when handling and storing drinking water. Almost all of the households used clean containers for storing the water (98.5%); they stored drinking and cooking water separately from water meant for other uses (90.6%); and they stored drinking water covered (93.9%).

The most common ways of storing drinking water in the house was in plastic containers (58.7%) and in tins (32.5%). A very small percentage of 1.8% used clay pots for storing their drinking water. Plastic and tin containers were commonly used for storing water because they were more easily available in the urban environment than, for example, the traditional clay pots.

Health practices for keeping drinking water could, however, be improved particularly by elevating the platform on which to put the drinking water container. Less than three-quarters of the households (71.4%) were found to be doing that.

Similarly, the practice of washing hands before drawing water could also be improved as about the same percentage of households (72.9%) were found to be engaged in this practice. Generally, the overall practice for water handling and storage in the settlement was found to be encouraging.

Graph 22: Water handling and storage

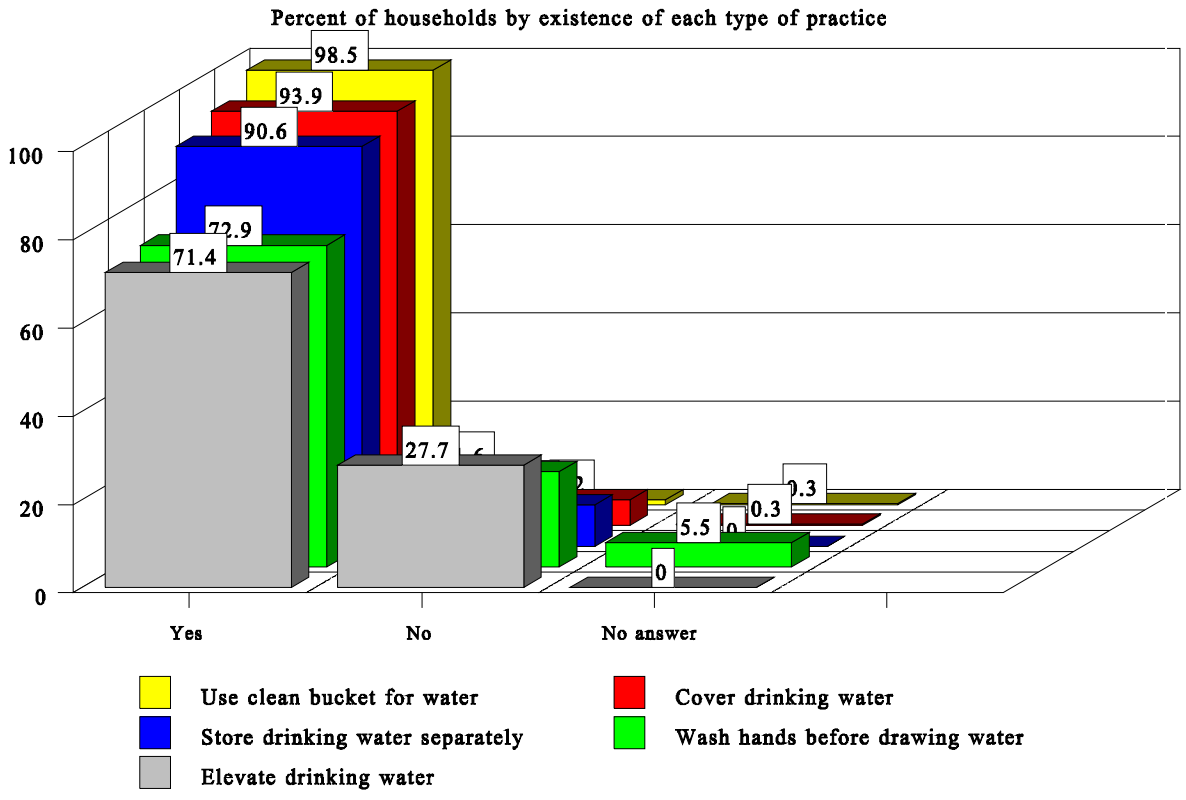


Table 32 Water handling and storage

Type of practice	Percent of households				
	Wash hands before drawing water	Use clean bucket/ container for water	Store drinking/ cooking water separately	Cover drinking water	Elevate drinking water on platform
Yes	72.9	98.5	90.6	93.9	71.4
No	21.6	1.2	9.4	5.8	27.7
No answer	5.5	0.3	0.0	0.3	0.9
Total	100.0	100.0	100.0	100.0	100.0

Source: Field data

Study findings also indicated that the educational level of the head of household had a positive influence on some of the health practices regarding water handling and storage employed in the household. For example, there was a higher frequency of washing hands before drawing water and keeping drinking water covered when the head of household had some formal education than the frequency of such health practices in households where the head of the household had no formal education. However, for other health practices like using clean containers for storing water and storing drinking water separately from water meant for other uses there was no observed significant influence by the educational level of the head of household. This could be explained by the fact that such practices had been strongly embedded in the local tradition and that poverty of the household may have made it difficult to afford utensils such as several water storage containers.

Table 33 Water handling and storage by educational level of head of household

Educational level	Wash hands before drawing water		Use clean buckets for water		Store drinking water separately		Cover drinking water in house	
	Yes	No	Yes	No	Yes	No	Yes	No
None	65.9	34.1	100.0	0.0	93.0	7.0	90.5	9.5
Lower primary	87.5	12.5	100.0	0.0	88.5	11.5	96.2	3.8
Upper primary	77.7	22.3	99.0	1.0	88.0	12.0	93.0	7.0
Junior secondary	80.3	19.7	98.4	1.6	87.1	12.9	91.9	8.1
Senior secondary	74.5	25.5	98.1	1.9	96.2	3.8	98.1	1.9
Tertiary	83.3	16.7	91.7	8.3	100.0	0.0	100.0	0.0
Total	77.9	22.1	98.7	1.3	90.6	9.4	94.1	5.9

Source: Field data

2.5.2 Boiling/chlorination of drinking water

The study found that in Bauleni's zones 8 and 13, only slightly more than one-quarter (27.7%) of the households boiled their drinking water, and even fewer (14.3%) chlorinated it. About three-quarters of the households, therefore, were found to be

drinking water without taking any health precaution.

Graph 23: Boiling/Chlorination of drinking water

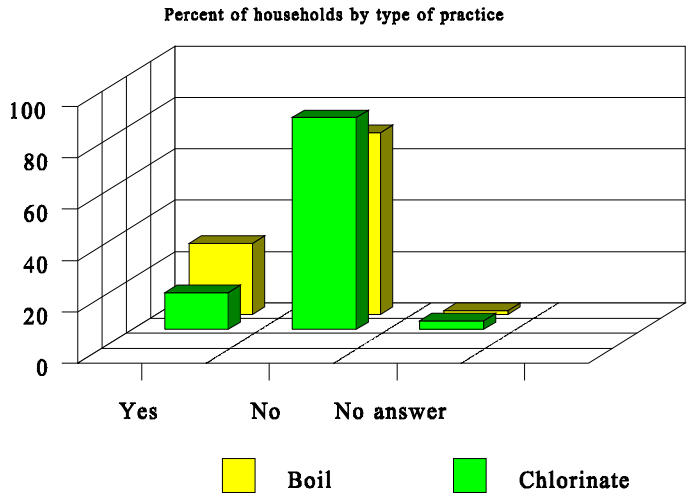


Table 34 Boiling/chlorination of drinking water

Type of practice	Percent of households	
	Boil drinking water	Chlorinate drinking water
Yes	27.7	14.3
No	70.8	82.4
No answer	1.5	3.3
Total	100.0	100.0

Source: Field data

Table 35 Reasons for not boiling/chlorinating drinking water

Reasons	Percent of households	
	For not boiling drinking water	For not chlorinating drinking
Waste of time	42.1	8.8
Looks clean	24.9	15.9
Waste of money	0.0	28.8
Loses taste	8.6	1.5
Other	21.0	44.3
Missing	3.4	0.7
Total*	100.0	100.0

Source: Field data

* *Subtotal of households not engaging in the practices of boiling/chlorinating drinking water*

Nearly half (42.1%) of the heads of household who did not boil their drinking water explained that the reason for not doing so was mainly that the practice was "a waste of time", while one-quarter (24.9%) of the households explained that it was not necessary to do so since the water "looked clean". Similarly, more than one-quarter (28.8%) of the heads of household who did not engage in chlorinating their water explained that it was "a waste of money" while 15.5% maintained that the water was clean since it "looked clean". Finally, 8.8% of the households who did not engage in

the practice of chlorinating their drinking water dismissed it as “a waste of time”.

Further data analysis indicated that a decisive factor influencing households in engaging in boiling their drinking water was the educational level of the head of household. As shown in the following table, the higher the educational level attained by the head of household the higher the likelihood for the household to be boiling their drinking water. No direct relationship could be established, however, between educational level of head of household and the practice of chlorinating drinking water, as this practice was also a function of availability of adequate income.

Table 36 Boiling/chlorinating of drinking water by educational level of head of household

Educational level	Boil drinking water		Chlorinate drinking water	
	Yes	No	Yes	No
None	20.9	79.1	14.0	86.0
Lower primary	25.5	74.5	12.0	88.0
Upper primary	27.0	73.0	12.2	87.8
Junior secondary	28.8	71.2	15.8	84.2
Senior secondary	33.3	66.7	19.6	80.4
Tertiary	41.7	58.3	16.7	83.3
Total	27.8	72.2	14.5	85.5

Source: Field data

As it is shown in the following table, family monthly income was found to have a direct relationship with the practice of chlorinating drinking water, particularly from a family income of K50,000 and above. At the same time, monthly family income did not appear to have any direct influence on the practice of boiling drinking water. It can, therefore, be concluded that attitude, usually based on wrong perceptions and lack of knowledge, was the predominant factor in determining whether a household boiled or not boiled its drinking water. It should be pointed out again that education and training for the households could help to change the prevailing negative attitudes and practices through the acquisition of new knowledge.

Table 37 Boiling/chlorinating drinking water by family monthly income

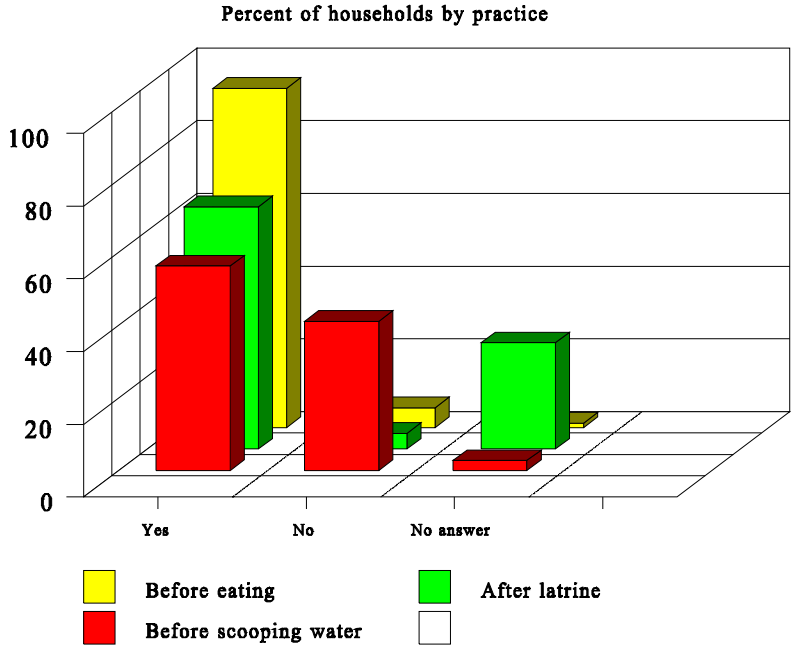
Family monthly income	Boil water		Chlorinate water	
	Yes	No	Yes	No
Below K10,000	37.5	62.5	14.3	85.7
K10,000-K30,000	1.1	91.7	10.0	90.0
K30,000-K50,000	34.8	65.2	8.7	91.3
K50,000-K70,000	25.0	75.0	5.7	94.3
K70,000-K90,000	25.0	75.0	15.6	84.4
K90,000-K100,000	33.3	66.7	17.5	82.5
K100,000-K120,000	25.5	74.5	17.6	82.4
Above K120,000	35.0	65.0	17.0	83.0
Total	29.9	70.1	14.8	27.9

Source: Field data

2.5.3 Washing of hands

Generally, in 93.3% of the households in Bauleni's zones 8 and 13 household members were washing their hands before handling or eating food. Only 5.5% of heads of household indicated that in their homes they were not doing that.

Graph 24: Washing of hands



Only slightly more than half (56.2%) of the households were found to be washing their hands before scooping water for drinking out of the container. This could be explained by the fact that in the respondents' experience, when scooping water from the container the water did not come in contact with the hands and, therefore, this did not present a serious danger of contamination of the water in the container, provided that the small cup or scooping utensil was kept clean and was washed after each use.

However, failure to wash hands after using a latrine was a serious lapse in health practice and hygiene as the study found that only two-thirds (66.6%) of the households engaged in washing their hands after using a latrine.

Table 38 Washing of hands

Type of practice	Percent of households		
	Before handling/ eating food	Before scooping water to drink	After using latrine
Yes	93.3	56.2	66.6
No	5.5	41.0	4.3
No answer	1.2	2.7	29.2
Total	100.0	100.0	100.0

Source: Field data

The study found that the practice of washing hands after using the latrine in a household was directly related to the educational level attained by the head of household, as shown in the following table. However, no direct relationship was found between the practice of washing hands before eating and the educational level of the head of the household. This finding could again be explained by the fact that washing hands before eating had been an integral part of the ceremony of eating in the indigenous traditional cultures.

Table 39 Washing of hands by educational level of head of household

Educational level	Wash hands before eating		Wash hands after using latrine	
	Yes	No	Yes	No
None	90.7	9.3	88.9	11.1
Lower primary	94.2	5.8	93.9	6.1
Upper primary	93.9	6.1	90.1	9.9
Junior secondary	98.3	1.7	97.5	2.5
Senior secondary	96.2	3.8	100.0	0.0
Tertiary	83.3	16.7	100.0	0.0
Total	94.3	5.7	93.8	6.2

Source: Field data

Although almost all households engaged in washing hands before eating or handling food, there was little benefit in such a practice when household members shared the same washing water in a common basin with other family members or guests because germs could be passed on from those who had them to those who did not initially have them. The study found that 82.7% of the households engaged in the practice of sharing the same washing water in a common basin.

As presented in the following table, the study found that the educational level of the head of household did not have any significant influence on the practice of sharing washing water because sharing water for washing hands among people taking the same meal had been a strong cultural and traditional practice, which could only be changed by educating the people on its disadvantages.

Traditionally, this practice arose mainly because of the scarcity of water in the household. Water for household use was usually drawn from a distance and also stored in small available containers which determined its use and rationing before another trip to the well or river could be taken. It was, therefore, perceived to be a luxury to have different containers of washing water for each member of the household before taking the meal. At the time of the study and in many communities in the country, water was still a scarce commodity and sharing water in a common basin for washing hands before eating the meal was also still a common practice. In order to change this practice, there should be both education and availability of adequate water in the household.

Table 40 Sharing water for washing hands

Type of practice	Number of households	Percent of households
Yes	272	82.7
No	51	15.5
No answer	6	1.8
Total	329	100.0

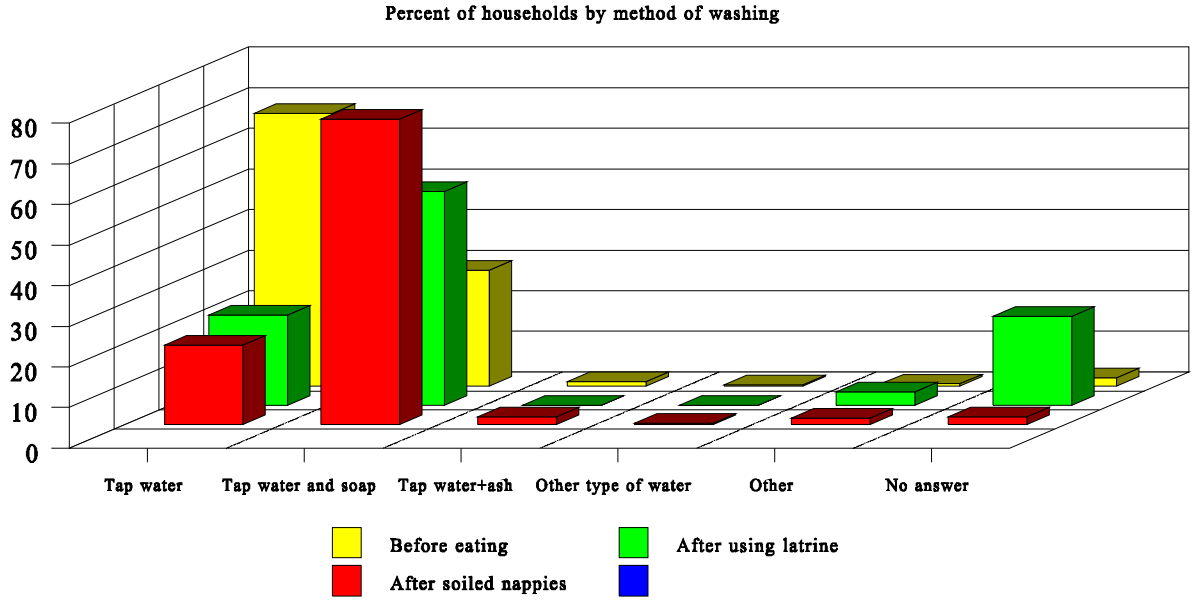
Source: Field data

Table 41 Sharing water for washing hands by educational level of head of household

Educational level	Share same water in basin for washing hands	
	Yes	No
None	75.6	24.4
Lower primary	94.1	5.9
Upper primary	83.0	17.0
Junior secondary	78.0	22.0
Senior secondary	90.4	9.6
Tertiary	75.0	25.0
Total	83.8	16.2

Source: Field data

Graph 25: Method of washing hands



The study also found that in Bauleni's zones 8 and 13 the practice of washing hands did not always include the use of soap or other disinfectant medium (such as ash). Only about one-quarter (28.6%) of the households used soap in washing their hands before eating or handling food and 1.2% used ash instead of soap. On the other hand, slightly more than half (52.6%) of the households used soap to wash their hands after using the latrine. It is worth noting that in most of the households (75.1%) hands were washed with soap and tap water after handling babies' soiled nappies.

Table 42 Method of washing hands

Type of practice	Percent of Households		
	Before handling/ eating food	After using latrine	After handling baby's soiled nappies
Tap water and soap	28.6	52.6	75.1
Tap water only	67.2	22.2	19.5
Tap water and ash	1.2	0.0	1.8
Water from other source	0.3	0.0	0.3
Other	0.6	3.3	1.5
No answer	2.1	21.9	1.8
Total	100.0	100.0	100.0

Source: Field data

Findings presented on the following table show a direct relationship between the practice of washing hands with soap after use of latrine and the educational level of the head of household. The higher the educational level of the head of household the higher the use of soap to wash hands after use of latrine by the members of the household. The educated person knew the potential dangers to health stemming from not washing hands after using a latrine. There was, however, no significant

relationship observed between the use of soap for washing hands before eating and education, as habits surrounding eating were heavily influenced by traditional cultural practices. Education and the dissemination of information appeared, therefore, to be necessary to promote hygiene and prevent the spread of germs in the community.

Table 43 Method of washing hands by educational level of head of household

Educational level	Wash hands before eating		Wash hands after using latrine	
	Tap water and soap	Tap water only	Tap water and soap	Tap water only
None	28.6	71.4	71.0	25.8
Lower primary	24.5	71.4	73.3	26.7
Upper primary	33.3	61.6	85.7	11.1
Junior secondary	16.1	83.9	76.3	23.7
Senior secondary	34.0	66.0	88.9	8.3
Tertiary	58.3	41.7	100.0	0.0
Total	29.0	68.8	81.3	16.7

Source: Field data

There was no significant relationship observed between use of soap for washing hands and monthly household income, as the following table shows.

Table 44 Method of washing hands by monthly household income

Monthly household income	Wash hands before eating		Wash hands after using latrine	
	Tap water and soap	Tap water only	Tap water and soap	Tap water only
Below K10,000	12.5	87.5	75.0	25.0
K10,000-K30,000	33.3	66.7	55.6	44.4
K30,000-K50,000	27.3	72.7	78.6	21.4
K50,000-K70,000	25.7	65.7	84.0	16.0
K70,000-K90,000	31.3	65.6	91.3	8.7
K90,000-K100,000	32.5	67.5	77.8	18.5
K100,000-K120,000	31.4	66.7	81.1	16.2
Above K120,000	32.4	65.7	86.4	12.1
Total	30.5	67.2	82.4	16.1

Source: Field data

2.5.4 Excreta disposal

Most of the households (87.8%) in Bauleni's zones 8 and 13 had a latrine in their house area. Less than ten percent (9.1%) did not have a latrine nearby their house.

Graph 26: Latrine within house area

Percent of households

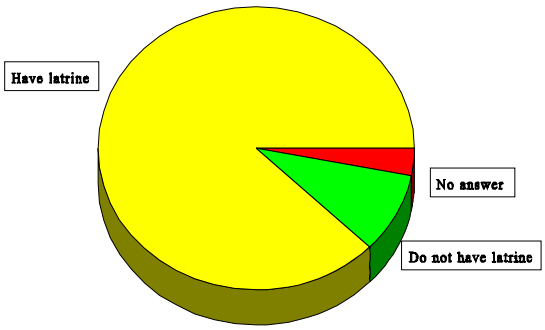


Table 45 Have latrine in house area

Have latrine	Number of households	Percent of households
Yes	289	87.8
No	30	9.1
No answer	10	3.0
Total	329	100.0

Source: Field data

These latrines were generally ordinary pits (83.3%) except in few cases (3.3%) where they were ventilated improved pits (VIP).

Graph 27: Type of latrine

Percent of households

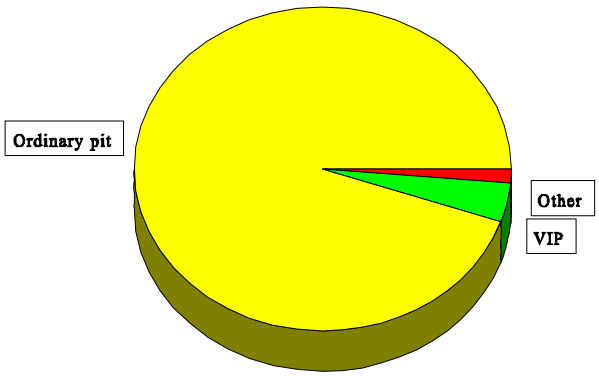


Table 46 Type of latrine

Type of latrine	Number of households	Percent of households
Ordinary pit	274	83.3
Ventilated Improved Pit (VIP)	11	3.3
Other	5	1.5
No answer	39	11.9
Total	329	100.0

Source: Field data

The usual users of the household latrine were all the members of the household (62.6%), while in 2.8% of the households with latrine it was only used by children and women of the household. More than one-third (34.6%) of the households shared the latrine with other families, a finding typical of most unplanned settlements where 2 or more rental houses shared one latrine within the common area surrounding their houses.

Table 47 Usual users of latrine in house area

User	Number of households	Percent of households
Everybody in household	181	62.6
Share with other families	100	34.6
Only children and women	8	2.8
Total*	289	100.0

Source: Field data

** Subtotal of households having latrine in house area*

Of those households which did not have a latrine within their house area, 83.3% used other family's latrine; 10% used public latrines; and 6.7% used open space for toilet.

Finally, more than one-eighth (16.8%) of the households in the study did not use their own latrine because it was either full or damaged.

Excreta disposal was a major issue of concern in many unplanned settlements in the country because of such dangers as outbreaks of cholera and dysentery that inappropriate excreta disposal posed. The fact that only 87.8% of the households had a latrine, that a third of those latrines were actually shared with other families and that some of the existing latrines were out of order, highlighted the seriousness of the problem of latrine shortage and the urgency of finding an efficient and sustainable way of disposing of human excreta. Of almost equal concern was the necessity to upgrade the existing pit latrines to ventilated improved pits (VIPs) in order to promote efficient disposal of excreta and improve conditions of health and hygiene in the settlement.

2.5.5 Garbage disposal

Slightly more than half (52.3%) of the households in Balueni's zones 8 and 13 either buried or burned their garbage in a pit within their house area. One-fifth (19.8%) dumped their garbage in a designated collection site within the compound while 17.3% dumped their garbage anywhere in the surroundings.

Graph 28: Garbage disposal

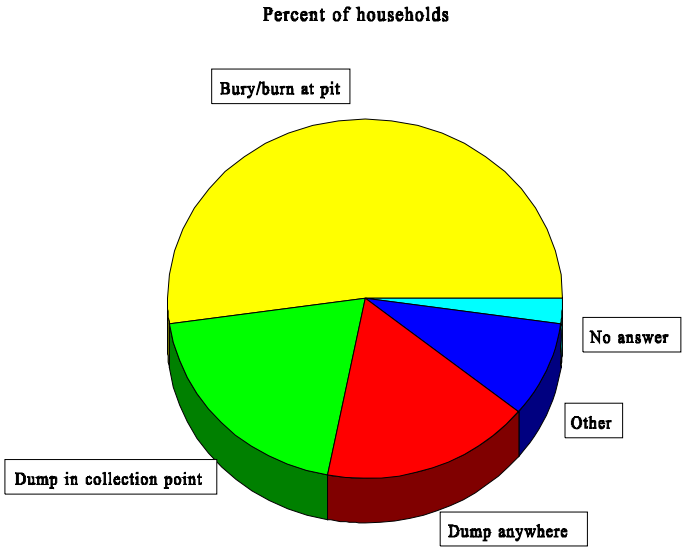


Table 48 Mode of household garbage disposal

Mode of garbage disposal	Number of households	Percent of households
Bury/burn at pit	172	52.3
Dump in garbage collection site in compound	65	19.8
Dump in no fixed place	57	17.3
Other	28	8.5
No answer	7	2.1
Total	329	100.0

Source: Field data

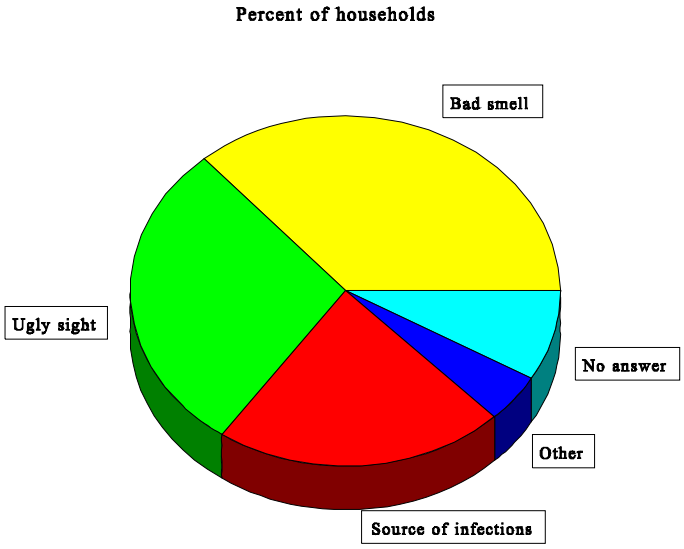
The study also found that certain modes of disposing of household garbage were directly related to the educational level attained by the head of the household. Specifically, and as shown in the following table, dumping garbage in a designated collection point, which was a healthy practice, was more likely to happen in households where the heads of household had attained a higher educational level. The reverse was true for dumping garbage anywhere in the surroundings, that is, the higher the educational level of the head of the household the less likely it was to find the household engaged in indiscriminate dumping of garbage. The practice of burning or burying garbage in a pit within the house area was not found to have a direct relationship with the educational level of the head of household.

Table 49 Mode of household garbage disposal by educational level of head of household

Educational level	Mode of garbage disposal		
	Bury/burn at pit	Dump in collection point	Dump anywhere
None	57.1	19.0	21.4
Lower primary	61.2	10.2	26.5
Upper primary	53.0	20.0	17.0
Junior secondary	58.3	20.0	8.3
Senior secondary	38.5	25.0	21.2
Tertiary	50.0	41.7	8.3
Total	53.3	20.0	17.8

Source: Field data

Graph 29: Problems experienced from garbage



Almost all (87.3%) the households in Bauleni's zones 8 and 13, experienced negative consequences resulting from the modes of disposing of garbage prevailing in their compound. The most common negative experience was bad smell (36.5%), followed by ugly sight (28.9%) and concern over spreading of infections (21.9%).

In spite of the universal negative daily experiences regarding garbage disposal, only slightly more than half (56.5%) of the households covered their garbage with soil or ashes to prevent flies from collecting in the pit and to minimize bad smell and ugly sights, whereas more than one-third of the households (36.5%) did nothing. This finding also indicated an area where education and training could give positive effects and improve hygiene.

It needs to be added that garbage disposal was, at the time of the study, a big problem not only for unplanned settlements but also for planned ones in the city of Lusaka because Lusaka City Council was unable to collect and appropriately dispose of the garbage produced daily in the city. In the unplanned settlements the situation was even more problematic because by virtue of their illegal status the Council bore no

responsibility to collect the garbage generated there. The area of garbage disposal, therefore, was one in which uplanned settlements needed help in order to come up with innovative and sustainable solutions to their problem.

Table 50 Problems experienced with inappropriately disposed garbage

Type of problem	Number of households	Percent of households
Bad smell	120	36.5
Ugly sight	95	28.9
Potential source of infections	72	21.9
Other	15	4.6
No answer	27	8.1
Total	329	100.0

Source: Field data

2.6 COMMUNITY PARTICIPATION CHARACTERISTICS

2.6.1 Problems preventing community participation

The study found no strong opinion in Bauleni's zones 8 and 13 regarding community members' participation in community projects in their area.

This uncertainty was expressed more vividly in the answers given by the female as compared to the male heads of household.

Graph 30: Problems preventing community participation

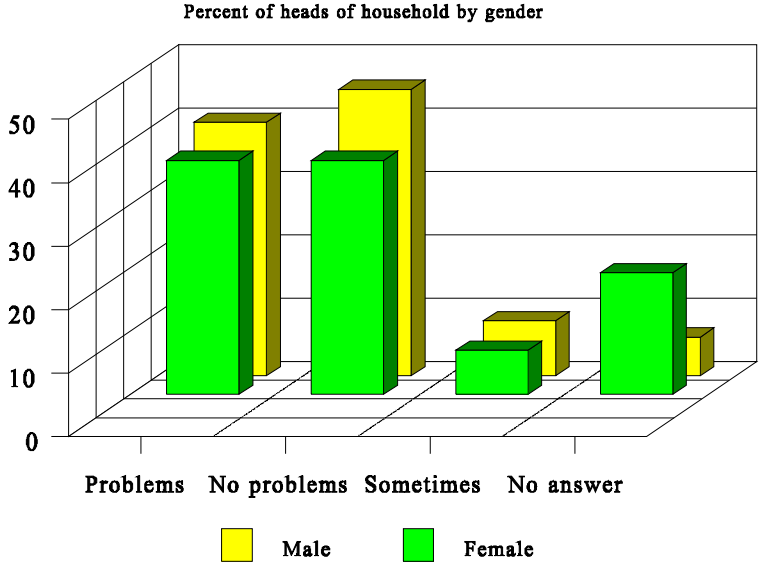


Table 51 Are there problems preventing community participation, by gender

Existence of problem	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Yes	46	40.0	79	36.9	125	38.0
No	52	45.2	79	36.9	131	39.8
Sometimes	10	8.7	15	7.0	25	7.6
No answer	7	6.1	41	19.2	48	14.6
Total	115	100.0	214	100.0	329	100.0

Source: Field data

The absence of a clear position of the heads of household in Bauleni's zones 8 and 13 on the problems of community participation could be partly explained by the settlement's lack of previous experience with community projects. Opportunities for community projects in the settlement had been limited and as such the residents of the community had not developed any interest in community participation for the development of their community. Most respondents indicated that there was need for a serious education campaign that would encourage residents to overcome their apathy toward participation in community projects.

It was, therefore, strongly recommended to embark on training the community on the merits and nature of community participation in order to enhance the chances of success of any community project such as the envisioned water project.