

# **SOCIAL ECONOMICS, POLICY AND DEVELOPMENT**

**Working Paper No. 48**

**The Socio-Economic Situation of Female Heads and Poor  
Heads of Households in Rural Botswana: A Village Case  
Study**

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**Pelotshweu Moepeng<sup>†</sup> and Clem Tisdell<sup>‡</sup>**

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# **The Socio-Economic Situation of Female Heads and Poor Heads of Households in Rural Botswana: A Village Case Study**

## **ABSTRACT**

This article explores the socio-economic situation of female heads and poor heads of household in rural Botswana by means of a case study of the village of Nshakazhogwe, a village considered to be typical for rural east Botswana. It examines the extent to which the occurrence of poverty of household heads is related to their gender, varies with the numbers in that household, and depends on whether or not they have paid employment. The number of sources and types of sources of income that household heads have are considered and are found to be related to whether they are poor or not. Transfers of income (private and from government) are given particular attention as a potential means of reducing the incidence of poverty. In this regard, poor heads of household are found to be at a disadvantage compared to non-poor heads. The level of educational attainment of household heads in the village is studied and is shown to be related to their gender, as is the use of credit and sources from which credit is obtained. The study finds that government policy in Botswana is not well targeted to assisting female heads of household. On the face of it, policy seems to favour those rural heads of household that are not poor rather than the poor ones. However, it may be that government transfers enable some who could otherwise be poor to rise above the poverty line. This needs more study.

# **The Socio-Economic Situation of Female Heads and Poor Heads of Households in Rural Botswana: A Village Case Study**

## **1. Introduction**

Despite Botswana's high growth rate over the last two decades of over 7 percent, the outcomes of the country's poverty reduction performance reveal a developmental paradox (The World Bank 2006; Tumelo 2004). While in urban cities and villages, poverty incidence is declining – at different rates of course – the poverty trend in rural villages is rising. About half of the rural population remain below the poverty line (Tumelo 2004), and over 50 per cent of them are women. Although women are widely recognised as being vulnerable to poverty in developing countries, most educated women, as in Botswana, are less affected by problems of poverty. Women in stable marriage relationships are also less vulnerable to poverty (Cancian and Reed 2001). Policy needs to identify and target the most important socio-economic factors that make significant impact on rural poverty. Although, Botswana's 1995 policy on women, guarantees gender equality before the law, female heads of households continue to dominate the rural population below the poverty line.

The method of this study is a whole village survey of Nshakazhogwe, which is a typical rural village in the north east region of Botswana. A personal interview method was used and 330 household heads were interviewed during September to November 2005. There were no problems of non response. In Nshakazhogwe, women constitute two-thirds of heads of household. In this article, the location of the village surveyed is described and the method of the survey is explained. Then the demographic characteristics of heads of household are analysed in terms of gender, marital status, household size and residential status. This is followed by an analysis of the economic characteristics and gender of household heads, with particular focus on women's employment status, economic sectors in which women are engaged and sources of household head's income. Finally, the role of credit in alleviating poverty among rural women is discussed.

## 2. Method of Nshakazhogwe Survey

### 2.1. Location of Village Surveyed

The case study was undertaken in Nshakazhogwe village in the Tutume Sub-District during the period September to November 2005. The village is located in the north east region of Botswana, about 100km to the north west of Francistown and about 30km south of Tutume village (Figure 1). Nshakazhogwe stretches about 5km along the south west of Shashe River. A tarred road runs through the middle of the village from Francistown to Tutume. The Mopane tree dominates the tree vegetation surrounding the village.



Figure 1: Map of Botswana (Shaded) showing Nshakazhogwe Village

### 2.2. Survey

Since the research method chosen for this study is costly, the budget considerations allowed the selection of only one village from eastern Botswana. Nevertheless, the selected village is representative of other villages in north eastern Botswana because it shares a similar language, its population size is within the range of 1200 to 1900 persons, it has a similar infrastructure, and the same resource base and climate. Except, for villages in western Botswana, all the characteristics of Nshakazhogwe village are typical of a rural village in eastern Botswana.

### *2.2.1. Data Collection, Reliability and Coding*

The survey was conducted using a semi-structured questionnaire covering questions on household demographic factors, income and expenditure, assets, natural resource institutions and use of credit relations. Most questions were pre-coded and hence it was easy to code. The principal researcher translated the questionnaire into Setswana language, for asking questions in the field. Enumerators translated and recorded answers in English.

The study had four research assistants, three of whom had experience from a 2004 Central Statistics Office project. They were two females and two males aged between 21 to 25 years. Two research assistants were local residents and their inclusion in the team increased the participation rate, and the reliability and validity of information received. The first mentioned author trained and closely supervised the enumerators to ensure a uniform approach, and also carried out household interviews survey. Any queries and clarifications were attended in the field.

The sampling unit was a household whose occupants were residents of Nshakazhogwe or commuting to work outside or coming to their village almost every weekend and having a direct interaction with the village economy. There were 330 households interviewed. All teachers who lived in institutional houses and coming from outside the village were excluded from the sample. These teachers had limited interaction with the village economy and purchased most of their household consumption needs in Francistown. Long-term vacant houses were also excluded from the survey. Their owners had little known interaction with the village economy.

### *2.2.2. Research Permit and Ethical Standards*

The University of Queensland Coordinator of the Economics Postgraduate Research's letter of introduction facilitated the approval of a study permit application from the Ministry of Finance and Development Planning, responsible for rural development study permits in Botswana. The survey was easily accepted in the village and anonymity (confidentiality) of answers was promised before interviews commenced. Respondents' written consent was also sought before the interview and was confirmed

by a signature of the respondent on the consent form provided. Ethical clearance from the University of Queensland was also obtained.

### *2.2.3. Strategy for reducing non-response*

Just before the survey started, a three day pilot study was carried out in Makaleng village, in the North East District, to train the assistants, test the questionnaire, and measure its attractiveness and acceptability. All this and appropriate housekeeping, good timing, experienced enumerators and close supervision led to a zero non-response.

## 3. Results and Discussion

### **3.1. Interpreting the Implications of the Data Obtained**

The interpretation of the interview results depends upon whether:

- i) the households in Nshakazhogwe village are regarded as the relevant population or whether
- ii) households in Nshakazhogwe village are considered to be a random cluster sample of a larger population; namely all households in rural eastern Botswana.

If the first interpretation is adopted, the study can be regarded as a case study of a particular village which has been selected so that it is reasonably representative of rural villages in Botswana. In this case, because there has been virtually complete enumeration of households in Nshakazhogwe, statistical sampling inferences do not apply.

On the other hand, if the second interpretation is adopted, theories of statistical inference do apply because one is using the whole village as a sample of all villages in rural eastern Botswana. In this article, we rely on the first mentioned interpretation.

### **3.2. Demographic Characteristics and Household Heads**

#### *3.2.1. Gender*

In this study, female heads of household in Nshakazhogwe constitute 66 percent of all households (Table 1) which is higher than the national average of 47 percent in rural areas and 54 percent for urban villages (Central Statistics Office Botswana 2004). The proportion of female household heads in Nshakazhogwe is exceptionally



high, even given the acknowledged high proportion of female heads of households in Botswana which is higher than common in most developing countries (Quisumbing, Haddad and Pena 2001; Rosenhouse 1989). Among the reasons for this high proportion of female household heads is a higher life expectancy for women than males, women self-reporting themselves as heads without verification and differences in survey definition of head. Some women, constituting 7 percent of all household self-reported themselves as heads of household because; their husbands were working outside the village, and they were legal owners of their household land and property, not their de-facto male partners. The survey excluded primary and secondary school teachers who lived in institutional houses. Most heads of household in these schools would be males.

Gender has a historical connection with the occurrence of poverty. Compared to males, women are generally socially handicapped and face conditions that may keep them poor for generations except when a country has effective proactive policies to break this circle. Bardhan and Udry (1999) argue that women face socio-economic conditions that restrict them from acquiring and using human capital to break from their poverty trap in many parts of the world. For instance, women who drop out of school because of teenage pregnancy, may not continue with schooling to take advantage of human capital development opportunities due to lack of childcare facilities. This may keep them in the low educated category and lock them perpetually into low paying jobs.

**Table 1: Frequency of Heads of Household by Gender, Nshakazhogwe 2005**

Gender	Frequency	Percent
Male	112	33.9
Female	218	66.1
Total	330	100.0

The gender of an individual can be used to allocate certain duties in society and such traditions can lead to a greater incidence of poverty among women than men. In some traditions, including in Botswana, women's role include care-takers of sick relatives, daughters, sons and husbands. In the era of HIV/AIDS, women are more exposed to

health hazards than their male counter-parts, because limited health facilities and services are overstretched in developing countries. Women lose prime time for productive work, during their care taking responsibilities, which leaves them without income or with very few assets. Free home-based care services relieve governments of health expenses that would otherwise be incurred in hospitals. Hence, a HIV/AIDS response package or programme should include means of addressing the disempowerment of people who take care of the sick, beyond hand-to-mouth type of assistance.

### 3.2.2. *Marital Status*

About 65 percent of heads of household in Nshakazhogwe are single for varied reasons (Table 2). Only 30 percent are in a married relationship. Most single household heads are also female-headed households. Single headed households expose children to very limited support systems and poverty. Stable married household are generally less affected by lack of resources and support networks, irrespective of the income status of the adults involved. Female household heads have been found to exhibit higher rates of poverty than male household heads (Tisdell, C. 2003).

**Table 2: Frequency of Married Heads of Household by Gender and Marital Status Nshakazhogwe 2005**

Marital Status	Count and Percentage	Gender		Total
		Male	Female	
Divorced	Count % within Gender	0 .0%	13 6.0%	13 3.9%
Living Together	Count % within Gender	14 12.5%	4 1.8%	18 5.5%
Married	Count % within Gender	83 74.1%	16 7.3%	99 30.0%
Separate	Count % within Gender	0 .0%	4 1.8%	4 1.2%
Never Married	Count % within Gender	9 8.0%	78 35.8%	87 26.4%
Widowed	Count % within Gender	6 5.4%	103 47.2%	109 33.0%
Total	Count % within Gender	112 100.0%	218 100.0%	330 100.0%

Although evidence from recent studies indicates that education increases women's labour participation and earnings, and helps them to escape from poverty (Cancian and Reed 2001), in Nshakazhogwe, most female heads of household only have primary education or below (Table 3). Their low level of education attainment has cast them into limited roles such as reliance on subsistence farming which is highly affected by recurring droughts, caring for children and sick relatives, especially in the face of HIV/AIDS epidemic that crowd them into limited job markets (Tisdell, C. A. 1996).

**Table 3: Frequency of Household Heads by Educational Status and Gender  
Nshakazhogwe 2005**

Education Status of Household Head	Count and Percentage	Gender		Total
		Male	Female	
No Schooling	Count % within Gender	16 14.3%	53 24.3%	69 20.9%
Primary	Count % within Gender	70 62.5%	125 57.3%	195 59.1%
Secondary	Count % within Gender	19 17.0%	34 15.6%	53 16.1%
Tertiary	Count % within Gender	7 6.3%	6 2.8%	13 3.9%
Total	Count % within Gender	112 100.0%	218 100.0%	330 100.0%

Most female household heads in Nshakazhogwe are 40 years of age or more (Table 4), and their older age restricts them in obtaining improved work opportunities (Bardhan and Udry 1999). Marital status of the head of household has important implications for the incidence of poverty. In general, women in stable married households, have an advantage over women outside a marriage relationship in terms of income security, child care and social networks. In a married household, two parents share responsibilities for the care of children, supervision and how cash income comes to the house. Empirical evidence from the United States show that declining marriage rates and increasing divorce rates had important implications for poverty rates among women and children, as single mothers were more likely to be poor than their married counterparts (Danzinger and Haveman 2001).

**Table 4: Frequency of Widowed Households by Gender and Age Group Nshakazhogwe 2005**

Age Group	Count and Percentages	Gender		Total
		Male	Female	
30-39	Count	0	4	4
	% within Gender	.0%	3.9%	3.7%
40-49	Count	0	9	9
	% within Gender	.0%	8.7%	8.3%
50-59	Count	2	20	22
	% within Gender	33.3%	19.4%	20.2%
60-64	Count	1	11	12
	% within Gender	16.7%	10.7%	11.0%
65+	Count	3	59	62
	% within Gender	50.0%	57.3%	56.9%
Total	Count	6	103	109
	% within Gender	100.0%	100.0%	100.0%

Given problems that female heads of household face in developing countries because of their socio-economic circumstance, children born in female-headed households are more likely to be vulnerable to poverty than those in male-headed households. In Botswana, such problems can include inability to pay children's school fees, buy school uniforms, give children pocket money, provide transport to school and afford three decent meals a day. Despite availability of government safety nets, many single parents may be ashamed to register for assistance because it may stigmatise their children at school. Empirical evidence from elsewhere indicates that two parent families have less cumbersome problems than other families, irrespective of their income status (Lerman 2002)

Notwithstanding the available empirical evidence about the importance of dual parenting and its contribution to poverty reduction, Botswana's policy on women in development does not recognize marriage relationships as part of an important factor which can assist women, educated or not (Ministry of Labour and Home Affairs 1995). A policy on women's empowerment should recognize the role of marriage in the socio-economic status of women. Efforts should be made to encourage and promote sustainability of a stable marriage relationship. Assisting women should

include targeting men with health education that can increase their life expectancy. Programme implementation may include encouraging responsible drinking habits to reduce traffic accidents, safe sex to reduce HIV/AIDS infection rates, and higher taxes on smoking and public education against smoking to reduce deaths as a result of cancer.

### 3.2.3. Gender, Household Size and Poverty Incidence

The median household size in Nshakazhogwe is 4 people with a range of 1 to 14 people. The mean household size in Nshakazhogwe of 4.32 people is close to the national average household size of 4.41 (Central Statistics Office Botswana 2004). The distribution of household sizes in this village is indicated in Table 5.

**Table 5: Frequency of Heads of Household by Gender and Household Size, Nshakazhogwe 2005**

Household Size	Count and Percentages	Gender		Total
		Male	Female	
1 to 2	Count	21	63	84
	% within Gender	18.8%	28.9%	25.5%
3 to 4	Count	29	66	95
	% within Gender	25.9%	30.3%	28.8%
5 to 6	Count	37	56	93
	% within Gender	33.0%	25.7%	28.2%
7 +	Count	25	33	58
	% within Gender	22.3%	15.1%	17.6%
Total	Count	112	218	330
	% within Gender	100.0%	100.0%	100.0%

The survey of household heads in Nshakazhogwe revealed that 57 of the 218 female-headed households in the village were in poverty, which is 26.15 percent compared with 18 of the 112 male-headed households, that is 16.07 percent. Thus if this is a representative village for rural eastern Botswana, the incidence of rural poverty is likely to be higher in female-headed households than male headed households. Note that in this article, being in poverty is indicated by having an annual disposable

income of less than 60 percent of the median level income in the village<sup>§</sup>. The annual income levels of all heads of household were estimated in the survey.

Furthermore, an analysis of the incidence of poverty of household heads in relation to their household size indicates that it tends to rise with household size. Except for household size of 1 to 2, the incidence is higher for female-headed households than for male-headed-households (Table 6). Over 60 percent of female-headed households consisting of seven or more persons are likely to be in poverty compared to 32 percent for male-headed households.

**Table 6 Incidence of Poverty of Male-headed and Female-Headed Households by Household Size, Nshakazhogwe, 2005**

Size of Household	Male-headed Households		Female Headed Households	
	No. of Persons	Fraction in poverty	Fraction in Poverty	%
1-2	1/21	4.76%	1/63	1.59%
3-4	0/29	0.00%	17/66	25.76%
5-6	9/37	24.32%	19/56	33.93%
≥7	8/25	32.00%	20/33	60.61%

Household size can have a strong influence on the ability of individual members to deal with their poverty status. In general, a household with a greater number of adults and fewer number of children is less likely to be poor because the dependency ratio is lower as a rule (Cancian and Reed 2001). However, a large household size may be more prone to poverty if a larger household size, implies an increased financial need to cater for more people with limited employable opportunities (Schiller 1998). In Nshakazhogwe, the incidence of poverty rises with household size (Table 6). The poverty situation of female-headed households has been found in other countries to worsen with increases in their household size (Danzinger and Haveman 2001). In

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<sup>§</sup> 60% of the median income is widely used income threshold because it is less vulnerable to uncertainty about the range of incomes measured in surveys and frequent changes in incomes at the upper end of the distribution Townsend, P. 2004, *Poverty: Measures and Targets*, London, viewed 17 October 2006, <[www.parliament.uk/commons/lib/research/rp2004/rp04-023.pdf](http://www.parliament.uk/commons/lib/research/rp2004/rp04-023.pdf)>.

Nshakazhogwe, increases in household size of female-headed households accords with this conclusion.

#### *3.2.4. Residential Status*

The residential status of heads of household in Nshakazhogwe is related to what they do to earn a living. Heads of household who reside full time in Nshakazhogwe include those who are not in full time employment and people in retirement. Most heads of household, permanently resident in the village, were running home business, raising small livestock such as goats, and participating in village level committees. Heads of households, in full time formal employment and permanently resident in the village, were employed as shop assistants, cleaners and security guards in the village schools. Other heads of household in fulltime formal employment worked in Francistown, which is 100 km away. They commuted daily and were available for interviews in the village during the weekends.

Most heads of household, working as primary and secondary schools teachers came from outside Nshakazhogwe. Their households lived in institutional houses inside school yards. Such households had limited interaction with the village economy. They disappeared at weekends and purchased their daily needs from Francistown. Teachers from Nshakazhogwe lived in non-institutional houses and integrated in the local economy. The influence of household relationship to the village economy led to the exclusion of households living in institutional housing from the survey. The result is a sample of households that are part of the local community. Some heads of household working fulltime outside this village were available only at weekends. These were included in the study. They were active participants in the village economy and provided employment to people who took care of their residential houses. They also provided casual jobs to the unemployed when they were available in the village. Vacant houses were excluded from the survey.



### 3.3. Economic Characteristics and Gender

#### 3.3.1. Employment Status

When asked about the main reasons for poverty in their village, most household heads attributed this to unemployment. The survey reveals that the incidence of unemployment is much higher for female heads of household than for male heads of household. Sixty of the 218 female heads (27.5 percent) reported that they were unemployed compared to 13 of the 112 male heads of households (11.6 percent). This means that the female heads were more than twice as likely not to have market employment compared to male heads. In the village, 73 out of 330 household heads reported being unemployed, that is, 21.5 percent. This is slightly higher than the national employment rate of 19.6 percent (Central Statistics Office 2006). According to Tisdell (1996), experience from the developed countries suggests that the socio-economic status of women is likely to first decline with economic growth and subsequently improve. In the case of Nshakazhogwe village, women may be crowded out of the market driven jobs because most of them have low levels of education. This market failure requires a reconsideration of whether government intervention may stabilize the worsening rural poverty problem.

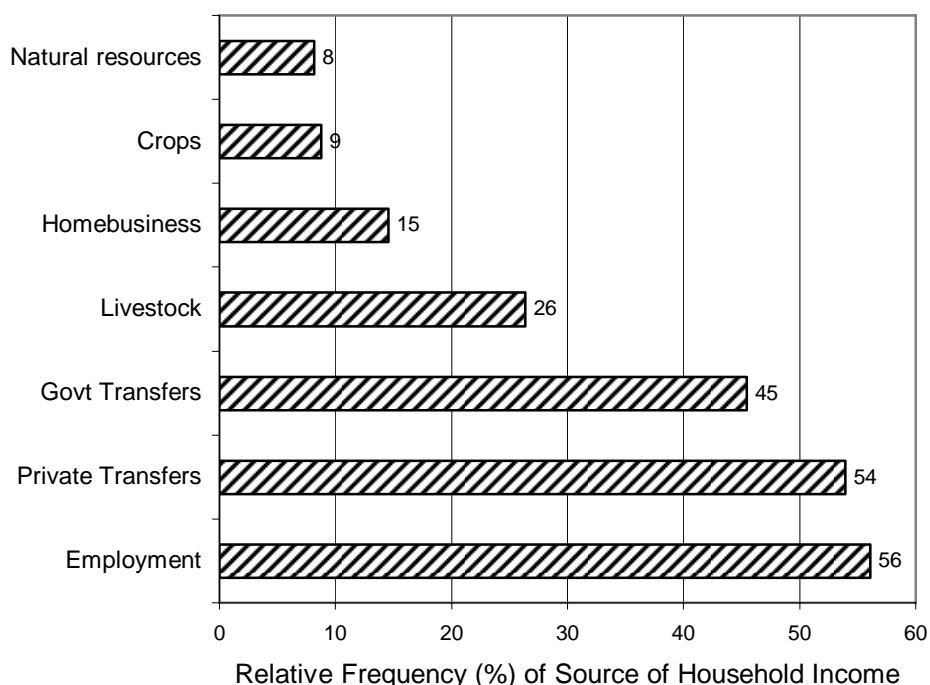
The incidence of unemployment of household heads can be related to their age. This is done in Table 7.

**Table 7: Relative Frequency of Unemployed Heads of Household by Age Group and Gender, 2005 Nshakazhogwe**

Age Group	Male-headed Households		Female-headed Households	
	Fraction of Total Males	%	Fraction of Total Females	%
20-29	0/2	0.00%	2/8	25.00%
30-39	0/12	0.00%	9/23	39.13%
40-49	4/29	13.79%	13/46	28.26%
50-59	6/29	20.69%	27/52	51.92%
60-64	2/7	28.57%	7/16	43.75%

### 3.4. Sources of Livelihood in Nshakazhogwe

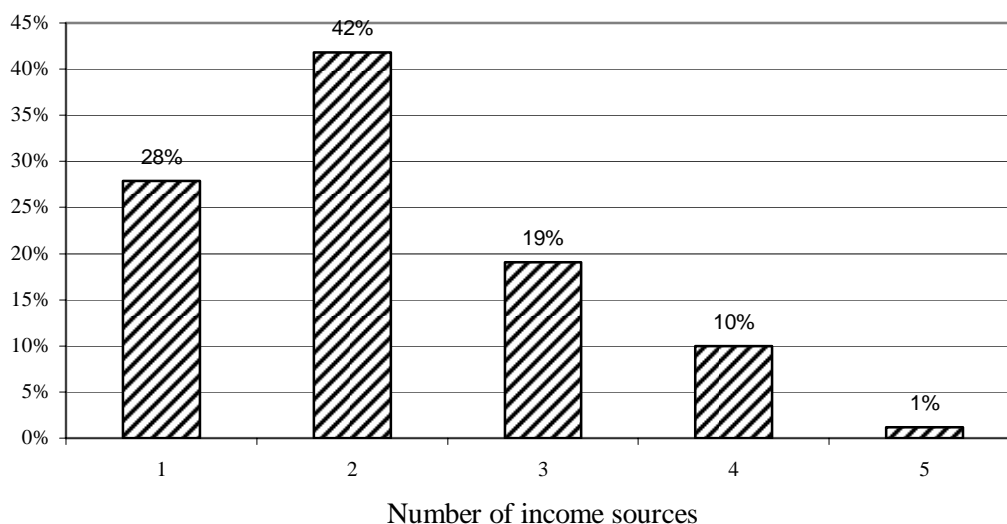
Households in Nshakazhogwe are engaged in the services sector for employment, keep livestock, especially goats and cattle, and operate small and micro-scale businesses. More than 50 percent of all heads of household obtained some income from paid employment, about 26 percent of households kept livestock followed by 15 percent of heads of household who were engaged in home businesses (Figure 2). Female heads of household are less represented in the total number of heads of household employed at 57 percent when compared to their 66 percent share of heads of household in the village. Less than 10 percent of all the heads of household were engaged in crop production. The reason for a small proportion of households engaged in crop production could be a result of the study year, 2005, being a drought year. Few heads of household, less than 10 percent as well, are engaged in natural resource harvesting. Although there was a drought in 2005, natural resource harvesting may only be important in meeting the subsistence and food security needs of the poor. In Indonesian, it has been found that natural resources have little advantage in large-scale poverty alleviation (Wunder 2001).



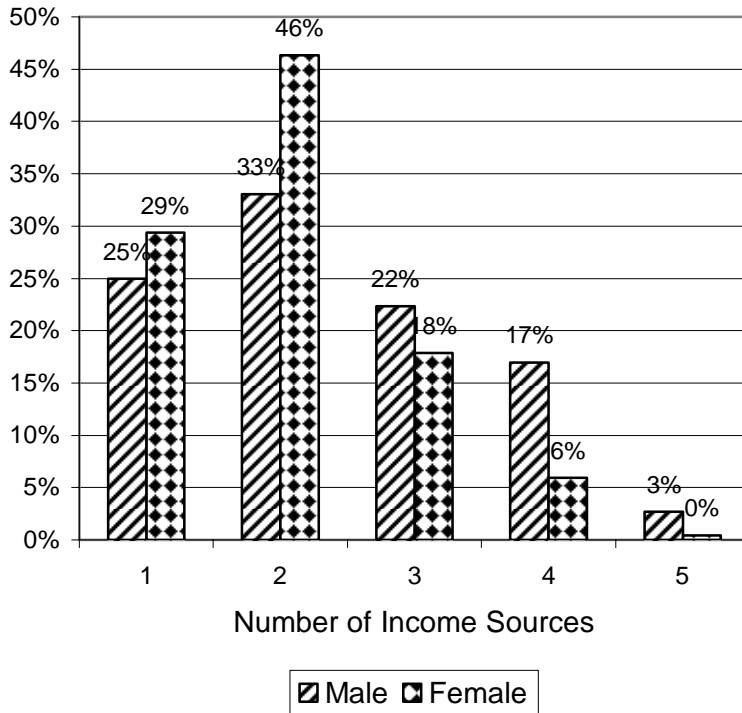
**Figure 2 Relative Frequency (%) with which Heads of Household Mentioned Different Sources for their General Livelihood in 2005, Nshakazhogwe**

### 3.4.1. Degree of Dependence on Multiple Sources of Income

The majority of households, 73 percent, derive their income from two or more sources (Figure 3). This result accords with Wikan's (2001) and BIDPA (2001) findings that in general, households in rural Botswana depend on several activities for their livelihoods. An analysis of the number of sources of income in terms of the gender of household heads reveals that 75 percent of female household heads depend on one or two sources of income while the proportion for male household heads is 55 percent (Figure 4). In a drought prone environment such as Nshakazhogwe, reliance on a few sources of income imply a higher risk of loss of income and assets in hard times. Women may therefore be more exposed to poverty than men. Their employment is in insecure low wage jobs and most transfers come from private sources which may be small and inconsistent. Private transfers are likely to be small because it comes from sons and daughters of the poor who may not have had an opportunity to attain education levels beyond secondary level, implying their wages are also low. If female-headed households in Botswana are similar to those in India, then it has been found that transfers from the son's earnings were the main source of household income, and made women vulnerable to poverty (Mehta and Shah 2003).



**Figure 3** Frequency of Heads of Household by Number of Sources of Income, Nshakazhogwe 2005



**Figure 4: Gender and Number of Income Sources, Nshakazhogwe 2005**

For almost two decades, Botswana implemented an empowerment programme, Financial Assistance Policy (FAP) started in 1982, which among other objectives aimed to create sustainable employment for unskilled labour, produce import substitutes and goods for exports, diversify the economy and improve citizen skill levels (BIDPA 2000). The highest beneficiaries of this programme were females, constituting 70 percent for small-scale agricultural projects during 1994-99 period. This programme was terminated after 2000 because of high cost per job created and high project failure rates (BIDPA 2000). Another reason for terminating the programme was market saturation for supported products. Seleka (2004) found that imports of agricultural products supported by FAP increased by more than 100 percent during the period 1980 to 2000. Such evidence indicates the reasons for cancelling FAP targeting rural women had more to do with other unstated reasons, such as the increased believe in privatization and free market system than, the performance of the programme itself.

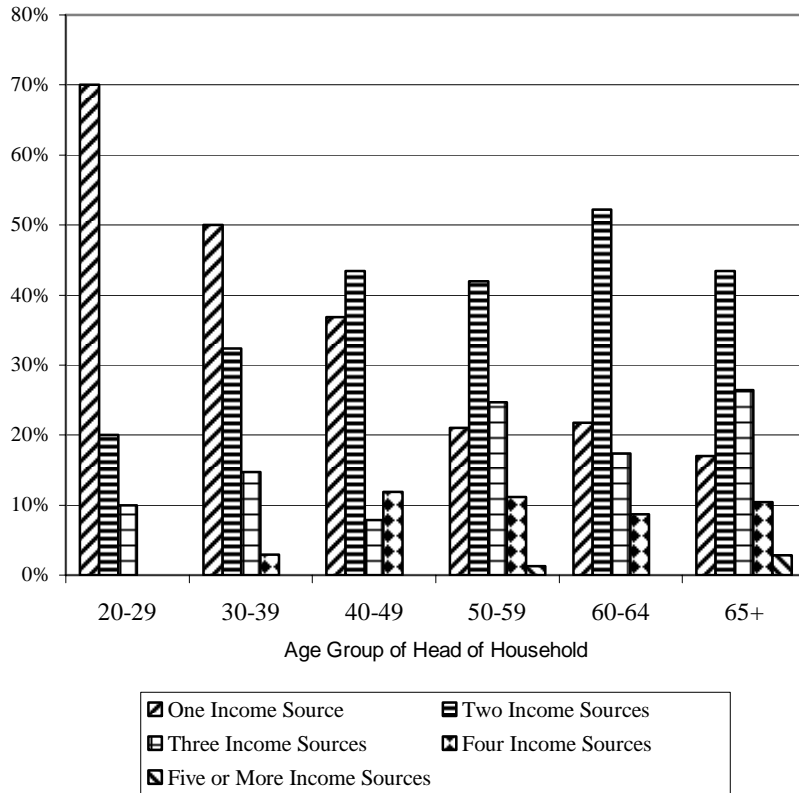
Analysis indicates that high market transaction costs and poor policy coordination are important reasons for failure of small scale projects in Botswana. Poor farmers face

difficulty in accurately predicting relevant future prices of commodities, market uncertainty and instability (Tisdell, C. 2003). In Botswana, although FAP promoted projects like poultry farming, overall policy coordination was poor and a major impediment to poverty reduction. For instance, Botswana's public health policy required such projects to be located outside any village and public water policy only provided for human consumption of water inside a village. Any use of village water supply for poultry was illegal and a criminal offence punishable by law. Those who took advantage of the programme had to find their own water sources, and some had to 'steal' water from public stand pipes in the absence of alternative water sources for small scale agriculture projects. To obtain water supply for poultry, villagers had to undertake expensive investments in drilling of boreholes, buying donkey carts for transporting water or motor vehicles. This locked out the poor. Hence, when projects beneficiaries gave up and sold their projects, because of high technological adoption costs, the review team considered them not keen in taking advantage of the FAP to address their poverty problem.

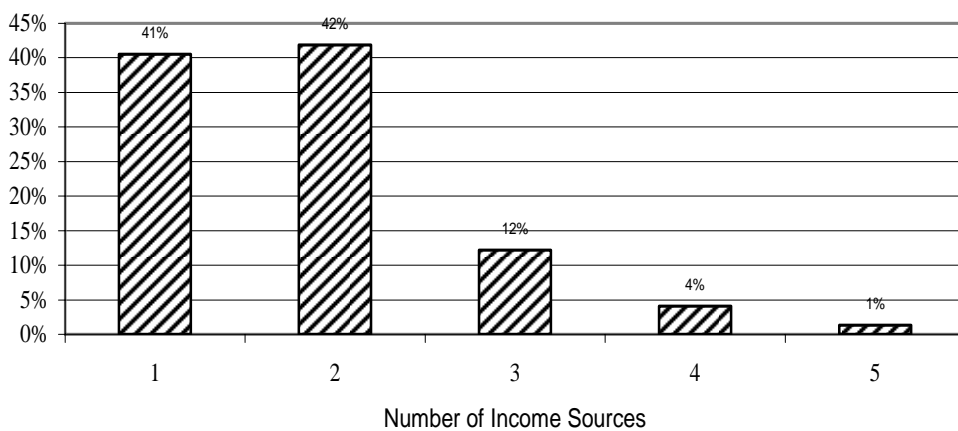
FAP has been replaced by the Citizen Entrepreneurial Development Agency (CEDA). Unlike FAP, CEDA has no grants but provides subsidized interest loans to citizens. Among others, it aims to promote the development of integration and linkages between enterprises and primary industries (CEDA 2004). Like FAP, CEDA is implemented under free market conditions despite many market distortions in Botswana which create high market transaction costs for poor people who want to participate. Rural areas do not have free and accessible market information and most people have primary school education level or below. These conditions exclude most heads of most rural households from participating in this scheme because they can not prepare a business plan. Such a plan is required for government financial support via a low cost loan.

Examination of sources of income in relation to the age of the head of household indicates that in Nshakazhogwe, as age increases, the number of sources of income also increase. Most heads of household below the age of 30 years depend on one source of income only (Figure 5). Over 80 percent of poor households depend on one or two sources of income (Figure 6). By comparing figures 3 and 6, it can be deduced that the poor are more frequently dependent on one source of income for their

livelihood than the non-poor. They are also less likely to have more than a couple of sources of income compared to the non-poor. Because the poor rely on few sources of income for their livelihood, they are economically very vulnerable in this village.

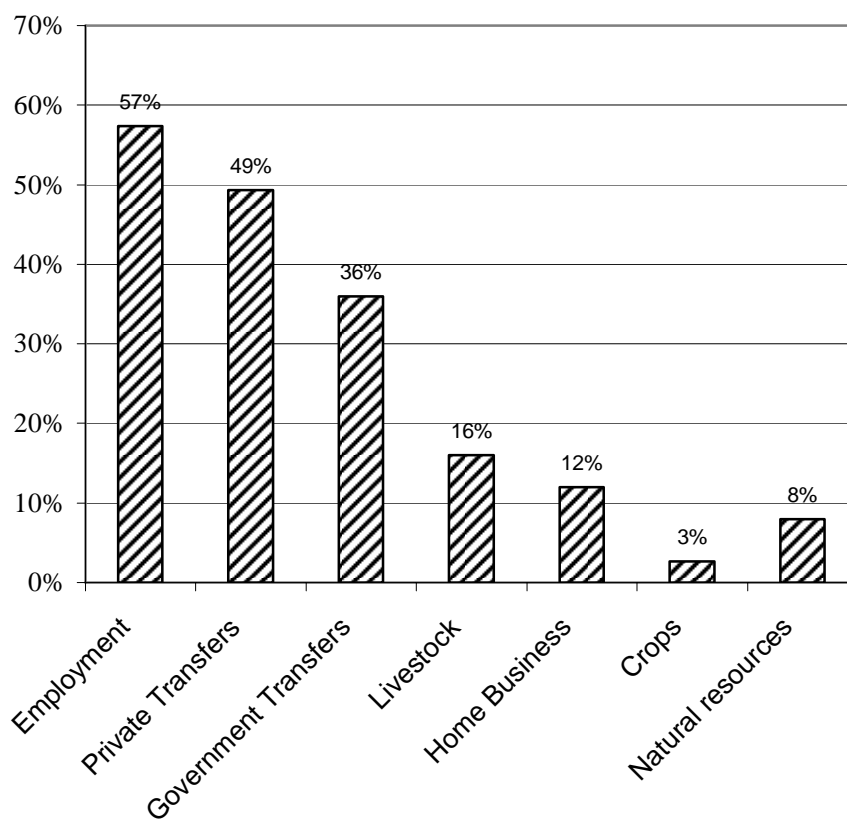


**Figure 5: Frequency of Household Heads by Age Group and Trends in Number of Income Sources, Nshakazhogwe 2005**



**Figure 6: Frequency of Poor Household Heads by their Number of Income Sources, Nshakazhogwe 2005**

About 40 per cent of households depend on one source of income and those who depend on two sources of income constitute 42 per cent (Figure 6). The most frequently mentioned source of income for poor heads of household is paid employment (57 per cent), see Figure 7. Private transfers and government transfers contribute income to 49 per cent and 36 per cent of poor households respectively. Livestock is a source of income to 16 per cent of poor households while home business is a source of income for 12 per cent of poor households. Natural resources supply income to 8 per cent and crop sales provide income to 3 per cent of poor households.



**Figure 7: Frequency of Poor Household Heads by Source of Income, Nshakazhogwe 2005**

Comparing Figure 7 and 2, a number of conclusions can be drawn. First private transfers are less frequently a source of income for the poor household heads than the non-poor. Secondly, the poor heads of household are much less likely to be recipients of government transfers than the non-poor. This indicates that transfers by the Government of Botswana are not well targeted to assist the poor, but seem to assist

the non-poor more often. Employment is almost equally as frequent a source of livelihood for both poor household heads and non-poor household heads. The relative frequency with which the poor household heads receive income from livestock is much lower than for the non-poor, as is their dependence on crops for income. Poor heads of households are also less likely to have income from home businesses than are non-poor household heads. On average, the relative frequency with which natural resources are a source of income for the poor heads of households is comparable to the non-poor. For poor heads of household, natural resources are more frequently a source of income than are crops, but the opposite is the case for the non-poor.

It is not clear from this study whether natural resources and crops are always infrequent sources of income in this village because the year of this study was a drought year. Poor household heads may not always have sufficient assets for large-scale harvesting of natural resources. Natural resource trading such as firewood sales requires the use of expensive assets such as donkey carts or tractors for commercial firewood harvesting. Female heads of household, who are more represented among poor, lack capital to commercially harvest natural resources and are generally excluded from using natural resources as an income source. In addition, poor female household heads with skills such as basket weaving, which is a potential income source, may face transport constraints in fetching the necessary materials required in this trade if the specific plants used are a long distance from the village. The limited role of natural resources in Nshakazhogwe is consistent with findings from elsewhere that natural resources tend to have little comparative advantage for the large-scale alleviation of poverty (Wunder 2001). Hence, harvesting natural resources may not be sustainable as a large scale poverty strategy. These resources may be better used as a safety net at a subsistence level.

### **3.5. Educational Attainment**

Human capital investment, such as the implementation of an education policy, aims to reduce poverty by improving individual's underlying skills and competencies (Karoly 2001; Wunder 2001). Education can enable people to become more productive workers and more responsible members of society in both the short and long run. Access to basic education can reduce problems of social exclusion as beneficiaries develop skills that facilitates their ability to participate in the economy and in society (The World Bank 1995). The role of education in poverty reduction has been at the



centre of debate both in the neoclassical economic theory and the Marxian economic thought (Ribich 1968). The design of government policy for provision of basic education should be given adequate attention to protect those who have few resources because differences in educational opportunities may be a source of greater problems of inequalities (The World Bank 1975). Reasons for over representation of women as heads of household in Nshakazhogwe include high rental costs in urban areas. Most single mothers cannot afford high rentals because they earn low wages due to the low education attainment common amongst them. Low education attainment also imply that women aged above 39 years are locked out as they may not undertake heavy unskilled manual work in urban areas that men of the same age can do.

In some countries, women face special social and economic constraints in acquiring and using education to improve their standard of living (Bardhan and Udry 1999). This exposes them to high levels of vulnerability to poverty. In Botswana, education opportunities are gender neutral and adult literacy is 82 percent for females and 76 percent for males (Ministry of Labour and Home Affairs 1995; UNDP 2004). In Nshakazhogwe, eighty per cent of the heads of households had only primary education and less (Table 8). Table 8 indicates that the level of educational attainment of female heads of households in Nshakazhogwe is lower than for male heads of households. Females are less likely to have secondary or tertiary education than males. This supports Tisdell's (1996) argument that even though equal education opportunities legislation may exist, females on average receive less economic rewards for education than men. They, therefore, have less demand for education. Human capital investment as a rural poverty alleviation strategy in Botswana requires more incentives to encourage females to identify with the potential high benefits of tertiary education.

**Table 8: Frequency of Household Heads by Education Level Attained and Gender, Nshakazhogwe 2005**

Household Head's Education Level Attained	Gender		Total
	Male	Female	
Primary or below	86 76.8%	178 81.7%	264 80.0%
Secondary	19 17.0%	34 15.6%	53 16.1%
Tertiary	7 6.3%	6 2.8%	13 3.9%
Total	112 100.0%	218 100.0%	330 100.0%

### 3.6. Credit and Gender

Credit can be an important factor in protecting poor households from shocks to their income because of agricultural risks which include drought and diseases. The role of credit may also include increasing agricultural production and smoothing consumption patterns of rural households. Credit can also provide rural households with a choice to spend more on agricultural inputs (Adams and Vogel 1990). In general, credit is a critical contributor to poverty reduction in rural households (Bandyopadhyay 1984; Floro and Yotopoulos 1991). However, in Nshakazhogwe most heads of household did not use credit. The proportion of households who use credit is 26 percent (Table 9). The common response of household heads was that they experience a high risk associated with credit because their income flow is uneven. This could compromise their credit repayment. The income of the village heads of household is highly uncertain because of recurring droughts that affects their agricultural production stability and other income sources tend to be uncertain. Unstable incomes make them less confident about their ability to honour loan repayments which can put them at the risk of civil imprisonment.

**Table 9: Frequency of Household Head by Use of Credit Status and Gender, Nshakazhogwe 2005**

Household Head's Credit Status	Gender		Total
	Male	Female	
No credit	80 71.4%	166 76.1%	246 74.5%
Credit exists	32 28.6%	52 23.9%	84 25.5%
Total	112 100.0%	218 100.0%	330 100.0%

As pointed out above, the minority of household heads in Nshakazhogwe used credit. Female heads of households were less likely to rely on credit than male heads of households. The dependence was 24 per cent for the former and 29 per cent for the latter. Table 10 indicates that male heads of households were more likely to rely on commercial banks for credit than are female heads of household. Female heads of household, on the other hand are more dependent on friends and relatives for credit. However, for heads (whether male or female) credit from friends and relatives is the major source of credit. This is common in most developing countries (Zeller et al. 1997).

**Table 10 Frequency of Household Heads by Source of Credit and Gender, Nshakazhogwe 2005**

Credit Source for Household Heads	Gender		Total
	Male	Female	
Relatives and Friends	21 65.6%	43 82.7%	64 76.2%
Commercial Banks	9 28.1%	5 9.6%	14 16.7%
Other	2 6.3%	4 7.7%	6 7.1%
Total	32 100.0%	52 100.0%	84 100.0%

#### 4. Concluding Comments

The survey of household heads in Nshakazhogwe revealed that female heads of households are more likely to be poverty stricken than male heads. The incidence of poverty of household heads was shown to increase with the size of the household, and the relationship is more marked for female-headed households than for male-headed households. Unemployment was identified as a major source of poverty in this village and female heads of household were found to be more likely to lack paid employment than male heads of household. Poor heads of household were found to have fewer sources of income than the non-poor heads. Furthermore, important differences in their sources of income were observed. In particular, poor heads of households less frequently had government transfers as a source of income compared to non-poor heads. This suggests that in rural Botswana, government transfers are not well targeted to assist the poor. But it may be that a large number of the non-poor are kept above poverty line by government transfers. Poor heads of household were also less likely than non-poor heads to receive private transfers of income. They were in addition, less likely than the non-poor to rely on livestock and crops for their livelihood. In general, the level of education of female heads of household was lower than that of male heads, even though the educational attainment of all heads of household was low. Most household heads in this village did not have credit but those who did have credit mostly obtained it from friends and relatives. Female heads were more likely than male heads to rely on this source of credit. Male heads were more likely than female heads to obtain finance from commercial banks.

Thus, from this survey of household heads in a typical rural village in Botswana several factors associated with poverty of household heads have been identified. These include gender, number in the household and whether the head has paid employment or not. The number of sources of income and the type of those sources were also found to be related to the occurrence of poverty of household heads. Gender-related features of the educational attainment of household heads were noted as well as differences in their use of credit and sources of credit. However, further analysis is needed to more deeply explore the reasons for those relationships. In doing this, the phenomenon of circular causation should be kept in mind. For example, lack

of education may both be a result of poverty and lack of opportunity and it contributes to the occurrence of poverty and to lack of opportunity.

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