

Perceived Impacts of Rural-Urban Migration on Agricultural Productivity in Nanumba South District of Northern Region of Ghana

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Abstract

There has been much out-migration by the youth from the Nanumba South District in the Northern Region of Ghana to urban centres in the country. The study was designed to find out perceptions of the community members of causes of out-migration and its impact on agriculture and food availability in the Nanumba South District. The research design used quantitative data on a sample size of 400 farmers. A significant relationship was found between two push factors (poor educational services and poor health services) and the motivation to migrate while all the pull factors studied were statistically significant. It was observed that there was no significant relationship between farm incomes and the motivation to migrate but there was a significant relationship between migration and labour availability; migration and availability of agricultural land; and migration and food availability. The study recommends the need for policies aimed at increasing income growth in agriculture, intensification of the non-farm economy and investment in basic education, skills development, and provision of functional social amenities.

Keywords: Migration, push factors, pull factors, out-migration

1. Introduction

Unlike mortality and fertility, internal migration does not affect the entire population size of a country. But it has a very important role in redistributing the population size between rural and urban areas and between rural areas of low potential and those of higher agricultural potential. One of the most noteworthy demographic phenomena faced by many developing countries in the world is the shortage of labour and food insecurity, and conversely the rapid population growth in the urban centres, which is largely caused by the prevalence of rural-urban migration (Agesa & Kim, 2001). According to Dugbaza (2007), migration is a wide spread phenomenon, that any study made on an urban centre in Sub-Saharan Africa (SSA) of which Ghana is part, will ever, deal largely with a population that was not born in the place. Bahns (2005) contends that about half of the population in the world lives in cities and urban areas and the population are hypothesized to be around 1 million every year. Most of these have migrated from other parts of the country particularly from the rural areas. The rate of current urban population growth has reached up to 6% in many African countries including Ghana (Accra), Nigeria (Lagos), and Kenya (Nairobi), (Dao, 2002).

Rural-urban migration has been a challenging issue for policy makers and or governments especially in developing countries. The impact of out-migration on rural livelihoods is a debatable case. Out-migration may result in drastic decrease in the labour which in turn reduces total cropped area and quality of work giving rise to reduced food production and reduced household wealth leading to increased vulnerability in many rural areas which may, bring about food insecurity.

Why people migrate

One major livelihood strategy developed by the rural poor rural is to move out of their homes in search for greener pastures. Fundamental to the understanding of rural-urban migration flow are the traditional “push-pull” factors developed by Lee (1966). There are circumstances that make people to leave home for other areas and these are referred to as “push factors”. Examples include famine, drought, low agricultural productivity, unemployment etc. Afshar (2003) contended that, the inadequacy of incomes, lack of gainful employment coupled with poverty in the rural areas, have pushed people out of their villages in search of better sources of livelihoods in the urban areas.

There are also, other conditions that attract rural migrants to the urban areas and these are known as “pull factors”. These factors may include urban job opportunities, housing conditions, better income opportunities etc. There is no doubt that, apart from these factors, urban areas also offer a chance to enjoy a better lifestyle. The provision of services such as electricity, pipe borne water, and public services make urban areas attractive. While the motives for rural movement are important in themselves, the means of movement are also of importance. Improvements in transport systems and increasing awareness of the urban areas through media, social networks, together with improved educational standards are equally important factors to be taken into account when dealing with rural-urban migration as a phenomenon. Rural inhabitants see and hear success stories about people that leave their communities for the cities. This acts as incentive for more out-migration from the rural areas.

Therefore, rather than targeting the migration itself, it is preferable to focus on the causative factors and its consequences. To many Ghanaians, urban life represents new employment opportunities, the possibility of working indoors, modernity and being less tied to family duties, which is different from working mainly on farms, coupled with enormous family responsibilities. One interesting feature of these migrants is that most of them do not possess relevant skills or education that would enable them secure employment in the formal sector in urban places. They sometimes end up not achieving what they set out to do.

Another drive for migration is found in the New Economics of Labour Migration (NELM) theory that emerged in the 1980s and 1990s, as a response to developmentalist and neoclassical theories (the migration optimists) and structuralist theory (the migration pessimists). In this theory migration is viewed as a strategy for risk aversion. Offering a much more suitable view of migration and development, the NELM links causes and consequences of migration more clearly.

This new approach views migration as the risk-sharing behaviour of households. According to de Haas (2007), migration cannot be regarded exclusively as a last resort to run away from extreme conditions of poverty, but rather as a conscious attempt by social groups and households to spread income risks, and improve on their social conditions.

Effects of out-migration on agriculture

Rural-urban migration is a double-edge problem affecting both rural and urban communities. Aworemi, Abdul-Azeez & Opoola (2011) contend that the rural community is affected because the youths and adults who are supposed to remain and contribute to the development of agriculture in particular and the community in general leave the rural areas for the cities. The 'lost labour' of able-bodied men and women could likely lead to a decline in agricultural production (Regmi and Tisdell, 2002; De Brauw and Rozelle, 2003).

In spite of the above, out-migration has a positive effect on agriculture. For instance, loss in yield due to the reduction in available labour may be compensated for (partially) by remittances from the migrant, which are used to purchase additional inputs or hire labour for cropping (Taylor et al., 2003). However, De Haas, (2001) contended that, in the long run, and after an adjustment process, this agricultural decline has often been reversed through agricultural investments made possible by the inflow of remittances. However, Deshingkar (2004) observed that, a loss of labour through migration may or may not reduce agricultural production, remittance may or may not increase access to assets by alleviating credit constraint: this in turn may or may not increase agricultural production and household incomes.

Statement of the problem

Northern Ghana has long been characterized by outmigration. Rural households in these communities send out internal migrants for prolonged periods, primarily to the large urban centres in the south (Wouterse, 2010). Recently a new dominant north-south migration stream has emerged involving that of females moving independently of their families to urban centres such as Accra and Kumasi (Awumbila and Ardayfio-Schandorf, 2008).

The Nanumba South District has experienced substantial out-migration of its labour force since 1981 when the conflict between the Konkombas and the Nanumbas first occurred (NSDA Profile, 2005). This tribal conflict which resurfaced in 1994 and 1995 respectively led to mass movement of people from the district into the urban areas especially Accra to explore other opportunities. The district is predominantly agricultural and this mass migration of labour force became the cause of labour shortage in agriculture in the area. The conflict situation; together with poor and declining soil fertility and erratic rainfall pattern continue intensified migration in the district. The conflict situation also left the area to be deprived of basic social amenities and services together with infrastructure that would make a place attractive.

Considering the fact that the conflict in the Nanumba area has subsided, and yet out-migration continues, it is important to understand people's perception of causes of out-migration. This study therefore seeks to find out perceptions of the community members of causes of out-migration and its impact on agriculture and food availability in the Nanumba South District.

2. Methodology

The study communities were selected through the multi-stage sampling procedure. The district was divided into two clusters 'Overseas' (areas across the Black Volta) and Mainland. Mainland represented the area perceived to have high incidence of out-migration whilst the 'overseas' areas were perceived to have low incidence of out-migration. Another difference between the two clusters is that, whilst almost all the communities in the 'mainland' have social amenities such as light, pipe borne water and bore holes, all the communities 'overseas' have none. The clusters were further grouped into two i.e. Nanumba and Konkomba communities to give a fair representation of the two major ethnic groups in the area. From each of these clusters, the simple random sampling technique was used to select four communities. In all eight communities were sampled for the study. Simple random sampling was also used to select 400 individual respondents from the selected eight communities. Data obtained was coded and entered into the Statistical Package for Social Science (SPSS) and presented in

tables to establish relationships.

3. Findings and discussion

3.1 Perception of push factors influencing out-migration into the urban areas

Conflicts rated very high (80%) among the factors assessed. This was followed by poor educational services (49%), poor crop yields (40%) and the rest as shown in Figure 1. The statistical analysis showed that there were significant relationships between poor educational services and motivation to migrate among the communities ($\chi^2= 20.263$; $df=1$; $p=0.000$), and poor health facilities ($\chi^2= 5.355$ $df=1$ $p=0.021$) on another hand. There was no significant between poor crop yield, famine, poor quality of housing and motivation to migrate among members of the two communities. Thus statistically, the decision to move out of the community depends on the availability of educational and health services.

Table 1 Perception of push factors motivating migration at the community level

Perceived push factors	Motivation to migrate				Total		χ^2 test
	Overseas (n=200)		Mainland (n=200)		N	%	
	N	%	N	%			
Conflict	158	79.0	163	81.5	320	80.0	$\chi^2= 0.394$ $df=1$ $p=0.530$ NS
Poor educational services	120	60.0	75	37.5	195	48.7	$\chi^2= 20.263$ $df=1$ $p=0.000$ S
Poor crop yield	130	65.0	128	64.0	158	40.0	$\chi^2= 0.044$ $df=1$ $p=0.834$ NS
Unemployment	172	86.0	176	88.0	148	37.0	$\chi^2= 0.354$ $df=1$ $p=0.552$ NS
Poor health services	80	40.0	58	29.0	138	35.0	$\chi^2= 5.355$ $df=1$ $p=0.021$ S
Famine	54	27.0	49	24.5	103	26.0	$\chi^2= 0.327$ $df=1$ $p=0.567$ NS
Poor quality of housing	24	12.0	21	10.5	43	10.75	$\chi^2= 0.225$ $df=1$ $p=0.635$ NS

Source: Field Survey, 2012. **Multiple responses possible

The conflict between the Konkombas and the Nanumbas in 1981, 1994 and 1995 compelled many people to flee the area. This situation was similar to what was reported by the Norwegian Refugee Council (2003) that conflict between Azerbaijan and Armenia over Nagorno-Karabakh since 1988 was responsible for internal migration in the area. It has therefore resulted in nurses and teachers refusing postings to these areas leading to the poor health and educational facilities which are basic necessities in any community. These situations were similarly observed by Massey, Axinn & Ghimire (2010) and Aworemi, Abdul-Azeez & Opoola (2011). Some people therefore move to other areas where they can have access to these facilities especially education which is very important to everybody.

3.2 Perception of pull factors influencing out-migration into the urban areas

Pull factors are responsible for drawing people from their places of origin to newer destinations as a result of the absence of inadequacy of such factors. The respondents indicated that the major critical pull factors are: many job opportunities (62.3%), better educational service (60.0%), urban facilities and way of life (56.3%) and better education services. The Chi-square results indicated that there were significant relationships between all the variables studied and the motivation to migrate from the communities. Thus, most of the migrants are more interested in looking for better job opportunities, better educational facilities, urban way of life, and better education for their children. A similar situation was found by Jahan (2012) and he concluded that, job opportunities, better educational facilities and fast and colourful life in the city attracted many migrants from rural Bangladesh to Dhaka. These factors occur especially in poor areas and the migrants especially the youth are constantly moving out to the richer communities where they can get some of these facilities even though sometimes they may not get them at all.

Table 2 Perception of pull factors motivating migration at the community level

Perception of pull factors motivating migration	Motivation to migrate				Total		χ^2 test
	Overseas (n=200)		Mainland (n=200)		N	%	
	N	%	N	%			
More job opportunities	197	98.5	190	95.0	387	96.8	$\chi^2= 3.90$ df=1 p=0.048 Sig
Better health services	80	40.0	58	29.0	138	35.0	$\chi^2= 5.355$ df=1 p=0.027 Sig
Better education services	125	62.5	115	57.5	240	60.0	$\chi^2= 1.042$ df=1 p=0.307 Sig
Urban facilities and way of life	128	64.0	97	48.5	225	56.3	$\chi^2= 9.736$ df=1 p=0.002 Sig

Source: Field survey, 2012. *Multiple responses possible

3.3 Perception of migration as a risk aversion strategy

The decision by a person to migrate is dependent on his/her attitude towards risk thus; risk-averse individuals usually undertake safer actions when they decide to migrate. The perception of the concept of migration as insurance against risk factors which explains out-migration from the study area are: to seek opportunities to increase the volume of income (53.8%), overcome constraints on economic and investments in their areas (52.3%) and to diversify their sources of income (43.5%) (Table 3).

Statistical significant differences were observed in three variables in relation to the two communities, indicating that migration from the two communities is dependent on risk aversion factors. Naturally, everybody would like a better way of life and a better income to be able to survive as observed by Glaeser and Maré (2001), Marré (2009). Thus the migrants want a better way of life and that is what is attracting them to the urban areas. However, this idea to spread risk by migrating to other areas may not always be fruitful. May time, some people migrate to other areas only to realise that the conditions there are not rosy as they thought. Thus Bryan, Chowdhury and Mobarak (2011) indicated that there are uncertain prospects at the destination and trying to overcome the risk requires individual-specific learning; also, some migrants are close to subsistence and the risk of failure is very costly.

Table 3 Perception of risk factors motivating migration at the community level

Perceived risk aversion factors	Motivation to migrate				Total		χ^2 test
	Overseas (n=200)		Mainland (n=200)		N	%	
	N	%	N	%			
To diversify their sources of income	77	38.5	97	48.5	174	43.5	$\chi^2=4.068$ df=1 p=0.043
To increase their income	94	47.0	121	60.5	215	53.8	$\chi^2=6.798$ df=1 p=0.009
To overcome constraints on economic and investments	148	74.0	61	30.5	209	52.3	$\chi^2= 15.84$ df=1 p=0.000

Source: Field survey, 2012. *Multiple Responses Possible

3.4 Impact of migration on labour availability

Availability of labour in communities with high migration status is a major concern. From Table 4, the respondents indicated that due to out-migration, labour is not readily available in the two communities (74.3%). The statistical analysis showed that there was a significant difference ($\chi^2 = 4.720$; df = 1 = 0.0298) between migration and labour availability. However, the situation is better in the Mainland than in the Overseas communities. The issue of labour availability stems from the fact that the able bodied youth are the majority that move out of the area and this negatively affects farming as observed by some authors (Fasoranti, 2009; Agesa and Kim, 2001). However, after reviewing a number of cases in Asia, Deshingkar (2004) concluded that a loss of labour through migration may or may not reduce agricultural production.

Table 4a: Evaluation of labour availability at the community level

Level of labour availability	Communities				Total	
	Overseas (n=200)		Mainland (n=200)			
	N	%	N	%	N	%
Readily available	42	21.0	61	30.5	103	25.7
Not readily available	158	79.0	139	69.5	297	74.3
Total	200	100	200	100	400	100

Source: Field survey, 2012. $\chi^2 = 4.720$; $df = 1 = 0.0298$

Assessments of the labour situation in the communities showed that majority of the community members perceive out-migration as the main cause of labour shortage. This is because 56% of respondents in the Overseas and 50% in the Mainland indicated that out-migration is the main reason for labour shortage in their communities. Other reasons given by a few people in the study area include schooling, poverty, unattractiveness of farming to the youth, and changes in rainfall pattern. Declining labour availability in agricultural communities is likely to reduce agricultural productivity and an increase in the local wage rate a situation similarly observed by (Hossian, 2011). Fazoranti (2009) observed that decreased labour availability has also brought about introduction of harmful chemicals to supplement the labour force and the use of machines which have the possibility of destroying the soil structure. However, in areas where remittances actually compensate for labour depletion, there is no lasting effect on the economy of the sending area (Deshingkar and Grimm, 2004).

Table 4b: Reasons for labour shortage at the community level

Reasons for Labour Shortage	Communities				Total	
	Overseas n = 200		Mainland n = 200			
	n	%	n	%	n	%
Farming unattractive to youth	24	12.0	20	10	36	9.0
In-migration	7	3.5	10	5.0	17	4.0
Out-migration	112	56.0	100	50	199	49.7
High labour wage	10	5.0	16	8	21	5.0
Schooling	11	5.5	18	9	18	4.5
Changes in the rainfall pattern	10	5.0	11	5.5	15	3.7
Poverty	26	13	25	12.5	27	6.7
Total	200	100	200	100	400	100

Source: Field survey, 2012. $\chi^2 = 40.831$, $df = 7$ and p value = 0.000 (significant)

*Multiple responses possible

3.5 Impact of migration on availability of farmland

The study found that there is positive relationship between out-migration and farm land availability ($\chi^2 = 22.694$, $df = 1$, $p = 0.000$) as shown in Table 5. The effect of out-migration and land availability is indicated by the higher perception that out-migration frees more farmlands for the non-migrants in the communities to use. More respondents indicated farmland availability resulting from out-migration in the high migration communities (74.5%) than in the low migration communities. As people move out of the communities, land is made available for others on condition that the population growth does not exceed the rate of movement. Similarly, Fazoranti (2009) found that movement of a member of the family to an urban location frees more land space for farming in the rural areas in Ondo State, Nigeria.

Table 5: Impact of migration on availability of farmland

Availability of farm land	Communities				Total	
	Overseas (N=200)		Mainland (N=200)			
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Yes	103	51.5	149	74.5	252	63.0
No	97	48.5	51	25.5	148	37.0
Total	200	100	200	100	400	100

Source: Field survey, 2012. $\chi^2 = 22.694$, $df = 1$, $p = 0.000$

3.6 Perceived impact of migration on farm incomes

Observations were made about increases and decreases in farm incomes in the two communities. In some cases, there were no changes in the incomes. Increase in incomes is very important in sustainable livelihood outcomes but in this case, there was no significant difference in the changes in income as regards the two communities ($\chi^2 =$

0.168, $df = 2$; $p = 0.919$). It has therefore been perceived that out-migration did not have any negative effect on the incomes of the farmers who have not moved out of the area.

The issue of migration effects on farm incomes vary in literature. McCarthy, Carletto, Kilic and Davis (2009) observed that larger networks arising out of migration could lead to higher agricultural incomes but Deshingkar (2004) indicated that household incomes may or may not increase. However, De Haas (2001) postulated that there could be agricultural decline which is often reversed through agricultural investments made possible by inflow of remittances. Thus as remittances from the migrants begin to flow, such monies are invested in agriculture to offset whatever deficiencies that might have been caused by out migration.

Table 6: Perceived impact of migration on farm incomes

Changes in farm incomes	Communities				Total	
	Overseas (n=200)		Mainland (n=200)			
	N	%	N	%	N	%
Increased	77	38.5	71	35.5	148	37.0
No change	73	36.5	75	37.5	148	37.0
Decreased	50	25.0	54	27.0	104	26.0
Total	200	100	200	100	400	100

Source: Field survey, 2012. $\chi^2 = 0.424$, $df = 2$; $p = 0.809$

3.7 Effects of out-migration on food availability

Food availability is very important to sustainable livelihoods in any community. The rating of food supply in Overseas and Mainland communities indicated that there was sufficient food supply (72% and 65% respectively). Less than 30% of the respondents from each community indicated that there was no change or the food situation was poor. Thus the food situation in the two communities can be described as good.

The Chi Square analysis showed a significant relationship between the communities and extent to which food is available ($\chi^2=10.3$, $df = 3$; $p = 0.017$). Even though Agesa and Kim (2001) attributed food insecurity in out-migration areas through deterioration of the rural economy, UNDP (2009) observed that migration improves food security through remittances. However, in this situation, it has been perceived that out migration did not affect food availability in the communities.

Table 7: Food availability at the community level

Food availability	Communities				Total	
	Overseas (n=200)		Mainland (n=200)			
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Very good	78	39.0	59	29.5	137	34.3
Good	66	33.0	55	27.5	121	30.2
No change	38	19.0	62	31.0	100	25.0
Poor	18	9.0	24	12.0	42	10.5
Total	200	100	200	100	400	100

Source: Field survey, 2012. $\chi^2=10.3$ $df=3$ $p=0.017$

4. Conclusion

The study concludes that all the two theoretical explanations for out-migration were responsible for migration in the Nanumba South District. These include the push and pull factors and migration as a strategy for risk aversion. This therefore implies that the study supports the push-pull and the New Economics of Labour Migration theories used in explaining migration.

The findings also suggest that out-migration causes labour shortages. The implication of this situation has reduced agricultural productivity in the study area. Labour shortages could lead to increased use of hired labour for the most tedious farm operations such as tiling the land, weeding among others.

The findings further suggest that due to the movement of people outside the communities, there is less population pressure on agricultural land making more farm land available to be used by the non-migrants. This was dependent of the fact that the population does not increase due to more births.

There were no significant changes in farm incomes and despite the out-migration of the youth, food is available in the communities. These could be attributed to the fact more farmlands have been made available and there was no statistically significant difference as regards labour shortage in the communities. The people could be

described as hard working, resulting in such gains.

5. Recommendations

It is therefore recommended that opinion leaders of the two major tribal groups should continue with dialogue on peace, Government and private partners to set up agro-allied industries in the rural areas in order to provide job opportunities for the people, invest in educational and health facilities and provide social amenities such as electricity and pipe borne water.

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