

# Rural-Urban Migration Pattern Shifts in the Developing Population of Plateau State, North-Central Nigeria

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*The pattern of movement of people over time and space is dramatically changing its form to city urbanism. This study surveys the rural-urban migration pattern shift in the population development of Plateau State, Nigeria and focuses on the socio-demographic characteristics of rural migrants, impacts of rural-urban migration on rural and urban population, and migrants' adaptive strategies in urban city centres. A mixed-method approach was used on the seven selected urban centres: Bukuru, Bokkos, Hwolshe, Jos, Langtang, Mangu and Pankshin. A 1325 sample size of rural migrants via a purposive and snowball sampling technique was employed. Interviews, focus group discussions (FGDs) and structured questionnaires were used primarily as source data. Multiple regression path models and factor analysis statistical techniques were used for the final analysis in the study that revealed the positive effects of socio-demographic traits of rural-urban migration as it correlated with each variable. The impacts of migration revealed structural change in population, menial jobs, entrepreneur development and regional interaction in population dynamics. Rural migrants made possible adjustments in their temporal stay in urban centres as a livelihood strategy, notwithstanding the imbalance effects on the population of rural and urban centres. Thus, a sustainable concentration of infrastructural development is suggested in conclusion as a means to curtail the rural-urban pattern of movement in the study region.*

*Keywords: Development, migration, rural-urban, Nigeria*

## Introduction

The pattern of migration in the 21<sup>st</sup> century is dramatically changing its form toward heightened urbanization in many areas of the planet, also termed human flow (Weiwei 2017). Developed nations have transformed into centres of burgeoning urbanization and developing nations in Sub-Saharan Africa are following suit, with more than 472 million Africans

living in urban areas (African Development Bank [AFDB], 2016), roughly a third of the continent's total population. Global migration has intensified, estimated at ca. 244 million in 2015, up from 155 million migrants in 2000 (United Nation Department of Economic and Social Affairs [UN DESA], 2016). The pandemic has slowed this surge but nonetheless it remains significant. The pattern of migration reflects the history of the continent of Africa since 1500: an era of slave trade, trade-related migration (goods and services) and production sustainable movement (rural-rural migration) and people changing location for livelihood and sheer survival (Ikwuyatum 2006; 2016). Voluntary migration is the decision-making of individuals or members of household to migrate, for a range of reasons. On the other hand, forced migration is people migrating against their will at a time and location due to the forces of natural disaster, socio-economic instability, insecurity and conflict. Nonetheless, certain questions remained unclear and cannot be comprehensive without a particular analysis focused on rural-urban migration, often internal within a country. Ikwuyatum (2016, 115) draws on Mabogunje (1970) in his conceptualization of rural-urban migration as a system. He notes: "the systems approach is designed to answer question such as: What changes does the rural person undergo in the process? Migration process is conceived, therefore, as a system, in which attraction is focused on social, economic and other relationships (adjustment mechanisms) which are essential parts of the process of migrant's transformation. The two most important sub-systems are the rural and urban control sub-systems." Thus, the pattern is dynamic as well as complex in space and time. The movement pattern as a mobility transition model was advanced by Zelinsky (1971) and reshaped by Skeldon (1990). He observed: "definite patterned regularities in the growth of mobility transition are linked with demographic transition, in which the levels and forms of mobility changed over time." Skeldon stresses that patterns of migration change from near to distant movement, what is known as "rural-urban temporary migration" and "rural-urban permanent migration" (Muhidin 2014). Rural-urban migration is internal migration flow from the rural hamlets, village and communities to small towns, then urban cities. It is one of the most important processes in shaping settlements through socio-cultural attributes, economic and political structures of a territory.

Nigerian rural-urban migration has experienced changes in the past 20-30 years of urban transformation from rural communities to urban areas. Some 3 million rural dwellers migrated to urban centres, with an increase of 75% recorded every 5 years according to the National Bureau of Statistics (2018; Akpoko and Adefila 2014; Amrevurayire and Ojeh, 2016). Despite the increase in rural-urban migration, it is surprising that so little empirical research has actually been conducted on changing

patterns of rural-urban migration in Nigeria, although Nigeria has reached one of the largest populations in the developing countries between 2006-2018, as stated by the Chairman of National Population Commission (News Agency of Nigeria, 2018). The surge in constant movement and relocation has multiple impacts on migrants, non-migrants, communities, urban centres and population dynamics.

### **Challenges of Rural-Urban Migration in Plateau State, Nigeria**

The neglect of development of rural areas accounts for the major reasons of rural-urban migration. Beside issues of unemployment, natural disasters, ethno-religious crises, Boko Haram terrorist insurgencies herder-farmers clashes and many other points of friction have led to a massive population shift from rural to existing and other emergent, ever expanding urban settlements in Plateau State. Invariably, this movement has created multiple intense impacts on issues of unemployment, security, health and infrastructural facilities. Moreover, there are signs of deepening imbalance in population growth and distribution within rural and urban cities of Plateau State as a direct ongoing result of migration. The rate of influx of migrants to the capital city Jos and Local Government Areas because of the commercial activities, agricultural opportunities and tin mining centres in the first decade of the 21<sup>st</sup> century has transformed the state and created a range of opportunities and associated problems (Akpoko and Adefila 2014). As Ikwuyatum (2016, 116) notes:

The arrival of the British in the 19th century marked a turning point and added another angle to intra and inter regional labour migration, as dictated by the colonial political economy [...] the political economy of the country during the colonial period was such that it provided a framework for large-scale migration; deriving from the need for large labour force for mines, plantations, and public administration. Labour was recruited through persuasion and coercion. There was intraregional labour migration between the three (Northern, western and Eastern) regions of Nigeria leading to enhanced rural-rural migration of migrant tenant farmers, migrants to the tin and coal mines in Enugu and the Jos Plateau respectively.

This change continues to increase significantly without ascertaining the nature of these patterns of movement. Thus, seasonal, temporary or permanent relocation to urban centres are striking, yet without actually identifying the general pattern of such migration in Plateau State. On the contrary, the experiences of religious conflicts, ethnicity clashes, attacks between herders and farmers inter alia have contributed to dynamic alteration in the patterns of migration in Plateau State. Nigeria conducted an internal migration survey on rural-urban migration in 2010 but encountered numerous challenges. This has led to reliance on data derived from

some other research studies conducted by international organizations, institutions and individual scholars. The recent steady rise in rural-urban migration in Plateau State highlights an urgent need to gain in-depth understanding of the trend of migration in the study area, looking at pattern shifts in socio-demographic characteristics, rural-urban social and economic impacts as well as migrants' adaptive strategies.

### **Theories on Rural-Urban Migration**

Theories on rural-urban migration patterns were analytically reviewed for the present study. In a classical study, Rational choice theory examines the influx rate based on the high level of industrialization (Ravenstein 1885) and higher income levels in the destination area (Todaro 1969). Structural model theory considers the negative factors operating at the place of origin against positive factors at the destination point (Lee 1966) and also the need to reduce risks, reduce limitations faced by individuals, families and communities (Mafukidze 2006). Ravenstein (1885) described the movement pattern in sequential form from rural areas to small towns and eventually to large towns. Rational choice theory disputed that the movement of labor migrants in a circular pattern within rural areas and between urban centres can be seen as permanent circular relocation (Prothero and Chapman 1985). Structural theory proposes that the pattern of migration cannot be ascertained due to the fact that individuals' decisions to migrate are influenced by 'push-pull factors' and also external interfering obstacles of physical distance, transportation costs, unfavourable immigration policies or quotas and language barriers, as well as the state of information about the destination point. According to Lindstrom and Saucedo (2007), patterns of learning and adaptation vary over time. The impacts of rural-urban migration on population drift have been linked to Ravenstein's classic theory (1885) and Todaro's (1969) regarding population, and an increased rate of unemployment in the labor market as the rate of rural-urban job seekers exceeds the ability of industries and social services to absorb the labor, improvement in earnings as well as satisfaction of labor demand. The New Economics of Labour Migration of the Structural Models (NELMS) focuses on migration associated with minimized production, market limitations (Abreu 2012; Pickbourn 2011), reduction of risks and limitations faced by individuals, families and communities (Mafukidze 2006). The System Approach investigates the pattern of rural-urban migration based on data gathered from other migrants already settled in the relocated urban centres. Migration processes and extent of migrant adaptation in the urban centres is shaped by ethnic, economic, and social class composition that makes adaptation a complex phenomenon.

## Methodology

### *Study Area*

Plateau State is located in the North Central Region of Nigeria and lies between latitudes 8°37'N and 10°30'N and longitudes 7° 40' E and 8° 37' E. Plateau State was carved out from Benue-Plateau State in 1979. There was a further split in 1996 when Nassarawa State was separated out, following the creation of additional states in Nigeria. The state shares common boundaries with Bauchi State in the north, Taraba State in the east, Nassarawa State in the south and Kaduna State in the west. The State has an area of land covering 26,901km<sup>2</sup> (Timothy 2006). Plateau State is located in the highlands of Central Nigeria. It has numerous features that can attract a large population and support various economic activities.

The population of the area of study was 4,273,771 (NPC, 2015) and that is the latest census data, aside from projections by local and international organizations. Moreover, there is no authentic reliable data for internal migration in the area of study even though an internal migration survey was conducted in collaboration with the National Population Census in 2010. It revealed a sample survey in which Plateau State had 15.2% migrant population. The intended population for the study was made up of all persons who migrated from rural areas within north-central Nigeria as well as other parts of the country and reside in Plateau State urban city centres. Migrants for the present study are persons who must have resided for 12 months or more where they reside, and have experienced changes, adapted to the environment and its impacts as well as grappled with adaptive challenges in the course of their stay. Among several cities in Plateau State that serve as a destination for rural migrants, the study is focused on Jos (the capital), Bokokos, Bukuru, Hwolshe, Mangu, Langtang and Pankshin. The intent is to acquire an in-depth knowledge and understanding of issues of migration utilizing a mixed research method. The study also focuses on migration in its more general terms, not considering categories such as first-, second- or third-generation migrants.

### Research Design

A mixed methodology was used (Akhtar 2016; Creswel, 2016) employing qualitative and quantitative methods. Paramount was surveying the region based on the level of development, industrialization and other facilities that made such location urban centres attractive magnets for human flow (Weiwei 2017). Bukuru, Bokokos, Hwolshe, Jos, Langtang, Mangu and Pankshin were characterized as urban centres due to government policies of urbanization as well as infrastructural aspects, the level of economic

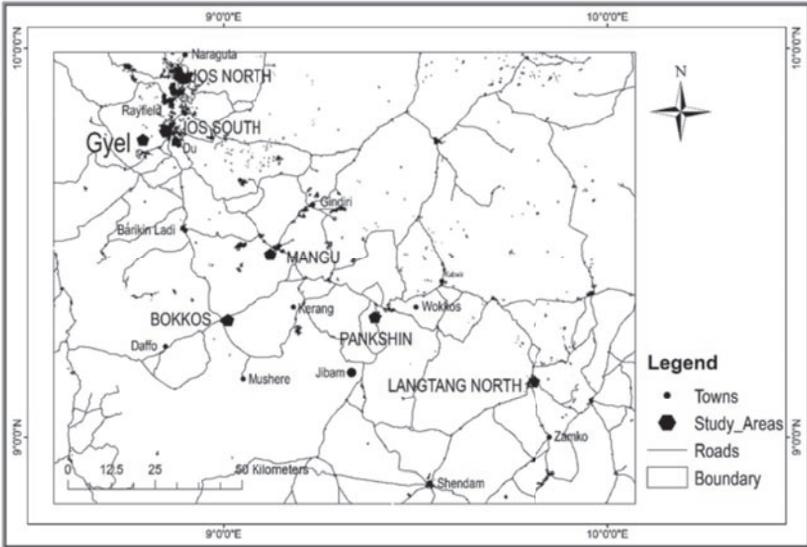


FIGURE 1  
Urban Centres, Plateau State, Nigeria (Study Area)

activities and population growth. A population of 4,273,771 was projected in 2015 (NPC 2015), since no census has been conducted in Nigeria after the 2006 National Census. The sample size was mainly for migrants in urban cities based on the projected population in 2015 with a growth rate of 2.8% per annum. The central limit theorem states that when the sample size is large, approximately 95% of the sample's mean will fall within  $\pm 1.96$  standard errors of the population (Bluman, 2004) that is

$$n = \frac{(Z)^2 N}{(Z)^2 + I^2(N - 1)}$$

where n = the desired sample size (when population is greater than 10,000).  
Z = the standard normal deviate, usually set at 1.96 which corresponds to 95% confidence level.

N = the proportion in the target population estimated to have a particular characteristic population = 1,325

I = degree of accuracy desired, set at 0.05 (Confidence Interval= 5%)

Purposive sampling technique was used to select the urban centres due to the nature of development, urbanization and economic activities ongoing in Bukuru, Bokkos, Hwolshe, Jos, Langtang, Mangu and Pankshin. Snowball sampling was utilized to systematically identify rural migrants (total of 1,325 persons) in the study of first and second generation of migrant households. An interview schedule, focus group discussions

(FGDs) and a structured questionnaire were used to obtain data from rural migrants in urban centres. A total of 1005 interviews were conducted on 10% of population of each selected urban centre while seven FGDs were conducted in each urban centre, with a group of minimum seven persons and maximum of twelve. The total number of individuals involved in FGDs was 79. Responses gathered from the source of information were serial-numbered, recorded, transcribed, edited, and coded. Precise transcriptions were carried out to summarize the results for analysis. Path model analysis was employed as a standardized multiple regression analysis for the socio-demographic features of rural migrants. This model was developed by Alwin and Hauser (1975) to observe chain relationships among the variables examined through a series of regression equations and various estimated coefficients. Impacts of rural migrants on the rural, and urban population and adaptive strategies of migrants were analysed using factor analysis.

**Results and Discussion**

Figure 2 presents the results of zero order correlation coefficients of various socio-demographic variables in the study. In path analysis, positive and negative significance were considered at 99% and 95% confidence levels (0.001 and 0.05) respectively, and the effects of the selected variables were obtained that was statistically represented by four variables as against eleven

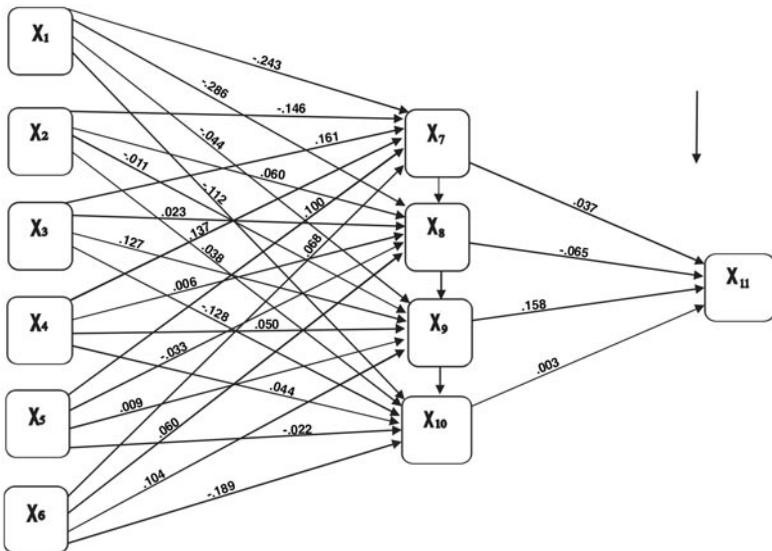


FIGURE 2  
Interrelationship between socio-demographic characteristics and factors influence demographic variable

variables. In this model, 4 variables out of 11 variables — religion of respondents (X4), occupation of respondents (X6), job secured (X7) and occasional movement (X10) — have positive significance for both exogenous and endogenous variables; the age of respondents (X2) has negative significance for the reasons for migration (X11). Gender of respondents (X1), ethnicity of respondents (X3), Educational qualification of respondents and Place of birth (X8) and weather influence (X9) reveal no reason as a factor for migration. However, interrelationship between exogenous, endogenous and dependent variables show both positive and negative significant variables, where gender (X1) correlates positively with religion (X4) at 0.019 while ethnicity (X3) at -0.040, occupation (X6) at -0.042 and weather influence (X9) at -0.044 revealed a negative correlation. Age (X2) indicated a positive significance with occasional movement (X10) at 0.038 and then showed negative relation with weather influence (X9) at -0.011 and reasons for migration (X11) at -0.043. Ethnicity (X3) indicated a positive significance for job secured (X8) at 0.023, religion (X4) correlated positively with job secured (X8) at 0.006, weather influence (X9) at 0.050, occasional movement (X10) at 0.044 and reasons for migration (X11) at 0.024 and negatively with occupation (X6) at -0.001. Education (X5) showed positive significance with occupation (X6) at 0.030, weather influence (X9) at 0.001 and negative significance with place of birth (X8) at -0.033. Job secured (X7) related with occasional movement (X10) at 0.16 and reasons for migration (X11) at 0.037 positively and weather influence (X9) correlated with occasional movement (X10) negatively at -0.49. Occasional movement (X10) showed positive significance with reasons for migration (X11) at 0.003. The socio-demographic characteristics revealed the positive effect gender has on religion, while age of migrants has an impact on the nature of movement and religion influences job secured, place of birth, weather influence as well as seasonal movement of migrants. The occasional movement of migrants has effects on job secured and reason for migration. Age affects weather and reasons for migration, and religion has effects on occupation, while education affects place of birth and occasional movement. However, by implication, it shows a negative significance.

The study analyzed data on the pattern of rural-urban migration within the contexts of seasonal, temporary, and permanent migration and it was discovered that temporary migration has the highest percentage (55.7%). According to Brauw (2007), Deshingkar and Akter (2009), Deshingkar and Grimm (2005), Ha et al. (2009) and Lam et al. (2007), there has been a substantial change of the nature of such human flow in the last two decades. Plateau State rural migrants were mostly involved in a temporary migration pattern in the study region, especially in the Buruku, Mangu and Jos urban centres. In addition, it can be noted that the socio-demographic characteristics are in conformity with the

transformative pattern of rural-urban migration indicating a temporal migration pattern.

TABLE 1  
Rotated Component Matrix of Impacts of Rural-Urban Migration in Plateau state

Rotated Component Matrix of Impacts of Rural-Urban Migration in Plateau state	Component		
	1	2	3
Changes Population characteristics	.762**	.124	
Contribute to large extend of menial jobs	.702**		
Contribute to entrepreneurship development	.697**		.191
Brings regional interaction among people in urban area	.697**	.157	
Result to population imbalance	.657**	.269	
Bring about urban congestion?	.616*	.164	.166
Result depopulation of rural areas	.592	.231	.265
Stimulate cultural, social & economical connectivity	.557	.325	.265
Population congestion and over stretch amenities	.533		
Stretches utilization of social amenities in urban centre	.523	.385	.144
Influenced conflicts/crisis in my area	.230	.756**	
learning of different culture in urban centre	-.179	.680**	.253
Influenced resource transfer out of urban area	.470	.543	
Insecurity through crisis/conflict in urban centre	.367	.539	.253
Improves income		.110	.782**
Furthering education	.137	.127	.725**
Access to social services in urban centre	.365	.159	.682**
Eigen value	4.673	2.129	1.977
% of Variance	27.490	12.523	11.628
Cumulative %	27.490	40.013	51.641

The analysis was conducted on the impacts of rural-urban migration on rural, urban and population. A rotation method based on varimax with Kaiser Normalization was acclimatized. The result attained converged in five iterations which reduces the 16 components to three independent components (Table 1). The three components yielded for the underlying factors show the impact of rural-urban migration on rural and urban centres and population in Plateau State. A 51.6% cumulative percentage variance was shown for the three underlying factors of total variance that revealed the impact of rural-urban migration on the urban population. However, this left 40.4% to other factors. Results of the PCA on the impacts show the following components: Component I with an eigen value of 4.673 accounted for a total variance of 27.490, showing a significant loading of variables: changes in population structure (0.762), contribution to menial jobs (0.702), entrepreneur development (0.697), regional interaction (0.697) and population imbalance (0.657). Here the underlying factor is population alteration, i.e., change in population dynamic. Component II with a significant loading of two variables that

have an impact on rural-urban migration was conflict/crisis (0.756) with an eigen value of 2.129 and a total variance of 12.523. However, the underlying factor here is conflicts/crisis. Component III with an eigen value of 1.977 explains a total variance of 11.628; this produces a significant loading of variables: improvement of income (0.782), furthering education (0.725) and access to social services in urban centre (0.682). The underlying factor here is opportunities in the urban centre.

The factor analysis performed on adaptation of rural migrants in urban centres to more compacted factors resulted in a rotation method based on varimax with Kaiser Normalization adapted. The result attained converged in 11 iterations, thereby reducing the 13 components to six independent components. The six components yield the underlying factors that show the adaptation strategies in the region of study. These altogether produced 61.1% of cumulative percentage variance.

Table 2 indicates that six underlying factors can explain an estimated 61% of the total variance in the determination of rural migrants' adaptation strategies to urban migration, leaving 39% to other factors. The result of the PCA of rural migrants' adaptation strategies yielded six underlying components that migrants use as adaptation strategies in the study region, comprising the following components (see Table 2): Component I shows significant loadings on the variable that rural migrants receive support from family/friends residing in urban centres (0.822). Migrants' relations residing in the urban centre provide support to the incoming migrants as a strategy for adapting to the urban centre. The underlying factor is family-friends assisting rural migrants to adapt to the urban centre. Component II revealed a significant loading on variables relating to religious practice (0.786) and access to social services in the urban centre, with an eigen value of 1.386 of a total variance of 10.662. The underlying factor is religious practice and access to social services. Component III with an eigen value of 1.363 explains 10.483 total variance producing significant loading of the variable of accommodation (-0.710). Thus, the underlying factor was the accommodation that rural migrants adapted to in their chosen urban centre. Component IV with an eigen value of 1.349 explains a total variance of 10.378. This revealed a significant loading of the variable of environmental challenges in the urban centre (0.713). Therefore, the underlying factor here is the urban environment and its challenges. Component V shows an eigen value of 1.197 with a total variance of 9.206, revealing a significant loading of the variable of job opportunities that rural migrants adjust and adapt to (0.852). The underlying factor here was job opportunities. Component VI shows a significant loading of the variable of social interaction (0.815) with an eigen value of 1.171 with a total variance of 9.011. The underlying factor is social interaction as an adaptation strategy.

TABLE 2  
Rotated Component Matrix for Adaptive strategies of Migrants in Urban centres

	Rotated Component Matrix					
	1	2	3	4	5	6
Support family/friends	.822**			.166		
Have friend/family in Urban centre.	.726**	.147	.113	-.169	.120	
Adjust towards religious practice		.786**			.256	
Access social services in the urban centre		.780**		.110	-.224	
Type of Accommodations			-.710**	.137	.248	
Challenges of adaptation in urban centre	.156		.604*	.262	.218	
Adjust towards climatic condition	.409	-.283	.496		.108	
Environmental Challenge in Urban Centre				.713**		-.120
Factors affecting adaptation in the Urban centre	-.198			.607*	-.115	.368
Adaptation towards the kind of food in urban centre			.173	.547	.428	
Adaptation towards Job in urban centre					.852**	
Adjust towards social interaction in Urban centre		-.192			.815**	
Adapt towards Traditional behaviours in the Urban centre		.199	.401		.130	.571
Eigen Value	1.471	1.386	1.363	1.349	1.197	1.171
% of Variance	11.313	10.662	10.483	10.378	9.206	9.011
Cumulative %	11.313	21.974	32.457	42.835	52.040	61.051

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 7 iterations.

In general terms, the PCA results exhibit highly significant impacts of rural-urban migration and adaptive strategies of migrants in the urban centre. The impacts of rural-urban migration to the urban centre and population in the region of study revealed underlying variables of population alteration, conflicts/crisis and job opportunities, while adaptation strategies showed the underlying major factors to be family member strategies, where rural migrants made use of their family members already residing in the urban centre; religious practice, access to social services, accommodation, urban environment and social interaction strategies were significant at 0.05 (confidence level). Many studies do not consider that it is paramount to understand the nature and pattern of migrants within a specific frame of time. This points up a younger population of migrants involved in the movement from the rural village and communities to the urban centres; significantly, the majority are male rather than female relocating in rural to urban migration.

### **Conclusion**

People movement also characterized as human flow (Weiwei 2017) is inevitable as long as there are places available and a purpose for relocation, especially moving to an urban centre. Perhaps urbanization of rural communities might be a source for change in rural-urban migration. It is paramount to understand the nature and pattern of migrants in a specific frame of time. This aspect shows a younger population of migrants involved in the movement from the rural village and communities to the urban centres from all socioeconomic strata (poor, middle income and wealthier). Rural-urban migration has a powerful impact on the rural migrants in positive and negative ways, leading to an increase in urban population accompanied by a decrease in the population of rural communities, exacerbating issues of urban congestion and overstretched social amenities. It also promotes greater regional interaction among people. Most migrants in urban centres adapt to this relocation strategically in the area of accommodation, food, job opportunities, social services, religion, the social interface, traditional beliefs, culture and climate. Daily paid labourer jobs are the kind of menial job opportunities found to be available to make ends meet; others menial jobs were in the areas of commercial trade, teaching, marketing and sales personnel, and road building. The inability to afford the cost of social services forced migrants to rely strategically on alternatives for survival such as depending on the public water supply at fountains, not using electricity and buying herbal drugs instead of visits to the hospital and purchasing prescribed pharmaceuticals. Generally, adaptation of rural migrants in cities in Plateau State was not difficult because of strategies they have adopted for adaptation. Rural migrants choose to make possible adjustments for a temporary stay in an urban centre as a strategy for living, notwithstanding the imbalance such drifting may cause for the population resident in the locality or a longer-term. Significant for the movement of people is a sense of optimism and hope that one's place of origin is secure and has a potential for a favourable livelihood, thus lessening any necessity to migrate. For sustainable development, rural migration to urban areas should be possible to reduce concentration on infrastructural development should and can be made available for the purpose of achieving Sustainable Development Goals of the UN in a developing country like Nigeria throughout the entire rural-urban migration process. This is crucial for unlocking and maximizing the positive impacts that rural-urban migration can achieve within the context of sustainable and balanced population development.

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