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Full Length Research Paper

Access to physical capital as a panacea to urban poverty reduction: A case study of Otukpo urban area of Benue state, Nigeria

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For a sustainable urban poverty reduction, the quality and quantity of, and access to physical capital (environmental infrastructure and social services) are paramount. This paper examines the role of access to physical capital in urban poverty reduction by reviewing the literature and an empirical study in Otukpo Urban area of Benue State, using a sample size of 600, selected from the 14 residential areas there. The conceptual framework for this study is based on the Sustainable Livelihoods Approach, which is conceptually appropriate, empirically sound, and of more practical use for achieving urban poverty reduction in relation to policies designed for the provision of and access to physical capital. Using correlation analysis and factor analytic approach, the study established socio-economic and environmental correlates of the area with physical capital, and also identified 8 underlying factors of physical capital for sustainable urban poverty reduction. Out of these, access to physical capital is the main indicator of physical capital for urban poverty reduction. It is therefore recommended that adequate provision of, and access to physical capital for poverty reduction should be pursued as a conscious intervention by government, and this requires, among others, good governance and community participation.

Keywords: Access, Physical capital, Sustainable livelihoods, Urban poverty.

INTRODUCTION

Since the 1995 World Summit for Social Development (WSSD), a new global poverty reduction initiative has evolved in which the persistent deterioration of the quality of life in developing countries and the associated socio-economic implications of living in deteriorating environment make the need for a sustainable poverty reduction strategy mandatory on all stakeholders of development, particularly the government. If poverty is to be properly defined and measured, the environmental deprivations and other links to environmental conditions will be immediately apparent. Also, if poverty definitions give consideration to assets, physical capital (environmental infrastructure and social services) will become apparent in urban areas. This paper therefore aims at exploring the role of access to physical capital in urban areas, particularly Otukpo urban area of Benue State.

Rationale for the study

There are practical reasons for considering this topic. Development efforts since Nigeria's independence have focused on rural development, with emphasis on rural

poverty. This has resulted in a general failure to fully recognize the existence of poverty in urban areas. A number of reasons account for the persistence of poverty, most especially urban poverty, in spite of all the institutional, policy and programme interventions. First, poverty alleviation policies and programmes usually emanate from the government who appear not to understand the perception, nature and dimensions of poverty, and how they impact on the lives of the poor. Secondly, the social, economic and political issues of poverty are receiving attention, but the links between poverty and environment continue to be poorly understood and overlooked. In other words, the underlying causes of poverty are ignored. For instance, while building more clinics may help cure the ill-health of the poor, it may not address the often underlying environmental causes of the ill-health, such as poor quality water, lack of sanitation, pollution, etc.

Literature review

Since the last decade of the 20th century, there has been an outburst of literature in the area of poverty reduction in Nigeria. Studies by Olayemi (1995), World Bank (1995), Yusuf (2000), Ogwumike (2000) and Adeyeye (2000) focused on poverty alleviation from the standpoint of economic growth, basic needs, employment-oriented, sectoral and rural development. These studies complemented those of the World Bank (1993), Obadan (1995) and Onibokun and Kumuyi (1996) that examined the issue through the perspective of public needs, safety nets, good governance and political considerations. These approaches have greater focus on the rural areas.

In spite of all efforts to promote urban development and poverty alleviation in Nigeria, the environment is seldom treated as a central part of the equation. Rather it is viewed as a peripheral issue, and perhaps, as a luxury that does not figure at the very centre of urban livelihoods, and as a means of putting individuals and the urban community out of poverty. To buttress this, De Groot (1992) opines that a more sophisticated understanding of the relations between poverty and the environment begins with an appreciation of the basic environmental function on which human life depends. The livelihoods of the poor are determined predominantly by the environmental context in which they live and the constraints and opportunities this location present. According to Moser (1998) and Rakodi (2002), this context also determines the livelihood assets accessible to people for their livelihoods. Of the five livelihood assets, Rakodi (2002) identifies physical capital as a public rather than private investment, and a collective asset for sustainable livelihoods in the urban context. In the view of Loughborough University (2004), it not only includes the physical structures such as water supply and sanitation, roads, electricity, health and educational institutions, but also the way they are panned, financed, constructed, operated and maintained.

Physical capital, as a livelihood asset means so much to experts, development institutions and international organizations. Fox (1994), Carney (1999) and DFID (2000) consider physical capital as a provider of environmental services, as well as brings about positive changes to the urban environment, and these are connected to improvements in the quality of life. Physical capital, through its consumption and amenity value, contributes to social and economic condition; technological development; improvement, management and sustainability of the environment; as well as development and improvement of sustainable livelihoods. Poverty is a multi-dimensional concept, and in the urban context, it is translated largely in terms of lack of access to adequate physical capital. Access, according to Jones (2002) is a key factor, as proximity to facilities means very little when access to them is denied. This gives credence to Mitlin (2003), that

"given a fixed income, to be poor in income terms in a high density settlement with no infrastructure and services results in a worse development outcome than to be poor in a settlement with appropriate infrastructure and service levels".

This means that the quality and quantity of physical capital in an urban area and the access to them determine the well-being of the urban dwellers.

Conceptual framework

The conceptual framework for this study is the SUSTAINABLE LIVELIHOODS APPROACH, (SLA). The sustainable livelihoods concept first surfaced in the1987 Brundtland Report (Our Common Future), and has since been adopted by international development agencies like DFID, CARE, World Bank, CIDA, UNDP, SIDA, etc. A livelihood is a combination of the resources used and the activities undertaken in order to live; and a livelihood is sustainable when it is capable of continuously maintaining or enhancing the current standard of living without undermining the natural resource base (DFID 2001). The SLA considers assets as vital as an antidote to the view of the poor as passive or deprived (UNDP 2000). Access to and use of assets is influenced 6y policies, organizations and relationships between individuals and organizations.

The SLA is seen as complementary to more traditional approaches to development (Ashley and Camey 1999, Rakodi 2002). In particular, it aims to put people and the households in which they live at the centre of the development process, starting with their capabilities and assets rather than with their problems. It is an important contribution to the conceptual framework for adaptation of livelihoods ideas to the peculiarities of urban poverty and

development. The SLA requires a realistic understanding, through a holistic and participatory appraisal of the assets available to the poor with which they pursue their livelihoods. The SLA provides a sustainable development policy framework for sustainable human and environmental development, hence the choice of physical capital.

The SLA has advantages over the traditional anti-poverty development programmes. For instance, whereas they sought to tackle poverty by identifying and addressing people's perceived needs (Ghai 1980, Ogwumike 1991), the SLA seeks to improve people's lives by building on what they already have, i.e. their assets (Carney 1998, DFID 1999, 2001). Also, SLA is concerned with participatory development that recognizes working with the people, for the people and by the people (Rennie and Singh 1995). Finally, UNDP (2000) and DFID (2001) believe that SLA integrates economic, social and environmental issues into a holistic framework for analysis.

The adoption of SLA has implications for policies and actions for urban poverty reduction, which Carney, Ashley, and Scoones (1999) state as 'normative principles' and Rakodi (2002) calls 'win-win scenarios'. In all, they advice that such policies and actions which must be people- oriented, responsive and participatory, should improve the access of the poor to livelihood assets. The SLA is particularly and conceptually appropriate, empirically sound and of more practical use for achieving urban poverty reduction, in relation to policies designed to enable better access for poor people to infrastructure and social services (Lloyd-Jones 2002).

The study area

Otukpo urban area is centrally located between the Tiv (in Benue State) and the Igala (in Kogi State), and lies between lat 07° 38'- 07° 54' North and long 08° 40' - 08° 52' East. It is situated on the intersection of East-North rail way and on the Enugu-Makurdi road. It is the traditional headquarters of the Idoma federation where its paramount chief: the Och'idoma lives.

The urban environment is as much varied as it is fascinating. It has two major residential area-types, i.e. the formal and informal. The formal comprises of the GRA that houses the rich and the affluent, with high levels of infrastructure. The informal residential area-type has 13 residential areas and constitutes the original residential and slum areas that form the centre of the traditional setting of the area, with little or no infrastructure and social services. The plethora of problems, resulting from lack of and/or inadequate physical capital in the area, threaten the development of the area, which, from all intents and purposes should reflect the best of human civilization in Benue State. The inhabitants of the area, energetic and ingenious as they may be as individuals, too often find their way forward to pursuing livelihoods impeded by obstacles of lack of infrastructure and environmental degradation. The consequences of these are enormous, and to a large extent perpetuate poverty in the area. Physical capital, as an asset, can generate multiple benefits for Otukpo urban inhabitants, given the promising cultural, social and economic activities that are highly prevalent in the area.

METHODOLOGY

Various aspects of this study called for matching methodologies. They include questionnaire survey method, using systematic random sampling technique, correlation analysis, factor analytic approach and descriptive statistics tools. A sample size of 600 was drawn from the 12,005 households in the 14 residential areas of Otukpo urban area.

The correlation analysis was used to measure the strength and nature of the interrelationships, among the independent variables and the dependent variable for both the entire Otukpo urban area and in each of the 14 residential areas. The variables are:

X_1 = Number of persons in the household
X_2 = Number of rooms occupied
X_3 = Number of income earners
X_4 = Literacy status
X_5 = Employment
X_6 = Occupation
X_7 = Nature of work
X_8 = Incidence of poverty
X_9 = Spatial perception of poverty
X_{10} = Number of health institutions
X_{11} = Number of educational institution
X_{12} = Distance involved in accessing physical capital
X_{13} = Willingness to have physical capital
X_{14} = Willingness to have physical water closet
X_{15} = Access to physical capital
X_{16} = Nature of existing physical capital
X_{17} = Willingness of ability to pay for physical capital
X_{18} = physical capital

The factor analytic approach was used to identify the underlying factors of physical capital that measure poverty as well as indicators of physical capital for poverty reduction.

RESULTS

An analysis of the significant and dominant factors that measure physical capital and poverty in the entire Otukpo urban as well as in each of the 14 residential areas was achieved by examining the relationships among the 17 assessment variables and the influence they have on poverty in the area, using + 0.500 as statistically significant. The results are shown in table 1.

Table 1.

S/NO	Urban area/Residential area	A	B
	Otukpo urban area (entire)	3	11
1	Effa	18	9
2	Ikobi	16	8
3	GRA	18	7
4	Babylon	12	8
5	Asa	11	14
6	Hausa quarters	5	6
7	Igbanonmaje	4	6
8	Eupi	6	15
9	Zone HB	18	6
10.	Ogwonuigbahapa	7	6
11	Oweto	9	10
12	Ampia	2	8
13	Ojira	2	13
14	Sabon gari	3	4

Source: Author 2005. NOTE: A=No of significant coefficients B=No of independent variables that correlate with physical capital (dependent variable)

The rotated matrix reduced the 17 independent variables to 8 components that yielded the underlying factors of physical capital that measure poverty in the entire urban area. It also produced 16 high and positive significant component loadings with a cumulative percentage of variance of 69.1 This leaves 30.9 percent of the total variance in the variables unexplained. A test, called the global test (Lind, Mason and Marchel 2000) was applied.

A null hypothesis was formulated thus, Ho, $1, $2, $3...$144 =0, where $s are the component loadings. The hypothesis was tested using the F distribution at 5% level of significance. The result obtained was Fcal = 81.20 and Ftable = 1.67. Since fcal > Ftable, we therefore confirm;

(a) the ability of the independent variables to explain the variation in the dependent variable (physical capital),

(b) the suitability of the factor analytic approach, and

(c) that the amount of variance explained did not occur by chance.

In spite of these confirmations the unexplained percentage of variance is likely an externality in a normal system which can be regarded as an inherent factor of the dependent variable that can be explained by the appraisal of the respondents whose behaviours are determined by some social and environmental factors.

The underlying factors, in order of decreasing percentage of total variance are;

i. access to physical capital for sustainable livelihoods (13.2%)

ii. willingness to have physical capital (11.5%)

iii. environmental perception of poverty and existence of poverty in the urban area (9.7%)

iv. household occupancy ratio (8.5%)

v. socio-economic status of the head of household (7.7%)

vi. relative location of physical capital and proximity to the households.

vii. impact of the existing physical capital on socio-economic development (5.8%).

viii. need for adequate provision of physical capital for sustainable livelihoods (5.6%).

An analysis of the underlying factors in each of the residential areas indicate that access to physical capital for sustainable livelihoods affects the entire residential areas, hence total coverage of 100%, with GRA having the highest percentage of variance explained of 24.1. Other results obtained include;

a. the willingness of the people to have and ability to pay for physical capital (83%).

b. proliferation of private physical capital such as health clinics, academic institutions, water supply.

c. 95% of the respondents attribute their lack of access to physical capital in the area to government (local, state and federal).

d. 58% of the respondents expressed statements associated with lack of access to physical capital as their perception of poverty, just as 84% agreed on the existence of poverty in their respective residential areas.

e. 93% were in agreement that adequate provision of physical capital could significantly reduce the existing poverty in the urban area. This could account for the 95% of the respondents that expressed dissatisfaction with the existing physical capital, whereas the 5% that were satisfied were from GRA.

f. GRA has 7 hours of available piped water per day, while other residential area have no piped water.

This results to the average of 550 litres of water used per household as against 146 litres per household in the other residential areas.

g. 52% of the respondents are in the private sector while 13% are in the public sector.

DISCUSSIONS

The high and positive significant component loadings show strong and positive relationships between the variables and the components that yielded the underlying factors. Access to physical capital for sustainable livelihoods has the highest percentage of total variance and ranks first of the 8 underlying factors. This means that access to physical capital for sustainable livelihoods is the major underlying factor of physical capital that measure poverty as well as the main indicator of physical capital for poverty reduction.

The highest percentage of variance explained of 24.1 for GRA means that the inhabitants of GRA have access to the available physical capital as they are provided there, hence zero poverty status for GRA.

The inability of the governments (local, state and federal) to provide adequate physical capital to the other residential areas has led to the proliferation of private physical capital at very exorbitant rates and from unreliable sources (such as water). The people's aspirations are rarely expressed as being 'environmental' but many of their problems have underlying environmental causes, and so poverty levels in the residential areas varied due to factors imposed by lack of access to physical capita[In other words, lack of access to physical capital is the major cause of poverty in the area. For instance, the 146 litres of water used by the other residents, as against 550 litres in GRA, indicate the quantity they can afford not the quantity they need.

Physical capital, as an asset, can generate multiple benefits for Otukpo urban inhabitants given the promising cultural, social and economic activities in the area. Generally, it can stimulate both the formal and informal sectors (in which most of the inhabitants are engaged) of the urban economy.

CONCLUSION AND RECOMMENDATION

Physical capital is the best measure of quality of life as shown by indicators like health, and urban livelihoods, which characteristics are sadly absent in the residential areas except GRA. Access to physical capital can make a crucial difference in the ability of the Otukpo urban poor to overcome poverty. Access depends on a number of factors besides geographical location, including behaviour pattern, user's custom and government policies. Therefore, for effective significant, and sustainable human, social, economic and environmental development in Otukpo urban area, access to physical capital is the appropriate panacea.

On the basis of these findings, it is recommended that adequate provision of and access to physical capital aimed at poverty reduction should generally be applied as a conscious intervention by all levels of government. This requires good governance, well-defined institutional responsibilities on the part of relevant agencies, community/private participation and partnership and capacity building.

REFERENCES

Adeyeye VO (2000). *Designing and Managing Poverty Alleviation Programmes in Nigeria: The Large Project Option.* A paper presented at the Workshop on Poverty Alleviation Policies and Strategies Organised by NCEMA, Ibadan.

Ashley C, Carney D (1999). *Sustainable Livelihoods; Lessons from Early Experience*, DFID, London.

Carney C (1998). "Implementing the Sustainable Livelihoods Approach" in Carney, d. (ed) *Sustainable Rural Livelihoods: What Contributions can we Make?*, DFID, London.

Carney C (1999). *Approaches to Sustainable Livelihoods for the Rural Poor,* Odi Poverty Briefing No. 2 Odi, London.

Carney C, Ashley C, ad Scoones L (1999). *Livelihoods Approaches Compared*, DFID, London.

Dc Groot RS (1992). *Functions of Nature: Evaluation of Nature in Environmental Planning, Management and Decision-making*, Groningen.

DFID (1999). *Sustainable Livelihoods and Poverty Elimination*, Background Briefing Paper, London.

DFID (2000). Achieving Sustainability; Poverty Elimination and the Environment, London.

DFID (2001). *Sustainable Livelihoods Guidance Sheet* (Updated), London.

Fox WF (1994). *Strategic Options for Urban Infrastructure Management.* UMP No. 17, World Bank, Washington D.C.

Ghai D (1980). "Basic Needs from Words to Action; With Illustration from Kenya", *Int. Labour Rev.* 119 (3): 267 — 379.

Jones S (2002). "Issues in Designing New Projects and Programmes" in Rakodi with Lioyd-Jones (eds) *Urban Livelihoods; A People-centred Approach to Reducing Poverty,* Earthscan Publications Ltd, London.

Lind DA, Mason RD, Marchel WL (2000). *Basic Statistics for Business and Economics*, McGraw-Hill Higher Education, 3rd Edition

Lloyd-Jones (2002). "The Sustainable Livelihoods Approach and the DFID" In Rakodi with Lloyd- Jones (eds) *Urban Livelihoods; A People-centred Approach to Reducing Poverty,* Earthscan Publication Ltd, UK.

Loughborough University (2004). *Education and Training Opportunities with WEDC*, Loughborough

Mitlin D (2003). *The Economic and Social Processes Influencing the Level and Nature of Chronic Poverty*, Research Centre Working paper No 29, University of Manchester, UK.

Moser C (1998). "The Asset Vulnerability Framework: Reassuring Urban Poverty Reduction Strategies" *World Development*, 26(1): 1 — 19

Obadan, M.I. (1995) *Perspectives on Poverty in Nigeria,* Paper Presented at the Workshop on Integration of Poverty Alleviation into Plans and Programmes in Nigeria Organized by NCEMA/ World Bank, Ibadan

Ogwumike FO (1991). "A Basic Needs — Oriented Approach to Measurement of Poverty in Nigeria," *Niger. J. Econ. and Soc. Stud.,* 33(2): 105 — 120.

Ogwumike FO (2000). *Survey of Approaches to Poverty Alleviation Programmes: General Perspectives*, A paper presented at the Workshop on Poverty Alleviation Policies and Strategies, organized by NCEMA, Ibadan.

Olayemi JK (1995). *A Survey of Approaches to Poverty Alleviation*, Paper Presented at the Workshop on Integration of Poverty Alleviation into Plans and Programmes in Nigeria, Organized by NCEMA/ World Bank, Ibadan

Onibokun AG, Kumuyi AJ (1996). *Urban Poverty in Nigeria: Towards Sustainable Strategies for its Alleviation*, CASSAD Monograph Series 10, Ibadan.

Rakodi C (2002). "A Livelihoods Approach; Conceptual Issues and Definitions" in Rakodi with Lloyd-Jones (eds) *Urban Livelihoods*: *A People-centred Approach to Reducing Poverty*, Earthscan Publication Ltd, London.

Rennie JK, Singh NC (1995). *Guide Book on Participatory Field Research Projects,* International Institute for Sustainable Development, Winnipeg, Canada.

UNDP (2000). *SLA in Urban Areas*, Paper Presented for UNDP Country Officers.

World Bank (1993) *Poverty and Income Distribution in Latin America: The story of the 1980s,* Latin America and the Caribbean Technical Dept. Washington D.C.

World Bank (1995) *Nigeria; Poverty in the Midst of Plenty: The Challenge of Growth with Inclusion*. A World Bank Poverty Assessment Report No, 147334, UNI, Washington, D.C.

Yusuf SA (2000). *Institutional Framework for Poverty Alleviation Programmes in Nigeria*. Paper Presented at the NCEMA Workshop on Poverty Alleviation Policies and strategies.