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Influence of Social Capital on Diversification of Livelihood in Slum Areas in Nairobi, Kenya

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Abstract:

Global population is on the increase and it is estimated that by 2030 world population will be 8.5 billion people. A resultant challenge that emerges is one of ensuring sustainable livelihoods in communities, and especially slum areas of developing countries. Hence urban areas have become centres of focus as increasingly majority of the population is residing in urban areas, in which slums have also developed and expanded. In order to achieve sustainable livelihoods then there is need for diversification of the livelihoods by the households living in slum areas. The main focus of this article is to explore how social capital influences diversification of livelihoods. The article is based on a study that was carried out in Mukuru slums in Nairobi County Kenya, with a sample of 397 household heads. It was found out that at least 49 per cent of the household heads were in different social groups; and in those groups the main reason for joining was basically to get money through the savings and to have access to loans with which to invest in diversified livelihood pursuits. It was found out that social capital was crucial to diversification through the different groups that helped in providing business capital, ideas, loans that enabled them to engage in more than one livelihood activity.

Keywords: Social capital, livelihoods, slums, livelihood diversification, social networks

1. Introduction

With increasing global population, one of the anticipated challenges will be ensuring sustainable livelihoods of communities. The world populations is estimated to grow from 7.7 billion people in 2019 to 8.5 billion people in 2030 (10 per cent increase), and further to 9.7 billion people in 2050 (26 per cent) and to 10.9 billion people in 2100 (42 per cent) (UN2017). In Sub-Saharan Africa it is estimated that population will have doubled by 2050 (99 per cent). Based on these projections at least 16 per cent of the global population lives in Africa, where Kenya is estimated to have 49,700,000 million people. In order to achieve the sustainable development goal (SDG) on eradication of poverty in all its forms everywhere by 2030, the numbers of people living on \$1.25 or less a day (125 Kenyan shillings) has to be reduced. One option for achieving this is through diversification of livelihoods of especially the poor households and especially those living in slums.

According to UN-Habitat (2018), urban areas worldwide are becoming a key determinant in achievement of the SDG's and the integration of social, economic and environmental goals of 2030. In the course of the 21st century both developed and developing countries are experiencing upcoming of new slums and growth of the already existing slums that have led to different slum issues, many related to their vulnerability contexts these then push them to try and diversify their different livelihood activities.

Diversification of livelihoods, based on Khatun and Roy (2012), is viewed as any attempts undertaken by individuals or a household to enable them find new ways of survival and thus increase their income so as to withstand shocks such as catastrophes and disease outbreaks. In this regard diversification is therefore linked with both livelihood survival and misery under weakening situations, as well as with livelihood safety in improving economic situations (Niehof, 2004). Diversification of livelihoods is also an active social process in which households use different ways to reduce their vulnerability through engaging in more than one livelihood activity so as to enhance their livelihood outcomes. In diversified households, the use of multiple livelihood assets enables them to cope with different shocks and vulnerabilities as one of their main productive activities does not provide enough for the individual or the household, or if it fails completely to produce, there are other different sources of livelihood that the household can depend on (Ellis, 2000b).

Slum households always employ a mix of different strategies that can enable them to achieve their different livelihood outcomes. According to Grown and Sebstad, (1989), urban households mobilize and combine their resources and different opportunities so as to have a livelihood strategy that enables them to achieve their livelihood outcomes. These include aspects like borrowing from their social networks, saving their income, as well as pooling together their assets with the other households.

Diversification of livelihoods at household level is usually done depending on challenges and opportunities that the household is faced or exposed to. Based on these challenges and opportunities households adopt diversification as a matter of choice or as a necessity in order to cope with the different risks that they experience (Ellis, 2000b; Reardon, Berdegue, Barrett, & Stamoulis 2006). Other authors view the necessity and choice as a contrast between choice and survival of the households. Davies, (1996) and Hart, (1994) view it as survival and accumulation of resources by these households while Bigsten, (1996) sees it as pull and push factors for diversification of livelihoods. In all these households have to decide on the different choice and necessity factors available in order to diversify their sources of income.

Necessity factors for diversification are the different involuntarily and desperation reasons that subject households to diversify their income sources. Brouwer, et al. (2007), necessity reasons can emerge generally from the outcome or effect of environmental, social, cultural, economic and institutional structures that relate to poverty issues in a society. Additionally households can be subjected to global economic issues, inability of households to access all the livelihood assets, climate changes that affect natural resources, Human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) and the increase in population Ellis, (2006); Baro & Deubel, (2006). All the above factors have often pushed these households to a state of vulnerability as they try to secure their livelihoods thus making it a necessity to diversify their activities.

Lastly the different social factors in societies also contribute to livelihood diversification. Social issues like the networks and associations that one is exposed and is a member in, the different social positions, religion and the culture that one ascribes to always form a basis for livelihood diversification in the rural and urban communities (Ellis, 1998). These social factors determine the different labour markets opportunities that have different restrictions based on gender and class that lead to social inequalities. These three for instance, barthe rural women from accessing land and all other productive livelihood assets (Gladwin, Thomson, Peterson, & Anderson, 2001). These uncertainties have led to livelihood diversification in the rural agricultural areas in the sub-Saharan Africa to other different income activities.

Social capital was introduced by Pierre Bourdieu who in his analysis explained it as the total sum of the potential and actual resources that achieved from being in part of a durable network of relationships that are based on mutual association (Bourdieu, 1985). Social capital according to The Natural Resources Institute (NRI, 2000), are the horizontal and vertical social resources (different networks, membership in groups, relationships based on trust and access to the wider institutions of society) upon which people draw in search of their livelihoods. All these form part of social resources that are determined by relationships that people have with others. These relationships may be between family members, friends, employees, communities/societies and organisations, and are often distinct by their purpose and qualities such as trust, familiarity, strength and flexibility. Social capital is vital for its fundamental value, and also it increases well-being; enables generation of other capitals; and servesto reproduce the structure of the society in general, with its cultural, spiritual, political and other standards of behaviour.

Social capital is developed by the different social obligations and connections that are found in members of a group (Lin, 2001). Social capital is often developed from the relations that individuals engage in that include the family members, the neighbours, friends, colleagues and peers; in the social institutions of a society (Helliwell and Putnam, 2004). Thus these different individuals have to make choices of what groups or networks to be associated with. The study used rational choice theory also known as choice theory or rational action theory that was developed by George Homans (1961). Homans set a framework for understanding the social and economic behaviour of individuals in a society. Rational choice theory holds that individuals are seen to be motivated by their wants or goals that support their preferences. Whereby rational individuals choose alternatives that are likely to give them the greatest satisfaction (Heath 1976 & Carling 1992). Rational choice theory assumes that individuals always have preferences among the many available choice alternatives, which enable them to determine the preferred option and to make decisions within their social interactions. Using these different preferences individuals act within specific and given constraints based on the information that they know about the conditions in which they are operating in. In this paper rational choice theory was used to explain how slum households make rational choices on the different social capital networks they get involved in so as to maximize or achieve their desired livelihood outcomes.

1.1. Focus of this Paper

About 85 per cent of new employment opportunities around the world occur in informal economy UN-Habitat (2011). Nevertheless, these available informal jobs are often unskilled, very-low-paid, and often insecure livelihood alternatives, therefore forming part of a 'survival economy' that allows slum dwellers to survive but not to progress adequately to transformation of their living conditions or to enable them realize their full potential involvement to urban productivity. In light of the above the paper sought to establish the influence of social capital in diversification of livelihood in slum areas in Nairobi City County, Kenya.

2. Conceptual Framework

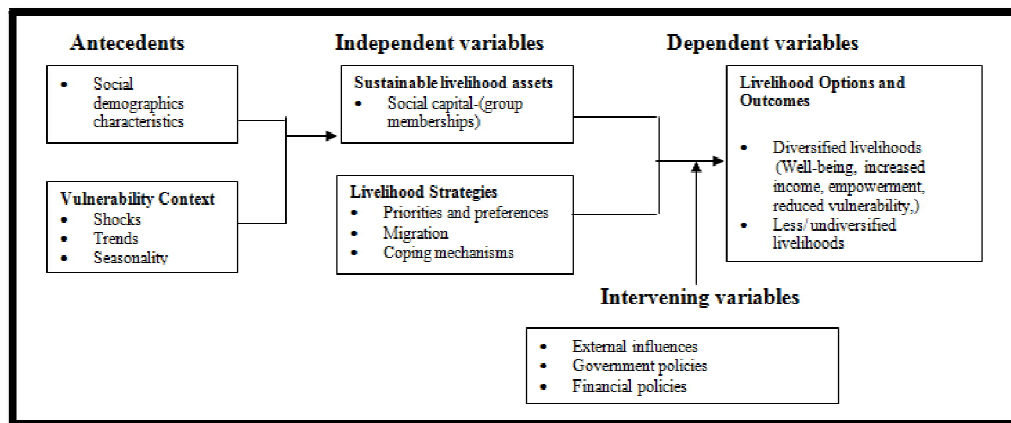


Figure 1: Conceptual Framework
Adopted from (Dfid 2001) Sustainable Livelihood Framework

3. Research Methodology

3.1. Research Design and Study Site

The data discussed in this paper is derived from a study which used a descriptive cross sectional survey design. Data was collected from a cross section of the study population at one point in time. Qualitative and quantitative approaches were used to collect and analyse data. Mukuru was selected as the study site due to its high population of slum dwellers at of 118,435 according to KNBS data of 2009.

3.2. Sampling and Sampling Procedures

The study population and unit of analysis were based on the households in Mukuru slums in Nairobi City County. The unit of observation was the head of household as most decisions on diversification livelihoods are made at this level. Based on the KNBS (2009), report the total number of households in Mukuru is estimated to be 44,427.

Participants for the study were selected based on the following criteria: - the person the household regards as the head (male or female) of a sampled household, those who gave consent to participate and those who had lived in the area for at least six (6) months

The Study site was purposively sampled due to high population of slum dwellers and not many studies done there. Cluster sampling was used to group the twenty villages into three clusters according to their population and simple random sampling was used to select two villages from each cluster. From the 44,427 households, a sample of 397 households was arrived at based on Yamane's sample estimation framework (1967).

Purposive sampling was used to sample key informants for in-depth interviews and Focus Group Discussions (FGD's). A total of four key informants were interviewed that were drawn from different leaders in the informal area and these included National and County government official, religious leader, business leader and civil society representative. FGD's comprised selected members of the villages that are sampled for the study but those had not participated in the study in any other capacity, three different FGD's were conducted one for a women group, the second for the men and lastly a mixed group that included both male and female youths.

The study used different methods to collect data on livelihoods of Mukuru slum. They included interviews, focus group discussions and simple observation.

Data collected was analysed using quantitative and qualitative approaches. The data from interviews which was both qualitative and quantitative were processed with the help of Statistical Package for Social Sciences (SPSS) V 22 in which data was coded and keyed into the system so as to be able to generate the, simple frequencies and percentages and to run other multiple regression analysis that sought to establish the different relationships between variables of the study. For Chi-square was used to determine relation between the independent and dependent variables of the study, based on a significant level of 0.05 in which any independent variables with a P- values that are equal or less than 0.05 were to be considered to be having a significant statistical relationship with the dependent variables. Qualitative data from FGDs and key informants interviews was thematically analysed as per the objectives of the study.

Ethical and regulatory approvals were obtained before the study was undertaken. Ethical considerations were taken into account whereby participation of the study was based on informed consent. First, participation was voluntary, Second respondent's information was treated with high levels of confidentiality and any identifiers were suppressed and reference to them where necessary were based on use of codes. Third care and protection of the participants was ensured by conducting interviews in secure community spaces in the slum and thereby ensuring that they were not exposed to any harm. Data was protected through passwords.

4. Results and Discussions

4.1. Social Demographic and Economic Characterises of Respondents

The study had 397 sampled respondents. Table 1 shows data on the social demographic and economic characteristics of the respondents.

Variable		Frequency	Per cent
Sex N=397	Male	201	50.6
	Female	196	49.4
Age N=397	18-28	190	47.9
	29-39	155	39.0
	40-50	42	10.6
	51-60	7	1.8
	Above 61	3	.8
Marital status N=397	Married	284	71.5
	Single	97	24.4
	Divorced	8	2.0
	Separated	7	1.8
	Widowed/ Widower	1	.3
Educational level N=397	Secondary	210	52.9
	Primary	116	29.2
	Tertiary	45	11.3
	University	18	4.5
	No formal education	8	2.0
Current Occupational Status N=397	Self-employed	228	57.4
	Employed	163	41.1
	Unemployed	6	1.5

Table 1: Social Demographic and Economic Characterises Of Respondents

Men were the majority among those who participated in the study at 50.6 per cent, while women accounted for 49.4 per cent. Therefore, there was more less an even leadership of households in informal settlements by gender. Majority of the residents in informal settlements are youthful. Of the sampled household head's it was found out that 18-28 years old were the majority who accounted for 47.9 per cent, followed by those in the age bracket of 29-39 years old at 39.0 per cent, 40-50 years old were third with 10.6 per cent, 51-60 years with 1.8 per cent and above 61 years at 0.8 per cent. With regard to marital status, majority of respondents (71.5 per cent) were married, while only 24.4 per cent were single. The divorced, separated and widowed and widower were 2.0 per cent, 1.8 per cent, 0.3 per cent respectively. As for educational levels majority of the respondents (52.9 per cent) had a secondary school level qualification while 29.2 per cent primary level at. Based on these results it can be deduced that majority of respondents had some modest educational qualification, and at best were literate.

4.2. Current Occupational and Livelihood Status

The study sought to find out the occupational status of the respondents. Self-employed respondents were the majority (57.4 per cent), followed by those employed (41.1 per cent) and unemployed (1.5 per cent). From these results it was noted that self-employment was the main mode of occupation for the respondents. It was also noted by one of the business Leaders (one of the KIIs in Vietnam area) who acknowledged that majority of the people living in Mukuru were self-employed in a wide variety of activities.

Further, the study established that self-employment; specifically in business was the leading source of income at 57.4 per cent and casual wage employment at 41.1 per cent. This was corroborated by qualitative data. According to the Senior Chief for Mukuru Kwa Njenga slum (5 years in Mukuru as a Senior Chief) noted that the main income sources in the area were from business such as shops/ kiosks, street cooking and hotels, hawking of clothes and household goods, illicit brew and water vendors. Other key Informants (KII's) (the business leader, A representative from a Community Based Organization (CBO), a Religious leader) also pointed out that most common livelihood activities in the area were from the company employment in industrial area, self-employment in areas like having a green groceries, shops, tailoring, street cooking and engaging in casual jobs such as laundry services and garbage collection. On the other hand the Focus group discussants from the three groups (women, men, mixed groups) listed the following as the main sources; businesses, company employment, construction jobs, water vendors. These findings are in line with findings of UN-Habitat (2003); report on the challenges of slums where it was found out that most households in developing countries' slums earn their income from informal employment activities that are within and outside the slum. It was also established that most of the slum dwellers households are involved in low-paying employments such as informal jobs in the clothing industry, a variety of home-based activities and several are domestic servants, security guards and self-employed such as hair dressers and furniture fabricators. Thus the informal sector has become the dominant livelihood source in slums. Both the research

findings and UN-Habitat report show the various economic activities in slum areas, it can be concluded that the informal livelihoods activities are important for sustainability of livelihoods.

Based on all these different sources of income it was established that respondents earned the following amounts in Kenyan shillings by the respondents per a month. A majority (39.8 per cent) earned between 10,000 to 19,000 shillings, followed by those earning less than 10,000 shillings at (20.7 per cent), while those earning between 20,000 to 29,000 shillings (18.9 per cent), lastly, 30,000 to 39,000 at 13.9 per cent. These income amounts clearly show that a majority of the respondents are not able to support a decent living in the area, thus their need to diversify the different sources of income so as to increase the levels of income.

4.3. Influence of Social Capital on Diversification of Livelihoods

Social capital is usually achieved through the different networks that are created and build up on in the course of securing livelihoods. In this paper it was examined through the social groups that household heads were members to and their different activities and how they helped them in creation and development of livelihoods. It was found that a majority of respondents (50.1 per cent) were not involved in group activities, while 49.9 per cent were in different groups. Majority of respondents (54.0 per cent) were at least members of only one group, however there were respondents in more than one group 45.9 per cent. The number of groups joined by individuals is often determined by the functions of the groups and how well they fulfil their livelihood needs. A respondent stated, *'I am in three groups (chama) that deal with merry go round, welfare and savings. In order to join a given group in some cases tribe becomes a consideration as some group bar members due to their tribe. For instance in the welfare group we contribute to members who lose their loved ones. In our groups we are given loans depending on the amount of shares that you got in the group. Our children are members by default in our groups but they start to contribute once they eighteen years and have a source of income.'* A sampled respondent from Vietnam village.

Further, the need to secure saving was largely the main driver for joining groups at 31.2 per cent, while 27.7 per cent joined groups to get more money and 14.4 per cent for loans and borrowing that happens within the group. According to a religious Leader, *there are very many social groups in Mukuru but individuals have different reasons that pull them to the groups among them is the issues of wanting to save some money, some so as to get more money through the merry go rounds lastly to be able to get loans from the group. It was noted that loans from the group are of two different types; the first one the group itself lends money to its members which they repay back to the group, the second if the group is registered then the group secures a loan from a financial institution which is later divided among the members to use it individually but contribute the repayment amount every month that is repaid to the financial institution.* All the FGD discussants agreed that *they joined group so that they can be able to save and be able to acquire loans and also be able to borrow from the group.*

Moreover, some of the groups acted as facilitators for the different income generating activities that the respondents engaged in. Groups were seen to have facilitated income generation activities, majority (41.4 per cent) reported that they were offered loans, while 20.7 per cent were provided with money for fulfilment of their basic needs and those of their household and provision of business capital (11.6 per cent)

While activities carried out in groups range from one group to another as they have different reasons as to why they were formed and why members (respondents) joined them. Majority (33.0 per cent) reported that savings was the most common activity in the groups that they belonged to, followed by loans at 21.4 per cent and merry go round at 18.1 per cent. Area Chief acknowledged that *there various groups in the area with different activities but the main activities are usually merry go round, saving, table banking.* It is out of these savings individuals invested in diversified activities.

Indeed the study established that groups helped members in terms of strategy development that enabled them develop other livelihoods. As shown in Table 2, different ways were reported.

Strategies	Frequency	Per cent
Sharing of business ideas	67	33.8
Provision of business capital	33	16.7
Through giving loans to members	22	11.1
Build of connections	20	10.1
None	56	28.3
Total	198	100.0

Table 2: Identification and Pursing of Other Sources of Income

At least 33.8 per cent acknowledged to have been exposed to different business ideas from the groups that they belonged in, 28.3 per cent were able to get some business capital from the groups, while 16.7 per cent felt that the groups did not help them in anyway in identification and pursing of other income sources.

From the foregoing, it can be concluded that groups are key in diversification of livelihoods as savings generated through social capital were seen as a key aspect in diversification of livelihoods.

Further, social capital enabled access to credit the study found out the different sources of credit that head of households borrowed from. In Table 3 below, credit was obtained mainly from friends (47.6 per cent), other significant sources included family (21.7 per cent), group (chama) (21.4 per cent) and from loans either from a bank or through the mobile phone application (10.6 per cent)

Source	Frequency	Per cent
Friends and neighbours	189	47.6
Family	86	21.7
Group (<i>Chama</i>)	85	21.4
Bank and mobile applications	42	10.6
Neighbours	7	1.8
Loans (based on items)	6	1.5
Don't borrow at all	52	13.1

Table 3: Credit and Sources of Financial Borrowing

*Multiple Sources/ Responses

Discussants from all the three groups agreed that they always borrow from varied sources such as; their friends, families, from groups (*chama*) and shylock agents, from also phone applications such as Tala, Branch and Mshwari. From the findings it is important to note that social capital was an important base for obtaining credit as majority of 90.7 per cent borrowed from friends 47.6, 21.7 and 21.4 per cent from family and groups respectively. These findings and discussions were in line with the study of Kenya Integrated Household Budget Survey (KIHBS) (March 2018), that found out that majority of the Kenyans borrowed money or sought credit from different informal sources such as from neighbours, friends, relatives, or from local money lenders or shylocks. In some areas borrowed money or took credit services from the shops in order to repay at a later date. This basically meant that the households borrowed or sought credit from social networks so as to be able to cater for their individual basic needs and also to engage in activities to enhance and or diversify their sources of livelihood. This is demonstrated by data presented in Table 4.

Uses	Frequency	Per cent
Business use	53	13.4
Used for other expenses	43	10.8
School fees use	40	10.1
Rent use	14	3.5

Table 4: Uses of Money Borrowed from Groups

* Multiple Responses for Uses

Respondents had varied uses for the monies borrowed either from groups or financial institutions, for groups 13.4 per cent used it for business gains, 10.8 per cent for general expenses and 10.1 per cent for specifically for school fees. This results are in line with KIHBS (March 2018) report, which shows nationally at least 39.3 per cent of the loans were obtained for subsistence needs and school fees 20.9 per cent. It was found out that loans from shops and mobile phone platforms were mainly used for subsistence needs while loans from financial institution were used for different business or investment activities. From the foregoing, it can be concluded that majority of respondents use borrowed monies to develop their livelihoods through the different business activities that they get involved in while some percentage too used if for provision of basic needs. Based on this it can be said in order for diversification of livelihoods to occur in Mukuru slums then there is need for strengthening of credit sources and advocating of proper use for the monies borrowed from any of the two sources.

4.4. Hypothesis Testing: Social Capital Has No Effect on Livelihood Diversification

The study tested the hypothesis *Social capital has no effect on livelihood diversification*. As reported in the table 2 membership in groups was found to be an important determinant in diversification of livelihoods.

Statistic	DF	Value	P Value
Chi-Square	1	5.7915	0.0161*
Likelihood Ratio Chi-Square	1	5.8072	0.0160
Continuity Adj. Chi-Square	1	5.3075	0.0212
Mantel-Haenszel Chi-Square	1	5.7767	0.0162
Phi Coefficient		0.1220	
Contingency Coefficient		0.1211	
Cramer's V		0.1220	

Table 5: Chi- Square on Member Groups by Alternative Livelihood

Fisher's Exact Test	
Cell (1,1) Frequency (F)	125
Left-sided Pr <= F	0.9940
Right-sided Pr >= F	0.0106
Table Probability (P)	0.0046
Two-sided Pr <= P	0.0182

Table 6: Fisher's Exact Test on Member Groups by Alternative Livelihood

Social capital was tested using the number of groups one was involved in. It was found out that, those respondents who had more than one group we seen to have diversified their livelihoods. From the above diversification through social capital was found to be significant at a p value of 0.0161, based on this hypothesis was rejected. Therefore it can be concluded that groups are a key aspect in diversification of livelihoods in Mukuru slums. Thus the concept of groups should be supported and given more attention as they in development of other livelihoods in the area.

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	6.1347	3.1855	3.7088	0.0541
Borrow from friends	1	-0.4589	0.2302	3.9751	0.0462**
Borrow from family	1	0.0361	0.2672	0.0183	0.8924
Borrow from neighbours	1	-0.1061	0.7836	0.0183	0.8923
Borrow from group (chama)	1	-0.4671	0.2800	2.7821	0.0953*
Borrow from bank	1	-0.5014	0.3601	1.9381	0.1639
Borrow a loan on item	1	-1.5979	1.1137	2.0586	0.1514

Table 7: Chi- Square Testing for Sources of Credit/Financial Borrowing and Livelihood Diversification

The above test, the level of confidence was lowered to 90 per cent at a P value of 0.1 because majority of the household heads did not engage in any borrowing. For this test credit borrowing sources from friends with a value of 0.0462 and groups (chama) at 0.0953 were found to be the most significant among the heads of household. **Therefore the hypothesis is rejected** as it was found out that the different credit sources had an effect or influence on diversification of livelihoods in Mukuru slums. Thus the two credit sources groups (chama) and friends should be strengthened as they encourage head of households to diversify their livelihoods.

5. Conclusion

From the above findings it can be concluded that; first, social capital is a key aspect in formation and development of livelihoods in Mukuru slums in that most households depend on the social networks that they create and develop in order to be able to sustain their household needs and also develop their livelihoods. Second, majority of the households used savings as well as borrowed from friends, family and groups which in most cases are based on the trust levels among them to enhance and or diversify their sources of livelihoods.

6. References

- i. Bigsten, A., (1996). The Circular Migration of Smallholders in Kenya, *Journal of African Economies*, 5(1), 1-20.
- ii. Bourdieu, P (1983/1986). 'The Forms of Capital' pp. 241-258 in *Handbook of Theory and Research for the Sociology of Education*. edited by J.G. Richardson. Westport, CT: Greenwood Press.
- iii. Baro, M. A., & Deubel, T. F. (2006). *Persistent hunger: Perspectives on vulnerability, famine, and food security in sub-Saharan Africa*. Annual Review of Anthropology, 35, 521-538.
- iv. Brouwer, R., S. Akter, L. Brander, and E. Haque. (2007). *Socio-economic vulnerability and adaptation to environmental risk: A case study of climate change and flooding in Bangladesh*. *Risk Analysis*, 27(2): 313-326.
- v. Carling, A. (1992). *Social Divisions*. London: Verso.
- vi. Coleman, J. (1973). *The Mathematics of Collective Action*. London: Heinemann.
- vii. Coleman, J.S (1988). *Social capital in the creation of human capital*. American journal of sociology, 94(suppl.), S95-S120.
- viii. Davies, S., (1996). *Adaptable Livelihoods Coping with Food Insecurity in the Malian Sahel*. London: Macmillan Press.
- ix. Department for International Development. (2001). *Sustainable Livelihoods Guidance Sheets*. London, UK: Department for International Development.
- x. Ellis, F. (1998). *Household strategies and rural livelihood diversification*. Journal of Development Studies 35 (1):1&38.
- xi. Ellis, F. (2000b). *The determinants of rural livelihood diversification in developing countries*. Journal of Agricultural Economics, 51(2), 289-302. doi:10.1111/j.1477-9552.2000.tb01229.x
- xii. Gladwin, C. H., Thomson, A. M., Peterson, J. S., & Anderson, A. S. (2001). *Addressing food security in Africa via multiple livelihood strategies of women farmers*. Food Policy, 26(2), 77-207. doi:10.1016/S0306-9192(00)00045-2
- xiii. Grown, C A and Sebstad, J (1989). 'Introduction: toward a wider perspective on women's Employment. World Development, vol 17, no 7, pp937-952
- xiv. Hart, G., (1994). *The Dynamics of Diversification in an Asian Rice Region Ch.2 in B. Koppel et al. (eds.), Development or Deterioration? Work in Rural Asia*. Boulder, Colorado: Lynne Reinner, 47-71
- xv. Heath, A. (1976). *Rational Choice and Social Exchange*. Cambridge: Cambridge University Press.
- xvi. Helliwell, J. F. and Putnam, R. D. (2004). *The social context of well-being. Household Coping: Reflections from Rural West Africa', Africa: Journal of the International African Institute*, 68 (2): 263-283.

- xvii. Kenya Integrated Household Budget Survey (March 2018). *Basic Report Based on 2015/16 Kenya Integrated Household Budget Survey*. Kenya National Bureau of Statistics - Ministry of Devolution & National Planning. KEN-KNBS-KIHBS-2015-2016-v01.
- xxviii. Khatun D, Roy BC (2012). *Rural livelihood diversification in West Bengal: determinants and constraints*. Agric Econ Res Rev 25(1).
- xix. Lin. N (2001). *Social Capital a theory of Social structure and Action* Cambridge, CaMbridge University Press.
- xx. Losch, B., Freguin-Gresh, S., & White, E. T. (2012). *Structural transformation and rural change revisited: Challenges for late developing countries in a globalizing world*. Agency Française de Development and the World Bank: Washington, DC: World Bank Publications.
- xxi. Niehof, A. (2004). *The significance of diversification for rural livelihood systems*. *Food Policy*, 29(4), 321–338. doi:10.1016/j.foodpol.2004.07.009 Oxford, U.K.
- xxii. NRI (Natural Resources Institute) (2000). *The Livelihoods Approach Factsheet, part of a series produced by NRI for its short course and MSc Programme*. University of Greenwich, Chatham, U.K, pp 4-22.
- xxiii. Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York, NY, US: Touchstone Books/Simon&Schuster.
- xxiv. Reardon, T., Berdegue, J., Barrett, C. B., & Stamoulis, K. (2006). *Household income diversification into rural nonfarm activities*. In S. Haggblade, P. Hazell, & T. Reardon (Eds.), *Transforming the rural nonfarm economy* (pp. 115–140). Baltimore, MD: John Hopkins University Press.
- xxv. UN General Assembly, *transforming our world: the 2030 Agenda for Sustainable Development*, 21 October 2015, A/RES/70/1, available at: <https://www.refworld.org/docid/57b6e3e44.html> [accessed 12 April 2019]
- xxvi. United Nations Human Settlements Programme (UN-Habitat) (2003). *The challenge of slums: global report on human settlements*. Earthscan
- xxvii. United Nations, Department of Economic and Social Affairs, Population Division (2017). *World Population Prospects: The 2017 Revision, Key Findings and Advance Tables*. ESA/P/WP/248.
- xxviii. United Nations, Department of Economic and Social Affairs, Population Division (2017). *World Population Prospects: The 2017 Revision*. New York: United Nations.