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**USING ICT TO FACILITATE A SURVEY OF RURAL COMMUNITIES VILLAGE SAVING SAND  
LOANS ASSOCIATION SCHEMES IN NORTH-CENTRAL NIGERIA**

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**ABSTRACT**

The striving to improve the socioeconomic livelihood of the rural poor in all fronts especially in Sub-Sahara Africa by individuals, groups, institutions or governments is daunting but a continuous task. The means to carry out this task is either available but untapped or available and explored or non-available. Technology is one amongst many means that can improve the quality of lives. Information and communication technologies, ICTs have been with the people of this region for over two decades but the exploitation of their applications to improve the quality of peoples' lives at the bottom of the socioeconomic pyramid may still be a far cry from what is obtainable in the developed economies. Open data kit (ODK) on mobile phones and google map were used to facilitate data collection, data storage, data visualization as well as locate participants in rural communities survey. The use of the ICTs reduced the burden of a survey carried out by Oxfam in several communities in two states of North-central Nigeria involved in Village Savings and Loans Associations (VS&LAs) schemes. The combination of the ICTs and statistical survey methods eased greatly the burden of sampling, identification of participants' locations, data collection, and data storage and retrieval. The use increased transparency, developed participants skills, and boosted participants' confidence in the associations' schemes. In addition, it made data in a short time readily available for analysis and revealed to the participants and organizers credible data that could informed lives improvement or developmental-oriented future decisions. With the training of the participants on the use of the technologies that are readily available around them, such as the mobile android phones, and subsequently put in to practice the knowledge acquired, their skills can only be improved to explore further uses that will reduce poverty within their communities.

**Keywords:** Information Communication Technology, ICT-in-use, ICT for Development.

**INTRODUCTION**

The use of information and communication technology is coined as information and communication technology for development, ICT4D. This is taken differently from the innovation in the development of digital technologies for information and communication (Heeks, 2009). The application of information and communication technology for development spanned across many sectors of human endeavours both multidimensional and multidisciplinary which include economic, social and political efforts such as education, agriculture, government, elections, climate change, finance, health, and commerce (Hilbert, 2012). The application of ICT4D is seen not only about the devices such as phones and computers but mainly in the applications and the delivery of information which leads to improvement in taking the right decisions at the right time and in poverty reduction. The communication technologies is now widespread in different models, which include amongst others social media platforms (Donner, 2015), sensors computing, big data, broadband, cloud computing,

embedded computing, open data, and so forth. The ubiquity of the information technologies appears to be moving in line with a projection by Miller *et al.* (1999) that by 2025, the technologies may penetrate every aspect of human activity. These are now quite available with full-scale applicability in the developed economies but are still limited in developing economies since they are more of imported technologies. The developing economies are still grappling with trying to acquire the technology part of the ICT and as such, the application to the real sectors of human endeavors still leaves much to be desired.

Human development is viewed mostly in the macroeconomic prism with an inclination toward increase in wealth and other resources buildup. Others from the human development community posit that the development is more far reaching than just the macroeconomic growth and that it includes increasing peoples' choices and freedoms (Hamel, 2010) especially

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for the people at the base of the economic pyramid and it cuts across different dimensions and disciplines.

This study was carried out to explore the use of the information and communication technologies toward the development of a real sector-rural communities' economic empowerment drive that enhances the capability of the rural associations in different communities; a thrust to reduce poverty. There are so much inequalities such as access to funds, health care, education, etc. among the citizens of the low and middle income countries, LMIC. The rural associations are formed among like-minded individuals solely to empower themselves through savings –most often on a weekly basis. But these associations lack some simple technological aids to properly profile their activities especially accurate records collection, keeping and retrieval that could enhance current and past records tracking as well as appropriate future planning. To assess the viability of technology in enhancement and growth of the community associations, a survey was carried out on some groups in Plateau and Benue states in the north-central part of Nigeria. The assessment of the use of the information and communication technologies were mobile phones, Open data kit (ODK) and the Google location maps. The technologies were used for data collection, storage and transmission, visualization of the surveying activities as well as an application of statistical sampling technique for the survey.

The Village Savings and Loans Associations (VS & LAs) is a concept which composed of 15 to 25 self-selected individuals who meet regularly -weekly or fortnightly to save and, if desired, borrow for short periods, paying monthly interest at a rate set by the group. After approximately 12 months, all savings and earnings are distributed back to group members. The earnings usually are distributed in proportion to their savings. VS&LAs are self-managed community-based groups that provide their members access to basic financial services. VS & LAs respond directly to the unmet financial service needs of the remote and rural poor by providing a secure place to save, opportunity to borrow in small amounts and on flexible terms, and affordable basic social insurance services. The associations' target is to increase household financial assets and decrease household vulnerability to financial stresses and other shocks. The associations are seen as entry points into economic and social leadership

empowerment. Women in most cases form the major part of the membership of the associations. The associations therefore mostly empower women and help to ward off obstacles such as women's vulnerability, household abuses due to gender stereotypes, social construct and misperception and over-dependence on men. In general, members empower themselves and avoid situations such as limited access to credit from financial institutions due to strident conditions demand of productive assets to serve as collateral for loans. The VS&LA model provides basic flexible financial services platform that support members with funds for small scale farming especially women to access agricultural inputs and produce markets.

The exploration of the used of statistical and ICT methods were to help about transparency, ease of data collection and earning the confidence of the participants through data security and integrity, data visualization, image representation of participating members, proper records keeping, data retrieval, data archiving and making information readily available to participants for good decisions-taking as well as planning the future of their projects.

## **MATERIALS AND METHODS**

### **Groups Locations**

The groups were in communities located mostly in towns and villages of Plateau and Benue states local government areas (LGAs) of North-central Nigeria. These LGAs were Buruku, Logo, Makurdi, Gboko and Vandekiya LGAs in Benue State while Barkin Ladi, Bokkos, Pankshin and Mangu LGAs were in Plateau State. The group members assessed for the study were 3,578 organised into 172 groups with an average of 21 members per group.

### **Sampling Size Determination**

The sample of the number of participants for the survey was obtained by lot quality assurance sampling (LQAS) method (GPEI, 2012). LQAS is structured, relatively simple, not too onerous, and is used in most cases when only a small sample is needed in a survey (JSI, 2006). It reduces biasness since it aggregates all elements of a population at a start. Stratified random sampling using population proportionate to size (pps) was used. A sample frame for the survey is illustrated in Figure 1.

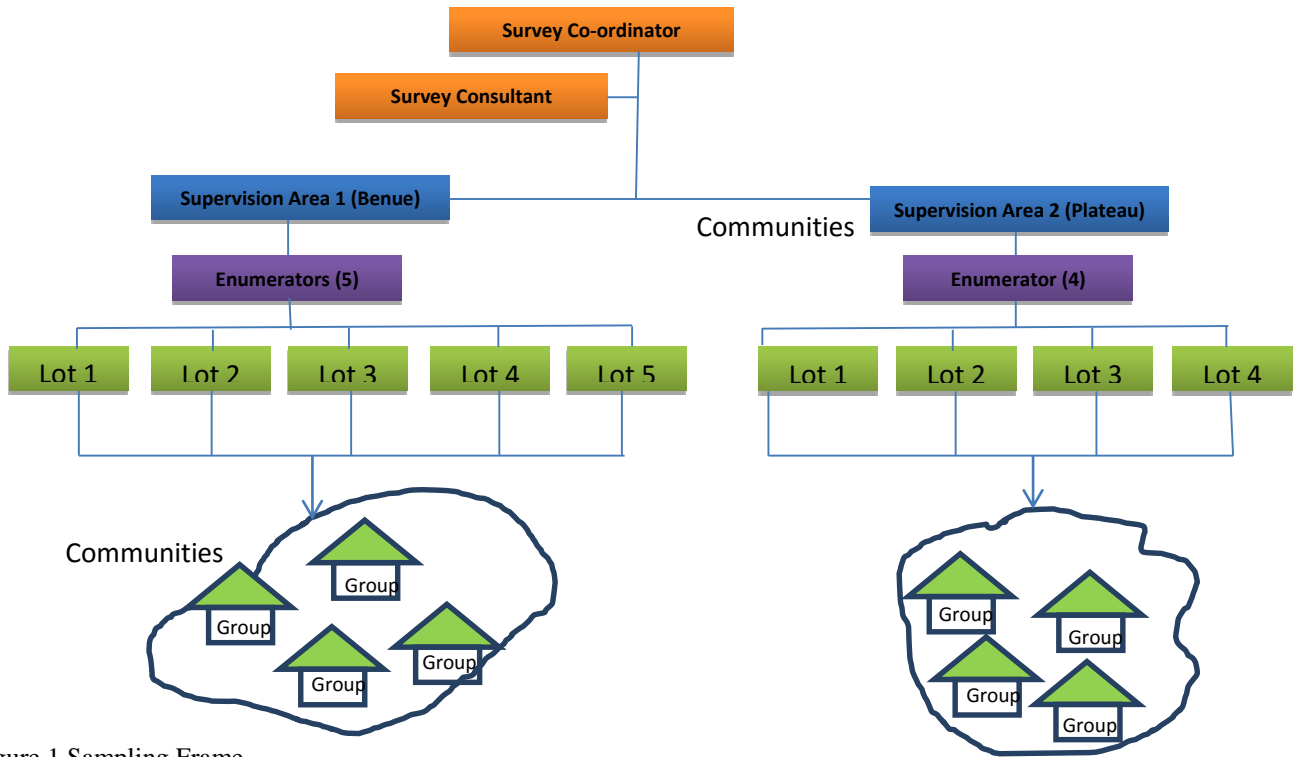
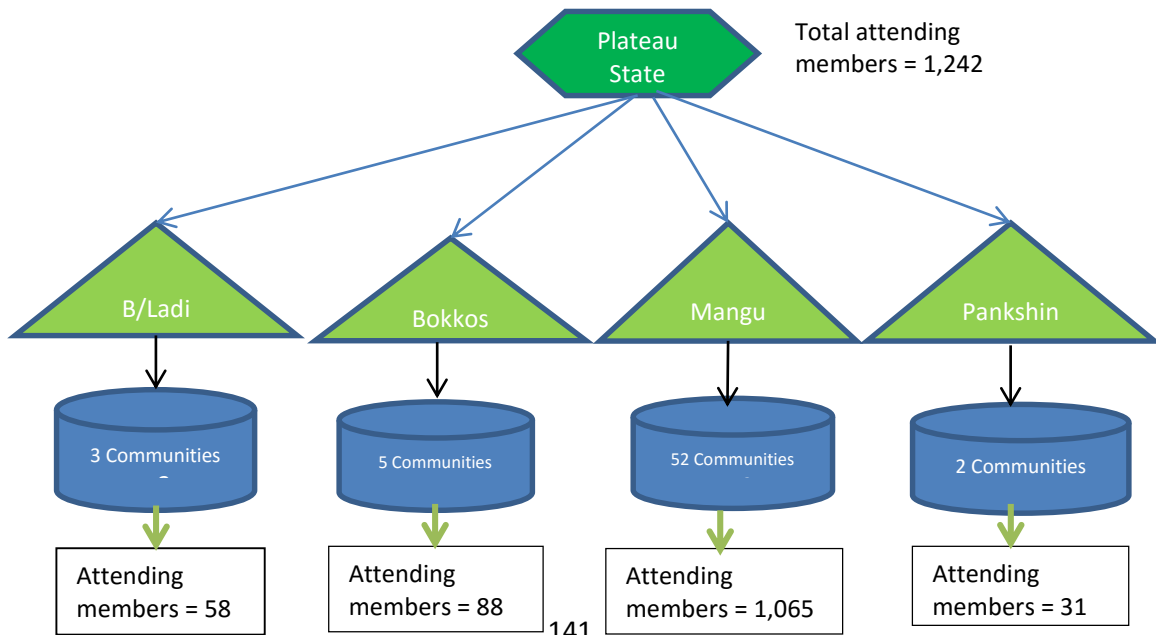


Figure 1 Sampling Frame

The details of the groupings into communities and membership for LGAs in each of the states were captured as in Figure 2. Membership composition starts from the community then the group(s) per community and each group consists of attending members. The least number of community in a local government area was one (1) with one (1) group and the highest number of community in a local government area was twenty-seven

(27) with 39 groups. Each group has a group code with different number of attending members. The least number of attending members in a group was 8 and the highest membership was 25.



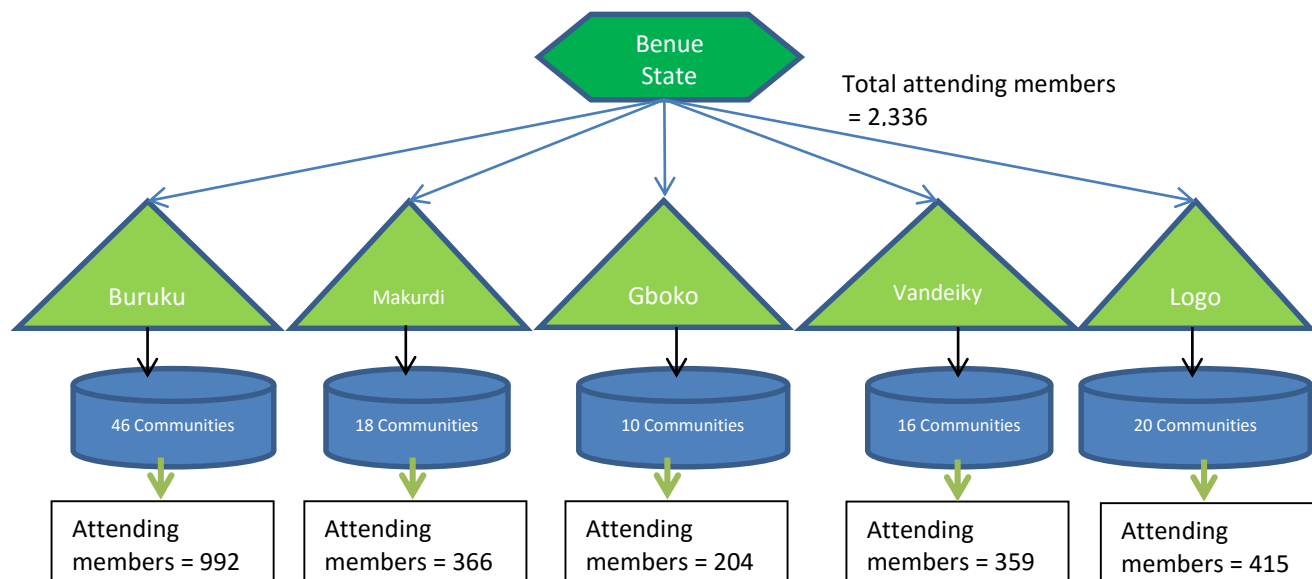


Figure 2 State attending members per community

The LQAS steps were as follows:

- i. Given the number of attending members,  $a_m$  per group in a LGA, obtain the cumulative population  $p_c$ .
- ii. Compute the sample interval ( $s_i$ ).
- iii. Using the random number table, determine the random starting number between 1 and  $s_i$ .
- iv. Using the random starting number and the sampling interval, select the number of groups,  $g_i$  in the LGA.
- v. Since the number of attending members,  $a_m$  varies for different groups, the total number of members in a LGA selected  $= \sum_{i=1}^n (a_{mi})$ .

Tables 1 and 2 in Appendix A demonstrate the process of selecting the groups in communities within local government areas in the two states. Due to consideration for space, three LGAs (Vandeikya, Logo, Buruku) in Benue state with 16, 20 and 46 communities respectively were streamlined to indicate only the number of communities, cumulative population, sample interval, random number, number of selected groups and total population of members of the selected groups as indicated in columns 2, 6, 7, 8, 10 and 11 of Table 2 respectively. All the nine LGAs in the two states were

included in the random groups' selection and the resultant number of all participants interviewed were representatives of each of the selected groups. At the end of the random sampling, the enumerators were asked to interview 2,551 participating members from 126 groups and 2,210 households.

#### Mobile Data Collection

Open data kit (ODK) (<https://opendatakit.org/>) was used for data collection by replicating the paper-designed questionnaire on android mobile phones procured mainly for the study. A database was set up on a hosted server in which all data entered in the questionnaire on the phones were sent directly to the database. As the data were being received on the server, reporting were taking place almost immediately thereby eliminating delays, wastages and transcription errors synonymous with paper-based method (Yamanaka *et al.*, 2016). In addition, enumerators were able to capture interview locations and respondents images using the ODK mobile tool and transmitted completed survey results immediately to the configured cloud server for remote access and verification. Using ODK brought about speedy, accurate and reliable data collection. The application of the ODK provided the platform for the supervisors and enumerators to carry out on-the-spot validation of the data.

Prior to deployment of the mobile phones to the field for the survey exercise, the paper-based designed

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questionnaire was vigorously reviewed severally by the constituted team from all the stakeholders. The accepted questionnaire was then coded into ODK on the mobile phones and a training was organized and carried out simultaneously on the paper and ODK for familiarity in order to minimize errors when put to use in the field. Pretests were conducted using dummy data on the paper-based questionnaire then on the ODK to ensure effectiveness and proficiency.

Due to intense nature of the survey questions requiring long hours of operating the mobile phones, Infinix hot 2 android-based mobile phones with the configurations of 1.3GHz processing speed, 2GB RAM, 7” screen size for clear visibility, reliable touch pad and long battery life were used. The long battery life was to address in part the frequent recharging of the phones due to limited power supply at the LGAs levels as the enumerators were required to interview 25-39 participants daily.

**Data Submission and Visualization**

Data captured in the ODK platform on the phones after verification were submitted directly to the server in the cloud and visualized on a dashboard. The dashboard was designed and hosted online for easy interpretation of the submitted data. Fusion tables (<https://developers.google.com/fusiontables>) were created as backup of the raw data and this is available at <https://www.google.com/fusiontables/>. In addition to the fusion tables Google maps were created as shown in Figures 3 and 4. Submission of data was disaggregated by gender. The green pins (location identification point) on the map represent female household members who were interviewed while red pins (location identification point) represent male household members. The interactive map allowed the survey coordinator and supervisors to apply search criteria when navigating the map. Examples of the data visualizer on the dashboard are captured in Figures 5 and 6.



Figure 3 Location map showing male respondent image



Figure 4: Location map showing female respondent image



Figure 5: Comparing on dashboard Achievement against Target per LGA

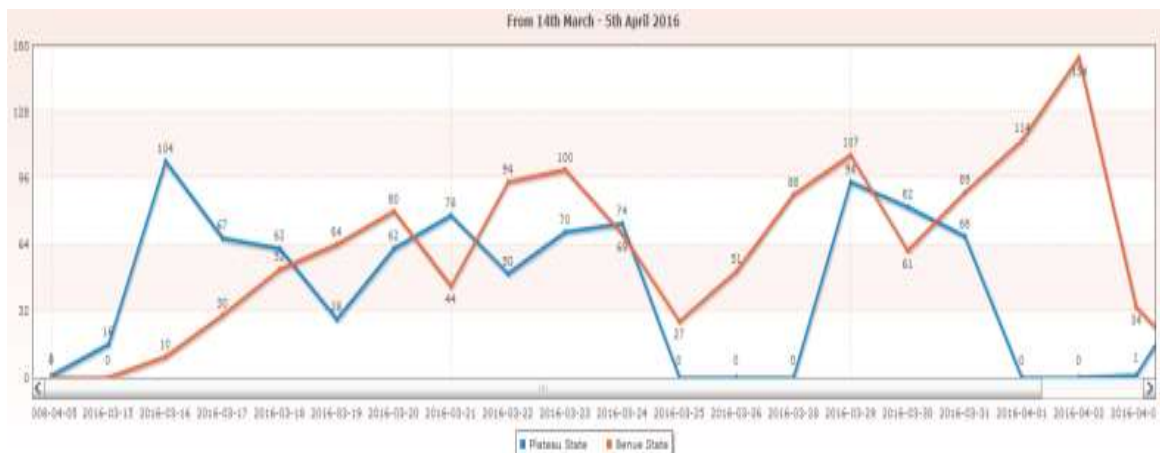


Figure 6 Daily Achievement per supervision area visualized on dashboard

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The google fusion table was combined with a custom-made survey data visualizer to ease interpretation of the 'highly' coded responses. On the dashboard, the visualizer captures some key performance indicators generated by the stake holders.

### **RESULTS**

The data obtained through the use of mobile devices and applications were mainly on household socioeconomic characteristics (gender, Gender of Household Head, Civil Status, member of the community organization, etc.), household heads distribution according to age and land cultivated / not-cultivated, household productive assets (tractor, axe, tiller, hoe, plough, sickle, water pumps, generator, wheel barrow, nets, etc.), household non-productive assets (radio, mobile telephone, computer, television, chairs, sofa, table, etc.), livestock, food consumption and expenditure, food insecurity, household income, household monthly savings, energy sources, access to loan and housing type. Summary of the key findings are captured in Table 3 (Appendix B).

### **DISCUSSIONS**

Just as Hilbert (2012) wrote that ICT4D strategies and policies focus on accelerating development works, minimizing drawbacks and removing bottlenecks with the use of technology to meet goals [sic], this study was aimed at bringing to fore the information to the stakeholders on their current activities, performances, and how they can plan their future activities using available information technologies in their domains. This will prepare them against the past drawbacks while strategizing to improve on future surveys' results and savings that will enlarge members' savings, investments and quality of lives. With the increasing number of android mobile phones being acquired by the rural dwellers, it is only necessary to empower the people through training on the use of the technologies to accelerate their investments. In as much as the technologies used for the study were around the people for 5+ decades, the knowledge on the applications from the people that will help engender poverty reduction is not diverse. This position conforms to the argument by Edgerton (2008) for shift from more emphasis on "technology-as-invention to technology-in-use" especially to improve the living conditions of the majority poor in low and middle income countries, LMICs- sub-Sahara Africa and Asia developing

economies in particular. In Edgerton view, the technology-in-use makes much more difference in the lives of the people especially for those at the base of the socioeconomic pyramid.

Item 29 on Table 3, corroborates the previous statement that the study was carried out in the rural poor communities. According to Hilbert (2012), most poverty is located in rural areas but it is visibly stunning that the studied households expended less than US\$1/N 349.85 on food in a day (exchange rate at the time of study was \$1/N365). This possibly may be attributed to the support from amount of food stuff harvested by individual farmers through the use of funds raised from the associations' contributions and loans. Invariably, this implies that less money was spent on buying food items from the markets. Thus with the application of the technologies, data can be made more available for decisions making and information exchanged more regularly based on evidence amongst the association members in order to harness potential opportunities that can help improve their welfares. The information from the application of the technologies is therefore a conformity to Heeks (2016) analysis on whether informationalism is the means of development while human development is its goal. Heeks (2016) advocated that "informational modes of production must be spread right down to the base of the pyramid; and that the full power of digital technologies must be turned to the problems of environmental sustainability." From table 3, the contributory and loans programme is contributing positively to the quality of lives of the participating members. The evidences include, high percentage of houses in corrugated iron, cement and tiles (77%), high percentage of members with mobile phones (84%) despite very low percentages of households' access to loans (25%) and growth enhancement support scheme (7%). This evidence of improvement in quality of lives may not be attributed to informational modes of development and could be improved further with the applications of information and communication technologies. The two latter low performance percentages corroborated Van Zyl *et al.* (2012) part of the factors leading to Africa's agriculture underperformance even in the current 21st century: under-investment in rural areas; inadequate access to markets and unfair market conditions; gender asymmetry in access to assets and services [sic] and so

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forth. Although according to Awe *et al.* (2016), ICT had contributed 9.61% (over \$50 billion) to Nigeria Gross Domestic Product, GDP, as at 2014. On the other hand in the same year it formed 22% of the Services Sector which contributed over 50% to the GDP of the same year. This outcome may be more inclined to the rate of the technologies penetration but outcomes in terms of applicability of the technologies to poverty reduction, education, access to clean water and healthcare, agricultural production, jobs creation and so forth was not explicit (eTransform AFRICA, 2012). An intriguing question is what part of this contribution was to the rural population in Nigeria in terms of lives changing incomes?

Even though there was no item on the possession and use of other information and communication technologies such as radio and television, in Table 3 by members, the success of the scheme may not be devoid of the applications of these devices. Human being if given and/or availed the opportunities and choices, especially of technology will always want to explore, exploit and surf the waves of the technology novelty.

## CONCLUSION

ICT4D e-policy towards all-inclusive information and knowledge based productivity to eliminate poverty and ICT4D divide in Africa may still be some hundreds of thousand miles away from the set pace by developed economies. As simple as the applications of the ICT was to the study, the revelation showed that much still needs to be done on the parts of the stakeholders to ensuring that efforts be geared not only on breaking the technologies' divide but the use of the technologies as well. Heeks (2012) discussed a lot about the ICT4D stages and strategies by innovators that will address the '4D' part of the ICT4D. These were particularly addressed to reach out to the needs of poor individuals and communities and not based on the inventioners, innovators, corporations and government needs. Different stakeholders in a project may have different goals or objectives (Tongia and Subrahmanian, 2006). It could be argued that in the 2010s the technologies are focused on inclusivity and addressing the needs of the poor but making available the knowledge on the applications of the technologies that could better their livelihoods may still be the problem. The authorities responsible for making the development available to the users at the bottom of the economic pyramid need to strategize on key areas such as training on the use of the applications for personal development purposes. This is

possible as mobile devices which contain portable televisions, web-based applications (social media, mails, guides, etc.), radios, phones, etc. have diffused all strata of the society even in the transitioning and developing economies.

The stakeholders in developing economies for instance the governments responsible for giving the people true inclusive development such as that described by Sen (1999), need to avail especially the poor the opportunities to access without hitches the transformative power of ICT (CRS *et al.*, 2014) by providing the needed infrastructure.

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**Appendix A**

**Table 1 Plateau State communities**

LGA	Community	Group name	Group code	Attending Members	Cumm. Pop.	Sample Interval = cumm. Pop/n	Random Number	Random groups selection	Groups selected	Population per group
B/Ladi	Darwat	Alheri Group	0001	20	20	29	15	15	1	20
B/Ladi	Darwat	Bamshak Group 2	0006	18	38					
B/Ladi	Darwat	BALKA	0050	20	58			44	1	20
Bokkos	Wumat	Ka fut hai ka bum diyai	0009	25	25	29.33	17	17	1	25
Bokkos	Mbar	ALHERI	0045	1	26					
Bokkos	Wumat	MARE TI ABUM	0062	23	49			46.33	1	23
Bokkos	Wumat	BUMTI HAI MADETI	0063	22	71					
Bokkos	Balang-calep	UNITY GROUP	0074	17	88			75.66	1	17
Mangu	Konbring	Balka Group 1	0002	24	24	27.3	24	24	1	24
Mangu	Mairana	Balka Group 2	0003	14	38					
Mangu	Yenwurang	Bammun Group	0004	15	53			51.3	1	15
Mangu	Adiyes	Bamshak Group 1	0005	25	78					
Mangu	Mai rana	Bamshak Group 3	0007	13	91			78.6	1	13
Mangu	Adiyes	Diret-kinan Group	0008	21	112			105.9	1	21
Mangu	Gohotkung	Kam'ar Group	0010	19	131					
Mangu	Mitang	Mitang Group	0011	21	152			133.2	1	21
Mangu	Adiyes	Ribetshak Group	0012	19	171			160.5	1	19
Mangu	Gohotkung	Salama Group	0013	25	196			187.8	1	25
Mangu	Adiyes	Seyken Group 1	0014	21	217			215.1	1	21
Mangu	Jakatai	Sekyen Group 2	0015	20	237					
Mangu	Daika	Yaghal kyen Group	0016	25	262			242.4	1	25
Mangu	Gindiri Ngok	Bamret Group	0017	25	287			269.7	1	25
Mangu	Kopji	Dyelshak Group	0018	24	311			297	1	24
Mangu	Ruwwang	Dyepshak Group	0019	14	325			324.3	1	14
Mangu	Ruwwang	Kam'ar 2	0020	16	341					
Mangu	Kopji	Kauna Group	0021	25	366			351.6	1	25
Mangu	Tyop	Panshak Group	0022	18	384			378.9	1	18
Mangu	kopal	Yonshak	0023	25	409			406.2	1	25
Mangu	Nchiya	Longkam	0024	21	430					
Mangu	Konbring	Kwantpan	0025	24	454			433.5	1	24
Mangu	C.C.D.P Compd	Zumunchi	0026	23	477			460.8	1	23
Mangu	Fwangko	BAMRET	0027	17	494			488.1	1	17
Mangu	Fwangko	PORET	0028	20	514					
Mangu	Gindiri Ngok	VULRET	0029	21	535			515.4	1	21
Mangu	Binkwahas	Bamun	0030	25	560			542.7	1	25
Mangu	Kwahas	Walshak	0031	24	584			570	1	24
Mangu	Binkwahas	Sekyen	0032	24	608			597.3	1	24
Mangu	Npaat	Sharret	0033	19	627			624.6	1	19
Mangu	Npaat	Rebetshak Npaat	0034	20	647					
Mangu	Ajing	Shangton	0035	20	667			651.9	1	20
Mangu	Ajing	Walshak	0036	20	687			679.2	1	20
Mangu	Ajing	Bamshak Npaat	0037	21	708			706.5	1	21

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LGA	Community	Group name	Group code	Attending Members	Cumm. Pop.	Sample Interval = cumm. Pop/n	Random Number	Random groups selection	Groups selected	Population per group
Mangu	Ajing	Nanshak	0038	17	725					
Mangu	Lakopal	Fwangshak	0039	20	745			733.8	1	20
Mangu	Fushi	KAUNA	0040	23	768			761.1	1	23
Mangu	Pang Gangshir	RIBERTSHAK	0041	20	788					
Mangu	Daika	RETMWAN	0042	20	808			788.4	1	20
Mangu	C.C.D.P	PEACE	0043	17	825			815.7	1	17
Mangu	Jakatai	BALKA	0044	25	850			843	1	25
Mangu	Fishfarm	DYEPSHAK	0046	23	873			870.3	1	23
Mangu	Jakatai	SEYKEN GROUP2	0047	15	888					
Mangu	kopal	BALKA GROUP 2	0048	17	905			897.6	1	17
Mangu	Gindiri Ngok	KYENRET	0049	21	926			924.9	1	21
Mangu	Tul	KILINGSHAK	0053	19	945					
Mangu	Tukur	Kyenret	0071	18	963			952.2	1	18
Mangu	Jakatai	NASHAK GROUP	0072	24	987			979.5	1	24
Mangu	Konbring	NANDYEL GROUP	0075	17	1004					
Mangu	Konbring	YILRET GROUP	0076	19	1023			1006.8	1	19
Mangu	Kinat	PEBANG	0078	23	1046			1034.1	1	23
Mangu	Nchiya	RETNA GROUP	0079	19	1065			1061.4	1	19
Pankshin	Lugor	PANSHAK	0073	14	14	31	18			
Pankshin	Balang-calep	MUKANKE GROUP	0080	17	31			18	1	17

Table 2: Benue State Communities

LGA	Community	Group name	Group code	Attending Members	CummPop.	Sample Interval= cumm. Pop/n	Random Number	Random group selection	Groups selected	Population per group
Makurdi	Agboghol	Community Women VSLA	0013	25	25	28.15	22	22	1	25
Makurdi	Agboghol	Lower Benue VSLA	0014	18	43					
Makurdi	Idye	Progressive Mothers	0015	25	68			50.15	1	25
Makurdi	Agboghol	WAAR VSLA	0016	23	91			78.3	1	23
Makurdi	Agboghol	Mzehemen VSLA	0017	25	116			106.45	1	25
Makurdi	Agboghol	Dooshima (Love) VSLA	0019	25	141			134.6	1	25
Makurdi	Kanshio	Face to Face	0020	25	166			162.75	1	25
Makurdi	Terwase agbadu	Virtuous Woman	0025	18	184					
Makurdi	Idye	Delight Women	0026	18	202			190.9	1	18
Makurdi	Agboghol	Peace Women	0029	13	215					

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LGA	Community	Group name	Group code	Attending Members	CummPop.	Sample Interval= cumm. Pop/n	Random Number	Random group selection	Groups selected	Population per group
Makurdi	Agboghol	Blessing of God VSLA	0030	21	236			219.05	1	21
Makurdi	Agboghol	Mkpeyol	0049	25	261			247.2	1	25
Makurdi	Agboghol	Gbashima VSLA	0050	19	280			275.35	1	19
Makurdi	Terwase agbadu	ADORABLE	0051	12	292					
Makurdi	Agboghol	BEMSHIMA VSLA	0071	20	312			303.5	1	20
Makurdi	Idye	DIVINE MERCY	0072	25	337			331.65	1	25
Makurdi	Agboghol	IZOVER	0073	14	351					
Makurdi	Idye	TREASURE	0094	15	366			359.8	1	15
Gboko	Gss gboko	Dooshima2	0027	23	23	29.14	14	14	1	23
Gboko	Low cost	Women of Faith VSLA	0040	17	40					
Gboko	Adekaa	CONCERNED WOMEN	0052	19	59			43.14	1	19
Gboko	Gss gboko	MSEND00 VSLA	0055	15	74			72.28	1	15
Gboko	Nkst yandev	WUESE-TER	0068	23	97					
Gboko	Ishegh	VIRTUOUS WOMEN	0079	16	113			101.42	1	16
Gboko	Kyado yandev	IWASEN E-TER	0080	25	138			130.56	1	25
Gboko	Mane yandev	MHEN U-TER	0082	25	163			159.7	1	25
Gboko	Yandev	MHOUNUM MA-TER	0084	25	188					
Gboko	Mkar	UNITY MOYHERS VSL	0092	16	204			188.84	1	16
Vandeikya	16				359	29.91	11		12	<b>291</b>
Logo	20				415	27.66	16		15	<b>329</b>
Buruku	46				992	29.17	25		34	<b>757</b>

**Appendix B**

Table 3. Key Indicators

<b>ID</b>	<b>Indicator</b>	<b>Value</b>	<b>percentage</b>
1	Number of households with access to loan	542	24.52
2	Number of households with access to growth enhancement support scheme, GESS	144	6.52
3	Number of female headed households	390	17.65
4	Number of members between 18 and 35 years	878	28.43
5	Number of female respondents	1641	74.25
6	Average Household size	9	
7	Number of members with access to land (Total Owned Land)	1950	88.24
8	0.5-1ha	41	2.1
9	1ha-2ha	472	24.21
10	more than 2ha	1437	73.69
11	Number of members with access to land (Total Rented Land)	421	19.05
12	0.5-1ha	25	5.94
13	1ha-2ha	178	42.28
14	more than 2ha	218	51.78
15	Total size of livestock	46,374	
15	Total Cattle (Adult Cattle, Calf)	67	
15	Total Poultry (Chicken, Duck)	31,150	
15	Others (Horse,Donkey,Pig,Sheep,Goat,Ramb,Fish)	15,157	
16	Number of members with mobile phone	1,859	84.12
17	Average cash income of household in the last month (Naira)	34,306.7	
18	Average savings per household made in the last month (Naira)	780.47	
19	Average loans taken out per household in the last month (Naira)	6,658.31	
20	Number of Members of household with access to(Savings/Credit/Insurance)	705	
21	Savings account	318	
22	Credit	222	
23	Insurance	165	
24	Average number of meals eaten per day per household	2.92	
25	Number of households who eat smaller meals	694	31.4
26	Number of households who eat fewer meals	660	29.86
27	Number of households who consume food of lower quality than normal	1058	47.87
28	Number of households who fast (24 hours without eating)	95	4.3
29	Average amount expended per household per week on food (Naira)	2,449.32	
30	Number of roof of house in corrugated iron, cement and tile	1,696	76.74
31	Number of floor of house in dirt	448	20.27
32	Number of house with no window	135	6.11

33	Approximate amount spent per household on education (adults and children) in the last year (Naira)	3,358.14	
<b>ID</b>	<b>Indicator</b>	<b>Value</b>	<b>percentage</b>
34	Average number of children per household not attending school regularly (or have dropped out) due to a lack of money (tuition, schoolbooks, need to work, etc.)	0.53	
35	Approximate amount spent per household on health services in the last year (Naira).	4,771.72	
36	Number of female head of household making primarily the following household decisions		
37	Household Consumption	550	33.52
38	Savings	725	44.18
39	Loan-taking	750	45.7
40	Children's education	416	25.35
41	Children's marriage	294	17.92
42	Health expenses	420	25.59
43	Family planning	415	25.29
44	Number of female members who feel respected in their community	1606	97.87
45	Number of female member who hold a management position in SGs or institution they belong to	957	58.32
46	Average amount of loan received (Naira)	8399.72	
47	Average amount saved during the cycle (Naira)	3835.3	
48	Average amount received at the share-out (Naira)	4550.18	
49	Activity with more use of money received at the most recent share-out of support group, SG	<b>Purchase of productive asset</b>	