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ICT and Socio-Economic Development: Interventions and Issues in Rural Communities in Adamawa State, Nigeria

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Abstract

This article explores the literature on prospects, possibilities and special issues of ICTs and socio-economic development in deep rural communities before taking a look at two interventions in ICT and information resource distribution to support development in a small rural community in Yola, Northeastern Nigeria. The African Center for ICT Innovation and Training, an American University of Nigeria community engagement initiative is used as a case study to gauge its importance as an ICT resource center for the community and for small businesses; and the issues faced and lessons learnt to better use ICT to meet the needs of rural communities. Another intervention, the Karatu Library Project, aims at developing sustainable libraries using measures such as economic sustainability, innovative housing of libraries, training of staff and the development of policies and procedures that have been found to be appropriate in rural ICT deprived communities. These two cases illustrate successful and problematic interventions, and how project designs had to be changed and expanded due to issues and challenges faced especially in deep rural communities. The lessons learnt are particularly useful for developing project components and interventions to develop ICT competencies and capacity building to help bridge the digital divide and empower both rural and deep rural communities.

Keywords: ICT and Socio-economic development, rural communities, ICT issues in rural communities, ICT Projects, Information resources for development.

1. Introduction

The potential of ICT to transform communities and economies has been touted in the literature. The expectation of ICT playing a transformational role is most evident in Africa. As the last development frontier, Africa has begun to look upon ICT as the magic bullet to solve its developmental problems. Many declarations, such as the draft Ouagadougou Declaration, recognize the importance of good governance to promote sustainable development, poverty alleviation and the enhancement of the quality of life for Africa's citizens. These documents highlight and acknowledge the importance of access to information for healthy democracies, the challenge Africa faces in building the requisite ICTs skills, and the fact that e-government wields great potential for making African governments more efficient, responsive, transparent and legitimate. The roadmap for the implementation of ICT best practices addresses issues of enabling environments, infrastructure development, security, harnessing citizen information for better government services, revenue, and online citizen services.

The challenge of how best to use ICTs to empower communities and reduce poverty is still an area of contention, nevertheless, the debate on the utility of Information and Communication Technologies (ICTs) in developing countries has largely been won, (Avgerou & Walsham 2000, Walsham 2004, Urquhart, Liyanage & Kah 2007). In Africa, the public, governments and the donor community see ICT's as a powerful tool in poverty reduction. Although the link between economic growth and ICT has been well established (Kraemer & Dedrick 2001, Jalava & Pohjola 2002), the exact process of how ICTs can be used for poverty reduction in developing countries needs exploration and is open to challenge (Kenny, 2002). Many International Financial Institutions (IFI) have issued reports on the economic arguments for ICT investments in developing countries and many recent reports discuss the distinct role ICTs can play in bridging the information and knowledge gap for the poor (Marker, McNamara and Wallace 2002,).

This article explores the literature on prospects, possibilities and special issues of ICTs and socio-economic development in deep rural communities before taking a look at two interventions in ICT for development in a small rural community in Yola, Northeastern Nigeria. The African Center for ICT Innovation and Training, an American University of Nigeria community engagement initiative is used as a case study to gauge its importance as an ICT resource center for the community and for small businesses; the issues faced and lessons learnt to better use ICT to meet the needs of rural communities are examined. Another intervention, the Karatu Library Project, aims at developing sustainable libraries using measures such as economic sustainability, innovative housing and distribution of library resources, training of staff and the development of policies and procedures that have been found to be appropriate in rural ICT deprived communities

2. ICT for Poverty Alleviation and Development

According to Urquhart, Liyanage & Kah 2007, ICT projects aimed at reducing poverty have often used models based on providing access to new technology, new skills and better ICT infrastructure with the expectation that ICTs will primarily stimulate economic growth and production efficiency. Communities with low income and impoverished economies are expected to benefit from such ICT interventions because a direct correlation is assumed between ICT intervention and poverty reduction. Such a supply push approach has distinct limitations, because they do not take into account the endogenous capacity building and absorptive capacity of the community's knowledge, as well as the process of the social capital formation.

Despite the complexity and cost of ICTs, their uses in developing countries have ramifications for knowledge, information access and the economic and social welfare of communities. A strong correlation exists between the access to education and knowledge and poverty indicators such as infant mortality, family size, and women's health (Marker, McNamara and Wallace, 2002, Urquhart, Liyanage & Kah, 2007). Other studies have also established a close link between poverty and an information gap of the poor (see for example, Burch and Grudnitski, 1986, Humphrey, 2006). In this paper we look at two ICT interventions in Yola, Adamawa State, Nigeria.

3. Methodology

A combination of surveys, interviews and an ethnographic study were chosen as the most appropriate methodology to better understand the impact of the center and the library project since this allows us to use an in-depth analysis of the social processes and economic histories of the communities impacted. Research included socio-economic surveys and semi-structured interviews on socio-cultural and economic impact of ICT on a small community in Northeast Nigeria, Yola. The authors decided to use the ITC Center and the Karatu Library Project as areas of focus since these are clearly interventions whose impacts could possibly be ascertained from surveys of beneficiaries, the types of courses taught, and the services offered by the Center and the Library Project and the perceived utility of the new skills learnt. By living within the community in the last four years and being intimately involved in the concept, design and execution of these projects, the authors were also able to use some ethnographic research methods to build these case studies. The issue of being biased in our assessments is acknowledged given the intimacy of the authors with the two project interventions illustrated in this article.

4. Prospects and Problems of Building ICT Capacity in Rural Africa

Even though it is widely accepted that capacity building is essential for the introduction of new technologies in all societies, necessary capabilities include individual, collective and relational capabilities that enable the creation, exchange, absorption and reconfiguration of knowledge and skills. ICT capacity building plays a central role in the application of ICTs in developing countries for two reasons. First, the lack of ICT skills and expertise in the country of application may hinder continued operation of the ICTs implemented (Adam & Myers 2003). There is much anecdotal evidence to suggest that systems failure occurs once project funding is ended, due to the lack of specific IT skills on the ground. Lack of information literacy on the part of users of the intervention may also hinder adoption (Lee 2001). Second, knowledge plays a pivotal role in poverty reduction, and ICTs could make available that knowledge (Marker, McNamara & Wallace 2002). According to Urquhart, Liyanage & Kah 2007, two factors have been recognized as the key constraints to implementing ICTs projects in impoverished societies. ICT projects aimed at reducing poverty have often used models based on providing access to new technology, new skills and better ICT infrastructure with the expectation that ICTs will primarily stimulate economic growth and production efficiency.

As illustrated in our case studies, a revenue model was built in to ensure that the projects are self sustaining and that they don't wind down their activities once external funding dries up. Despite all the anticipated benefits of ICT interventions, many projects in Sub-Saharan Africa fail to have a major impact on communities. In the next section we will explore some of the reasons for these failures.

4.1. Why ICT Interventions in Rural Areas Fail to have Substantial Developmental Impact

Delivering and maintaining ICT projects in impoverished or remote areas are major challenges due to technical and operational reasons (Dymond & Oestmann 2002). Even though studies have shown that the commitment to access information and the realization of ICT is an important input that has been high among poor people (Kayani & Dymond 1997), achieving the desired impact from ICT interventions is very difficult. From a supplier point of view, poverty alleviation can also be achieved by wealth distribution, and creation of infrastructure that can be activated only by direct intervention of governments and donors. Therefore, good governance is an important input for poverty alleviation and ICT has a role to play by disseminating information in impoverished areas.

ICT capacity building has been defined as the human capacity to utilize ICT. One problem for ICT interventions in developing countries is the absence of residents' ICT skills and expertise, which may hinder sustained operation of implemented systems (Adams and Myers 2003), and lack of information literacy hinders adoption (Lee 2001). As participants take part in ICT development, they should become part of a process of building human and intellectual capital, which in turn should increase total social capital (Urquhart, Liyanage & Kah 2007). In this section we look at issues such as gender relations, access, prohibitive cost of ICT and how poverty impedes ICT adoption and diffusion.

4.2. Lack of Access as a Barrier to the Adoption of ICTs in Rural Communities

Accessing ICTs is a major impediment for many people in Nigeria and Africa. The monopoly of Nigerian Telecommunications (Nitel) over telecommunications services was officially ended in October 1997, but the government has faced difficulties in privatizing the inefficient and overstaffed state-owned company.

According to the Country Partnership Strategy for The Federal Republic of Nigeria (2005 - 2009), tele-density, though low, has increased from .4 percent in December 1999 to over 6.5 percent in December 2004. The regulatory framework is state-of-the art. The response of the private investors has been remarkable. Private investments rose from \$50 million at end-1999 to \$5.4 billion at end-2004, so that the sector is second only to oil in Foreign Direct Investment (FDI). This shows unequivocally that the private sector can play a positive role in the economy. The IFC's largest investment in Nigeria is in telecommunications. The National communications monopoly (NITEL) is being prepared for privatization now and e-regulation of the telecommunications sector has been very effective.

According to the Economist Intelligence Unit (EIU) 2007, Nigerians have been quick to embrace mobile technology, and the companies providing the service have struggled to roll out their networks fast enough to keep up with demand. NCC figures show that the number of mobile network subscribers has risen from 450,000 at the end of 2001 to around 24.4m in June 2006. In contrast, Nigerians have been slow to embrace Internet technology, partly because of prohibitive local subscription charges and the poor state of the local fixed-line telephone system. However, despite the high costs the number of Internet users has risen rapidly in recent years: from under 300,000 in 2002 to around 2.5m in 2005 and is projected to reach an estimated 3.5bn by late 2006.

4.3. Wealth Distribution and Inequality as Barriers to the Adoption of ICTs in Rural Communities

Even though Nigeria is a nation well endowed with oil, land, water, mineral, forest and agricultural resources it is still one of the poorest countries in the world with an underdeveloped human capital (Nigeria ranked 151 out of 177 countries in the United Nations Development Index in 2004). According to UNDP data, Nigeria had a GDP per head figure (on a purchasing power parity basis) of US\$1,050 in 2003, compared with an average for the least-developed countries of US\$1,328; 70.2% of the population lives on less than a US\$1 a day (EIU, Nigeria Country Profile 2007). Although, high oil prices have meant increased revenues, Nigerians are falling deeper into poverty. In 1980 an estimated twenty-seven percent (27%) of Nigerians lived in poverty. By 1999, about seventy percent (70%) of the population had income of less than \$1 a day. This level of poverty continues to rise with the highest proportion of the poor living in the Northwest and the lowest in the Southwest. According to the World Bank in its Country Assistance Strategy for Nigeria 2004, successive Nigerian Governments - federal, state, local - have systematically mismanaged revenues from oil and economic development has largely been held back by corruption, which undermines trust.

4.4. Ownership and Control as Barriers to the Adoption of ICTs

Urquhart, Liyanage & Kah 2007 argue that having access to computers alone does not guarantee transformation of communities and the positive impact of ICT being felt. Computers are not provided just for their own sake. The aim of ICT interventions is to create desired transformation by giving people in rural areas access to a computer and the skills to use it. According to Urquhart, Liyanage & Kah 2007, in some cases in Bangladesh, villagers were quite fearful of trying out new technology and this was a barrier to use of the technology. For example, in one village where two computers were provided, the computers were kept at one of the villager's houses for safekeeping instead of being used. Any attempt to move these computers to another location which is central for people to use or try out, met with resistance from the person who took charge of the equipment. The fear was grounded on the belief that people will break them, and who will repair them if the computers were to break? Others are not ready to use computers and even if they are they have to pay a nominal amount to use them. As a result, inputs were rarely transformed into any usable outputs with tangible benefits. The presence of two computers in the village however was a symbolic social capital where villagers felt that they were part of the rest of the world although there was no use made of the computers and the information that it can deliver.

In their article, Urquhart, Liyanage & Kah 2007 argue that the transformation process envisaged in ICT interventions is also difficult due to the general level of education, where ICT education stands worlds apart from an actual level of understanding. Villages require the information to be unpacked and presented to them. Villagers were very interested in relevant information such as how to improve agricultural productivity. Indeed in the same village people were enthusiastic about a bee-keeping project to be organized by Swedish Bee Keepers association – bringing a wealth of knowledge and skills that can be put into practice immediately. Villagers view ICT as intangible knowledge and an asset that can be of utility mostly for those who have knowledge to use it. As a result, two computers purchased for the village were left covered with a cloth, and served as a status symbol that indicated that the village now has educated people who can even use computers.

In our study area, Yola, it was mostly the elites and some professionals who had access to computers and the Internet at home and in libraries. Given the poor state of electricity supply with rationing still prevalent, computer use at home is still low. The African Center for ICT Innovation & Training serves as a business center for the community where people can have access to computers, internet connectivity, scanners, etc. A heavily subsidized scheme at the

American University of Nigeria, where local staff members were given the opportunity to purchase laptops and desktops, has helped to increase the number of computers available to the community.

Detailed below are two case studies illustrating the challenges faced in rural and deep rural communities where ICT and information distribution interventions (projects) have been used to empower communities.

Case Study 1: The African Center for ICT Innovation & Training

In December 2005, American University of Nigeria (formerly Abti-American University of Nigeria) was notified of its successful grant application for \$100,000 to build and run the African Center for ICT Innovation & Training from The John D. and Catherine T. MacArthur Foundation (henceforth MacArthur).

The Founder of the University donated a building to which the chair of the Investment and Fund Raising Committee of the Board of Trustees further donated N2,000,000 (Naira) (approximately \$15,384) for renovations. The University, in turn, matched the renovation grant, and work on the Center started in April 2006.

Project Concept, Objectives and Design

The Center's goals include facilitating the development of ICT skill competencies of AUN staff, especially local staff, requisite for the operational needs of the University to coordinate library, admissions, registration and financial services to students and other related tasks. Further, the Center recognized the value of training a small cadre of technologically advanced students excelling in ICT courses at AUN as well as recent top graduates from neighboring local universities and the local community of Yola and Jimeta by providing mentoring by our ICT faculty and assigning supervised locally relevant software development activities with the expectation of developing product and services into marketable and usable software products. It is also our hope that some of the ideas generated by students and faculty can result into the next generation of software and ICT service providers responding to the needs of the local community and Sub-Saharan Africa.

An additional goal of the Center is to help provide advanced software technologies, internet connectivity/access to the community and ICT's to some top students who graduated from the local Universities but were unable to have access to ICT's during their undergraduate programs and/or at their institutions. The Center quickly recognized that very bright young men and women were graduating from these institutions with degrees in computer science, IT and other related fields but without the expected competencies. This is due mainly to the lack of access to ICT resources and capacity in most local universities. Access to modern software, Internet connectivity, ICT infrastructure and adequate faculty with the appropriate training/education in ICT's is a rarity in most of institutions in this part of Nigeria, thus affecting the quality and competence of graduates and therefore their abilities to find jobs. The Center is also an ICT resource center for the community and for small businesses. The Center continues to encourage particularly women in the communities of Yola and Jimeta to be trained in various aspects of ICTs in order to make them more employable.

Issues and Problems Faced in Project Implementation and Building Sustainability

In rural communities, having access to basic amenities such as electricity, water, and Internet connectivity can be a huge challenge. The Center's building, which was donated by the Founder

of the University helped to solve these issues because it is ideal in several respects. It is located adjacent to another University building near the campus and is situated close to the Yola business district. The proximity to the University building allows for the sharing of generators and diesel, water and sewage, and parking lots.

To build sustainability into the project, a fee is charged to beneficiaries, some of whom were sponsored by the University. This allowed the Center to generate its own revenues to meet operating expenses. This is a very important lesson learnt i.e. the urgency to build alternative revenue streams so that when the initial donor funding comes to an end the project does not run into problems and is ultimately closed.

During implementation of the outsourced software development, there was a lack of communication from the sponsor about any upcoming crucial deadlines. The sponsor's change in management of the project resulted in an unexpected decision to stop this collaborative work and to outsource to a professional company. Relationships and trust are essential ingredients in outsourcing models and are as important as technical skills. When these variables change, they can have an effect on the nature, structure and continuance of the outsourced software project.

Contributions/Benefits to Rural Community

The group of students selected to be part of the technopreneurship teams were mobilized to plan and create a registration application program that was used for the September 2006 intake of 300 students. This software was again adopted for the January 2007 intake. The students continue to enhance the functionality of the system that is evolving to be an adaptable and sustainable ERP system for higher education institutions in developing countries that will not be able to afford the more expensive Banner and/or DataTel solutions. The applications being developed by the student technopreneur teams are designed to evolve as professional programs similar to the Sungard's Banner system that will be adopted by the University. In the interim, AUN is using one of these Beta versions developed by one of the teams as its interim registration and admission systems. This system has great potential and we are working to enhance the modules to include a financial and advising module as well as converting it to Oracle. It is our hope that the students will be able to refine the application and introduce it to local universities for their use.

The success of the Center's initial activity was spun off in October 2006 to another group of students who organized admissions data as well as to another group adopting a local health care clinic (MATCO Clinic) based in the Yola/Jimeta community introducing the use and adoption of ICTs as well as to design and develop a health care information system. This has now evolved into a prototype knowledge support system where health informatics is being developed.

A substantial percentage of students in the Center are female and are amongst our most promising students, and are local to the community. These students were provided with a modest student assistantships funded through the grant. They were in the first class to graduate from AUN and will thus lead AUN's employment profile in the business and technology world.

Staff Upgrading

The Center is positioned to be a hub for ICT professional development and to improve the competencies of AUN staff as well as those in the larger population communities of Yola and Jimeta. The center is providing opportunity and access to ICT competence for the poor. The Center offers various ICT training programs, from basic to advance to professional certifications. Another aim of the Center is to extend "self-paced, positive computer access and experience to local staff to create expectations of success and reliable performance," consistent with the work ethic of American universities. To date, this has happened in two ways. First, local staff members were given the opportunity to purchase AUN laptops and desktops in a heavily

subsidized program. Second, recognizing occupational gaps in English competency, especially writing and e-mail messaging, the University offered free of charge a 4-week workshop in basic writing in Spring 2006 and another in the Fall of 2006. The classwork and homework require the use of computers, and staff is released from duty in order to attend the courses.

All of the laptops and desktops in the distribution program were purchased by local staff, and the enrollment and attendance in the writing courses reached the maximum with classes remaining filled throughout the duration. Further training leading to ICDL certification (International Computer Driver's License) commenced in November, 2007 for AUN staff and select Yola community members.

Further training leading to ICDL certification (International Computer Driver's License) progressed with 15 AUN local staff performing a diverse administrative function across the University with very minimum ICT skills. All these students are being trained by highly qualified AUN faculty and learning is reinforced via self paced CBT's using SAM 2003 Training Assessment. These self-paced CBT's are supported by the grant.

Further, a group of 15 students from the Yola and Jimeta community were also trained along with the AUN University local staff. These are six week programs and all students that successfully completed the training will take the ICDL certification exams. The second batch of trainees for the local community commenced their training in May, 2007. All the 30 students currently undergoing training expressed interest in continuing in the next level courses. The Center also fitted the infrastructure for the CISCO Academy and trained fifteen (15) community members for six weeks for the CCNA in May 2007. The center is also scheduled to offer short term training courses in Java and Web development.

Industry-University Engagement

Selected students in the incubator worked on a prototype of "Knowledge Support Systems for Health Informatics" and this work continued through the summer of 2007 and is expected to be an application to be utilized by health clinics in rural areas in Yola and Jimeta. Under the supervision of faculty, students are able to test their ideas developed within the center's incubator in the real world- a rural community.

These activities also resulted in a TOR from International Food's International Food Policy Research Institute (IFPRI) for collaboration and partnership with our center to work with center faculty associates and students to develop a Regional Strategic Analysis and Knowledge Support System (ReSAKSS) ICT Environment (RIE). A key element of the knowledge systems management component is the establishment of a ReSAKSS ICT and interactive website environment (hereafter RIE) to enable ready access to tools and information, promote mutual learning and peer-review, and facilitate dialogue on future priorities:

1. Guiding the design and establishment of preliminary websites
2. Investigating and developing a comprehensive RIE
3. Coordination across nodes and select partners
4. Training and outreach for assessing and using the RIE resources

The students delivered a high-quality finished product, YolaSoft, and the assigned tasks were completed using various mapping tools. As a result of the demands of the project and changing requirements and expectations, the technology learnt and knowledge gained by the students were invaluable and went beyond what is gained in their regular course work towards their degrees.

The knowledge gained by the student members will be valuable as they venture into software development after their graduation. The ACIT team proves that there is hope to develop capacity

and competence in software development which can attract paying jobs for Sub-Saharan Africa and help build a nascent knowledge economy and a new middle class.

The Center also developed a program for “Women in ITC”. This is an effort to increase the number of women at AUN studying and developing competences in computing as well as retention strategies for women enrolled in computing-related programs. Several women from the community are undergoing training and mentorship at the Center and the Center is contributing to the empowerment of women in the community via ICT competence and capacity development.

The Center is also offering numerous IT industry certification programs such as Cisco, Microsoft, Oracle, IBM as well as programming(Java, C++, C##, Java script, PHP, ASP) Linux and Open Source Technologies and Unix. This will be accomplished by housing a Cisco Regional Networking Academy; an Oracle Academic Alliance, a Microsoft Academic Alliance as well as an Open Source (Linux) and Unix Lab. This is progressing well with the establishment of the Cisco Academy and the CCNA certification. Center faculty associates also offered SUN Java certification during the summer of 2007.

The Center’s Role in Community Development and Poverty Reduction

The impact of the Center on the communities of Yola and Jimeta is an ongoing study. On March 6, 2008, the Center held its first formal graduation ceremony in which 62 participants attended to receive their training certificates. In total more than 102 participants have gone through the Center for training. Some of the observable impacts are:

- Students hands-on learning experience equipping them with applied skill sets in different competencies in ICT
- Faculty member’s ability to adopt and utilize ICT in their teaching in order to facilitate learning by enhancing the mode of delivery
- In the case of the staff of the University, the Center has greatly helped to enhance their skill sets and allow them to become more efficient and productive in the performance of their daily tasks
- More than 20 participants from the State government of Adamawa have been trained at the Center. Many of these civil servants are at mid-career levels and have greatly appreciated the opportunity offered by the Center and have indicated that they are more productive at work due to the skills they have learnt. In addition, having these computer skills make them more marketable
- Providing an environment and training for internationally recognized industry certification in different areas in ICT, for example Cisco, MSCE, Oracle, DB2, Linux, Unix, programming skills in Java, C++, C##, PHP, Java scripts etc, as well as web technologies and development skills. ICT is an impetus to skill development, economic empowerment and poverty reduction. Through the Center the next generation of competent skilled IT labor force can be developed to avail themselves to compete for the billion dollar software and IT outsourcing global market. This can have very positive economic effects. This is being demonstrated through the on going training activities of the Center for different levels of ICT training.
- The first phase entailed the development of a Lab at the Center to house the Cisco Networking Academy program at AUN-SITC providing students with a skills-based career path on the information technology (IT) industry. This is now completed. The second phase entailed development of the Labs for the other areas of Information Technology such as an Oracle Lab, Linux and Unix Lab and Microsoft Lab to facilitate the requirements for their certification programs.

Lessons Learnt and Conclusion

The Yola community is currently engaged in the activities of the Center mainly through the numerous training opportunities using ICT skills. Without the Center there was little hope of enhancing the community's skill sets and enabling the community to benefit from being part of the digital world. The women members of the community currently in various levels of ICT training had little hope of much ICT training being in a rural community like Yola. The Yola and Jimeta communities are very satisfied and encouraged by the activities of the Center and its intervention with developing ICT skills to help bridge the digital divide and empower women in the community with appropriate ICT skills.

The exposure to real-world projects is critical for the development of students into marketable IT/IS professionals. Given the competitiveness of the software development industry, students need to experience deep-learning by enhancing not only their technical but interpersonal and project management skills. The opportunity to work in groups and go through the systems development and build process, plus team work and communication with real world users had a noticeable impact on the confidence levels of students. However, ongoing research on student competencies and the usefulness of the systems developed is essential if the hope of these students becoming more aware of the demands presented in a globalized world and being at par with their peers from other programs and countries is to become a reality. The Karatu Library Project discussed next is a good comparison with the ICT Center and illustrates the problems faced in deep rural communities and how they differ from those faced in rural (semi-urban) settings.

Case Study 2: Karatu Library Project

What the world needs is the development of education in those areas where it is lacking since education has been shown to be a large factor in the ability of any society to grow and thrive. Without an educated human work force it is impossible to progress and compete in the new global economy, especially in these days when the glut of information available for those in the West allows them to develop in ways that are not possible for the underdeveloped. The current digital divide is the result of this disparity. Achievement of educational goals is usually focused on what happens in schools but there is much that can be done through the establishment and intervention of libraries and information centers in a local community. A major goal of the Karatu Library Project (KLP) is to provide information to the population in developing rural areas. Therefore, the KLP was established with the initial mission of encouraging and assisting in the growth of the local reading culture by developing and supporting a network of libraries in the Yola area

The NGO's name, Karatu Library Project, was chosen because *Karatu* is the Hausa word for reading and encouraging reading is one of the core goals of the project. The initial mission surrounded the development of a network of libraries which were designated as the KLP member libraries. There are currently 9 full member libraries

Initial Project Concept, Objectives and Design

In 2005, Karatu Library Project grew out of conversations between the Head of the Shagari Community Library, a small community library in the Yola area, and the University Librarian in the American University of Nigeria. They brought different but compatible capabilities to the venture which took shape as they developed and defined the mission. Others were asked to join us in order to develop a well-balanced Board of Trustees which could serve to guide the organization and move forward with the determined goals.

The member libraries are given donations of books and training but they do not receive direct cash funding from the KLP foundation. A basic requirement for membership is that the members

provide clean, dry housing for the books. We also require that the schools use the books appropriately and we teach correct usage during training sessions which are held for the site members. The goal is to teach the member libraries how to successfully run a library and spread the joy of reading to their patrons.

Issues and Problems Faced in Project Implementation and Building Sustainability

The Karatu Library Project was established with the initial mission of encouraging and assisting in the growth of the local reading culture by developing a network of sustainable libraries in the Yola area. Because of various factors endemic in the culture of the area, this was not an easily achievable mission. A culture of reading in Nigeria in general and in Northeastern Nigeria in particular is still at its nascent stage due to the low level of distribution of reading materials and lack of educational opportunities. There is little general understanding about the purpose libraries serve and the reasons for their existence. Typically, a house may only have one or two books and these are generally religious in nature. Reading is not something that is generally done for pleasure but most frequently books are read only because they contain either a religious scripture or material to be memorized for use in school. Oral culture is still prevalent in many parts of this project area of intervention, especially in deep rural communities. However, this does not mean that the residents are not anxious to embrace reading and learning as many see it as a way to develop their full potential and lift themselves out of poverty. Unfortunately, there are inherent difficulties in accomplishing sustainable libraries and these will be discussed next.

The challenges we have had since the beginning include limitations posed by member libraries operating library operations within the infrastructure of their institutions. One public school has not been distributing the books to the students as they said they do not have the space painted and furnished as the government had promised to do and so they had put the books into a locked closet. We are working with them to explain that they can find ways to use the books even without a completely furnished library space.

A private school had also locked the books up and was not distributing them as we would like. This is understandable from their point of view as the books are highly valued and the idea of sharing is not clear. We are working with them to come up with ideas such as holding reading sessions during English language classes.

Staff provision and training

We have also had problems with finding good staffing for the central Karatu office. Volunteers have kept the center going but as volunteerism is not a common practice in this part of Nigeria, it has been hard to ensure that staff are available on any schedule and therefore the opening hours are very uncertain. Two of the site libraries were started and sustained by NYSC corpsers who were serving their required post-graduate service but when their year of service had finished, they were not replaced by such competent students.

It is extremely important to have well-trained staff at all of the Libraries and this is why the Karatu Board has been holding Member Library meetings where training can take place. Sharing of information regarding practices that worked in the specific libraries is also very important.

Economic Sustainability

From the beginning, Karatu Library Project has been dependent on donations in order to survive and grow. Most of our donations come from individuals and through fund-raising events. We were fortunate to get a sizeable donation which represented the proceeds from an event that took place at the American University of Nigeria which is also located in Yola. Books for Africa and the African Library Project in California were both very generous in sending book donations.

There are plans in place to develop sustainable entrepreneurship projects which can ensure a sustainable flow of funds while providing work for local people. Book bags have been stitched together by local workers and sold for a profit, Fulani hats were purchased from a local handicrafter and labeled with the Karatu symbol and sold for a profit and Karatu designed bookmarks were also sold for a small profit. These entrepreneurial efforts are crucial and will help establish Karatu Library Project as a sustainable NGO.

Project Redesign to Meet Needs in Deep Rural Communities

The original design of the project was to develop a network of institutions which all agreed to become full site members and follow the requirement of developing a space for a library in their institutions as well as attending training sessions. As the project developed and grew it has become difficult to follow this original plan for all sites. The work involved in overseeing all of these sites has become so time consuming that a new method of sharing the books for those located in deeper rural areas has been developed.

In 2008, KLP applied and was given a grant in partnership with the VSO office in Yola to include more rural school libraries. These schools were located further from the town of Yola and they did not have the space or funding to establish a real library within their schools. This joint VSO-Karatu project developed a plan of taking boxes of books to these deep rural schools and leaving them for a period of several weeks and then rotating the book boxes to other schools so they would have a variety of titles to read. This has been a successful project and is scheduled to be continued during the next school year.

Another initiative which was not originally planned but has developed is the community library at the central KLP office which now has grown to over 300 volumes. The number of children, students and adults showing up at the office has grown by leaps and bounds as the young students spread the word among their friends that they can borrow, read and return a book and get a replacement. The decision to allow them to borrow books to take home was not without considering the books that might be lost. After several months of monitoring this method it was determined that circulation outside the office library should be discontinued and only on-site reading is now allowed. We plan to look into a new model so we may be able to circulate some of the books to some of the clients.

Karatu Library Project has extended the resources available to the patrons in the following ways:

- A public PC and a laptop are now available at the main Karatu office for patrons to use to access information. There is no Internet connectivity available now but they can use the many informational CDs which have been collected for their use. We have also made a cassette and CD player available for storybook audio tapes and CDs.
- We have begun to collect Braille resources and audio CDs for the use of visually handicapped students and have become a member of Bookshare.com which provides digital texts for the blind. Bookshare has donated several membership accounts to the blind students at the Jada Special School, one of the schools which belong to the KLP network. Even though there is no electricity at the Jada School we have supplied them with tape players and CD players so they can listen to the audio texts available for the blind.
- A literacy course for women in the area has been developed and has is taking place in the Karatu Office. The development of literacy is one of the original goals of KLP and this class is a beginning towards a fuller literacy program which can meet this goal.

Contributions/Benefits to Rural Communities

As one of the objectives was to include various types of institutions in the network, members were purposely chosen. The first libraries included were several local public and private primary schools. Karatu agreed to provide resources and training for them and in turn the members were asked to manage the resources given to them and provide safe and secure housing for these resources. We later added a library site in the deep rural area of Koma Hills and two schools for the handicapped, blind and deaf.

Over the next few years since project inception, the original network of member libraries met and received training and resources, but it became increasingly clear that this kind of network required more supervision than we were able to provide with our limited volunteer staff and resources. We began to think about other ways to provide support to the needs of the host of schools and communities who were desperate for information resources and when a new concept of information provision was suggested by a VSO librarian who came to work in the area, Karatu agreed to work alongside her. Karatu partnered with her in a joint grant program which employed a new concept of rotating book boxes for deep rural schools. The five schools chosen for this project all agreed to take a box of about 30 books for a period of time and to use the books in their classes or library sessions. After several weeks they returned the initial box of resources and they were given a replacement box which was full of new titles. This type of project does not require that the schools develop a permanent library space even though many have now added this to their future building plans. This kind of rotation of boxes placed into the hands of dependable school staff is a system which requires less supervision from the central Karatu office once the process is established and therefore allows for a deeper reach into more rural areas. Transportation is the only present drawback of this method but this was arranged in the past through agreements with local educational authorities who are happy to partner with civil society, and perhaps future funding will allow for the purchase of a vehicle.

The most distant library at Koma Hills is too far away for us to have frequent contact and as the book box network is developed further this library should probably be shifted from being a site member to this other type of deep rural distribution network.

The site member libraries are all very glad to be included in the Karatu Library Project. They have all accepted the books given to them with the assurance that they would be raising the level of literacy in their schools and communities and they have agreed to maintain a library space and to use the books properly. They have been generally successful with achieving these promised goals.

The local communities have been grateful for this new influx of interest in reading especially as it is seen to contribute to their children's educational needs. Each school has expressed its gratitude and we have had many requests from schools and communities to be included in the Karatu Library Project.

There have been many personal and individual successes. We saw one young girl shine so much in her reading skills and level that the University's student charity group arranged for her to receive a three year scholarship from the Deputy Governor of Adamawa State. Another young girl had been coming to the KLF office but was unable to read even though she was twelve years old. It became clear that she had never attended school so a Karatu staff member accompanied her to the local school, paid her school fees and she has since become one of our most voracious readers.

The adults who use the resources are very grateful also. Every day we have users expressing their thanks for this free service to the community. We do not charge for the services and would

like to continue this but we may have to begin to charge a minimal membership fee in order to control the resources and provide some permanent staffing.

Lessons Learnt and Conclusions

I think that overly rapid expansion is a real danger for Karatu as we do not currently have the funding or resources that are appropriate to further increase our commitments to the present members. We will work to develop sustainable plans for financial solvency before expanding our membership base. The impact of the Project on the communities of Yola and Jimeta is an ongoing study. We know that the impact has been positive but it was clear from the beginning of the project that sustainability was going to be difficult to achieve. We have learned that a good management team is necessary for day to day management but that this is not possible without the funding to back it up. Volunteer help has been invaluable but this also is not sustainable and we are working towards being able to pay permanent workers. The development of entrepreneurial programs which will support further growth is a necessary next step in the future of the Karatu Library Project.

Conclusion and Findings

These two case studies illustrate successful and problematic interventions, and how project designs had to be changed and expanded due to issues and challenges faced especially in deep rural communities. The lessons learnt are particularly useful for developing project components and interventions to develop competencies and capacity building to help bridge the digital divide and empower both rural and deep rural communities.

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