Evaluation of the USAID Leland Initiative in Nigeria (2000-2005)

Final Report

Report prepared by:
Dhanaraj Thakur
Kipp Jones
Dr. Michael Best

August 2006

List of Acronyms Used

CATIA	Catalysing Access to ICT's in Africa
DBI	Digital Bridge Institute
DFID	Department for International Development (UK)
FCC	Federal Communications Commission
FGN	Federal Government of Nigeria
GICT	Global Information & Communication Technologies, World Bank
LI	Leland Initiative
LMI	Last Mile Initiative
NCC	Nigerian Communication Commission
NEEDS	National Economic Empowerment and Development Strategy (Nigeria)
NEPAD	New Partnership for African Development
NIPC	Nigerian Investment Promotion Commission
NIPOST	Nigerian Postal Service
NITDA	Nigerian Information Technology Development Agency
NITEL	Nigerian Telecommunications Limited
NTCA	National Telephone Cooperative Association
SATN	Strengthening Access to Telecommunications in Nigeria
USAID	United States Agency for International Development
UNILAG	University of Lagos
WATRA	West African Telecommunications Regulators Association
WSU-CBDD	Washington State University Center to Bridge the Digital Divide

Table of Contents

1. Executive Summary

This report represents the final output of an evaluation of projects supported by the Leland Initiative (LI) in Nigeria for the period 2000 to 2005. Specifically, the evaluation looks at the impact of the Leland Initiative on the development of the telecommunications sector. Two projects were implemented under this funding mechanism. These were the Support to the Universal Access Program 2000-2001 (US$50,000) and the Strengthening Access to Telecommunications in Nigeria 2003-2005 (US$695,000). Additionally, the NetPost project (US$250,000) supported through the Last Mile Initiative was also included in the evaluation. The total amount of funding allocated under these initiatives was approximately US$1 million.

The principal finding of the report is that USAID was able to invest a limited amount of resources to achieve a significant impact at both the policy and institutional levels in the Nigerian telecommunication sector. Both these impacts were enhanced by leveraging considerably greater resources, particularly from the World Bank, through informal collaborations between the two organizations. These collaborations were predicated on the inter-personal networks which were developed by the National Telephone Cooperative Association (NTCA)[1] with the World Bank and with local industry and government entities. The direct impact of USAID's other projects in the areas of capacity building and training and development were limited in most cases or are too early to assess. Thus the use of inter-personal networks was important to the realization of the more significant impacts of the Leland Initiative. The implication of this is that USAID's efforts were less visible to those outside of these networks. This is supported by a survey of persons working in both the public and private sector of the telecoms industry which showed that only 37% of those interviewed were aware of USAID's work. Furthermore, it is uncertain to what degree these results can be scaled up or replicated elsewhere, given that these networks have not yet been institutionalized.

This conclusion was reached through the assessment of the LI in different impact areas. By examining the various projects supported under the LI, four impacts areas were identified. Additionally, three different approaches were used to evaluate these impacts given the

---

[1] The NTCA was the main USAID contractor under the Leland Initiative in Nigeria.

varied nature of each. The resulting framework of impacts and associated approaches are summarized in the following table:

Type of Impact	Approach
1. Influencing Policy (both the process and outcome)	Policy Outcomes + Process (impact on final policy as well as the formulation process)
2. Institutional support (Capacity building and Technical Assistance)	New Institutionalism (examines the impact on institutions (formal/informal rules, procedures and other arrangements) at the sectoral and organizational levels.
3. Collaboration (with other donors/partners to achieve common goals)	
4. Infrastructure development (in relation to increased telecommunications access)	Outcome evaluation (impact in terms of stated objective versus actual outcomes using quantitative and qualitative data)

The main methods used in collecting information and data were interviews and limited surveys with key persons in the Nigerian telecoms industry, government agencies, USAID partners on the ground and other relevant groups. Additionally, secondary data was collected from government reports and other sources. These activities were facilitated by a field visit to Abuja and Lagos, Nigeria in July 2006.

In using this framework the following findings and analysis are presented in the report:

Influencing Policy

In terms of policy outcomes, there was significant input into the development of the Universal Access portions of the Communications Act of 2003. This was done by first providing information and data on the rural telecommunications environment. Secondly, the NTCA also introduced new concepts and approaches to the stakeholders involved in formulating the Act. Thirdly and most significantly, sections of the Act pertaining to the establishment of the Universal Service Provision Fund (USPF) directly draw from the Universal Access Strategy document written by the NTCA in the course of its work with the Nigerian Communications Commission.

The work of NTCA also had an impact on the policy formulation process. Two different coalitions emerged representing competing visions of the shape of the Act. The main differences revolved around how competitive, open and pro-consumer the sector should be.

This had direct implications for the strategy of developing the sector over the long term. The NTCA was able to present information and analysis to stakeholders in the debates that ensued prior to and after the establishment of the Act. These analyses provided support for developing and maintaining a progressive Act.

Institutional Support

At the sectoral level, one of the objectives of the Strengthening Access to Telecommunications in Nigeria project was to assist in the improvement of the regulatory environment. For example, support was provided for the development of a regulatory accounting framework for the NCC. However, other planned activities under this objective were not realized and its overall impact on the regulatory environment seems limited. Rather, the greatest institutional impact of the LI, at this level, was through the eventual establishment of the USPF and the USPF Board in July 2006. This occurred through preliminary work done by the NTCA at the policy level but also through the essential support it gave to World Bank consultants who worked on demand studies to inform the estimation of subsidy rates, the tender of three pilot universal access projects and the development of operational guidelines and structure for the USPF.

At the organizational level, several different project components were geared towards providing capacity building and technical assistance (TA). These included peer exchanges, workshops, the NetTel@Africa partnership and the technical assistance provided to the NCC. However, in sum, there was little evidence of institutional impact on the NCC or other beneficiary organizations. This statement must be qualified by the fact the capacity building efforts such as peer exchanges and workshops, in general, will take more time to produce the desired impact. The NetTel@Africa program created a new institutional arrangement through which participating Nigerian universities can benefit; however its recent start makes it difficult to assess. Finally, whereas the TA at the NCC did create informal arrangements through which several Nigerian government agencies including the NCC benefited, these were based on the personal networks developed by the NTCA and thus their impact seems temporary.

Collaboration

As the implementation of the LI progressed, the NTCA and World Bank began to increasingly and informally collaborate on the development of project activities in the sector. In several

cases, the Bank would utilize the work of the NTCA for the design and implementation of a larger project. In addition, the Bank also made use of the NTCA's network of inter-personal relationships among key players in the Nigerian telecoms sector. The NTCA also frequently provided insight into the unique structure of the sector at both the public and private levels. For the Bank, this assistance was deemed crucial to the successful implementation of its projects under its Privatization Support Project, the objectives of which were similar to that of the LI.

Infrastructure Development

One project designed to create this type of impact was the support given to NetPost Nigeria Ltd. Although this project was supported though the LMI, it is included in the evaluation because its genesis and formulation was done through activities funded by the LI. The NetPost model consists of utilizing a public-private partnership to develop centers throughout the country that would provide a combination of ICT and other related services. This would help to achieve the LI's goal of increasing Internet access among targeted populations.

One of the challenges currently facing the project is a lack of private sector investment to facilitate further expansion of the 14 existing centers. This was one of the challenges facing the center visited in Nasawara. This is the main responsibility of the private sector partners in the project and efforts continue to get additional investments. In terms of its structure, one conclusion reached was that the close leadership/ownership style of NetPost coupled with the use of personal networks for its development thus far can inhibit future attempts to scale up the project.

The final section of the report concludes by qualifying the significant policy and institutional impacts made by USAID in terms of the collaborative mechanisms used in achieving these results. These mechanisms have implications for the visibility and replicability of USAID programs. Based on these analyses, recommendations are given for future USAID support to the Nigerian telecommunications sector.

2. Introduction and Overview

Since the start of this decade the Nigerian telecommunications sector has experienced increased diffusion and access to telecommunications, improvements in the regulatory and policy environment and growth in the industry. In fact, Nigeria is cited as having one of the fastest growing telecommunications markets in the world with the number of mobile phone lines moving from 0.25 million in 2001 to 8.3 million in 2004[2]. Concomitantly, Nigeria's teledensity rose from 0.73 in December 2001 to 18.18 by March 2006[3]. In addition, it is credited with a regulatory system that is now seen as a model for other developing countries[4]. During this period the United States Agency for International Development (USAID) worked to support the sector particularly through its work under the Leland Initiative in Africa. In light of this investment, USAID sought to better appreciate the impact of this work in Nigeria.

This report represents the final output of an evaluation on activities carried out under the Leland Initiative in Nigeria during the period 2000 to 2005. The evaluation was completed between June 20 and September 1, 2006 and involved a 3 week field trip to Nigeria (Abuja and Lagos) to collect information and conduct interviews with relevant persons. The specific objective of the assignment was to assess the impact of the Leland Initiative in Nigeria by looking at the following areas (among others):

a. the formulation of telecommunication policies in Nigeria
b. the role and development of the regulator
c. the nature and growth of the industry
d. efforts to promote increased access to telecommunications among the population
e. collaboration with other donors/partners working in the sector

The remainder of the report is divided into several sections as follows: Section (3) provides a background to the objectives and approach of the Leland Initiative in Africa generally and

---

[2] OECD (2006) African Economic Outlook 2005-2006, Paris, France
[3] Ministry of Communications (2006) "Nigerian Communications Environment: The Wheels of Progress Rolls on," Ministerial Press Briefing of the Ministry of Communications by Chief Cornelius O. Adebayo, Abuja, Nigeria
[4] Presentation by R. Stephens (GICT, World Bank) at the NCC Universal Access Workshop, Lagos, Nigeria, March 20, 2006.

Nigeria specifically. Sections 4 and 5 presents the analytical frameworks and methodologies employed in the evaluation and Section 6 details the findings and analyses for each of the projects implemented under the LI. Finally, based on these analyses, section 7 gives a conclusion and recommendations on the design of future support to the Nigerian telecommunication sector.

3. Background – The Leland Initiative in Nigeria

3.1. The Nigerian Context

By 2000, Nigeria was in the midst of changes to the structure of the telecommunications sector and the political-economic landscape as a whole. Structural reforms in the telecommunications sector had already started several years earlier and were motivated by a lack of public resources to develop the required infrastructure, the need to ensure access to all citizens, the success of market reforms in developed countries and the promotion of similar reforms by donor agencies and other international partners[5]. As a result, the Federal Government of Nigeria (FGN) established a new National Telecommunications Policy in 2000 with several targets such as increasing the number of fixed and mobile telephone lines and strengthening the role of the national regulator, the Nigerian Communications Commission (NCC). These targets and the means of achieving them were eventually concretized in the Nigerian Communications Act of 2003.

Perhaps the greatest harbinger of change in the sector, during this period, was the auctioning of four GSM licenses in 2001. The auction itself has been noted for its innovative bidding process and management by the NCC and was deemed a success by both local and international observers[6]. Some 18 months after the issuing of the licenses, teledensity more than doubled[7] and a new spin-off market was created with the advent of the "umbrella people" – resellers of GSM wireless services. In some cases, these resellers are able to enjoy a lucrative business relative to per capita income, and are especially noticeable throughout the urban areas of the country.

This period also marked the start of efforts to legitimize Nigeria's nascent democracy. The reform of the telecommunications sector with associated improvements in infrastructure and access were viewed with importance by the new government. This translated to the various initiatives undertaken including the inauguration of a new and more independent Board of Commissioners of the NCC in 2000. There was also an emphasis on attracting foreign

---

[5] Ndukwe, E. (2005) "Country Experience in Telecoms Market Reforms – Nigeria," presentation available at http://www.ncc.gov.ng/speeches_presentations/EVC's%20Presentation/Country%20Experience%20with%20Market%20Reforms%20in%20Telecoms%20%20-%20060705..pdf
[6] Lee, D. (2003) "Lessons from the Nigerian GSM Auction," Telecommunications Policy, Vol. 27, pg. 407-416
[7] ITU (2003) "Trends in Telecommunication Reform 2003: Promoting Universal Access to ICTs - Practical tools for regulators," ITU, Geneva.

investment and engaging multilateral and bi-lateral partners in providing assistance to the sector.

3.2. Overall approach of the Leland Initiative in Nigeria

Within this context, projects under the Leland Initiative (LI) in Nigeria began implementation in 2000. The underlying precept of the LI was that information and communications technologies (ICT's) can be applied as part of sustainable solutions to the many national challenges facing developing countries. Furthermore, ICT's can help enable people to achieve their individual social and economic goals. The LI was therefore established in 1996 by the USAID with aim of realizing three main objectives with its African partners. These were to (i) promote the establishment of policies conducive to the development and diffusion of ICT's particularly the Internet, (ii) assist in the development of appropriate infrastructure and (iii) increase the ability of beneficiary countries to maximize the use of ICT's[8].

The nature of the LI in Nigeria was such that once these overall objectives were identified, several projects and actors were employed to achieve them. The strategy was to directly fund projects that would employ different actors in complementary activities. An example of this is the Strengthening Access to Telecommunications in Nigeria project where the various objectives were not meant to be realized through a linear process but rather through complementary activities such as capacity building and rural access.

In addition, this strategy included support for the development of similar initiatives from other funding sources which were also geared towards the overall objectives of the LI. Thus a few of the projects and activities included here were not directly funded by LI but are still part of this evaluation as they are a result of work carried out under the LI.

An implication of this strategy was that rather than having discrete projects with separate outcomes, there would be overlap in the scope of some activities. While this was expected, the efficacy of associated outcomes increases because the outputs of one project serve to strengthen the outputs of another. The projects covered in this evaluation are summarized as follows:

---

[8] See http://www.usaid.gov/leland/ for more details

3.3. Support to the Universal Access Program (2000 – 2001)

The first set of activities to be implemented through the LI was geared towards supporting the NCC's Universal Access Program. This program was undertaken by the NCC with the goal of increasing the country's teledensity with an emphasis on rural and marginalized communities. The National Telephone Cooperative Association (NTCA)[9] was contracted by USAID to support the NCC in this regard. Specifically, the NTCA worked with several local non-governmental and community based organizations in Nigeria to facilitate a series of nationwide participatory consultations. These consultations enabled a better understanding of the availability of telecommunications services and infrastructure in targeted areas, levels and types of demand, and the potential for community managed services. The outputs from these consultations were used to complete a strategy document in January 2001, which made recommendations for the implementation of the Universal Access Program. The total financial support provided by the LI for this project was approximately US$50,000.

3.4. Strengthening Access to Telecommunications in Nigeria (2003 – 2005)

The Strengthening Access to Telecommunications in Nigeria (SATN) project was implemented through a memorandum of understanding that was signed between the USAID and the NCC in 2003. The principal partners in the project were USAID, NCC, NetTel@Africa[10], the Washington State University Center to Bridge the Digital Divide (WSU-CBDD)[11], and the NTCA. With a total budget of US$695,000[12] provided through the LI, the project started in October 2003 and was completed in September 2005. It had three main components:

1. Improving the telecommunications regulatory environment – the objective of this component was to support the NCC in its work to implement the reforms articulated in the Communications Act of 2003 regarding telecommunications regulation. Activities under this component were geared towards designing regulatory reforms, making the NCC's decision-making systems more transparent and increasing the participation of civil society in the design and management of the regulatory system.

---

[9] http://www.ntca.org/
[10] http://www.nettelafrica.org/
[11] http://cbdd.wsu.edu/
[12] Note that additional funding was also provided by the NCC to support workshops and staff travel under this project.

Specific support was also given in the areas of financial disclosure and accountability and the development of a regulatory accounting framework. This was achieved through visits by US experts and workshops held in Nigeria.

2. Building the organizational and technical capacity of the NCC – The objective under this component was to strengthen the organizational structure and operational systems of the NCC. The activities initiated under to this component included peer exchanges between key staff at the NCC and similar institutions in the US such as the Federal Communications Commission (FCC) and state level Public Utility Commissions (PUC) as well as training institutes such as the United States Telecommunications Training Institute (USTTI).

Additionally, the component involved improving the ability of local training and educational institutions to provide adequate human resources for the telecommunication sector. This was to be realized through a partnership between NetTel@Africa and four Nigerian universities. NetTel@Africa consists of a network of African universities and other partners whose goal is to build capacity in ICT policy and regulation and serve as a platform for the exchange of knowledge and experience. In addition to leveraging the benefits of this wider network, the aim was to introduce ICT policy and regulation curricula into the respective programs of these Nigerian universities. Support was given for university lecturers in US and African institutions to collaborate with their Nigerian counterparts in developing and introducing relevant curricula for the Nigerian context.

Both the peer exchanges and the NetTel@Africa partnership were complemented by sector-wide workshops covering areas such as e-Learning for university lecturers, judicial and legislative issues in the telecommunications sector, and ICT capacity building workshop.

3. Increasing access to telecommunications services particularly in rural areas – the objective of the third component of the SATN project involved supporting the development of policy and regulations in line with the universal access goals of the NCC and supporting the development of community based telecommunication operations. This component was given the largest allocation of funding (US$500,000)

from the overall SATN project budget, with the balance being distributed to the other two components.

The NTCA had primary responsibility for this component of the project and in general its activities involved providing technical assistance to the NCC in realizing it universal access policy goals. More specifically this included support for the establishment the Universal Service Provision Fund (USPF) and the USPF Board and providing support to the NCC in promoting its universal access strategy to other Nigerian stakeholders. In the course of providing TA to the NCC, the NTCA also worked with several other Nigerian government agencies, other international donor agencies and interacted with several private sector entities.

3.5.   LMI/NetPost

The NetPost project consists of collaboration between USAID and NetPost Nigeria Ltd. The latter being a limited liability company owned by the Nigerian Postal Services (NIPOST), Development Ventures International Ltd. (DVI) and ABG Nigeria Ltd. Overall leadership of the project was provided by Prof. Raymond Akwule, a professor from George Mason University (GMU). The objectives of the project are to support the modernization of NIPOST by improving the connectivity among its centers and to improve access to ICT's among Nigerians, particularly in rural areas. The role of USAID was to provide technical support as well as funding of US$250,000 for the development of the project. This funding was provided through the USAID Administrator's Last Mile Initiative (LMI)[13].

Activities funded through the LMI include support to GMU to enable Prof. Akwule to be involved in the project for an academic year (Sept. 2004 – Aug. 2005). Support was also given to the development of business plans for NetPost and for the provision and renovation of infrastructure at one rural NetPost center in Nasawara.

The following table summaries the projects and activities completed under the LI/LMI in Nigeria:

---

[13] Although this is a separate funding mechanism from the LI, the NetPost project is included here because its development came about through efforts made under the SATN project (Increasing access to telecommunications services).

Project	Components/Activities
Support to the NCC's Universal Access Program (2000-2001)	• Universal Access assessment and recommendations
Strengthening Access to Telecommunications in Nigeria (SATN)	i. Improving the telecommunications regulatory environment • Consultant support • Workshops ii. Building the organizational and technical capacity of the NCC • Peer exchanges • NetTel@Africa partnership • Workshops iii. Increasing access to telecoms services • General TA to the NCC • Support for implementation of Universal access policy goals • Support for design of USPF and USPF Board • NTCA collaboration and work with other Nigerian entities and international donors
LMI/NetPost	• Support to GMU • Business Plan development • Infrastructure development at Nasawara

4. Framework and Approach

The above discussion illustrates the varied nature of the impact of the LI in Nigeria as a whole given the different types of projects described. In order to better assess the impacts of each of these projects, the approach taken here is to develop a framework which will allow us to look at the LI in terms of the types of impacts made. In articulating the nature and extent of each type of impact, a different approach is used in most cases since a single approach would not be adequate.

4.1.   Impact Areas

The first task is to determine what the possible impacts were. This involved examining the stated objectives of the projects, activities completed and the overall strategic goals of the LI. Four types of impacts were identified:

1. Influencing Policy – This refers to the extent to which the project can influence the formulation process, composition or implementation of policies and legislation.

2. Institutional Support – Several projects were designed to improve the technical skills and knowledge of targeted beneficiaries with the aim of strengthening the organization as a whole. Additionally, other activities were aimed at improving the wider sectoral environment through the creation or support of legal and/or regulatory structures.

3. Collaboration – Another area which characterizes the effects of several project activities is collaboration with other stakeholders in realizing common goals. Of interest here is the nature of such collaborations and their effect on the beneficiary group.

4. Infrastructure Development – This refers to investments leading to the development of physical infrastructure in the sector.

4.2.   Approaches

Three types of approaches were used in order to assess the impacts identified:

i. Policy Outcomes and Process – The approach used here is a modification of existing approaches and is consists of two parts. Firstly, it involves identifying ways in which project activities can influence policy outcomes. This includes providing

technical assistance (knowledge, skills, research and analysis) to the beneficiary to develop policies, framing the scope of the policy process (by providing opportunities for networking and learning, stimulating dialogue among stakeholders or introducing new concepts to the debate) or by directly modifying or drafting existing or new policies or programs[14]. Additionally, policy influence can include creating stronger links between policy research and policy formulation and making the formulation process more inclusive and participatory.

Project activities can also impact on the policy processes and not just outcomes. In order to better understand this, we can use a framework that explains the how policy process works: the Advocacy-Coalition Framework (ACF) [15] . The ACF examines various competing coalitions formed around common beliefs systems that are involved in the policy making process. These coalitions then seek to translate their beliefs into policy before their competitors. Some coalitions have greater resources through affiliated networks or influence on decision-makers – making them dominant. The task is to identify all such groups, their agendas and how they interact within the wider environment to create policy outcomes.

ii. New Institutionalism – One way of assessing the impact of projects with explicit technical assistance or capacity building objectives is to look at the extent to which they can influence the institutional environment of the beneficiary. This is especially relevant if the intention is to make a long-term impact on the organization rather than a one-off interaction. The emphasis here is on institutions – rules, procedures or informal/formal arrangements for decision-making. This approached is based on the notion that institutions are a major factor in shaping the results of organizations, sectors and even the economy as a whole. Thus by influencing the institutional environment, both within the organization and the wider sector, the impact of the project can be felt long after it has been completed. Of course, the project need not have set out to specifically create this type of impact. However, its outputs can indirectly create changes in the institutional environment and it is to this extent that the project is assessed.

---

[14] Lindquist, E. (2001) "Discerning Policy Influence: Framework for a Strategic Evaluation of IDRC-Supported Research." Available online at http://www.idrc.ca/uploads/user-S/10359907080discerning_policy.pdf
[15] Sabatier, P. A. and H. C. Jenkins-Smith (1999). The Advocacy Coalition Framework : An Assessment. Theories of the policy process. P. A. Sabatier, Ed. Boulder, Colo., Westview Press**: 117-166.

There are three levels at which institutions can be identified[16]:

1. State level – refers to the type of political and economic systems governing the country

2. Sectoral level – refers to institutions encompassing interest groups, industries or government sectors.

3. Organizational level – refers to the procedure and routines of organizations.

Following the New Institutionalism approach, the intention here is to identify the nature and extent of changes to institutions at each level. The relevant levels for this evaluation are the sectoral level in terms of the legal or regulatory environment and the organizational level in terms of the rules and procedures that guide individual behavior.

Additionally, this type of analysis can also be used to understand the nature of collaborations, their impact on other stakeholders and on the beneficiaries[17]. The following are areas through which collaborations can be examined:

1. Institution creation – new practices, technologies, rules that are created.

2. Network transformation – the relative changes in the position of each organization within in its environment.

3. Resource distribution – the benefits each organization accrues from access to additional resources which can improve its competitiveness.

iii. Outcome Evaluation – Finally, the purpose here is to examine the actual outcome of the project in terms of its outputs and stated objectives through the use of qualitative and quantitative indicators. This is in fact the general approach used in most project evaluation exercises.

---

[16] Galperin, H. (2004) "Beyond Interests, Ideas and Technology: An Institutional Approach to Communication and Information Policy," The Information Society, 20:159-168

[17] Adapted from Lawrence, T. et al. (1999) "Collaboration and Institutional Entrepreneurship : The case of Mere Et Enfant (Palestine)," Department of Management Working Paper No. 1, University of Melbourne, Australia

The resulting framework of impacts and associated approaches can be summarized as follows:

Type of Impact	Approach
1. Influencing Policy	Policy Outcomes + Process
2. Institutional support	New Institutionalism
3. Collaboration	
4. Infrastructure development	Outcome evaluation

5. Methodology

5.1. Methods Employed

Two main methods were used with the approaches outlined above. These are:

i. Semi-structured interviews with key personnel – A list of potential contacts was first prepared through desk research. This was then developed with the assistance of the NTCA during the field trip to Nigeria. The list included persons within government agencies such as the NCC, Ministry of Communications, Nigerian Information Technology Development Agency (NITDA), and the DBI; senior persons in the industry (mobile operators, Nigerian Telecommunications Limited (NITEL), ISP's, etc.); and persons involved with the execution of LI projects as well as other international donors in the sector (NTCA, USAID, the World Bank, etc.). A snowballing sampling technique was used thereafter with new contacts being identified by existing ones. The NTCA and other persons facilitated introductions where necessary.

The interviews for the most part were done on a one on one basis or with small groups (2-3 persons). Most interviews were conducted in person with a few done via telephone. In a few cases, the interviewees consented to having the interview recorded but in all cases notes were taken. A few persons who were not available for an interview provided information via email. In all a total of 51 persons were identified for contact with 31 actually interviewed in person, via telephone or email (see Section 8 for the complete list of persons interviewed). Those not contacted at all were either non-responsive to emails and/or telephone calls or were unable to be accommodated in the time available. There were no instances of refusal of an interview or email request.

The interviews consisted of open-ended questions with accommodation for any new issues raised by the interviewee. In most cases, additional issues were raised and recorded. Triangulation was also done with subsequent interviewees on general points from previous interviews.

ii. Data from secondary sources – This includes quantitative data on project outputs, costs, time-frames, etc. The main sources here were project documents, government statistics, evaluation reports and other secondary sources. Media reports (both online and print) were also used.

iii. Surveys – Finally, while the interviews and data collection activities sought to assess the impact of the USAID's work in the sector, the perception of this impact was also considered. In the course of the interviews, respondents were asked a set of closed ended and Likert-scale questions. These were related to their opinions on the performance of the NCC and USAID in the development of the telecoms sector.

5.2. Methodological concerns

As the evaluation got under way, the scope turned out to be larger than expected. This was due in part to the number of activities that took place under the LI. This was a result of the strategic approach employed by USAID mentioned earlier. That is, the implementation of several projects executed by actors carrying out numerous but complimentary activities. A more extensive evaluation could be completed at a future date that could both better assess the large scope of the LI and take account of the longer term impact of some of the components included in the evaluation.

6. Results and Analysis by Impact Area

6.1. Survey Results: Perceptions of Impact

The changes that have occurred in the sector since the start of the decade have been tremendous. For example, the total number of connected lines (mobile+fixed) rose from 866,782 in December 2001 to 22,912,917 in March 2006[18]. This represents an annual growth rate of approximately 93%. The mobile phone market accounts for a large percentage of this growth. In fact, it is estimated that one out of every four mobile phones in Africa will be Nigerian by 2010[19]. Additionally, there has been a steady reduction in GSM tariffs (particular for international calls) while most operators enjoy EBITDA[20] margins of 40% or above[21]. Another indicator of successful growth is the level of investment both foreign and local. This too has grown significantly over the years. In 1999 total investment in the sector stood at US$50 million while by 2006 it was US$9 billion[22].

In understanding the nature of this success, several survey questions were administered which focused on two issues. Firstly, the interviewee's opinions on the role of the NCC in the development of the sector were explored. One significant result was that all interviewees agreed that the NCC must be given some credit for the success of the Nigerian telecoms sector. Most persons explained the NCC's efficacy through three main factors:

1. The transparency of its operations – For example, this relates to the granting of licenses and the handling of arbitration matters. This transparency and related impartiality lends confidence to the operators in their need to function in a stable environment. In one case however, an operator was of the opinion that the recent granting of unified licenses was not as transparent as it could be.

2. Its autonomy and independence (again relative to other Nigerian agencies) – Being relatively free from political machinations was also seen as key to its effectiveness. However the reasons vary as to the source of this independence.

---

[18] Ministry of Communications (2006) "Nigerian Communications Environment: The Wheels of Progress Rolls on," Ministerial Press Briefing of the Ministry of Communications by Chief Cornelius O. Adebayo, Abuja, Nigeria

[19] Ibid.

[20] Earnings Before Interest, Taxes, Depreciation and Amortization

[21] NCC (2005) Trends in Telecommunications in Nigeria (2003-2004), Abuja, Nigeria.

[22] Ministry of Communications (2006) "Nigerian Communications Environment: The Wheels of Progress Rolls on," Ministerial Press Briefing of the Ministry of Communications by Chief Cornelius O. Adebayo, Abuja, Nigeria

Normally Commissions are given more autonomy than other government bodies but other possible reasons include the fact that the Ministry of Communications is not represented on the Board of the Commission or that the positive results of the NCC's work has allowed it to build enough political capital so as to warrant some degree of independence.

3. Finally, another factor is the technical and managerial capacity of the NCC, which has provided the vision and stability to develop the sector successfully.

The second issue that was explored was views on the role of USAID in the development of the sector. This was particularly relevant given that most of USAID's work was focused on the NCC. However, few persons were actually aware of the USAID's work in the sector generally and about the LI specifically. Only 9 out of 24[23] of all those interviewed were in a position to comment on USAID's work in the sector. These persons were asked to rate the impact of USAID's work on a scale of 1 to 5, with 5 being the best. The average rating given was 3.5 out of 5.

This result has several implications. Firstly, it suggests that even those who were aware of USAID's work did not perceive it to be highly effective. Secondly, it implies the difficulty in relating the work of the USAID/LI to the success of the sector at least perceptually. Whereas the NCC was highly visible in terms of the success of the sector, USAID was less so. A related implication is that few outside the NCC (or other USAID partners), see a connection between the NCC and USAID. Thus there is little awareness of USAID's work in this area. This is possibly the result of the type of projects which were supported and the way in which they were implemented.

Those that were aware of USAID's work commented on some of the key contributions made. These include providing technical assistance to the NCC, raising awareness for new opportunities for training within the sector, and providing opportunities for collaboration with other organizations.

While the above results reflect the opinions of persons involved in the telecoms sector, what follows is an assessment of the actual impact of the LI. The analysis is done by impact area

---

[23] This figure excludes USAID staff and contractors.

where projects supported through the LI are grouped accordingly. The following table illustrates this process:

Type of Impact	Project/Component	Approach
1. Policy influence	• Support to the NCC's Universal Access Program (2000-2001) • SATN (Increasing access to telecoms services) o Support for implementation of Universal access policy goals	Policy Outcomes + Process

2. Institutional support	• Sectoral Level:
	   o SATN (Improving the telecommunications regulatory environment)
	   o SATN (Increasing access to telecoms services)
	       ▪ Support for design of USPF and USPF Board
	• Organizational Level
	   o SATN (Building the organizational and technical capacity of the NCC)
	   o SATN (Increasing access to telecoms services)
	       ▪ General TA to the NCC
	       ▪ NTCA collaboration and work with other Nigerian entities
		New Institutionalism

3. Collaboration	• With the World Bank:
	   o Universal Access Strategy
	   o National e-strategy for Nigeria
	   o Implementation of Universal access pilot projects (3)
	   o Upgrading of network infrastructure at the DBI.
	   o NTCA general logistic and policy advice for Bank's activities	

4. Infrastructure development	• LMI/NetPost	Outcome evaluation

6.2.   Policy Influence

Work in this impact area began with NTCA's support to the NCC's Universal Access Program during the period 2000 to 2001. Subsequent to this project, the NTCA was also contracted by the NCC (through the World Bank's Privatization Support Project (PSP) funding) to develop a more comprehensive Universal Access Strategy for the NCC. This was completed

in February 2002 and included an overview of the universal access requirements in Nigeria as well as a detailed policy and implementation strategy for meeting those requirements.

Similarly, the NTCA continued to provide technical assistance to the NCC through project funding from the dot-GOV program. This new project, the Nigerian Telecommunications Policy Pilot Project-I[24] was designed to provide policy and program support for the NCC's universal access goals.

Although the Nigerian Telecommunications Policy Pilot Project-I and the World Bank consultancy refer to different funding mechanisms, they are mentioned here as they built upon previous efforts under the LI funded project (Support to the Universal Access Program - 2000-2001) and were in turn used to support future LI work completed by the NTCA. Thus by the time work had started on the SATN project, activities under the "Increasing access to telecoms services component" were able to build upon the NTCA's work in the three previous projects mentioned above.

6.2.1.   Policy Outcomes

The combined impact of activities under these projects is evident in two major areas. In terms of policy outcomes, there was significant input into the development and final draft of the Universal Access portions of the Communications Act of 2003. This occurred at three levels, firstly by providing specific information and knowledge to help shape policy. For example, this was done by conducting assessments of the rural telecommunications environment and potential for community based telecoms operations, working with NCC staff to develop new approaches to universal access and sensitizing NCC policy makers about existing universal access models and best practices in similar environments. These activities were carried out under the Support to the NCC's Universal Access Program (2000-2001) project and in the World Bank consultancy to develop a Universal Access strategy for the NCC.

Secondly, there was actual input into shaping the scope and nature of the policy debate around universal access by introducing new ideas and by facilitating dialogue among the

---

[24] The Nigerian Telecommunications Policy Pilot Project-I lasted from February 2002 to December 2003. Total funding was US$40,000. An additional US$26,000 in-kind support was provided by the NTCA along with in-kind support from the NCC and the Ministry of Communications.

various stakeholders. For example, recommendations were initially made, based on the NTCA's rural assessments, to provide conditionally exclusive licenses to small telecommunications operators for provision of services in rural areas. Another recommendation concerned the institutional arrangement for the establishment of a Universal Access Fund. Whereas both recommendations contributed to the ongoing discussions at the time on universal access, it was the latter that had a greater impact.

The NTCA also worked with several stakeholders (in the public and private sectors) in both formal and informal settings to facilitate dialogue on universal access. Prior to the passing of the Act, several workshops were hosted by the NCC in which the NTCA participated in discussion regarding universal access. Subsequent to the passing of the 2003 Act, the NTCA helped to improve stakeholder awareness of the universal access provisions of the Act by organizing a workshop held at the Digital Bridge Institute (DBI) in July 2004[25]. Participants included representatives from government agencies, civil society and the private sector.

Thirdly, and perhaps most significantly, sections of the 2003 Act included recommendations made by the NTCA in its report "Nigerian Communications Commission: Universal/Rural Access Strategy- Final Report"[26]. Specifically, Chapter 7, Part IV of the Act details the institutional design of the Universal Service Provision Fund (USPF). This includes the establishment of the USP Fund, USPF Board, Board Secretariat and Fund Manager. The relationships between these entities are similar to the arrangement proposed by the NTCA. In addition, the terms of references for the Board Secretariat and the Fund Manager in the Act follow nearly verbatim from those specified in the NTCA report.

6.2.2. Policy Process

Another result of the NTCA's work through these projects involves the policy formulation and implementation processes both before and after the passing of the 2003 Act. Prior to the passing of the 2003 Act, there were two similar versions being promoted in the Nigeria National Assembly, one was sponsored by the Telecommunications Committee of the Lower House and the other by the Federal Executive. Both versions represented the ideas of different coalitions on how to develop the sector towards universal access. For example, one

---

[25] This was funded through the dot-GOV Nigerian Telecommunications Policy Pilot Project-I
[26] Final deliverable from the NCC/World Bank consultancy (February 2002)

difference concerned how universal access would be implemented whether through an existing agency or through an independent fund. Perhaps more fundamentally, an underlying difference was the extent to which both proposals were pro-competition, market oriented and pro-consumer. Ultimately, the final Act was an amalgamation of these various proposals but it did include provisions on Universal Access and established the basis for an independent and strong regulator.

For its part, the NTCA (as the USAID's main implementing partner in the sector) was not of course directly involved in the political debate around the 2003 Act and therefore not ostensibly related to any of competing groups. The NTCA did participate in several meetings with the Minister, Chairman of the Telecommunications Committee of the Lower House, legislators and the Board and senior staff of the NCC to provide advice on the pros and cons of the various legislative proposals made.

Subsequent to the passing of the 2003 Act, there were attempts to repeal certain provisions that pertained to the more progressive sections of the law such as Universal Access. This led to another similar policy struggle between opposing coalitions as before. Specifically, the Senate Committee on Communications proposed two amendments (the Universal Service Agency Bill 2003 and the Nigerian Communications Act (Amendment) Bill 2004). These were opposed by the Minister of Communications and the NCC among others. In the end, neither of the proposed amendments was made into law. Again the NTCA provided information on best practices in other countries, analyses on specific proposals put forward to reform the law and responses to questions from other policy makers. Essentially, the NTCA reiterated many of the recommendations made in its previous reports on universal access, thereby supporting the existing law.

6.3.   Institutional Support

6.3.1.   Sectoral Level

The first level at which the institutional impact of the LI can be assessed is at the sectoral level; specifically the legal and regulatory environment. The SATN project consisted of activities with objectives for creating this type of impact. Specifically, these are the SATN

project components – "Improving the telecommunications regulatory environment" and "Increasing access to telecoms services" (Support for design of USPF and USPF Board).

Under "Improving the telecommunications regulatory environment", support was provided in the provided in the form of workshops and visits by US experts in the area or regulatory accounting and financial disclosure and accountability. A regulatory accounting framework was eventually developed for the NCC. In terms of the broader objective of augmenting the regulatory environment, the impact of efforts under this SATN project component seems limited. Other activities that were planned included supporting a consumer affairs bureau and developing more transparent and participatory decision-making systems for the sector. These planned activities were not completed however as the NCC went on to develop its own responses to these issues. For example, one innovation the NCC developed was the Telecom Consumer Parliament which functions as a forum in which all stakeholders and consumers in the industry are able to discuss and share views. It is held on a monthly basis and provides a venue for consumers to bring up their concerns with most operators.

One of the more significant institutional characteristics of the telecommunications environment in Nigeria is the level of transparency and impartiality with which the sector is regulated[27]. It can be argued that the execution of the 2001 GSM license auctions set a key institutional precedent in this regard. Prior attempts to auction the licenses failed because of allegations of corruption. However, after the NCC was given management of the auction process and following its successful completion, the NCC was able to demonstrate how the sector could be regulated. This occurred prior to the SATN project and LI activities at the time did not directly deal with the auction. However, prior reports developed by the NTCA on rural telecommunications demand and the market environment were used in preparing the tender documents for the auction.

At the sectoral level, the greatest institutional impact of the LI was through the eventual establishment of the USPF and the USPF Board. This was finally achieved in July 2006 some three years after the 2003 Act was passed. As mentioned earlier, the institutional framework for the establishment of the USPF had been outlined in the Act based in part on recommendations made by the NTCA. However, given the legislative attempts to amend the

---

[27] Responses from all the telecoms operators interviewed indicated that this was one of the factors that explained the perceived success of the sector.

Act and repeal the very sections dealing with the USPF, its establishment was delayed. Even after the Act was not amended, further delays were caused by the selection of members to the USPF Board which required consultations and consensus among different government interests.

During this period, the NTCA developed an implementation plan and operations manual for the USPF that elaborated on the guidelines presented in the 2003 Act. This manual detailed the structure of the Fund and responsibilities of each component, criteria for the selection of projects to be supported by the Fund, the design and development of projects, methods for determining subsidies, bidding processes, and a regime for tariffs and interconnections charges. This document later provided the basis for consultants hired by the World Bank to develop an operations manual which would be used for the establishment of the Fund[28]. The consultants also completed household and business demand studies which were used to determine subsidy amounts and identify three universal access pilot areas. They then prepared tender documents for these pilots with one issued in April 2005 and the other two in May 2006.

6.3.2.   Organizational Level

The second level at which an institutional impact can be discerned is at the organizational level. This refers to projects with explicit capacity building objectives and includes SATN project components – "Building the organizational and technical capacity of the NCC" and "Increasing access to telecoms services" (General TA to the NCC and NTCA collaboration and work with other Nigerian entities).

<u>Peer Exchanges</u>

One set of activities under the capacity building component of the SATN project was the use of peer exchanges between staff at the NCC and those of US regulators. It was based on the observation that one of the better ways to learn is through colleagues engaged in the same type of work. These exchanges included visits to the FCC, state regulators and the US TTI. This form of support had in fact started prior to the SATN project. During the period prior to the passing of the 2003 Act, support was provided through the LI for networking and

---

[28] Intelcon Research and Consultancy Ltd. (2005) "Universal Service Provision Fund – Manual of Operating Procedures" – Report submitted to the NCC – September 5, 2005.

learning between the NCC and other regulators specifically the FCC. Senior NCC staff were able to visit the FCC as part of the latter's International Visitor Program. In sum these visits contributed to the policy learning and research activities of the NCC.

The use of peer exchanges was embraced by the NCC itself as it developed its own expertise on regulatory issues and began to share its experiences with other national regulators. This included exchanges with regulators in other African countries such as Uganda, Rwanda and Ethiopia. Support for these later exchanges was provided in part by the Catalysing Access to ICT's in Africa (CATIA) programme as there was limited funding under SATN's capacity building component. CATIA is a British Department for International Development (DFID) program and is in some ways similar to the LI in terms of its objectives and scope. It sought to build upon the results achieved by the NetTel@Africa program in creating networks of sharing information, knowledge and expertise in the African region to promote the development of ICT policy.

NetTel@Africa university partnership

For similar reasons, the NetTel@Africa program was supported through the LI (specifically through the capacity building component of the SATN project) to develop a partnership with Nigerian universities. The objective was to develop human resources in telecommunications policy and regulation by Nigerian universities while leveraging the benefits available through the NetTel@Africa network. In this vein a series or workshops were organized by NetTel@Africa and the NCC in 2003 to first explore how this partnership might work and which universities would be involved. The four selected universities were the University of Lagos, University of Nigeria at Nsuka, University of Jos and the Obafemi Awolowo Univesity, Ile-Ife. These universities formally became partners in the NetTel@Africa network in March 2004 and were to develop postgraduate diplomas and masters degrees in ICT policy and regulation.

One of the principles of the NetTel@Africa program is to encourage students to engage in a problem based learning approach where sessions are facilitated rather than directed by lecturers. The students themselves are encouraged to work collaboratively in dealing with problems, thus the emphasis on e-learning as a tool for teaching. As a result some of the content of the courses are presented online along with interactions with fellow students and lecturers.

To better understand the results of this partnership, the program at the University of Lagos (UNILAG) was briefly examined[29]. The UNILAG program was the first of the Nigerian universities to start offering courses under the NetTel@Africa program and is housed at the university's Dept. of Systems Engineering. It offers a post-graduate diploma (PGD) in ICT policy and regulation and a MSc. degree in ICT technology and systems. The curriculum for the PGD program was designed for the most part through NetTel@Africa with funding from the LI and included special training for participating lecturers as well as visits to and from other NetTel@Africa partners. The curriculum for the MSc. was later developed by the Department by building on the experience of the PGD.

Although housed in the Dept. of Systems Engineering, both programs are inter-disciplinary. For example, the PGD program offers courses in areas such as regulatory management, policy and legal issues, spectrum management, information systems development, regulation with advanced ICT's, analysis of ICT industries/markets and tariff structures. The MSc. uses this foundation and offers further courses that specialize in either a management or an engineering and technology focus and includes a research project.

These programs were officially approved by the University in July 2005 and so there has only been one cohort of students to date with a new set expected to start in the upcoming academic year (2006-2007). Currently, the PGD program has 26 students enrolled and the MSc. has 16[30]. The average age of these students ranges from 25 to 30 with the majority being employed or having experience in the telecommunications/IT industry. Additionally, the students come from a variety of backgrounds including management, mass communications and engineering.

It would be premature to describe the impact of this program given its recent start. However, so far the programs have been well received based on the number of applications for places and according to the Dept.'s estimates, it is expected to grow. The Department does hold monthly feedback sessions with the students and some of the issues raised include the problem of NetTel@Africa instructors not responding adequately to student needs or even being absent. Related to this issue is the request by students to have all courses available

---

[29] This selection was made based on logistical and time constraints during the field trip to Nigeria.
[30] Source – Enrollment data from the Dept. of Engineering Systems, UNILAG.

each semester. Both issues involve the availability of lecturers and the Department is in the process of coordinating with NetTel@Africa to use local lecturers where possible.

A greater problem faced by students is the issue of Internet access[31]. As courses have online components, many students have difficulty participating because of a lack of access. While some students are able to use facilities at their workplaces, others find it hard to pay the ₦ 200-300 per hour of Internet access at an Internet cafe. Related to this issue are problems with submitting assignments on time. UNILAG itself has very limited resources to offer the students in this regard. Originally, the Department thought that improved Internet access would have been supported by the NetTel@Africa program and even stated as much in its proposal submitted to the UNILAG Senate for approval of the two post-graduate programs in 2004[32]. This was however outside the scope of the NetTel@Africa program based on its funding under the SATN project. In terms of the future however, the Department hopes to gradually expand the program. This will be supported by projected demand for the courses and with funding for additional infrastructure.

Workshops

Under the capacity building component of SATN, a series of workshops were held to effectively support and complement the efforts of the peer exchanges, provide training under the NetTel@Africa program and support capacity building efforts at the NCC. Thus instead of being one-time events they were part of a continuous series of activities. These workshops were designed and implemented by the NCC with support from Dr. Maria Beebe (WSU-CBDD). In general, the main impact of these workshops can be seen in terms of information sharing and learning outcomes. These workshops were:

1. Capacity Building and ICT policy and regulation (February 2003) – This workshop was set up by the NCC to explore the ways in which the NetTel@Africa program could be introduced into Nigeria as a means of building public-private partnerships to develop post-graduate level programs in ICT policy and regulation. It included participants from several Nigeria universities, the industry and government agencies. Some of the specific outcomes of the workshop were the agreement that the NetTel@Africa model be adopted, the establishment of a committee to carry out this

---

[31] Interview, Dr. I. Mowete, Head of the Department Of Systems Engineering, UNILAG (July 10, 2006)
[32] The University Of Lagos, School Of Postgraduate Studies, Department Of Systems Engineering (2004) "Proposal For The Establishment Of Nettel@Africa Pg Courses," UNILAG.

process and an agreement that a MOU be signed among the relevant parties. The committee went on to recommend the selection of the four Nigerian universities mentioned earlier to be part of the partnership[33].

2. NetTel@Africa Workshop/Telejamboree (November 2003) – Following up from the work started at the NCC workshop in February 2003, a subsequent workshop was held to focus on the development of a curriculum for the post-graduate programs. Presentations were made by various NetTel@Africa partners on specific courses and participants included faculty from Nigerian universities and other West African Telecommunications Regulators Association (WATRA) partners. The outputs of this workshop contributed to the eventual completion of curricula for the post-graduate programs.

3. Legal issues in Telecommunications (November 2003) – Another workshop was held around the same time to deal with legal and regulatory issues in the sector. The target audiences were legislators and the judiciary with a total of about 70 participants. Presentations were made by the FCC and the Oregon PUC on issues such as interconnection law and policy, licensing and convergence.

4. Training of Trainers workshop (May 2004) – The content of this workshop was designed to the support e-learning pedagogical skills of faculty at participating universities in the NetTel@Africa program including Nigeria. A follow-up workshop is being planned by the NCC to gather feedback from university lecturers on their experiences using the NetTel@Africa model such as the on-line delivery of course content. The objective of this future workshop would be to make recommendations to improve course delivery where possible.

Technical Assistance to the NCC

One of the specific tasks under SATN ("Increasing access to telecoms services") was to provide technical assistance (TA) to the NCC. For the most part, this involved work on universal access mentioned above. It did include however include limited support to the general operations of the NCC.

In the course of providing TA to the NCC, the NTCA became engaged in several areas outside of the NCC. The NTCA was effectively exploring new opportunities for collaboration

---

[33] NCC (2003) "Proceedings of Workshop on Capacity Building in ICT Policy and Regulations at the Nicon Hilton Hotel, Abuja Nigeria, February 26th – 27th"

between different players in the Nigerian telecoms sector or was supporting their work as it related to the overall goals of the LI. Examples of such organizations include the Nigerian Information Technology Development Agency (NITDA), Nigerian Investment Promotion Commission (NIPC), the DBI, the Ministry of Communications, and assessments for the development of a WiFi network in Abuja through NetPost.

Thus, although broad in nature, these activities fell under the terms of the original scope of works of this component of SATN – "Increasing access to telecommunications services". In fact, when the NTCA originally started working with the NCC, the NCC requested that the scope of the TA should be broad to accommodate different activities as they were still in the process of establishing structure and policy at the organization. Thus the NTCA was given flexibility in defining its work and as the requirements of the NCC evolved, the NTCA began to work with other organizations in an informal manner. While these efforts proved beneficial to most of these agencies, at least one suggested that they would have preferred a more formal relationship[34].

One result of these interactions was the development of an informal network for information sharing towards achieving common goals. This network was not only wide in scope but the NTCA also developed a good rapport with many local entities that not only praised the NTCA's contributions to their organization but were willing to assist them in its own work. This rapport was based in part on the perception that the NTCA was a credible agent as it was not self-motivated, but was working for the benefit of Nigeria. In addition, some organizations viewed the NTCA has having the ability to provide them with connections to external resources. As the NTCA's network in Nigeria grew it was able to connect needs with opportunities for some organizations, a seemingly business like strategy to its approach.

In some cases this was also considered a useful resource by other international donors. For example, the World Bank would often make use of the NTCA's relationships with various high-level Nigerian government officials and would sometimes request their assistance in arranging meetings related to Bank projects[35].

---

[34] Interview, P. Jack, Technical Assistant to the CEO, NITDA (June 30, 2006)
[35] In some cases, even the Bank's local office was not able to accomplish this.

It should be noted that the references to the NTCA above are not at an organizational level but primarily at an individual level. It is through their representative in Nigeria, Brian Mitchell, (International Projects Manager, NTCA) that these interactions and network building were made. This point is significant within the context of assessing institutional impact. Thus while it has been shown that the work of the NTCA led to an institutional impact at the sectoral level (eg. universal access), at the organizational level the results achieved have been more due to the inter-personal networks developed in the course of NTCA's work on the ground. From the beneficiary's view, this point might be trivial, but from a donor agency's point of view, it becomes difficult to sustain or replicate the *process* of creating similar results. In the case of universal access, the process used relied mostly on research and analysis to make recommendations and inform policy-makers. While in the case of general support to other organizations the process also relied on the inter-personal network resource described above.

<u>DBI</u>

An example of an organization that benefited from this type of support by the NTCA was the DBI. This is a training institute established by the NCC in 2004 to support the increasing and varied human resource needs of the telecommunications industry. The specific nature of the assistance can be summarized by the following:

- Funded small network upgrade at DBI. The NTCA through LI funds provided some US$35,000 to purchase equipment including the setup of a VPN, Multi-layer switch and switches/routers.
- Provided assistance to the DBI in dealing with World Bank. Initially, navigating the funding request procedures of the Bank was difficult for the DBI and the NTCA helped them through this. The NTCA then went on to support the NCC and WB in preparing bidding docs for an upgrade project at the DBI.
- Provided advice on DBI's strategic objectives (eg. collaboration with other higher education institutions) and assisted in the exploration of other funding opportunities.

Whereas much of this work occurred on an informal basis, the DBI has expressed great satisfaction with this support[36]. In fact, it wishes to see the support continue (see Section 7).

---

[36] Interview, Dr. O. Ogunfemi, Director, DBI (July 3, 2006)

Summary of Institutional Impact at the Organizational Level

In looking at the various activities under this section, it can be concluded that there was little institutional impact at this level. This is based on the evidence that little or no changes have been made to the organizational structures, rules or procedures or decision-making/operational arrangements among beneficiary institutions. This should be qualified by the fact the capacity building efforts in general will take some time to manifest the desired results. Thus while experiences and knowledge gained through the workshops and peer-exchanges would have benefited individuals, it will take some time before being translated into institutional changes if at all. The NetTel@Africa program has provided a new institutional arrangement from which participating Nigerian universities can benefit; however its recent start makes it difficult to assess its impact. Accordingly subsequent evaluations might provide a more detailed result. Finally, whereas the TA at the NCC did create informal arrangements through which several Nigerian organizations were a part of and through which they benefited, these arrangements appear to be temporary given their personal nature.

6.4. Collaboration

One of the more significant consequences of the implementation of the LI in Nigeria was the collaboration that developed between the NTCA and the World Bank. In most cases the NTCA's work on a particular project/area would lead to a significant investment by the Bank through its PSP in Nigeria, specifically under the Telecommunications Sector Reform component[37]. These investments were also in line with the objectives of the LI.

The initial work done between NTCA and the Bank was on a contractual basis and was not collaborative. The NTCA was contracted by the World Bank to develop a comprehensive Universal Access Strategy for the NCC which was completed in February 2002. It was following this project that the both parties collaborated on various other activities. The nature of the collaboration was such that it was not done on a formal basis nor was it done at an organization level. The arrangement for collaboration was usually inter-personal (specifically between Brian Mitchell, NTCA and Robert Stephens, Global Information & Communication Technologies (GICT), Policy Division, World Bank) and ad-hoc. This implies

---

[37] The allocation for this component of the PSP was originally approx. US$10 million and was increased to approx. US$36 million because of the effectiveness of initial investments.

that there were no institutional (formal or informal) arrangements put in place to effect the collaboration. Additionally, neither party gained any additional resources or leverage in terms of its relative position within the wider network of other organizations in the sector, both at the donor and Nigerian government levels. This was not the intention; instead the goal was to assist in efforts to support the NCC and the sector. The results of the collaboration then were wholly for the benefit of the sector. However, as before, without an institutional basis it must be viewed as a temporary phenomenon.

The collaboration involved the Bank making use of the NTCA's network of inter-personal relationships with Nigerian public and private sector individuals and its insight into the unique structural features of the sector for project appraisal purposes. This included the nature of relationships between various FGN entities and details of ongoing FGN projects. In addition to this the Bank would use initial assessments done by the NTCA as a basis for more comprehensive designs and implementations of particular projects. These types of assistance were seen as having played a crucial part in the success of certain Bank projects[38].

There are several instances in which such collaboration took place. For example, as mentioned earlier, the Bank was able to use initial work done on the operations and structure of the USPF by the NTCA to support work completed by Bank's consultants on preparing a detailed manual and implementation plan for the establishment of the USPF. The NTCA's work also provided the basis for the consultants to carry out business and household demand studies for telecommunication services. These studies enabled the consultants to determine subsidy rates and tender documents for three universal access pilots. These tenders were valued at approximately US$5 million.

Another instance of collaboration was the drafting of TOR's for a consultancy to develop a new E-strategy for Nigeria to be funded by the Bank through the PSP. This E-strategy is being developed under the leadership of NITDA and is designed to improve on the existing Nigerian National Policy for Information Technology (2000). The new strategy will be aligned to the overall National Economic Empowerment and Development Strategy (NEEDS) and The New Partnership for African Development (NEPAD) to enable ICT led development for the

---

[38] Email communication – R. Stephens, Telecommunications Specialist, GICT, Policy Division, World Bank (June 28, 2006)

country. The NTCA attended meetings around this project and supported NITDA and the Bank in developing these TOR's.

The NTCA was also able to support the Bank in identifying potential consultants to carry out an assessment on existing ICT connectivity infrastructure among Nigerian Higher Education Institutions. This was used to inform a broader study and future Bank project on the Science & Technology Post-Basic Education (STEP-B) institutions in Nigeria.

As mentioned earlier, the NTCA supported the DBI in preparing bidding documentation for a Bank funded project for an equipment upgrade at the institution. This consists of a digital library, network upgrade and hands-on lab at DBI through an allocation of approximately US$1.265 million. Specifically, the NTCA played a lead role in convincing the Bank to support the equipment upgrade at the DBI by conveying the requirements of the DBI to the Bank. They also assisted the DBI in the preparation of TOR's and with compliance of the Bank's procedures to secure funding for the project.

Therefore, when taken in context of the overall results achieved by the Bank's projects, the impact of the LI (through the NTCA's work) is significant particularly in terms of the benefits accrued to the NCC and the telecommunications sector as a whole.

One point to note here is that the stated objectives of the PSP's Telecommunications Sector Reform component include similar objectives to that of the SATN project including supporting policy development, regulatory reform, institutional strengthening of the NCC and improving rural telecommunications. Whereas, it could be argued that overlap and duplication were possible between the two sets of activities, they eventually proved to be complementary, particular through the work of the NTCA. One reason for this is the broad scope with which the TA to the NCC allowed the NTCA to operate. It was this flexibility that allowed complementarity with Bank work. Thus where the NTCA saw an opportunity for Bank support, it was able to shape its activities accordingly.

6.5.   Infrastructure Development

The final impact area to consider is infrastructure development and this relates specifically to the NetPost project supported through the LMI. As mentioned in section 3.4, NetPost

consists of a partnership between Nigerian Postal Services (NIPOST), Development Ventures International Ltd. (DVI) and ABG Nigeria Ltd with overall leadership provided by Prof. Raymond Akwule, of George Mason University (GMU). NIPOST is the main partner and has a vast network of post offices throughout Nigeria (approx. 3000 locations). ABG, a private Nigerian telecoms company brought its experience in the telecommunications market in the areas of broadcasting, VSAT and Internet technologies and two-way radios. DVI, a telecommunications company based in South Africa, is the managing technical partner. Finally, the NTCA through the LI provided technical assistance to the project.

The dual objectives of modernizing NIPOST by improving connectivity among its centers and improving access to ICT's among Nigerians was to be achieved through the propagation of NetPost model throughout the NIPOST centers. The NTCA, through its work under the LI, saw this as an opportunity to further the objectives of both the LI and LMI to increase telecommunications access to the underserved. Prof. Akwule was identified by the NTCA as a key person with the relevant expertise for providing overall leadership of the project[39]. In developing the NetPost model, funding was provided through the LMI for:

- Enabling leadership of the project by Prof. Raymond Akwule (GMU) through a US$250,000 grant from the LMI.
- Part funding for the renovation/expansion of a center in Nasawara – US$51,000. NIPOST provided the land and original building.
- Support to improve the business plan for NetPost.

To date, some 14 pilot centers have been established throughout Nigeria employing the NetPost model. The model consists of translating the public-private partnership into the provision of services which are tailored to local demand. This will provide a combination of services and will make the centers more useful and relevant for consumers, contributing to their sustainability. Thus, in addition to postal services there will be Internet cafes, remittance, telephone, banking, and business center services. Not all of these services are currently available in all centers and in some cases are dependent on the future establishment of partnerships with other private sector groups.

---

[39] USAID/NTCA – GMU Last Mile Initiative Project: Final Report April 2006 - "Toward Universal Access for Telecommunications and ICT: Leadership Strategy for the Last Mile in Nigeria."

In order to get a better appreciation of the model in operation, the rural center at Nasawara was visited. Its development was supported through the LMI and it started operations in October 2005. The center provides telephone services (local and international), an Internet café and computer training facilities. There were 7 workstations in the Internet café and 5 in the training room. The café sees an average of 30 persons/day and the training room runs at most four 2 hour classes/day. The classes cover computer basics, Internet fundamentals and the Microsoft Office suite of applications. During the visit it was noticeable that there were several persons waiting to use workstations in the Internet café. The manager of the center estimates that there is more demand for both types of services and suggested that this could be met with an additional 10 workstations (5 for the café and 5 for the training room)[40]. In addition, the center is exploring providing banking services (the space is already available at the center) through Eco Bank, a local commercial bank. Currently, the center is breaking even financially.

It should be noted that the buoyant demand is a recent phenomena, as shortly after the opening of the center the workstations were underutilized. In fact they remained so until around May/June 2006. Around this time competing Internet café businesses closed for various reasons (including a lack of technical skills). This meant more business for the center. In addition, many of the customers are students who rely on the center for, among other things, their academic needs. There has been an increase in the number of students coming to the center because of the intermittent Internet services provided by the nearby Polytechnic. Even so, the manager is optimistic as an opportunity has presented itself for the center to expand and grow.

The above example is not meant to be representative but indicative of NetPost operations. One point that is representative is the need for greater expansion (equipment/infrastructure) of existing centers and, more generally, the growth in the number of centers. This has been impeded by a lack of private sector investment. As government agencies are not allowed to seek private sector investment, the onus therefore falls on the private sector partners in the project. In this regard, activities are continuing.

The partnership structure that was originally proposed appears to be adequate in terms of the level of operations achieved thus far. However, the exclusivity of services provided for

---

[40] Interview, A. Martins, Manager, Nasawara Netpost Pilot Center (July 7, 2006)

each partner is not clear and can lead to overlap. Thus for example, there are currently efforts by both NetPost and NIPOST to provide financial services at NIPOST locations (some of which would be in effect NetPost centers)[41]. Therefore, as the scope of the NetPost project grows, this issue will have to be settled.

The model of utilizing both public and private sector entities to realize a public goal of greater ICT access is conceptually sound. In fact, this is seen by NetPost as being one of its successes, in that it has provided the foundation for the future expansion of the project by demonstrating that the public-private partnership is viable and that the required business structure is in place[42].

Whereas, the model has appeared satisfactory thus far, the real issue for donors and the government will be scalability. Two points need to be considered regarding this issue. From the onset of the project, all interested parties have relied on the personal leadership of Prof. Akwule to realize the project's objectives and in practice. This has meant a close management and ownership style of the project's activities. This style can be described as adequate for the current scope of the project. However, ideally, if the project is to eventually encompass all 3000 NIPOST locations, then this modus operandi could limit the ability to scale.

Another related point is that the development of the project has relied on the personal networking skills of Prof. Akwule and to a lesser extent Brian Mitchell (NTCA). While these attributes have contributed greatly to the development of the project, a dependency on them could obviate the potential to scale up the achievements made under NetPost thus far.

Finally, it should be noted that a proper assessment using the outcome evaluation approach described in section 4.2 would require a financial analysis of the project. This is even more relevant given the business oriented nature of NetPost. However, such an analysis was not completed in time for this report. Therefore a more complete assessment would incorporate this type of data.

---

[41] This point was raised by Brian Mitchell (NTCA) in discussions on NetPost (7/13/06).
[42] USAID/NTCA – GMU Last Mile Initiative Project: Final Report April 2006 - "Toward Universal Access for Telecommunications and ICT: Leadership Strategy for the Last Mile in Nigeria."

7. Conclusions and Recommendations

Since 2000, USAID has invested resources in the development of the Nigerian telecommunications sector. This was done primarily through the Leland Initiative and the Last Mile Initiative with a total budget of around US$1 million. Through the successful implementation of several projects, USAID was able to leverage greater resources, particularly from the World Bank, for achieving mutually shared objectives of improving the sector. In most cases the outputs of USAID projects provided crucial inputs into subsequent and larger projects of the Bank. These projects had significant policy and institutional impacts particularly in the area of universal access in Nigeria.

This result was achieved through the development of collaborative inter-personal networks which the NTCA was able to develop with the World Bank and with local industry and government entities. Furthermore, it was facilitated by the flexible nature in which the NTCA could operate. The direct impact of USAID's other projects in the areas of capacity building, training and infrastructure development were limited in most cases or are too early to assess. Thus the use of inter-personal networks was important to the realization of the more significant impacts of the Leland Initiative.

The implication of this conclusion is that USAID's efforts have been less visible to those outside of these networks. As such, a survey of persons working in both the public and private segments of the sector showed that only 37% of those interviewed were aware of USAID's work. More importantly, although the impact on policy (Communications Act 2003) and on institutions (USPF) was achieved through collaboration with the World Bank, from USAID's point of view, it is uncertain whether these results can be replicated given that this collaboration substantially relied on inter-personal networks and these networks have not yet been institutionalized.

In considering the design of future USAID programs in this area, two issues that relate to the implementation of the LI should be noted. The NTCA played a unique role in the execution of the LI. They were able to combine funding from several projects to effect similar objectives that contributed to the overall impact of the LI. One project basically flowed into another or overlapped as the case may be. From the NTCA's point of view

working for the same beneficiary through several (and usually) related funding mechanisms makes sense. Whereas from the view of any one funding source these overlaps make for a challenging evaluation process, this is a result of the particular approach employed by USAID in the implementation of the LI. Multiple projects and actors were utilized in trying to the realize the objectives of the LI. Thus although some overlap did occur, both expected (eg. development of the NetPost project) and unexpected (eg. collaboration with the World Bank) results also occurred, all of which contributed to the outcomes of the LI.

The NTCA also played a lead role in realizing many of the objectives of the LI. This was because it had been involved in its implementation since 2000. But perhaps more important was the nature in which it operated on the ground: by being proactive in seeking additional funding where possible, collaborating with new partners and operating in a flexible manner. Though not immediately obvious when looking at specific components of the LI, from an overall view, these factors were important to its success.

Another issue that was raised in the course of the evaluation was the strategic fit of the LI program into USAID Nigeria's Strategic Objective (SO) 12 "Diversifying and strengthening the non-oil economy in selected areas." The LI fell under SO12 and it seemed to work conceptually. However, operationally, the reporting procedure for the LI program in Nigeria is directly to USAID in Washington and in some cases circumvents the local USAID office. On a few occasions the local mission office was not completely aware of the activities of USAID contractors in Nigeria. While this was the nature of the LI's reporting structure, it does create a potential for lack of coordination.

Based on the discussion and analysis raised in the previous sections of this report, the following recommendations seek to build on work started with the LI and include suggestions made by interviewees. Obviously, the key for any future program is the specification of a need by the beneficiary (a specific government agency or the FGN itself). Below are some of the possible areas in which future work could be done.

General support
• Universal access - If requested by the NCC, the USAID can serve to provide TA specifically to the USPF. This would involve a more focused scope of works and could include the application and/or interpretation of lessons from the three universal access

pilots that would have been tendered. Additionally, TA could provide support to the USP Secretariat and advise the Board as needed. While the structure of the Fund has already been criticized in that the Chair of the Board is too close to the EVC of the NCC, USAID could work to create a more balanced structure as a neutral observer working closely with the Fund.

- Many observers noted that one of the major obstacles to further growth is the lack of a local/regional backbone. There are in fact several initiatives under way to support similar work. For example, the Wire Nigeria project or the World Bank's support to STEP-B. Support programs can be designed to provide complimentary inputs to these projects. These programs would be on a smaller scale and can include TA or limited infrastructure support.

- Additionally, many of the operators interviewed noted that there are several challenges remaining in the sector. For example, quality of service still remains an issue for the consumer. Operators themselves have to contend with poor infrastructure for electricity – almost all operators have their own power infrastructure, multiple taxes and regulations from different jurisdictions and some argue that the interconnection rates still favor GSM operators. While the scale of such infrastructure support would not be feasible for a USAID intervention other areas such as support for the harmonization of local regulations and tax regimes is possible.

- Other initiatives that the NCC is currently working on which could be supported include the setting up of IXP's in collaboration with the Internet Service Providers Association of Nigeria (ISPAN) and the State Accelerated Broadband Initiative (SABI).

DBI

- Collaboration with other higher educational institutions – the USAID could continue its work in facilitating collaboration with DBI and counterpart institutes in the US.

- One of the major needs of the DBI currently is funding for GSM/CDMA hands on learning lab. This implementation of this lab is part of its teaching strategy to provide students with practical technical experience.

- Financial support – As the DBI still relies on the NCC for financial support, any assistance in leveraging funding from other sources is critical. In this regard USAID has already assisted them and can continue to do so where possible.

- Change in management structure – One of the weaknesses mentioned regarding the management of the DBI is that there is distributed responsibility but non-distributed

authority. This leads to a lack of independence on the part of lecturers and can be a possible obstacle to growth. Providing assistance to help improve the management structure and systems at the DBI would be important given that it is trying to expand.

- Improvements in curriculum design – one of the expressed needs is in curriculum design. Many of the curricula were not designed by actual lecturers and in some cases the material is not relevant. This applies to several courses and any redesign would have to accommodate a more integrated approach to curriculum development in line with the objectives of the DBI. In this regard, technical support could be provided for curriculum development.

NetPost

- Clarify exclusivity of services between partners – As mentioned earlier, this is an issue that should be resolved before any significant expansion takes place.
- Support for greater private sector investment – the main obstacle to NetPost's growth currently. USAID could provide greater support to the project for example, by exploring the franchise model currently being proposed along with options to obtain concessionary loans/financing.

NetTel@Africa

- Explore synergies between NetTel@Africa Nigerian partners and DBI – There are in fact some similarities in the programs delivered at the two groups of institutions. One area of support could be in curriculum design, albeit limited given the DBI's more technological focus. The USAID would be well placed to effect such a collaboration which could spread to other areas.
- Greater sharing of experiences between NetTel partners – This applies to Nigerian university partners and their counterparts in other African countries. It also involves widening the number and type of institutions involved in the program within Nigeria in the long term.
- Variations between capacities of Nigerian universities in program should be better accommodated – This relates to the size of participating universities and their ability to attract students to the respective programs. This has implications for the type and content of programs offered.

- Explore support for equipment needs – A problem that was identified at least at UNILAG. Lack of such support could have implications for the long-term growth of the program. In this regard, USAID could assist in identifying possible funding sources.

8. List of Persons Contacted

8.1. List of persons interviewed (in person or via telephone)

Name of Person Interviewed	Position/Organization	Date
1. Brian Mitchell	International Projects Officer, NTCA	28-Jun-06
2. Frank Okafor	USAID Nigeria - Microenterprise Specialist	29-Jun-06
3. Raymond Akwule	Professor, George Mason University	29-Jun-06
4. Oyaje Idoko	CEO, Layer 3	29-Jun-06
5. Peter Jack	NITDA - Technical Assistant to CEO	30-Jun-06
6. Inye Kemabonta	NITDA - Head, Zonal Coordination and Strategic Alliances	30-Jun-06
7. Chioma Nwisi	NCC - Business Development Officer	3-Jul-06
8. Dr. Olasupo Ogunfemi	DBI - Director	3-Jul-06
9. Dr. Idika Ochaa	DBI - Head, Research,Education and Curriculum	4-Jul-06
10. Aminu Suleman Takuman	Nigerian Investment Promotion Commission - Technical Assistant to the CEO	5-Jul-06
11. Engr. Emmanuel A Adekoya	NITEL - CTO	5-Jul-06
12. Ayobami Oyewale	Professor, National Centre for Technology Management, Obafemi Awolowo University, Ilfe Ilfe	6-Jul-06
13. Engr. S A C Longe	MTEL/NITEL - CTO	6-Jul-06
14. Tunde Adekola	World Bank - Senior Education Specialist, Nigeria Country Office	6-Jul-06
15. Dr. O. Ugweje	DBI - Deputy Director - Research and Curriculum	6-Jul-06
16. Lolia Emakpore	Executive Officer, WATRA Secretariat	7-Jul-06
17. Dr. Sani Sufi	Federal Ministry of Communications - Director Planning and Research	7-Jul-06
18. Alfred Martins	Nasawara Netpost Pilot Center - Manager	7-Jul-06
19. Dr Ike Mowete	Head of Department, Depart of Systems Engineering, University of Lagos	10-Jul-06
20. Engr. Olajide	Glo Mobile – CTO	10-Jul-06
21. Chima Onyekwere	Managing Director/CEO Linkserve Ltd.	11-Jul-06
22. Jide Awe	CEO, Jidaw Systems Limited; Member - ICT For Development (ICT4D) Strategic Action Plan (2005 -2008) Committee	11-Jul-06
23. Wale Goodluck	General Manager, Commercial Legal Corporate Services Dept., MTN Nigeria, Ltd	12-Jul-06
24. Prakash Pantham	Commercial Director, Starcomms Ltd.	12-Jul-06
25. Nnamdi Nwokike	Head, Business Development Dept., NCC	13-Jul-06

Name of Person Interviewed	Position/Organization	Date
26. A.T. Gaga	General Manager, NetPost Nigeria Ltd.	13-Jul-06
27. Dr. Maria Beebe	University of Washington/ CBDD	3-Aug-06
28. Patrick Boateng	Advisor for Africa & Middle East, International Bureau , FCC	14-Aug-06
29. Brian King	Telematics Advisor, USAID Leland Initiative, (NTCA)	15-Aug-06

8.2.   Persons contacted via email:

Name of Person	Organization
30. Rob Stephens	GICT, World Bank
31. Fola Odufuwa	CEO, E-Sheckles Ltd.