



## **MAINSTREAMING ICT FOR POVERTY REDUCTION IN NIGERIA**

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### **Protocols.**

#### **INTRODUCTION**

Let me start by saying that Nigeria and Nigerians at all levels and geographical locations must embrace ICT for the growth of the economy and eradication of poverty. In other words, a key benefit of ICT is poverty reduction and eradication. This is so important because as the *World Summit on Information Society (WSIS)* has posited, “everyone, everywhere should have the opportunity to participate and no one should be excluded from the benefits the Information Society (ICT) offers!” Therefore, it gives me great pleasure to address this esteemed gathering on this very important topic; “Mainstreaming ICT for Poverty Reduction in Nigeria”.

Academic studies on ICTs make it clear that the Information Society like any society will have winners and losers, beneficial consequences of ICT and harmful applications. A review of these academic studies shows that there are no simple and straightforward effects of ICT on society. ICTs are seen as a critical resource in the promotion of socio-economic development, with a potency to alleviate poverty.

The poverty level in Nigeria is not a true reflection of our population size, natural and environmental endowments. This is because the poverty level in the country contradicts the country’s immense wealth.

A large percentage of the people wallow in absolute poverty with no food, clothing or shelter. In the light of this, we must ask the following questions: How and in what ways can ICTs help the Nigerian poor people and those who are socially excluded? What are the connections between ICT and the government anti-poverty measures? What are the areas that are likely to create opportunities for the use of ICTs where they have the maximum potentials to benefit the poor? These questions serve as an impetus for this paper.

### **POVERTY IN PERSPECTIVE - TRADITIONAL & DIGITAL POVERTY**

Traditionally, poverty is defined as general scarcity, dearth, or the state of lacking a certain amount of material possession or money. It is a multifaceted concept, which includes social, economic, and political elements. Poverty may be either absolute or relative. Absolute poverty or destitution refers to the lack of means necessary to meet basic needs such as food, clothing and shelter. Relative poverty takes into consideration individual social and economic status compared to the rest of society. (Wikipedia).

A new definition to poverty has been drawn giving the strength and possibilities derivable with ICT. Poverty as defined by *Subbiah Arunachalam* is the lack of access to the internet in the developing world; this is called *Information Poverty/Digital Poverty*.

Digital Poverty is the lack of means with which to access ICTs, the lack of skills to use the ICTs, and inadequate information about the usefulness of ICTs. Digital poverty thus incorporates a demand component (the service cannot be afforded), a capability dimension (the skills to use the service are not available), and a supply component (the infrastructure to deliver the service is not in place)

The challenge encountered by developing nations is no longer poverty in its traditional sense, but a lack of access to ICT tools and the vast potentials derivable from ICT.

## ICT IN PERSPECTIVE

ICT (Information and Communications Technology - or Technologies) is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning. Fosters defines ICT as the group of technologies that is revolutionizing the handling of information and embodies a convergence of interest between electronics, computing and communication (Drew and Fosters 1994).

It goes without saying that ICTs have the potential to combat poverty, be it rural or urban poverty. It will also foster sustainable development if appropriately deployed and made to address the diverse discrepancy in the ICT needs of people of all locations, age group and economic status. ICTs, are not simply a connection between people, but a link in the chain of the development process; and its contribution to socio-economic development cannot be over-emphasized.

It must be clear that investment in ICTs alone is not enough for development to occur, for development to be sustained or for poverty to be eradicated. Successful ICT poverty reduction interventions can only be achieved if there is an enabling environment, the participation of the private sector and NGOs, the free flow of information, access to ICTs by women and youths, and capacity building.

Consequently, ICTs may be regarded as enabler of other developmental efforts and infrastructure required for sustainable development. Only a banquet of strategies duly implemented can attempt to resolve the global menace of poverty.

## **RELATIONSHIP BETWEEN ICTS AND POVERTY**

In the last two decades, ICTs have been regarded as a prerequisite for job and wealth creation. Organizations such as the UN, World Bank, ITU etc. have identified ICT as a driver for national economic development that delivers improvements in productivity, creates new channels for entertainment and services, and whole new industries and other social services to achieve poverty reduction.

The challenge for the poor is inability to access information due to inadequate infrastructure, ignorance or illiteracy. The availability of information sources for the poor should be of great concern if poverty is to be reduced.

For most developing countries, particularly those with large populations, inadequate infrastructure has made it difficult to participate as equal partners in the worldwide enterprise of knowledge production and dissemination. This portends an unequal distribution of access, resources and opportunities in this new economy. To avert the birth of a new type of poverty (Information Poverty), the ICT gap (digital divide) between the developed and developing nations must be bridged.

Nigeria like most developing nations is not enjoying the full benefits of the ICT revolution due to inadequate telecommunication infrastructure, capacity to maintain existing infrastructure, policies for equitable public participation as producers and consumers of information and knowledge.

## **ICT AS DRIVER OF ECONOMIC GROWTH**

ICTs and the cyberspace have become a crucial ingredient for the survival of individuals, businesses and governments globally. ICTs cut across all sectors of our economy including the provisioning of essential services for good governance, agriculture, transportation, health and even basic delivery of goods and services and financial transactions. ICT is not only a game changer, it is a Revolution.

In Nigeria, ICTs must be considered a critical key driver for social development and economic growth. To stimulate the Nigerian economy particularly in production, agriculture and intellectual property, we should aim to improve ICT penetration in both mobile telephony and broadband services to all parts of the country no matter how remote. The target should be increased ICT interaction and usage in Agriculture, Health, Trade, Finance, Insurance and Transport. This would automatically affect the nation's GDP, improve the quality of life, reduce dependency on forex and improve the value of the naira.

A Nation's Development is measured in economic terms such as per capita income, Gross Domestic Product (GDP), Gross National Product (GNP), among other indices. Indices such as level of literacy, social development, human capital development, cultural innovation and technological preparedness are not regarded as a measure of development. If we must tap into the ICT revolution, then it is time for a paradigm shift! The traditional economic terms are not a reflection of the new age of Knowledge Economy.

The wireless communications networks, with more than 5 billion subscriptions globally, are now the world's largest platform to deliver useful information as well as a wide range of public and social services to people in all locations. Examples of such services include:

- Nigerian cattle sellers are using ICT to monitor mad cow disease and determine the price of cattle as shown by a recent television advertisement.
- Farmers in remote villages of Kenya are using technology to access the most current crop prices.
- Rural fishermen in Sri Lanka know where to fish based on satellite mapping of fish colonies.
- Migrant workers in Sierra Leone have cut out intermediaries and can now transfer money almost instantly through mobile banking to relatives in remote villages.

- Land registration, education programs, health care, and voting are other examples of services that are often difficult to access by poor people in remote areas, but are now being extended to these communities in a timelier manner and cost effectively.

It is not just a technological phenomenon; ICT promotes innovation and can trigger fundamental economic transformation which should be translated to economic indices that would ensure sustainability and growth.

## MEASURES TO REDUCE POVERTY

Poverty reduction measures are strategies developed to enable the poor or socially disadvantaged to create wealth for *themselves as a means of ending poverty*. The strategies must respond to the questions around service accessibility, affordability, skill/competence availability and infrastructure adequacy. These strategies should rely on *widespread access to communication networks; the existence of an educated labour-force and consumers; and the availability of institutions that promote knowledge creation and dissemination*.

While poverty may appear to be wide spread in developing nations, developed nations are not exempted. The difference is the strategies adopted by each group to reduce the poverty mass.

Going back to the many programmes designed by successive governments to address poverty in Nigeria, such as “Operation Feed The Nation, Green Revolution, SURE - P etc and the various programmes by spouses of Heads of States, *it is clear that what is required is a holistic strategy centered around ICT, that puts opportunities in the hands of the teaming youths of this nation*. In a similar way, the government of President Muhammadu Buhari GCFR, places premium on diversification of the economy through the use of ICT.

ICTs provide a knowledge economy and sub-sector with un-imaginable possibilities. The drivers of this subsector are the youths. With Nigerian youths representing two-thirds of our current population but 100% of Nigeria’s future, any poverty reduction strategy that does not center on this critical group will

not do the nation much good. A classic example of the potentials of the information age is young companies like Google, valued at \$547bn and Facebook, valued at \$326bn as at February 2016 (CNBC). They have emerged virtually from nowhere and are creating new value based on a very different kind of capital: The Human Person through Social Media.

Nigeria is privileged to have an abundance of human capital that can be developed for higher productivity. With our teeming population of highly entrepreneurial youths, the wide availability of access to ICTs represents a huge potential for employment and wealth creation that would lead to poverty eradication. We must tap into this potential and develop nationwide strategies and measures for poverty reduction and indeed eradication.

## **EFFORTS BY THE NIGERIAN GOVERNMENT TO ALLEVIATE POVERTY THROUGH ICT**

1. **NATIONAL INFORMATION TECHNOLOGY AGENCY (NITDA):** In fulfilment of its mandate and in support of government's effort at employment creation and poverty eradication, this agency has commenced series of trainings called Online Business Process Outsourcing, to empower young adults and reduce unemployment; deployed over 300 information technology centres; 18 virtual libraries, 40 community access centres etc. This is in addition to a number of other initiatives to address poverty and create opportunities for the under privilege in the society. These platforms expose individual to freedom to choose what to do; who you want to do it with; where you want to work; consistent income; access to basic needs of life and social relevance.
2. **NIGERIAN POSTAL SERVICE (NIPOST):** With its unique spread across the nation even in remote locations, NIPOST has begun collaboration with other agencies of government and the private sector to serve as ICT hubs and ICT special purpose vehicles (SPV) around the nation. This would

guarantee easy access to ICT services to citizens even in the remotest of locations.

There is currently implementation of Stamp Duties Law by banks which will generate large revenue for government and in turn create desired employment for our youths.

3. **The Universal Service Fund (USF):** This is a global phenomenon with over 50 countries as signatories to an International Telecommunications Union (ITU) agreement to set aside funds to provide access to technology to the citizenry of their countries no matter where they live. Nigeria as one of the signatories and as contained in the Communication's Act, has provided for a USF.

The underlying concept of Universal Service is to ensure that telecommunications services are accessible to the widest number of people (and communities) at affordable prices. *The concept of USF is broadly promoted and widely accepted as the best expression of policies seeking to achieve equality and fairness of opportunity along with economic growth.*

In this regard, the Nigerian Universal Service Provision Fund (USPF) was set up and engages in various activities to increase universal access/service and reduce poverty. They include:

- A. Community Resource Centers. These purpose built centers are designed to directly respond to employment creation and poverty eradication by providing 30 purpose built centers for ICT penetration in underserved and unserved areas.

To ensure sustainability, the USPF collaborates with Community-based Organisations (CBOs) in the host communities to generate ICT-demand activities.

- B. USPF Hackathon: In support of ICT innovation for the empowerment of youths, this platform was created for the provision of seed money to successful applicants to build ICT solutions.

This initiative is a fall out of a USPF funded study with the objective of identifying clusters of voice telephony and transport network gap in the country. The result of the study is being used to assist the USPF in designing projects and strategies to cover these gaps and ensure that everyone irrespective of locality is connected in Nigeria.

- C. RUBI - Rural Broadband Initiative: Through this project, subsidies are provided to operators for the deployment of network to support the establishment of core delivery mechanisms for broadband services in the rural/semi-urban areas of Nigeria. This project provides both wired and wireless internet at high speed in the rural areas at wholesale, and at the same time serves as a catalyst for the uptake of other broadband-dependent projects in those locations such as e-library, e-health, e-government etc.

- D. UnICC - University InterCampus Connectivity: this is a support project to the National Universities Commissions' Nigerian Research and Education Network (NgREN), the primary purpose of which is to deliver broadband infrastructure and access to facilitate research and learning using state of the art technology. It is designed to seamlessly connect the networks of the main campuses of selected universities to the networks of their corresponding medical colleges and teaching hospitals through the deployment of fibre optic cable and its associated equipment.

- E. BTS - Base Transceiver Stations: This project involves granting subsidies to Network Operators for the deployment of Base Transceiver Stations (BTS) and other passive infrastructure in

underserved and un-served communities which the market will not ordinarily reach. The objective of the BTS project is to facilitate the achievement of the AMPE (Accelerated Mobile Phone Expansion) Programme which targets the achievement of full voice coverage by 2017.

- F. IRC - Information Resource Centres: it is an intervention to create ICT-driven knowledge management that will adequately respond to the changing demands of users. Through the project, the USPF establishes digital libraries in the existing public libraries to enable sharing of information and other resources as well as connect and share resources with libraries outside the country.
- G. SKC - School Knowledge Centres: The SKC project is designed to promote the demand and adoption of ICT in public schools in order to create 21st century skills that can fit into the knowledge economy. Schools are provided with computers, printers, solar power system, bandwidth and educational software/content. At least 200 schools benefit from the project each year.
- H. E-Health Project: the project will support the provision of world-class and expert health care to patients in target health institutions by facilitating ICT-enabled services.

4. **Nigerian Communications Commission (NCC):** We will continue to support the vision of the present government to put Nigeria amongst the top twenty in the comity of Nations and to align our developmental goals in keeping with the seventeen United Nations Sustainable Development Goals (SDGs) but particularly the goal to eradicate extreme poverty for all people everywhere which is currently measured as people living on less than \$1.25 a day, by year 2030. The following initiatives at the NCC directly or indirectly target poverty eradication:

- A. Advanced Digital Appreciation Programme: Transforming the Academics: Advanced Digital Appreciation Programme for Tertiary

Institutions, ADAPTI is aimed at bridging the digital divide existing in the academia with the provision of computers and other ICT facilities *to equip the lecturers and other experts* in order to improve ICT skills and also to enrich the students. The overriding objective of this intervention has been to elicit pervasive application of ICT skills in the academia for enhanced staff output, institutional efficiency and student enculturation to e-based learning for sustainable national growth. Records show that as at 2015, over of 12,600 people have benefited from this programme.

- B. Digital Awareness Programme (DAP): this is a special intervention programme to address the digital information knowledge gap in the country, especially among the *teeming youthful population*. On the last count, the DAP Project supports 229 Secondary Schools across the Six (6) Geopolitical Zones of Nigeria, including the Federal Capital Territory. The strategy in this programme is to expose schools and colleges to Information and Communications Technology (ICT) awareness, usage and application by facilitating access to ICT tools by the provision of Twenty one (21) Desktop Computers, Local Area Network, Printers, Scanners, VSAT Dish and deployment of one Year Bandwidth Subscription for Internet Access.
- C. NCC- Digital Bridge Institute (DBI) Projects: Nigeria's ICT flagship institution, the Digital Bridge, DBI, came into existence in 2004 to impact on the national ICT human capital building efforts by bridging the ICT knowledge gap.
- D. Frequency Auction: Contributing to National Purse: The Nigerian telecom regulator has contributed over N300 Billion to the Federation Account from proceeds of frequency auctions and licensing. The frequencies auctioned, are in turn used for deployment of services for poverty reduction and the benefit of the citizenry. The Commission has a clear understanding of this value chain and is determined to uphold it.

- E. Value Added Services (VAS): Telecommunication has given birth to a number of value added services which opens up benefits to all cadre of people irrespective of location and level of education. These VAS are great channels for revenue generation. Some VAT are: Content development, Phone repair network, IT device accessories sales market (phone pouches, screen covers etc), Ringback tones, even government agencies provide service on telecom platform e.g Nafdac – drug authentication code.

## **BROADBAND AND POVERTY**

The Federal Ministry of Communications manages policies which are benchmarked against Nigeria’s vision 2020 that aims to place Nigeria amongst the top twenty World Economies. The National Information and Communication Technology Policy (2012) (the “ICT Policy”) provides strategies for the pervasive roll out of ICT infrastructure nationwide.

The Nigerian National Broadband Plan 2013–2018 (the “Broadband Plan”) devotes an entire section to targets, strategies and roadmaps to promote pervasive broadband deployment, increased broadband adoption, usage and availability to all at affordable prices. These all point to government’s commitment to harmonizing and utilizing the benefits derivable from ICT for the good of all.

In 2014, the National Broadband Plan was approved to foster fuller economic exploitation of ICTs. This means that there will be more pervasive deployment and usage of ICT to push the development and economic attractiveness of the nation.

The benefits of broadband are enormous. It is a booster of economic and social activities. It supports all facets of life and living. Sustainable broadband would positively affect public safety, national security, telemedicine, e-government, e-health, e-commerce, distance learning, utility applications, etc. which would in turn reduce poverty and more people become economically empowered.

Broadband is widely perceived as a development enabler. It transforms the society and generally brings about economic well-being. This much was alluded to in the Nigerian National Broadband Plan 2013-2018 that stated inter alia “We live in a global village where ICT has a direct impact on a Nation’s ability to improve the economic wellbeing of her people and compete globally. Broadband is an essential infrastructure of the 21st Century.

It enables access to business and job opportunities, improves healthcare, education and government services, and facilitates social interactions.”

World Bank report also noted that “the effect of broadband in accelerating economic growth was greater in less developed countries like those in sub-Saharan Africa than in more developed countries, and more than for fixed, mobile or internet penetration”. With about nine tera byte of undersea cable capacity at the shores of Nigeria there is still not enough capacity inland to support faster and high speed broadband. This is because there is inadequate metropolitan fibre connection, haphazard infrastructure layout and a seeming evaporation of the last mile.

As the ICT industry continues to evolve at a frenzied pace, and with technology increasingly converging into all sectors of the economy, the need for technical talent and specialists across a range of sectors continues to grow in order to meet the growing demand for digital technology.

The Federal Government of Nigeria is committed to sustainable development of the ICT subsector for the growth of the economy and the eradication of poverty. This was made evident during the just concluded Communications sector retreat where the Ministry of Communications and the agencies under it converged to chart a five year plan that would make communications services, affordable, accessible and available to all persons in Nigeria. A key element that alludes to this is the mandate to engage the ministry of education to ensure mandatory ICT education at primary level.

The focus is to ensure that children at all levels irrespective of geographical location have a clear appreciation of the possibilities of ICT to improve standard of living.

The Nigerian Communications Commission in 2014 adopted a five year Strategic Management Plan (SMP) 2014 – 2018 using the instrumentality of the Balanced Scorecard for implementation and monitoring performance. For effective implementation, the SMP has four strategic pillars and various objectives.

Not long after I assumed duties as the EVC of the Commission, a 20 man committee was set up to produce a roadmap aimed at refocusing activities of the Commission towards stimulating developmental activities in the ICT sector, in line with the Federal Government's "Change Vision".

In executing this assignment and having made reference to several documents including the Strategic Management Plan (2014 – 2018), a Strategic Vision 2015-2020 was created. A summary of this Strategic Vision (8-Point Agenda) includes:

1. Facilitate Broadband Penetration
2. Improve Quality of Service
3. Optimize Usage and Benefits of Spectrum
4. Promote ICT Innovation and Investment Opportunities
5. Facilitate Strategic Collaboration and Partnership
6. Protect and Empower Consumers
7. Promote Fair Competition and Inclusive growth
8. Ensure Regulatory Excellence and Operational Efficiency

The credit for Nigeria's ambitious broadband pursuit is traced to the potentials and prospects of broadband technology, the ease of deployment and the vast opportunities available through it. The Commission will continue to put strategies in place to pursue last mile deployment of broadband. This would ensure small businesses are positioned to compete globally and communities and individuals are able to create wealth through access to ICT.

## CONCLUSION

I would like to conclude this paper by stating that the fight against poverty requires collective effort. We must all join hands, support the government, protect our resources and infrastructure, grow our economy and push poverty away from our nation for the benefit of all Nigerians.

Technological progress has been the biggest driving force behind economic growth since 1990. It has lifted over 10 percent of the world's population out of poverty. ICT Infrastructure is a major driver to any country's growth and development in ICT. In Nigeria ICT has attracted huge investment, and generated significant fiscal revenues and employment opportunities.

By providing access to information, making markets more efficient, fostering social inclusion, and equalizing opportunities in rural areas, ICT offers an innovative and unprecedented tool to directly reduce poverty.

Thank you once again for inviting me.

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