



The Ghana Scan-ICT Phase 2 Technical Workshop

Venue: The Conference Hall, Ghana Statistical Service, Accra

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FINAL WORKSHOP REPORT

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ABBREVIATIONS

AISI	African Information Society Initiative
CUT	Capacity, Usage, Transformation
DDD	Developmental Digital Divide
DISD	Development Information Services Division
DND	Digital Numbers Divide
EU	European Union
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GNI	Gross National Income
HRD	Human Resource Development
ICT	Information and Communications Technology
IDRC	International Development Research Centre
IKE	Information and Knowledge Economy
IS/ICT4D	Information System/ICT for Development
NACPUS	National Advisory Committee for Producers and Users of Statistics
NICI	National Information and Communications Infrastructure
NGO	Non-Governmental Organization
NORAD	Norwegian Agency for Development Co-operation
NSO	National Statistical Organization
R&D	Research and Development
S&T	Science and Technology
SME	Small and Medium Enterprise
UNECA	United Nations Economic Commission for Africa
WSIS	World Summit for the Information Society
UNCTAD	United Nations Commission for Trade and Development

INTRODUCTION

The Scan-ICT Phase 2 Technical Workshop held in Accra, Ghana on the 30th March 2006 under the auspices of the United Nations Economic Commission for Africa and organized in collaboration with the Ghana Statistical Service and the International Institute for Information Technology was aimed at supporting Ghana's ICT4D process through the building of capacity to support the development and integration of suitable ICT4D indicators into the nation's statistical system.

The Ghana workshop which was aimed at launching and kick-starting the implementation of the Scan-ICT Phase 2 process in Ghana is a follow up to a 2001 pilot initiative (the Scan-ICT Phase 1 project) which UNECA and IDRC, implemented in five African countries namely Ghana, Senegal, Morocco, Ethiopia, Uganda and Mozambique.

The Workshop has as its key agenda a technical session on the Scan-ICT Phase 2 Methodology- *The Toolkit* commissioned by UNECA and developed by INIIT. This Toolkit is designed to guide African countries in the development of their information society (IS) /ICT4D status and impact monitoring, assessment and measurement indicators as well as provide framework for integrating the compilation of these indicators in the national statistical system of these countries

The Workshop attracted close to 70 participants from both public sector and private sector institutions. International participation came from UNECA, Addis Ababa and UNCTAD, Geneva.

OPENING SESSION

The opening session was presided over by Professor N. N. N. Nsowah-Nuamah, Deputy Government Statistician

Welcome Address

Professor N. N. N. Nsowah-Nuamah, the Deputy Government Statistician, welcomed the participants, invited guests and media, and thanked them for attending the meeting. He observed that this workshop had come at a very opportune time as the twin relationship between ICTs and Statistics is very important in the solution of national problems.

He briefed the delegates on the objectives of the meeting emphasizing that the in collaboration on the solutions of national problems, statistics acts as the brain and ICT as the spinal cord and hoped that this workshop will go a long way to solidifying this relationship in Ghana. He made the point that the Ghana Statistical

Service is proud to host the workshop and commented on the caliber and the vast expertise of the participants.

Opening Statements

Opening Remarks, by Dr. Grace Bediako, Government Statistician:

The Government Statistician, Dr Grace Bediako set the objectives of the Ghana Scan ICT Phase 2 Technical Workshop and noted that the Workshop is in response to one of the major recommendations of the Geneva and the Tunis phases of the World Summit on Information Society (WSIS).

On the goals of the Ghana Scan-ICT-2 initiative whose pilot phase is being implemented by the GSS and INIIT, she pointed out that the initiative is to build on the lessons and the outcomes of the Phase 1 pilot project with the goal to support the ICT4D process in general and more specifically support the ICT4D plan development, implementation and impact monitoring and impact assessment process.

The overall goal of the project within the context of Ghana, she noted, is to contribute to the process of developing and collecting data on ICT4D status and impact monitoring, assessment and measurement indicators as part of the implementation of the WSIS plan of action item requesting member states of the United Nations to develop and compile suitable indicators to monitor and measure the development of their information society.

She commended the ECA in playing a leading role on the Scan-ICT initiative aimed at supporting the development of an ICT plans, its implementation and monitoring of its socio-economic impact. She commented on the work done by the ECA and her partners in developing the regional set of core ICT indicators which the Workshop will be presenting and deliberating on.

She also touched on the need to develop broad based ICT4D indicators to support the Ghana ICT4D process and commended the work done by the ECA to develop the Scan-ICT Phase 2 Toolkit to support this process.

Dr Bediako expressed the hope that the group of stakeholders which the workshop had brought together be maintained and that technical issues concerning definitions and classifications of concepts and indicators be resolved.

Indicating that this was a new area for the Ghana Statistical Service and that technical support and input will be needed she welcomed the role of the ECA and that of UNCTAD and hoped that the collaboration with INIIT and the Ministry of Communications would ensure that the challenges and objectives of the current project are met.

Opening Remarks by United Nations Economic Commission for Africa (UNECA) by Ms. Aida Opoku-Mensah, Officer in Charge, DISD, UNECA:

Ms. Aida Opoku-Mensah, Officer-in-Charge, DISD, UNECA in her opening remarks congratulated Ghana for her commitment to the promote ICTs for development and embarking on concrete programs to benchmark evaluate and measure the impact of her ICT4D process as a concrete follow up to the WSIS Tunis 2005 conference.

She recounted the contributions that ECA had made in respect to the ICT4D process in the member states of Africa and the mentioned the role that international institutions like IDRC, EU and NORAD and others continued to play in this regards. She noted the various projects the ECA has been involved in Africa as part of the AISI initiative.

On the Scan-ICT Phase 2 initiative, Ms Opoku-Mensah, pointed out that the unique aspects of this phase of the Scan-ICT process is that it now involves the NSOs who constitute natural partners in this endeavor. She hoped this involvement will result in a better understanding of the process of collecting, processing and disseminating ICT4D statistics as well as strengthen the capacity of statistical services in the various countries to deliver relevant and appropriate outputs.

She acknowledged the support from the Government of Finland who made this project possible and that Finland is committed to ensuring that Africa's capacity in the area of ICT statistic development is developed and sustained.

Opening Remarks by United Nations Conference on Trade and Development (UNCTAD) by Dr. Susan Teltscher, Chief, ICT Policy and Analysis Unit, ICT and E-Business Branch, SITE, UNCTAD

Dr. Susan Teltscher, Chief, ICT Policy and Analysis Unit, ICT and E-Business Branch, SITE, UNCTAD acknowledged the fact that only a few years ago the topic of ICT measurement which appeared in several paragraphs of the final document of WSIS was unheard of in most ICT-related debates.

She emphasized that without proper data and mechanisms it will be extremely difficult to make informed decisions and work towards the bridging of the digital divide. Such information she pointed out is necessary to assess the impact of new technologies on economic development and poverty reduction as well as evaluate and develop national ICT strategies

She stated that a global partnership – made up of 11 international and regional organizations including UNECA- for measuring ICT for development , launched

at UNCTAD XI in Brazil is working to improve the availability of comparable data on ICTs and to assist developing countries in their data collection efforts.

Dr. Teltscher announced that UNCTAD's 12th quadrennial conference will be held in Accra in 2008 to among other things review the work of the Partnership for Measuring ICT for Development. She indicated that Ghana is starting from an excellent base and she praised Ghana for the work done so far on ICTs and hinted that this workshop and its follow up will help move Ghana towards an IKE.

Official Opening Address

The official opening address for the meeting was given by the Chairman of the National ICT Policy and Plan Development Committee, Professor Clement Dzidonu, who deputised for Hon Albert Kan-Daapah, the Minister for Communications. In his opening remarks, Prof. Dzidonu stated that there is a twin sister relationship between ICT and statistics which was important to the development of the information society and the IKE in a given country.

Prof Dzidonu noted that Ghana it is clear on what to do in terms of its ICT4D policy and strategies and that the development and the compilation of suitable ICT4D indicators will however be necessary if Ghana is to measure its progress towards the goal to develop its information and knowledge economy. He noted that Africa through the work of the ECA has been a leader in the area of the development of the ICT4D indicators and that the Scan-ICT process is a testimony to that.

He noted that being part of both the Scan-ICT Phase 1 and 2 processes do provide Ghana with a unique opportunity to contribute to and benefit from the use of ICT4D indications to drive and monitor her progress towards the development of her information economy. Prof Dzidonu also emphasized the need to measure the impact of the development of the IKE on households, businesses and government and he is of the view that some of the indicators the Workshop will consider will assist Ghana in this task

TECHNICAL SESSION 1: THE COMPILATION OF ICT INDICATORS: THE SHARING OF EXPERIENCES

Chairperson: Dr. Grace Bediako, Government Statistician, *Ghana Statistical Service (GSS)*

Setting the Scene: Developing the Rational, Premise and Detailing the Purpose of the Workshop, (Prof. Clement Dzidonu, President, AIT).

The presenter noted with concern that although ICTs has for sometime now become a tool for supporting socio-economic development in developed and developing countries, in most developing countries including Ghana little is known about the impact of ICT4D process on economic growth, the gross domestic product (GDP) or the gross national income (GNI) of these countries.

He noted that this situation is caused by the fact that indicators for monitoring, assessing and measuring the impact of investment in national ICT initiatives, for example e-commerce, e-government-education telecenters and telemedicine on the targeted beneficiaries and the economy as a whole are non-existent.

Commenting on the Ghana Scan-ICT 2 initiative, the Presenter pointed out that it will address a number of methodological and data collection issues and tools relating to the identification, compilation and the analysis of the relevant ICT4D indicators. The outputs and the outcomes of the project he pointed out will provide a basis, the modalities and the framework for achieving the following long-term objectives:

- identification and the development of suitable baseline and other information society impact assessment, measurement and monitoring indicators
- linking of the indicators development system and process to national ICT4D policy and plan development and implementation process and
- integrating the ICT4D indicators into the national statistical system

The Presenter noted that the workshop is aimed at developing the capacity of GSS for developing and integrating ICT4D indicators, data collection and analysis into Ghana's statistical system.

The Presenter set the key agenda item of the workshop as a technical session on the scan-ICT phase 2 methodology- The Toolkit commissioned by UNECA and developed by INIIT. The toolkit, he pointed out is to guide African countries in the development and the integration of their ICT4D status and impact monitoring, assessment and measurement indicators into their national statistical system

He noted that the workshop also provides an opportunity to share local and international experiences in the development, collection and analysis of data on ICT4D related indicators and as well as facilitate the development of the capacity of GSS to start the process of developing and integrating ICT4D indicators into the Ghana's national statistical system.

The Compilation of ICT Indicators – The Challenges and the Lessons: The GSS Experience by Ms. Abena Osei-Akoto, *Ghana Statistical Service (GSS)*

The presenter gave a brief description of the role of GSS in national statistical system as follows.

- Coordinating the development of statistical activities in the country
- Collaborating with MDAs, other institutions and individuals to find ways of addressing statistical standards, concepts and methods and statistical issues
- Collaborating with specific sector producer agencies to implement special and periodic national projects
- Routine data collection and publication activities relating to Industry & Trade, Demography, Social ,Economic, Analytical Studies and Information Technology

The presenter pointed out that in the collection and collation of such data, indicators are used to measure and monitor progress in the socio-economic development. The presenter defined an indicator as either a statistic, fact (quantitative) or other forms of evidence, perception (qualitative) that is directed at some specific purpose (action focused), such as to assess, evaluate, measure changes, convey a message to reflect an underlying goal, values, conditions, a message, etc.

She identified some of the challenges faced in collecting data in Ghana as: non-response to questionnaires and the lack of equipment and resources to support the GSS's training and capacity development efforts

The presenter mentioned the need to involve stakeholders the following activities of the GSS:

- Sensitizing the public
- Training personnel in the ICT specific field
- Teaming up with other institutions like NCA to get regular data supply
- Enterprise-based surveys

The Compilation of ICT in Education Indicators – The Experience of the Ministry of Education, by Mrs Sophia Awortwi, Director, National ICT Center, *Ministry of Education and Sports.*

The presenter indicated that ICTs must be integrated into the educational system of African countries. She emphasized that students must be equipped with basic functional skills for the information based knowledge economy and information society.

The presenter recounted that research shows that ICTs could modernize and make education more effective and acknowledged that ICTs could solve the problem of the lack of teachers in Ghana and that the use of multimedia and multi-channel technologies could accelerate and improve learning, critical thinking and problem solving activities.

With regard to Internet resources and ICT equipment the presenter noted that: Science Resource Centers around the country have been equipped with modern ICT equipment to aid the learning and teaching of Science, and pointed out that 300 Senior Secondary Schools have been so equipped.

The presenter noted that the Ministry of Education’s ICTs-in-schools initiatives have been supported by Development Partners, Non-Governmental Organizations (NGOs), ICT Vendors, Parent Teachers Associations, “Old Student Associations”, Heads of Institutions.

The presenter noted the challenges faced by the Ministry of Education and Sports as per the use of ICTs in Ghana schools as follows.

- Inability to identify different stages of ICT literacy levels
- Proliferation of ICT curriculum.
- Students don’t receive desired education.

She noted that the development of ICTs to enhanced education in Ghana is a long-term project and that the sensitization of District Directors will go a long way to achieve this aim.

The presenter also noted that Ghana is benefiting from NEPAD e-school and Global e-school, currently all 38 Teachers Training Colleges are equipped with ICT resources. She concluded by welcoming support by way of ICT infrastructure development, sponsorship and training to further enhance the integration of ICT into the Ghanaian Educational System.

THE FIRST ROUND OF DISCUSSIONS

On the issue of using indicators to capture the negative use of the internet by students the following contributions and observations were made by the participants.

- It has been suggested that since there are a lot of indicators that can be used to measure the kind of activities people engage in on the internet, for example banking, searching for information and surfing, some indicators can also be develop and used to measure what the youth do on the internet at their leisure times.
- Participants pointed that the negative use of the Internet by students simply boils down to the manner in which e-learning is integrated into our school curriculum in that if students for example are to access their assignments on the internet and given much more serious work to do online they may not have much time and resources left to pursue negative activities on the Internet.

On the issue of the activities of the Ghana Statistical Service, following contributions and observations were made by the participants.

- Participants suggested that the GSS worked more closely with the Research Statistics and Information Management Divisions of the Ministries. These Divisions it is noted do gather relevant statistical information on the work of their respective Ministries and as well on their corresponding sectors which are of interest to the GSS. The GSS working closely with these Divisions could enhance the availability of statistics needed for indicators to help the GSS in its work.
- The participants noted that even though there is a huge amount of data in the government agencies and departments they are dispersed, the capturing of such data though in progress is very much hindered because of the lack of resources in terms of both human resource and equipment.
- Participants were informed that the GSS is taking steps to resource the statistical service to enhance its capacity and in line with this the GSS is working closely with the National Advisory Committee for Producers and Users of Statistics (NACPUS) to facilitate the availability of statistical information. The need to set up a special group within NACPUS to concentrate on and promote ICT4D indicators is also acknowledge and the GSS will be pursuing this.
- Participants also noted with concern that the GSS is currently facing capacity problems and lack of resources as they relates to collecting traditional socio-economic statistical data and that we should be mindful

of the extra capacity and resources that they will require if they are to effectively collect the required ICT4D indicators. Apart from talking about the technical issues it is therefore imperative that a strategy be developed in collaboration with development partners to develop the capacity of the GSS in terms of ICT4D indicators. Emphasis was laid on the need for training and technical capacity development of the GSS

- A suggestion is also made to the effect for the GSS to effectively roll-out its ICT4D indicators initiative, there is a need for it to focus on some key sectors to start with. These sectors should include: Agriculture, ICTs and Education. It was therefore suggested that on developing its ICT4D indicators compilation capacity, Ghana should start small and consolidate her efforts and she make progress

Other Issues Discussed:

- Participants were informed that member states has requested that ECA should play a lead role in strengthening the capacity of the NSOs.
- Participants also noted the increasing politicization of statistical information in Africa.

The Scan-ICT Phase Initiative: The Process, the Challenges and the Lessons Learnt by Ms. Winifred Kotin, INIIT

The Presenter reviewed the goal, rationale, broad objectives and components of the first phase of the Scan ICT process, she also recounted the case of Ghana as per the Scan-ICT pilot process and noted the following about Ghana.

The Presenter noted that the outputs of the detailed design phase serves as means for facilitating the implementation process. She noted that Ghana Scan-ICT project was implemented in two stages, including the:

- *design stage* involving the design of the details of the methodology and
- *implementation stage* involving data collection/gathering and analysis.

The presenter explained the details of the methodology of the Scan-ICT pilot process and set forth the outcomes of the pilot process as follows.

- A Methodology ---- which provided a framework for identifying a ‘basket of indicators’ which were to be compiled from either primary or secondary sources by each of the participating institutions of the pilot country.

- Given that the methodology identified the ranges of suitable indicators on which data is to be compiled and analyzed, the emphasis of the pilot phase was therefore on the data collection and analyses exercise.
- The Pilot phase also supported the ICT4D Policy development and implementation process in a number of countries.
- For example: Rwanda, Ghana, Ethiopia, Nigeria, Malawi supported their policy process with baseline studies which was based on the Scan-ICT methodology and basket of indicators.

The presenter noted that there were challenges in data gathering as per the use of postal questionnaires in which they had limited success however a Respondent Network was successfully set up. Data gathering via the face-to-face data collection exercise was also successful and a Research Network and Building Capacity was successfully set up.

The presenter noted the following as lessons from the Scan-ICT pilot project.

- Methodological framework (pilot phase) developed served the intended purpose. The Scan-ICT Phase 2 Methodology was developed based on the Pilot phase methodology...lessons learnt from the pilot phase
- Linkage with various ICT initiatives is needed to sustain the Scan-ICT process and increase its responsiveness to strategic planning and ICT investments
- Crucial to continuously monitor and capture ICT4D indicators to facilitate informed decisions

Measuring the Information Economy: The Experiences of UNCTAD by Dr. Susan Teltscher Chief, ICT Policy and Analysis Unit, ICT and E-Business Branch, SITE, UNCTAD

The Presenter discussed the reasons for measuring an information economy. They are :

- assess the impact of ICTs on economic growth, trade, and enterprise competitiveness
- to collect evidence on ICT uptake and use at the national level
- to better target national ICT policies and create an enabling environment for e-business
- to benchmark your country's information economy against those of your neighbors, and globally
- to take informed investment and business decisions

On the availability of ICT data the presenter stated that ICT data are scarce in developing countries with only a small number of these developing countries collecting information only on basic ICT indicators.

The Presenter touched on the Global Partnership on measuring ICT4D indicators and highlighted the role of UNCTAD in this partnership aimed at developing and harmonizing ICT4D core indicators as part of the WSIS process

The Presenter provided suggestions on how to measure the information economy using specific indicators and commented on the work of UNCTAD in this area.

Documenting the Harmonized List of Core IS/ICT4D Indicators, by Mr. Afework Temtime *DISD, UNECA*

The Presenter touched on the background of the processes involved in coming up with the ICT4D core indicators. He mentioned a couple of surveys and workshops that have been held in line with this. Some are;

- *The WSIS Phase I held in Geneva, Dec 2003: Survey on regional metadata collection*

The issues looked at were:

1. Review metadata situation on ICT statistics
 2. Identify core indicators for all countries
 3. Discuss methodological approach
 4. Establish a strategy for capacity building
- *The Scan-ICT Phase I Evaluation workshop, held in Addis Ababa, 17 - 18 Feb 2004*

Recommendations from this workshop were as follows:

1. NSOs should work on standardization of ICT data at national level, create an enabling situation for regional activities and cross-country comparisons, and review metadata situation on ICT statistics
2. National committees or observatories should be established to identify and define variables, establish guidelines and indicators
3. The committees should comprise statisticians, ICT experts, ISP personnel, staff of regulatory bodies and higher education institutions

- *ECA/ITU Workshop on ICT indicators held in Gaborone, Botswana, 26 - 29 October 2004*

The issues touched on were;

1. Preparation by the experts of a list of core indicators on Information and Communication Technologies
2. Establishment of a Group of Experts
3. Discussion on the launch of Scan-ICT Phase II

- *WSIS Thematic Meeting on Measuring the Information Society, Geneva, February 2005*

The outcome of this meeting include:

1. The regional lists used as input/contribution to the process
2. International core list of ICT indicators presented and discussed
3. Adopted to be promoted/used by the Partnership in all countries
4. Compiled harmonized list of indicators

The presenter also presented and discussed the list of core indicators including those relating to:

- § Basic infrastructure and access
- § ICT sector
- § Households
- § Individuals (by age, gender, including the disabled)
- § Business
- § Education
- § Government
- § Agriculture
- § Health
- § ICT investments and expenditures
- § Content issues and local languages
- § Security issues
- § NICIs

He concluded his presentation by mentioning the recommendations for harmonizing the list of core IS/ICT4D indicators in the various countries. These are as follows;

- § Based on the regional core list, countries should adopt/define operational indicators at the national level

- § Countries should always take into consideration the regional referential, which would enable inter-country comparisons and comparisons between continents
- § Efforts need to be made to collect gender disaggregated data at all levels (individual/household, business, government, etc.)
- § Ministries and Regulatory Agencies should recruit statisticians to play the role of NSO focal points to collect and disseminate data in liaison with the NSO.

TECHNICAL SESSION 2 : THE GHANA SCAN-ICT PHASE 2 PROCESS: A TECHNICAL BRIEFING SESSION ON THE SCAN-ICT-2 TOOLKIT

Chairperson: Ms Aida Opoku-Mensah, Officer-Charge, DISD, United Nations Economic Commission for Africa (UN ECA)

The Scan-ICT-2: Methodology -Developing the Tool Kit: The Premise, Guiding Principles, Core Requirements Alex Bramah-Lawani, INIIT

The Presenter in his opening remarks argued that: the problem of the digital divide is not a technological one being not merely an issue of a divide between ‘technological-haves’ and the ‘technological-have-nots’ but that the threat posed by the digital divide to African countries is more of an economic development problem than a mere technological one.

The Presenter noted that as technology advance and becomes more portable and affordable African countries would eventually narrow the digital numbers divide(DND) an event which will not necessarily translate into narrowing the ‘developmental digital divide’ (DDD) and so much effort needs to be put into the bridging the ‘developmental digital divide’ (DDD).

In his view, to answer the ‘which indicators’ question, there is a need to go beyond looking at the implications of the digital divide purely in terms of access to and the use of ICT resources and services to examine its wider implications in socio-economic development terms

The Presenter then went ahead to describe premise, guiding principles and the core requirement of the Toolkit - The Scan-ICT-2: Methodology as follows

- The *premise* establishes the rationale for the development of methodology – the Tool Kit as well defines its scope

- The *guiding principles* define the key issues that need to be taken into account in the development of the components of the methodology.
- The *core requirements* based on the guiding principles crystallizes the constituent building blocks and the frameworks of the Tool Kit.

Among others the Presenter noted that unlike the Scan ICT 1 process which provided a one-size fits all basket of indicators which all African countries were to adopt, the phase 2 of this project provides a Toolkit which guides different nations in choosing the particular indicators which suits their countries needs because as the Presenter pointed out:

- African countries are at different levels and stages of development in term of their level/stage of socio-economic development; the development of their respective ICT sector/industry; and the stage of their respective ICT4D process.
- African countries differ in terms of the availability of resources that each could deploy to facilitate the IS/ICT4D indicators development and data collection process. There is lack of resources in some countries compare to others
- For each African country, the relevance of some specific set of indicators will be determined by country's development priorities and other circumstances. What is relevant to one country may not be relevant to another.
- African countries are at different levels/stages of the development of the capacity of their national statistical data collection systems and NSOs. While some have a well-developed statistical system others have systems that is yet to be developed
- Statistical legislations, laws and regulations guiding the activities of NSOs and those relating to data protection and obligations of citizens to provide data do vary from country to country
- African countries are at different levels/stages of the development of key sectors of their economies. For example, the private sector is less developed in some compared to others. Hence some of the private sector related indicators that may be of interest some countries may not be on interest to others
- Since no two African countries are the same given these factors, it is not realistic to aim at coming out with a 'basket of indicators' that meets all the information society data requirements and needs of every African country.
- Each African country will need to include in its list of IS/ICT4D indicators to facilitate international comparison of the level development of the information society in various countries.
- The Tool Kit should provide a framework for integrating the compilation of the IS/ICT4D indicators into the national statistical system and processes of African countries.

The Presenter concluded that The Tool Kit is designed to guide national efforts in the identification, development and the compilation of data on those IS/ICT4D

indicators that meets the specific national requirements, circumstances and development priorities of each country.

The Scan-ICT-2: Methodology -Developing the Tool Kit: The Building Blocks by Albert Fokuo, INIIT.

The Presenter pointed out that core requirements provides an indication of the building blocks of the Tool Kit for guiding the identification and the development of suitable IS/ICT4D status and impact monitoring, assessment and measurement indicators

The presenter also explained the details of the three basic models that comprise the building blocks of the Toolkit these he outlined as.

- a model for the integration of the IS/ICT4D indicators into the national ICT4D/NICI process;
- a model (the *basis-means-goal model*) for identifying and classifying the broad types of indicators as they relate to each of the phases of the ICT4D process;
- the CUT (*capacity-usage-transformation*) model for facilitating the identification of broad types of IS/ICT4D indicators to meet the stipulations of the *core requirements* of the Tool Kit

He concluded by saying that the deliverables of each of the phases of the ICT4D process provides us with an indication of the broad types of indicators required to support the process in each of the African countries.

The Scan-ICT-2: Methodology - Demonstrating the Component Features of the Tool Kit by Prof. Clement Dzionu, President, AIT

The presenter started by describing how the IS/ICT4D Tool Kit holistically addressed the question of 'which indicators'' question. He discussed and demonstrated how the Tool Kit provides a suitable frameworks to develop indicators to:

- guide the ICT4D policy formulation and implementation process (Category-1 ICT4D Indicators – Baseline Indicators (capacity, usage indicators))
- monitor, assess and measure the impact of the policy implementation process to establish the extent to which the goal to move to an IKE (developing the information society and economy) is being achieved (Category-2 ICT4D

Indicators - Indicators for Assessing Progress towards the development of the IKE (capacity, usage indicators))

- monitor, assess and measure the impact of the policy implementation process on households, businesses and government processes and service delivery [*Category-3 ICT4D Indicators – Indicators for Monitoring, Assessing, Evaluating the impact of the development of the IS/ICT4D (transformation ‘impact’ indicators)*]

In demonstrating the component of the Tool Kit relating to the Category 1 types of indicators, the Presenter pointed out that the incorporation of ICT4D-related indicators on key sectors of the economy into the Baseline Study provides a basis for the integration of these indicators into national statistical systems – which by tradition classify information in social and economic indicators in terms of key sectors. The key sectors of the economy that could be targeted as part of the Baseline Study include : ICT sector/industry; Services, Industry and Commerce, Agriculture, Education, Health, and Government and public sector.

On the development of IS/ICT4D (capacity, usage) indicators to measure progress towards achieving the IS/IKE goal, the Presenter used the characteristics of an IKE and identified and demonstrated a number of indicators that can be used to facilitate the monitoring of progress towards achieving the various sub-goals of the information and the knowledge based economy

The Presenter also demonstrated the framework of the Tool Kit, that provides for the operationalization of the *core requirement* aimed the development of suitable indicators for monitoring, assessing and the measurement of the impact of the development of the IKE on economic units, namely: households, businesses and on governments systems and operations. He pointed out that since the ultimate goal as per the ICT4D process in African countries is to improve the socio-economic well-being of their citizens (households) it is essential that specific ICT4D impact measurement indicators be developed to assess and measure the extent to which the ultimate goal is directly and indirectly (through the improvement of business and government systems) being achieved.

The presenter concluded by integrating the various elements and components of the Tool Kit and provides a basis for elaborating on how the Tool Kit can be adopted and implemented within each of the African countries focusing on the issue of integrating the ICT4D indicators into the national statistical system of these countries and as well as on how the ICT4D indicators process can be integrated into the NICI process in Ghana and other African countries.

THE SECOND ROUND OF DISCUSSIONS

On the issue of ICT4D in rural development the following contributions and observations were made by the participants.

- It was noted that care should be taken not to pass indicators for regional development as that for national development as this could give misleading results.
- It was also affirmed that there are specific indicators that pertain to rural development and that using the basis-means-goal model, policy makers could identify suitable indicators that could be targeted at measuring desired results in the rural communities in Ghana.

On the issue of the development of Ghana's IKE and the Issue of Suitable ICT4D Indicators to Measure its development and impact

- Participants noted that Ghana by making efforts to crystallize its IKE goals and the desired impacts of its implementation, it would enable it develop the necessary ICT4D indicators to measure its progress toward the achievement of these goals and the measurement of its impact on target groups and sectors of the economy
- Participants argued that with regard to increasing speed at which technology is advancing and changing, Ghana's ICT4D planning and implementation process is rather slow.
- Participants also noted that comparing Ghana's evolving IKE with that of developed countries may not yield expected results since there are varying perspectives in what the IKE should be and also because the needs and reasons for use of ICTs differ between Ghana and the developed nations. It was suggested that Ghana's IKE will be characterized by increased sharing of information resources as ICT will invariably facilitate this.
- Participants pointed out that the nature of Internet Cafés in Ghana being both numerous and scattered around the country will be a valuable source of data for indicators on capacity and usage of ICT in Ghana.
- Participants are of the view that given the rate of advancements of ICTs, instead of simply looking at the desired goal or impact of the IKE, Ghana should look at the steps it should take now and hence focus on the footprints that will be generated rather than spending so much time planning for action.
- It was indicated that a profile of the information economy of Ghana cannot be realistically determined because of the lack of data on the use of ICT in Ghana by companies and the ICT sector as at now However, participants noted that

there is the assumption that much is going on because there is evidence of advancements in the capacity and usage of ICTs in Ghana.

TECHNICAL SESSION 3: THE GHANA SCAN-ICT PHASE 2 PROCESS THE DELIVERABLES AND THE WAY FORWARD

Chairperson: Frank Braimah, Director of ICT, *Office of the Head of the Civil Service*

The Ghana Scan-ICT Phase 2 Initiative: The Project Deliverables, The Work Plan and the Way Forward by GSS

The Presenter detailing the scope of the Ghana Scan-ICT Phase 2 initiative pointed out that the project within the context of the Ghana ICT4D process and based on the details and the provisions of the Scan-ICT – 2 Tool Kit developed by the ECA to guide the Scan-ICT Phase 2 process of member countries will focus on:

(i) The identification of a basket of suitable ICT4D status and impact monitoring indicators that Ghana should concentrate on to facilitate the monitoring and measurement of Ghana's progress towards the development of its information and knowledge economy [*The Ghana Basket of ICT4D Indicators*]

(ii) The development of a Framework to facilitate the compilation of the Ghana Basket of ICT4D Status and Impact Monitoring and Assessment Indicators in the Ghana Statistical System [*The Framework for Integration ICT4D Status and Impact Monitoring and Measurement Indicators into the National Statistical System*]

(iii) The Development of Tools and Mechanisms including Data Collection Schemes, Questionnaires, Sampling Frames, Methods, Procedures, and Structures for supporting the implementation of the Framework for Integration ICT4D Indicators into the National Statistical System [*The ICT4D Indicators Integration Tools and Mechanisms*]

(iv) The [*Ghana Core ICT4D Indicators Compilation and Analysis Demonstration Project*]. This will involve the compilation and the analysis of a selected number of the 'Core Indicators designed to serve as Africa's Input into the International Process Targeted at Developing and Harmonizing Core ICT Indicators'. This is a pilot initiative demonstrates outputs of (i) – (iii) as a proof of concept exercise that will focus the following core indicators:

She mentioned that expected outputs/deliverables of the project are:

- A Report documenting the *Ghana Basket of ICT4D Indicators*

- *A Framework for Integration ICT4D Status and Impact Monitoring and Assessment Indicators into the National Statistical System of the Ghana Statistical Service (GSS)*
- *A Report documenting the ICT4D Indicators Integration Tools and Mechanisms*
- *Report detailing the outcomes, outputs and the lessons of the Ghana Core ICT4D Indicators Compilation and Analysis Demonstration Project*
- *The Ghana ICT4D Indicators Website and Databases*

The presentation also provides details of the timelines of the project deliverables as follows:

- *Development of the Ghana Basket of ICT4D Indicator [April-May 2006]*
- *Development of a Framework for Integration ICT4D Status and Impact Monitoring and Measurement Indicators into the National Statistical System [May- June 2006]*
- *Development of Support Resources and Platforms. [June – August 2006]*
- *Implementation of the Ghana Core ICT4D Indicators Compilation and Analysis Demonstration Project – [May – August 2006]*
- *One-Day Stakeholder Technical Workshop of Project Outputs [August 2006]*

CLOSING REMARKS

The chairperson in his closing remarks was glad about the fact that the workshop had, in addition to discussing issues on the agenda, brought to light new areas for consideration as well as new areas for collaboration,

He thanked the participants for gracing the occasions and urged the Ghana Statistical Service and INIIT to work hard on identifying and utilizing the requisite indicators in order to make this project a success,

He also urged the participants to go through the information contained in the CDs that were given to them in order that they may acquaint themselves better with the issues discussed during the workshop. He wished the participants a safe journey and brought the workshop to a close.

APPENDICES

Appendix A: The Workshop Programme



The Ghana Scan-ICT Phase 2 Technical Workshop

Venue: The Conference Hall, Ghana Statistical Service, Accra

Date: Thursday, 30th March 2006

PROGRAMME

8.30 – 9.00: Registration of Participants

9.00 – 9.30: **Opening Session**

Welcome by Prof. N.N.N Nwosah-Nuamah, Deputy Government Statistician

Opening Remarks, by Dr. Grace Bediako, Government Statistician

Opening Remarks by International Partners:

United Nations Economic Commission for Africa (UNECA)

by Ms. Aida Opoku-Mensah, *Officer in Charge, DISD, UNECA*

United Nations Conference on Trade and Development (UNCTAD)

by Dr. Susan Teltscher, *Chief, ICT Policy and Analysis Unit, ICT and*

E-Business Branch, SITE, UNCTAD

Opening Statement by the Minister for Communications, Hon Albert Kan-Daapah

9.30 – 12.30 pm: **Technical Session 1: The Compilation of ICT Indicators: The Sharing of Experiences**

Chair: Dr. Grace Bediako, Government Statistician, *Ghana Statistical Service*

9.30 – 9.40 am

Background on the Scan-ICT Initiative and the Purpose of the Workshop by Prof. Clement Dzidonu, President, *AIT*

9.40 – 10.00 am

The Compilation of ICT Indicators – The Challenges and the Lessons: The GSS Experience by Ms. Abena Osei-Akoto, *Ghana Statistical Service (GSS)*

10.00 – 10.20 am

The Compilation of ICT in Education Indicators – The Experience of the Ministry of Education, Mrs Sophia Awortwi, Director, National ICT Center, *Ministry of Education and Sports*

10.20 – 10.40: Discussions

Tea Break 10.40 – 11.10

11.10 – 11.25 am

The Scan-ICT Phase Initiative: The Process, the Challenges and the Lessons Leant by Ms. Winifred Kotin, *INIIT*

11.25 – 11:45 pm

Measuring the Information Economy: : The Experiences of UNCTAD by Dr. Susan Teltscher Chief, ICT Policy and Analysis Unit, ICT and E-Business Branch, SITE, UNCTAD

11.45 – 12.05 pm

Documenting the Harmonized List of Core IS/ICT4D Indicators, by Mr. Afework Temtime *DISD, UNECA*

12.05 – 12.30: Discussions

Launch Break 12.30 – 1.30 pm

1.30 – 4.00 pm : Technical Session 2: The Ghana Scan-ICT Phase 2 Process: - A Technical Briefing Session on the Scan-ICT -2 ToolKit

Chair: Ms Aida Opoku-Mensah, Officer-Charge, DISD, United Nations Economic Commission for Africa (UN ECA)

1.30 – 1.50 pm

The Scan-ICT-2: Methodology -Developing the Tool Kit: The Premise, Guiding Principles, Core Requirements by Albert Fokuo, *INIIT*

1.50 – 2.10 pm

The Scan-ICT-2: Methodology -Developing the Tool Kit: The Building Blocks
by Alex Braimah-Lawani, *INIIT*

2.10– 2.40 pm Discussions

Tea Break 2.40 – 3.10 pm

3.10 – 3.35 pm

The Scan-ICT-2: Methodology - Demonstrating the Component Features of the
Tool Kit by Prof. Clement Dzidonu, President, *AIT*

3.35 – 4.00 pm Discussions

<p>4.00 – 4.30 pm : Technical Session 3: The Ghana Scan-ICT Phase 2 Process: The Deliverables and the Way Forward</p>
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Chair: Frank Braimah, Director of ICT, *Office of the Head of the Civil Service*

4.00– 4.10 pm

The Ghana Scan-ICT Phase 2 Initiative: The Project Deliverables by *GSS*

4.10 – 4.20

The Ghana Scan-ICT Phase 2 Initiative: The Work Plan and the Way Forward by
INIIT

4.20 -4.30 pm: Closing Session

Appendix B: List of Participants

Name	Affiliation	Address	Tel. No	E-mail
1. Ms. Aida Opoku-Mensah	ECA	Box 3005 , Addis-Abba	251-511167 251-443562	-
2. Mr Aferwork Temtime	UNECA	P.O. Box 3005 Addis-Abba	251-1154431	afertime@uncea.org
3. Mrs Susan Teltscher	UNCTAD	Geneva, Switzerland	+41229175509	Susan.teltscher@unctad.org
4. Mrs. Grace Bediako	GSS	P.O.Box 1098 Accra	021-663578	Grace.Bediako@gmail.com
5. Prof. Clement Dzionu	AIT	P.O.Box AN 19782 Accra-North, Ghana	0208181817 0244280079	dzionu@ghana.com
6. Mr Eric Kwame Ansah-Addo	Bista Solutions Ltd	Box kd281, Accra	0244586714	ericasaaddo@yahoo.com
7. Mr. NNN. Nsowah-Nuamah	Ghana Statistical Service	P.O.Box 1098 Accra	021-660615	-
8. Madam Miriam Tackie	Ministry of Women & Children's Affairs	P.O. Box M186 Accra	021-688184 0277402969	Mtackie2005@yahoo.com
9. Mr. Frank Braimah	Office of the Head of Civil Service	Box 49, Accra	021-660032	frankbraimah@ohcs.gh
10. Mr. Michael Hammond	Electricity Corp of Ghana	Box 521 Accra	0244267868	Michaelhammond2002@ yahoo.co.uk
11. Mr. C. K. Bruce	Cutting Edge Ghana Ltd	Box GP 18843 Accra	0244272355	ckbruce@cutting edge.com
12. Mr. Emmanuel Gyamerah	Ministry of Education and Sports	Box M. 45 Accra	0277610706	eagyamera@hotmail.com
13. Mr. Peter Attah-Gyamfi	Ministry of Education and Sports	Box M.45 Accra	0244-732028	alom9@yahoo.com
14. Mr. Alex Kofi McClean	STEPRI/Council of Scientific and Industrial Research	Box CT 519 Accra	0244507987	mcclean2004@yahoo.com
15. Dr. Obirih Opareh Nelson	STEPRI/Council of Scientific and	Box CT 519 Accra	027-7728010	nobirih_operah@yahoo.com

	Industrial Research			
16. Mr. E. Nortey	Ministry of Environment and Science	Box M232 Accra	660071	Abianor2003@yahoo.com
17. Mr. Charles Kotey	Ministry of Environment and Science	Box M232 Accra	667324	charkotey@yahoo.com
18. Mr. Emmanuel Kitcher	Methodist University	Box M482 Dansoman	0243150829	ekitche@yahoo.com
19. Mr. Addow- Quashie	Methodist University	Box M482 Dansoman	0244267124	addoquarshie@hotmail.com
20. Mr. Ishmael Aryeetey	Methodist University	Box M482 Dansoman	0244325021	-
21. Mr. Jacob Aryeetey	Computer Science Dept. University of Ghana	P.O. Box 165 Legon	0244267849	Jaryeetey@yahoo.com
22. Ms Millicent Cobblah	Zoology Dept University of Ghana	P.O. Box 67 Accra	0242188572	macbbeug.edu.gh
23. Mr. Jerry Odotei	National Development Planning Commission	P.O. Box G633 Accra	0277428033	jeryodotei@yahoo.com
24. Mrs Dorothy Onny-Boateng	Ministry of Women & Children's Affairs.	P.O. Box M186 Accra	021-688184	dorothyonny@yahoo.com
25. Dr. Sam Somuah	Office of the President	The Castle Osu	021-662618	sam.somuah@castle.gov.gh
26. Mr. Clement Entsua- Mensah	INSTI/ Council of Scientific and Industrial Research	P.O. Box M32 Accra	021-764822 0202019767	paakwesi71@yahoo.co.ucc
27. Mr. Afari-Kumah	INSTI/ Council of Scientific and Industrial Research	P.O. Box CT2211 Cantonment - Accra	0244145161 021-7788088	afari@royal.net
28. Alhaji Mahamadu	INSTI/ Council of Scientific and Industrial Research	P.O. Box M32 Accra	021-778808	mamahamadu@yahoo.com
29. Mr. George Ampong	YDF	P.O. Box 4941	0244811446	ydghana@yahoo.com

		Kumasi		
30. Mr. Lewis Max. Selby	Ghana Highway Authority	c/o Box CT2211 Accra	0244137911	Lm_selby@yahoo.com
29. Ms Mary Sam	Ghana Highway Authority	c/o Box CT2211 Accra	021-240353	-
30. Ms Eliza Sam	INIIT	P.O.Box AN 19782 Accra-North, Ghana	0244057731	sam@iniit.com
31. Ms Wendy Lartey	INIIT	P.O.Box AN 19782 Accra-North, Ghana	0244834385	lartey@iniit.com
32. Ms Winifred Kotin	INIIT	P.O.Box AN 19782 Accra-North, Ghana	0244985483	win_kot@yahoo.com
33. Ms Ethel Cofie	INIIT	P.O.Box AN 19782 Accra-North, Ghana	0277137408	cofie@iniit.com
34. Ms Gifty Nsiah	INIIT	P.O.Box AN 19782 Accra-North, Ghana	0244837330	gnsiah@gmail.com
35. Mr. Albert Fokuo	INIIT	P.O.Box AN 19782 Accra-North, Ghana	0244642428	fokuo@iniit.com
36. Mr. Alex Bramah-Lawani	INIIT	P.O.Box AN 19782 Accra-North, Ghana	0243356256	lawani@iniit.com
37. Mr. Sylvester Hatsu	AIT	P.O.Box AN 19782 Accra-North, Ghana	0285047212	hatsu@ait.edu.gh
38. Mr. Daniel Nettey	INIIT	P.O.Box AN 19782 Accra-North, Ghana	0243007398	dannixson@yahoo.com
39. Mr. Kofi S. Antiri	Ghana Investment Promotion Center	P.O. Box M193 Accra	021-671334	kantui@gipc.org.gh
40. Mr. David Laryea	Ghana Investment Promotion Center	P.O. Box M193 Accra	0277551900	dlaryea@gipc.org.gh
41. Mrs. Dzifa Gbekor	Ghana Statistical Service	P.O. Box 1098 Accra	0244766124	dwushieg@yahoo.com
42. Ms. Cecilia Akangah	Ghana Statistical Service	P.O. Box 1098 Accra	0243415949	Luke123ab@yahoo.com
43. Mr. Anthony A.P. Amuzu	Ghana Statistical Service	P.O. Box CT143 Ho	0208169487	famusui@yahoo.com
44. Ms. Sam Cudjoe	Private Enterprise Foundation	P.O. Box CT1671 Accra	0277749312	samcudjoe@petghana.org
45. Mr. Anthony Amuzu	Ghana Statistical	P.O. Box 1098	021-682674	amuzu@yahoo.com

	Service	Accra		
46. Mr. Robert Adjei	Ghana Statistical Service	P.O.Box 1098 Accra	0242638249	great.yaw@yahoo.com
47. Ms. Rosalind Quartey	Ghana Statistical Service	P.O.Box 1098 Accra	0244418999	rosaquarte@hotmail.com
48. Mr. Kofi Agyeman-Duah	Ghana Statistical Service	P.O.Box 1098 Accra	021-660329 0243346387	wofaduah@yahoo.com
49. Mr. Nkansah Marfo	Ghana Statistical Service	P.O.Box 4 Koforidua	081-22760 0244297377	mynkansah2000@yahoo.com
50. Mr. Stephen T. Narh	Ghana Statistical Service	P.O.Box 1098 Accra	021-678463 0208226548	natteh@yahoo.com
52. Mr. Dogbey Johnson	Ghana Statistical Service	P.O.Box 1098 Accra	021-682694	-
53. Mr. Desmond Boateny	Ministry of Communications	P.O.Box M38 Ministries	021-685612 0208152713	desmond.boateny@yahoo.co.uk
54. Ms. Opoku Manu	Ghana Statistical Service	P.O.Box 1098 Accra	021-661490	-
55. Mr. Emmanuel Cobbinah	Ghana Statistical Service	P.O.Box 1098 Accra	021-661470	-
56. Ms. Abena Osei-Akoto	Ghana Statistical Service	P.O.Box 1098 Accra	021-682698	abenaaani@yahoo.com
57. G.K. Ofosu	Ministry of Environment and Science	P.O.Box M232 Accra	0244700835	-
58. Joseph Ahiabe	Ghana Statistical Service	P.O. P.O.Box 1098 Accra	021-682643	josephiabe@yahoo.com
59. Mr. P.W. Yiriyelleh	Ministry of Communications	P.O.Box M38 Ministries	021-664727	pwiriyelleh@yahoo.com
60. Mr. Issah Yahaya	Ministry of Communications	P.O.Box M38 Ministries	0202011032	Issah.yahaya@ties.itu.int
61. Mohammed-Sani-Abdulai	AITI - KACE	PMB state house, Accra-Ghana	0244371571 679542	mohammeda@aiti-kace.com.gh
62. Ms. Rhoda Gavor	Ministry of Communications	P.O.Box M38 Ministries	021-685616	Rhoda.gavor@moc.gov.gh
63. Mr. K. Anyane-Yeboah	Ministry of Communications	P.O.Box M38 Ministries	020-8192141	kanyaneyeboah@yahoo.com

64. Ms. Rosemary Osae	Ministry of Communications	P.O.Box M38 Ministries	021-685616	rosemary.osae@moc.gov.gh
65. Vivian Adesi	Valley View University	P.O.Box K9358		adesi@vvu.edu.gh
66. Mr. Isaac Wiafe	Valley View University	P.O.Box K9358 Oyibi-Accra	021-685616	isaacwiafe@gmail.com
67. Dr. Nii Narku Quaynor	Network Computer Systems	P.O.Box 3479	021-240266 0244-331650	quaynor@ghana.com