ITU Regional Workshop on ICT indicators and Measurements for Africa

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Development of e-Government indicators

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- Introduction & background on ICT measurement
- What is e-government
- Partnership on measuring ICT for Development
- Task Group on e-Government (TGEG)
- The process of developing e-Government indicators
- Objectives, criteria and challenges on e-Gov indicators development
- List of draft indicators
- Challenges in measuring ICT4D
- Lessons & the way forward

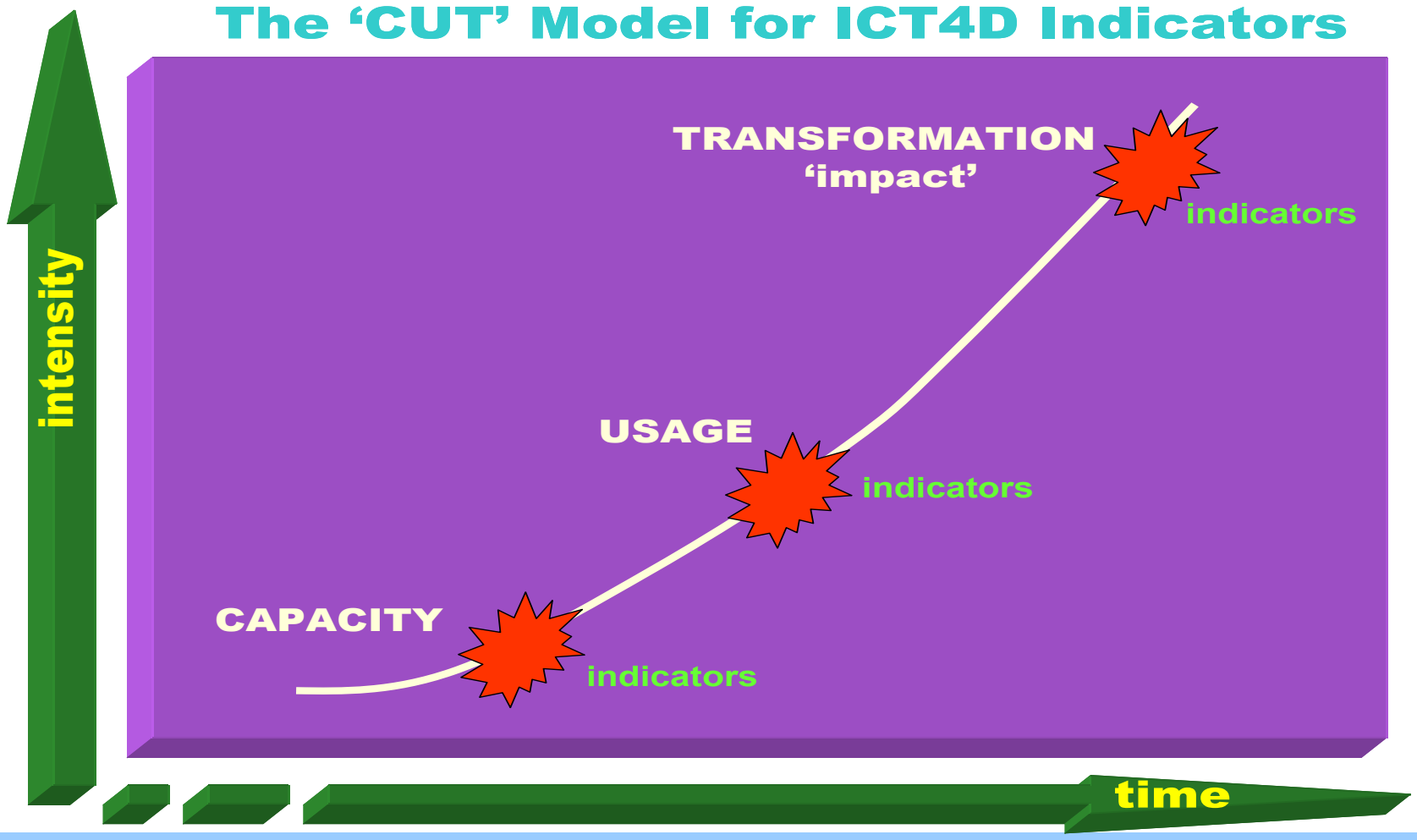
The need for measuring ICT4D

Rationale for Africa

- Impact of ICTs on the globalised knowledge economy ➔ marginalisation
- Impact of ICTs in socio-economic development
- ICT4D policies/strategies require relevant data to formulate policies and support their implementation
- Proliferation of ICT activities and investments in Africa, but with little co-ordination and limited dissemination of results and best practices
- Need for indicators for benchmarking, evaluating IS development
- Emphasis laid in ECA's work programme through the AISI and Scan-ICT project
- Identified in WSIS Geneva Plan of Action as area of focus leading to Partnership on Measuring ICT4D
- Measurement of ICTs in addressing MDGs

The CUT (*capacity-usage-transformation*) Model

- The CUT model provides building blocks for classifying and identifying the broad types IS/ICT4D indicators



The Scan-ICT methodology toolkit identified three broad categories of IS/ICT4D indicators based on the CUT model

Broad Category of Indicators	Scope and Purpose
Category 1: Status/Capacity Indicators	Measuring the status of the ICT capacity, usage/exploitation deployment and development
Category 2: Monitoring/Usage Indicators	Monitoring, assessing and measuring progress towards the development of the Information Society
Category 3: Impact Monitoring/ Transformation Indicators	Monitoring, assessing and measuring the social, economic and the institutional impact of ICTs on *households*, *businesses* and on *Government* systems and operations

Adaptation

National & regional indicators

Proposed List of Core of e-Government Indicators

	CAPACITY indicators (9)
EG1	No. and % of computers (per total staff and by gender) in Ministries and Government Agencies (MDAs)
EG2	No. and % of staff and by gender in MDAs with Internet Connection
EG3	No. and % of MDAs with Web Sites
EG4	No and % of MDAs with corporate networks, and availability of a Government Intranet

Proposed List of Core of e-Government Indicators

EG5	No and % of MDAs offering mobile phone technology accessible platforms
EG6	% of ICT personnel and by gender (per total staff) in MDAs
EG7	No and % of intrusions and hacking of networks and websites of MDAs
EG8	No. and % of spam messages per total emails received
EG9	% of expenditure on ICT per total expenditure of MDAs

Proposed List of Core of e-Government Indicators

	USAGE indicators (3)
EG10	Type of software and % of open source software vis a vis proprietary
EG11	Type of applications and % vis a vis overall applications: Word processing, accounting, data base, website
EG12	% of Ministries and Government Agencies providing services online and type of services; e.g. retrieval and printing of online forms, use of interactive online forms, online bids, payment of bills, tax filing applications, company registration, car registration, voting, public grievance systems, online feed back

Proposed List of Core of e-Government Indicators

	TRANSFORMATION indicators
	Operations of Government information systems
	Performance of Government service delivery
	Productivity and efficiency of Government employees

Questions (1)

- What is the distinction between e-government and m-government ?

What is e-government?

- **m-government** : the use of wireless technologies for offering and delivering government services

- **e-governance**: the use of ICT by the public and private sectors for the purpose of enhancing governance

UNDESA , 2005

Use of ICT and its application by government for the provision of information and public services to the people. The aim of e-government, therefore, is to provide efficient government management of information to the citizen, better service delivery to citizens, and empowerment of the people through **access to information and participation in public policy decision-making**.

World Bank, 2011

Use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses and other arms of government.

These technologies can serve a variety of different ends: better delivery of government services to citizens; improved interactions with business and industry; citizen empowerment through access to information; or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions.

European Commission (EC, 2011)

E-government is about using the tools and systems made possible by information and communication technologies to provide better public services to citizens and businesses.

OECD, 2014

Use of new ICTS by governments as applied to the full range of government functions. In particular, the networking potential offered by the Internet and related technologies has the potential to transform the structures and operations of government.

Definition

- the use of ICT to improve the delivery of government services
- The use of ICT to improve the operations of government

African Information Society Initiative

Economic Commission for Africa

PARTNERSHIP ON MEASURING ICT FOR DEVELOPMENT

- **Launched in June 2004**
- **Objectives:**
  - **To work with NSOs, regulators, ministries, etc. to develop a common set of core ICT indicators**
  - **Enhance the capacities of National Statistical Offices and other stakeholders on collection & processing of ICT indicators**
  - **Develop a global database on ICT statistics**

The Partnership indicators

- **Launched in Tunis in 2005 with 42 indicators**
- **Divided under *four* categories:**
  - **ICT infrastructure and access; - ITU**
  - **Access to, and use of ICT by households and individuals; - ITU**
  - **Use of ICT by businesses; and - UNCTAD**
  - **ICT sector and trade in ICT goods - UNCTAD**
- **Endorsed by the UN Statistical Commission (UNSC) in 2007, which requested the *"Partnership to continue work to update the list of indicators, especially in view of measuring use of ICT in education and in government"***
- **Education sector was added as 5th sector led by UNESCO in the Task Group on Education**
- **E-Government added as 6th sector led by ECA in the Task Group on e-Government indicators**
- **After revision and update, the list presently includes 53 indicators endorsed by the UNSC**

Task Group on e-Government Indicators (TGEG)

Members:

Economic Commission for Africa

CEPAL ECLAC

ESCWA

United Nations ESCAP

UNDESA

ITU

eurostat

OECD

UNCTAD

The TGEG Process

- Following preparation of a conceptual draft from ECA in Dec 2006, several meetings in Africa, Europe and Latin America discussed development of the indicators
- From Feb 2010 the Government of Finland through VTT supported the TGEG in developing the indicators, with participation of all TGEG members
- A framework document for a set of core e-Government indicators developed in 2012
- A manual for measuring e-Government developed in 2013
- The manual and the indicators presented at a meeting of experts organised from 16 – 18 April 2013 in Algiers, Algeria ➔ Comments and inputs fully reflected in the current version

VTT

Objectives of the e-Gov indicators

- To capture and measure readiness of government in terms of ICT deployment (infrastructure, investment, HR, etc.) and exploitation
- To measure access to government services
- To measure use of ICT in decision making and its role in the governance process
- To promote administrative efficiency
- To obtain high quality and internationally comparable data
- To promote ICT investments, etc.

Challenges in developing e-government indicators

- Feasibility and collection of statistically robust e-government data
- Definitions of e-government vary in scope – harmonisation
- What units of which levels should be included as respondents (National, regional, local, organisational)
- Measurement of intensity and quality of offering of e-services
- Viable, operational and statistical categorization of e-government services
- Heterogeneity of governments and government units globally
- Digital divide and cost burden of collecting e-government data
- Defining and deciding unambiguous and clear set of indicators
- Dynamic and flexible changes of indicators by emerging requirements

List of 7 e-Gov indicators prepared by TGEG (led by ECA)

Code	Name of Indicator
EG1	Proportion of persons employed in central government organizations routinely using computers
EG2	Proportion of persons employed in central government organizations routinely using the Internet
EG3	Proportion of central government organizations with a local area network (LAN)
EG4	Proportion of central government organizations with an intranet
EG5	Proportion of central government organizations with Internet access, by type of access
EG6	Proportion of central government organizations with a web presence
EG7	Selected Internet-based services available to citizens, by level of sophistication of service

Specifications of indicators

In the manual, each indicator was accompanied by:

- definition and purpose
- data requirements
- method of data collection and data sources
- formula and how the indicator is calculated
- model questions
- methodological issues or operational limitations
- notes

Questions (2)

- Is the framework covering the relevant areas ?

ICT Measurement: Challenges/Lessons

Policy

- To utilise data effectively in both formulation and implementation of policies in building the Information Society
- Greater support to NSOs to ensure that measuring IS is integral part of the work in cooperation with respective national agencies
- Linkage with various ICT initiatives needed to sustain the ICT measurement process and increase its responsiveness to strategic planning and ICT investments
- Crucial to continuously monitor and capture ICT4D indicators to facilitate informed decisions

Questions (3)

- Any other policy challenges in your country or organisation ?

ICT Measurement: Challenges/Lessons

Data Gathering

- Identifying appropriate indicators as well as internationally agreed methodology for comparative analysis by national agencies
- Developing culture of sustainable data collection mechanisms at national level – rationale for involving NSOs
- Ensuring that data collectors are abreast of the rapid evolution of IS applications and their integration in various socio-economic sectors
- Need for gender disagregated data

Questions(4)

- Based on your experience could you tell us any others challenges on data collection you have faced

ICT Measurement: Challenges/Lessons

Involvement of stakeholders other than Government agencies and private researchers

- More involvement of academic and research institutions
- Encourage CSOs in this area, particularly in working on indicators at the community levels
- Greater involvement of private sector
- Multi-stakeholder partnership in data collection @ the national level could be explored more

Lessons - The Way Forward

- Need for a limited list of indicators – international core list + a few selected sectors, eg. eGovornment
- Need to develop elements that accompany the indicators such as definitions, scope, methodologies, data sources, etc.
- Put in place appropriate mechanisms for measuring ICT4D at national, regional and international levels
- Ensure the sustainability of such activities
- Partnership at national, regional, and international levels
- Inclusive process – stakeholders consultation
- Benchmarking at regional, sub-regional & international levels
- Countries encouraged to collect data on e-government, based on the list of e-government indicators developed by the Partnership

Questions (5)

- Which considerations need to guide the measurement of e-government

Recommendations (1)

- **Adopt the core list of ICT indicators(e-gov, broadband, pricing, etc.)**
  - *Globally comparative e-government indicators need to be adopted as they can help users understand the status of e-government primarily at the national level, and undertake a comparative assessment at the regional and international levels. Consequent actions include better strategic management of e-government policies and development of programmes that contribute to economic and social development through access to government services online. In the current proposed set of core e-government indicators, only central government organizations are included. However, African governments should take deliberate policy measures to extend data collection to state and local levels of government and allocate the necessary budget and resources for its effective implementation.*

Recommendations (2)

- **Consider measuring ICT as key component of the national policy development process**
  - *African governments should also consider measuring e-government/ICT as a key component of their national policies, strategies and plans development process. The purpose of both the e-government framework document and the manual prepared by the Task Group on e-Government Indicators of the Partnership on Measuring ICT for Development, led by ECA, is to support the efforts of countries in the collection of data for the core e-government indicators and utilize e-government for the benefit of their society and economy.*

Recommendations (3)

- **Ensure multi-stakeholder partnership at the national level**
  - *Another policy measure that needs to be considered by African governments is ensuring a multistakehoder partnership and coordination at the national level. The practice of measuring e-government/ICTservices requires involvement of all key stakeholders. Deliberate policies are required by governments to ensure active participation of the main stakeholder groups involved in the national statistical system, including (a) data producers, including national statistical offices (NSOs), (b) policymakers, especially ministries and regulatory authorities dealing with ICT and/or telecommunications, and other data users,including international organizations,and (c) data providers,including government agencies for core e-government indicators EG1 to EG6 and national experts for indicator EG7 and possibly other indicators. It is also essential that coordination mechanisms among (and sometimes within) these groups are established. In some countries, there may be more than one data collection agency involved in the production of e-government statistics.*

Recommendations (4)

- **Create conducive legal and regulatory environment**
  - *African governments should also create a conducive legal and regulatory environment for effective measurement of e-government practices. While many NSOs/RAs work in a legal framework that makes the provision of statistical data mandatory, cooperation may be enhanced if such legislation is used carefully. The legal framework of NSOs/RAs also would generally ensure the confidentiality of data provided by individual organizations.*

Recommendations (5)

- **Develop a continental Online Platform of ICT Measurement Facilitation Mechanism under the ICT Measurement Partnership trough ECA**
  - *ICT Measurement Partnership is encouraged to develop an regional Online Platform of ICT Measurement Facilitation Mechanism trough ECA. African governments, civil society, the private sector, the scientific community, United Nations entities and other stakeholders can share their experiences and best practices ICT measurement in order to facilitate further development of measuring ICT indicators (e-government,*

Thank You !

http://www.uneca.org/our-work/innovation-technology