Brief for GSDR 2016

Maximizing Opportunities: Data Linkages for Sustainable Development in Africa

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I. Introduction

Africa's path towards prosperity and sustainable development will largely depend on her ability to effectively utilize data. The availability of quality, disaggregated and actionable data is essential to facilitate informed decision-making by Africa's development stakeholders. Policy makers and strategists routinely collect data for the purposes of planning, budgeting, monitoring, operations and evaluation. The challenge for African countries is that in most instances, the datasets are often inconsistent, non-standard and in some cases, non-existent. The reasons are obvious: Poor funding, weak in-country capacity to collect, manage and disseminate data, diffuse responsibilities, and fragmentation, with many diffuse data collection efforts.[1]

To overcome these challenges, African countries have welcomed a number of major initiatives that are focused on enhancing statistical capacity. The Paris21's National Strategies for the Development of Statistics (NSDS) and the World Bank's Statistical Capacity Indicator (SCI) are the most notable of those initiatives. These programs generally focus on improving statistical methodologies, source data and periodicity while also using these same categories to track and rank progress among African countries as well as other developing countries.[2]

The adoption of open data policies and data interoperability protocols by governments provide a unique opportunity for African countries to reinvent their data infrastructure. The shift will also help address the perennial issue of asymmetry of data supply and demand in African countries.

II. A New Era of Open Data in Africa

Experiences in Africa and elsewhere have shown us that when data is freely made available for everyone to use and republish without restrictions, it allows for both collaboration and innovation to thrive, ultimately enabling socio-economic progress. As part of the global data revolution, Africa's public and private sectors, civil society and regional organizations, have embarked on a range of open data initiatives. One of the flagship initiatives is the Africa Data Consensus, conceived in March 2015 following a high level meeting in Addis Ababa, Ethiopia. The consensus calls for strengthening of national statistical offices to lead the data revolution: *"An African data revolution should be built on the principles of openness across the data value chain and a vibrant*

[1] Deverajan, S. "Africa's statistical tragedy" World Bank Blog. 2011.

[2] Statistical Capacity Indicators Dashboard, World Bank. 2015.

data ecosystem driven by national priorities and inclusive national statistical system." [3]

Furthermore, in September 2015, Tanzania hosted the first Africa open data conference. Dr. Frannie Leautier, currently Senior Vice-President of the African Development Bank, delivered the keynote address. [4] In her remarks, Leautier cited a few recent examples in Africa where open data has helped to promote policy predictability, transparency in prices and fostered new business models. Leautier asked for African governments to enact policies that enable open data, invest in the backbone technologies and make space for data collection and analyses. Most importantly, she urged citizens to actively provide data, engage in dialogue and utilize data for decision-making.

This new era of open data in Africa, in some measure, demands institutions to reexamine their policy parameters while also encouraging all stakeholders to take full advantages of all the opportunities this data revolution brings.

III. Technological Options for Data Interoperability in Africa

African countries are increasingly interconnected: culturally, politically and economically. To maximize the benefits of these trends, African countries are exploring various options of systems and data interoperability.

Africa Endeavor

Since 2006, a total of forty African countries have participated in Africa Endeavor - the United States Africa Command's annual 10-day communications exercise, which focuses on interoperability and information sharing among U.S.'s African partners.[5] The exercise's primary objective is to increase the command, control, and communications capacities (C4) of African nations by encouraging interoperable tactics, training, and procedures and creating documented standards that support interoperability. It allows African nations to provide critical C4 support to the African Union and African Standby forces involved in humanitarian assistance, disaster relief, peacekeeping missions, etc. One of the more useful experiences to come out of this exercise - that also involves European and Canadian participants - is the revelation to African participants that new data communication technology can be added to the voice-transmitting, High Frequency (HF) legacy equipment, commonly used by African countries.[6] If properly explored, this approach has the potential to open new avenues for data sharing in the region beyond the military-civilian collaboration.

International Telecommunication Union

For countries to participate meaningfully in the global digital economy they require robust, secure and dependable information and communication technology platforms, the development of which is best supported

[3] Africa Data Consensus, Addis Ababa, Ethiopia, March, 29, 2015.
[4] Remarks by F. Leautier, Africa Open Data Conference, Dar-es-salaam, Tanzania, 2015.
[5] United States Africa Command http://www.africom.mil/what-we-do/exercises/africa-endeavor
[6] Kenyon, H.S. *Interoperability of African Systems Enhances Security,* SIGNAL. May 2007.

by market access regimes that are well-defined, well-managed, non-discriminatory and transparent.

In 2012, the International Telecommunication Union (ITU), following extensive consultations and surveys on the impact of systems non-interoperability and non-compliance, developed guidelines for developing countries on establishing conformity assessment test labs in different regions including Africa.[7]

ITU has been conducting capacity-building initiatives in Africa, including a feasibility study on "type approval test lab" in Tanzania that was performed by Sintesio, a Slovenia-based company. The study found a strong probability of non-interoperable areas of Tanzania due to substandard products in the market. Equipment and services targeted for testing represented a wide variety of technologies, which may benefit from improved interoperability as a direct outcome from the creation of this test center.[8]

There are also some key policymakers in the region that have advocated for test centers to be modeled after regional economic blocs (East Africa, West, South etc.). They prefer a high level of collaboration including shared services and facilities as they become available within the region.

In Tanzania, as in all other African countries, the majority of the market share in communications equipment are mobile. Mobile technologies have the fastest share of data communication in Africa. According to the 2014 Ericsson Mobility Report on Sub-Saharan Africa, mobile data traffic in Africa will increase by 20 fold in the period of 2013-2019.[9] To ensure both quality and reliability of data, it is thus crucial for national and regional regulatory authorities to institute mechanisms of interoperability in Africa's increasingly multi-vendor environment.

IV. Policy Considerations

- Open data brings a new chapter in Africa's development. It provides an opportunity to explore and foster new sources of knowledge. Therefore, it is important for policies surrounding open data to be both receptive and proactive in seeking new and emerging disparate sources of data, particularly citizen-generated data. This would help enable new innovations that could potentially alter the trajectory of Africa's development.

- The African Development Bank should fund strategies on telecommunication infrastructure that proceed beyond the preferred build-operate-transfer schemes and explore data-interoperability schemes in public-private partnership arrangements, ideally within the framework of regional economic blocs.

- National Statistical Offices in partnership with the principal Pan Africanist institutions within the

[7] International Telecommunication Union *Guidelines for developing countries on establishing conformity assessment test labs in different regions.* Report. May 2012.
[8] *Ibid.*
[9] Ericsson Mobility Report Appendix on Sub-Saharan Africa. June 2014.

Africa Data Consensus (ADC), namely African Development Bank, African Union Commission and the UN Economic Commission for Africa, should consider serving as arbiters for open data protocols through a mechanism of sector-specific working groups.

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