**IMPLEMENTING THE AFRICAN DATA REVOLUTON**

**E-DISCUSSION SUMMARY**

*Steve Glovinsky, UNECA, 20 January 2016*

On 23 December I initiated an e-Discussion on the Solution Exchange Statistical Community to exchange views and obtain insights on what it would take to implement the Data Revolution in Africa. The three discussion topics were:

* **What key issues and challenges do you foresee in implementing the African Data Revolution, and what might be some ways forward?** covering, for example, the concepts it encompasses, and the implications for National Strategies for Development of Statistics and National Statistical Offices.
* **What considerations should be included in the design of the Implementation Programme?** covering, for example, the scope of the effort, financing, the implementation strategy, management arrangements, risks and assumptions.
* **How best can the programme build on current mandates and frameworks such as the African Charter on Statistics, the Strategy for the Harmonization of Statistics in Africa (SHaSA) and others?**

The discussion received 20 contributions from 16 members over the three weeks it was open. Responses were received from National Statistical Offices, NGOs, ECA and independent consultants across Africa and also from UN, France and India. Contributors raised a number of critical points to consider, and offered many insights into ways for moving forward. The following highlights touch on key features to take into account in the design of an implementation programme:

**Implementation Issues and Challenges**.

This topic drew the most responses, ranging from issues of capacity, technology, tools, independence and integrity, and financing.

Perhaps the most important point – mentioned or implied by most contributors – was that the Data Revolution is coming to Africa, and one way or the other NSOs will have to engage with it. There may be many opportunities and ways to introduce this new “data landscape” to the continent, and getting the details right will be the determining factor whether it ends up as a revolution or a revolt. The challenge is immense – an overhaul of the entire continent’s data production activities, and will require organizing, coordinating and consensus-building among all countries of Africa. But the compelling argument made in the Data Revolution report, and the generally positive and hopeful responses from the contributors, supports the impression that there is a favorable environment for moving forward.

National Statistical Offices need to be the champions of this effort, and many of them face a range of challenges. Capacity and financing issues were the two most frequently mentioned. With respect to capacity, most African NSOs operate with budgets that are a fraction of what offices have in other parts of the world. To bring capacities more in line with responsibilities, mobile and automation technologies, as well as outsourcing some data collection responsibilities could help by reducing staff size and workloads. An intriguing idea is to introduce “cross-border statistical cooperation” to share the work and increase cost-effectiveness. Reexamining capacity issues offers an opportunity to adjust how offices are budgeted – using geographical size instead of population size. Reporting village level data before unit or household data could satisfy requirements for timeliness, and the detailed data can be made available subsequently. Another way forward could be to prioritize the statistics to be produced, starting with the needs for development planning, followed by needs for the private sectors and communities.

The change in the statistical landscape, the new ways of working, and the continent-wide scope envisaged for the African Data Revolution implies a significant level of training and research to fill capacity and knowledge gaps. Training and research facilities such as ILFORD in Cameroon are available and can be tapped to meet the requirements. Coordination of efforts among training and research centers could address demands in a consistent and comprehensive manner. On a more fundamental level, statistics-oriented topics could be included in school curriculums, both to raise awareness and to encourage more youth to consider it for a career.

Another challenge some NSOs face, which will become more prominent in this new landscape, is the issue of political influence, particularly with the introduction of Open Data. Independence of NSOs from political influence is enshrined in the Fundamental Principles of Statistics, and this could be extended with respect to data to Data Communities who, as regional professional associations, would be less susceptible to country-level political pressures. The Open Data Charter community offers an excellent space for networking and support from like-minded professionals worldwide. This being said, advocacy work is needed to create and enforce the rules ensuring the independence of statistical offices. Similarly, the same protections should apply to the media, who are in the front lines when it comes to making open data visible to the public.

From a technology perspective, taking advantage of the rapid and dramatic growth of broadband and bandwidth availability in Africa opens opportunities for increased use of mobile technologies, expanding data collection possibilities and lowering costs dramatically. Technology also facilitates the application of Big Data for Official Statistics to meet Sustainable Development Goals monitoring requirements, such as using satellite imagery to monitor shifts from thatch to metal or tiled roofs as a proxy indicator to measure poverty trends. However, internet penetration and broadband availability in Africa is still far behind the developed world. In order to take advantage of available technologies, therefore, African countries need to overcome the challenge of going digital, upgrading their local communications, digital storage and processing infrastructures.

Fundamentally however the Data Revolution is not about advances in IT; rather, it is more about putting statistics on a “high political agenda” – fully integrating statistics into policy and decision-making processes, and making national decision-makers more aware of the power of data and statistics – particularly in light of the advances made in data scope, quantity and quality – to make a difference improving the lives of their citizens. Essentially, it is about scaling up, transforming and repositioning National Statistical Systems to play a stronger role in supporting national, regional and global development agendas.

Identifying sustainable sources of financing for national statistical efforts, therefore, is firstly a communications issue, ensuring that decision-makers are made aware of the value of sound statistics and the effort that goes into producing them. Given that National and Official Statistics are “public goods”, it may be feasible to tap other interested parties – including the private sector or foundations, to help ensure sufficient resources are provided. Applying this principle to tenets of the Africa Data Consensus, these financers could subsidize or make freely available the data provided from their own Data Communities.

There are many endeavors introduced by the African Statistical Community that have worked and should be capitalized on. In fact the organization of the profession as a whole, with the UN Statistical Commission and the regional commissions, functions quite effectively, with a good track record of consultation and progress in many areas relating to national statistics. Existing practices and prior initiatives, and most notably the work on developing National Strategies for the Development of Statistics, can provide the foundation for the new data ecosystem, and enable NSOs to adapt to the new reality of unprecedented demand for current and new types of data from all directions.

**Building on Current Mandates and Frameworks.**

National Strategies for Development of Statistics, which identify actors and roles in national statistical systems, should become the strategic entry points to introduce the African Data Revolution. Well designed and implemented NSDSs can adapt to new data challenges. However not all NSDSs are prepared to the required level of quality or consultation. Work would be needed to bring these NSDSs up to the required standards and ensure they address the entire National Statistical System.

Several initiatives are in place to help promote sounder and more effective NSDSs. Continental initiatives include the Reference Regional Strategic Framework for Statistical Capacity Building in Africa (RRSF) and the Strategy for the Harmonization of Statistics in Africa (SHaSA). In addition, the Generic Statistical Business Process Model (GSBPM) is designed to modernize statistical production process and harmonize statistical infrastructure. Two tools developed by the UN Economic Commission for Europe offer a Common Statistical Production Architecture and a Generic Activity Model for Statistical Organizations. All of these instruments stem from common UN-provided global frameworks and could be suitably adapted for use in Africa. It would however be useful to “popularlize” the various initiatives into a common, easily understandable framework, to improve the public’s understanding and awareness of how they all fit together for improving development performance and impact.

The Data Revolution introduces new and different types of data into the statistical landscape, and could invite an examination of the fundamentals of which data is collected, and for what purposes. An interesting area to explore here is the distinction between “National Statistics” and “Official Statistics”. In this interpretation, Official Statistics are deemed to be released with state recognition; National Statistics, while also produced by NSOs, fall under different mandates and regimes for data collection, analysis and reporting. In building a new landscape for data and statistics, it would be important to be mindful this distinction and to address national and official statistics separately through a NSDS for Official Statistics and a “data strategy” for the release of other types of data. An example where this has already been done comes from the UK; South Africa has also adopted a differentiated approach. The UK example includes a standard for the Quality Assurance of Administrative Data for Official Statistics. Additionally, the Global Working Group in Big Data for Official Statistics, established by the UN Statistical Commission in March 2014, could be tapped to change mind-sets about how Big Data can be incorporated into NSDSs.

Statistics Acts already allow National Statistical Offices to obtain primary data from administrative and other sources – such as accounting, mortality, customs and international trade data. Principle 5 of the Fundamental Principles of Official Statistics states that “*Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to choose the source with regard to quality, timeliness, costs and the burden on respondents.”* The wording reflects a similar point in the Africa Data Consensus, and can form the basis for moving forward. Incorporating new sources and types of data into national statistics, therefore, may not be as much of a challenge as perceived. It would however call for NSOs to reach out to more partners who could support data production work.

The Africa Data Consensus adopted the “Open Data” principle. The Open Data Charter, so far adopted by 17 governments worldwide and a range of public and private sector organizations, elaborates on the concept of Open Data, promoting its understanding and ultimately incorporation into national statistics. The French Government, one of the Open Data Charter signatories, issues a series of documents explaining their approach. Introducing Open Data for Africa, given its effect on reliability, transparency and accountability, would be a key element for the successful implementation of the African Data Revolution. However it should be a carefully considered process, especially during the initial roll-out stages, and Governments should be prepared to respond to users who will be questioning its reliability. And as noted above, the Open Data principles need to be owned and internalized in the NSDSs and NSOs as well as across all government agencies and offices through consistent communication, sensitization and incentive mechanisms.

Ultimately however the implications of the data revolution on the role of the National Statistical Offices may require adjustments to legislation and regulations, and a realignment of roles and resources of different government agencies. A national strategic vision would be an essential part of this effort. In the meantime however it should be possible to optimize the use of public data under current regulations, and gradually improve the quality of both the service and the data itself.

**Considerations for the Design of the Implementation Programme**

Some ideas to include in the Implementation Programme design, based on additional contributions and extracting the specific suggestions from the other two topics, are:

* **Carry out country-level analyses of the strengths and weaknesses of current national systems** to know what is working well that can be built on, and where the gaps are that need interventions.
* **Carry out a stakeholder analysis among different target groups** to assess the awareness of the Data Revolution and its potential, expectation levels and motivation factors that are present and absent
* **Reach agreements on the organizational arrangements needed** to accommodate the consultations around the formation of data communities, issues such as interoperability between systems and comparability of data, and coordinated tasks such as resource mobilization, progress monitoring etc.
* **Start with a pilot operation** to gain a better understanding of implications of the transformation, and to identify ways to address them. Particular attention should be made with respect to the data community concept, and how these would operate in practice. Rationalization, coordination and decision-making are all areas to be explored.
* **Use NSDSs as the basic framework** to develop national implementation plans for the Data Revolution and the roles of the various partners in it.
* **Distinguish Official Statistics from National Statistics**, and address them separately in the implementation programme, the former through National Strategies for the Development of Statistics, and the latter through “Data Strategies”
* **Promote accession to the Open Data Charter** by African governments and public and private organizations
* **Include ways to accommodate environmental issues** such as access to broadband and digital technologies
* **Address transitional issues**, such as staff adjustments, changes in roles and responsibilities, legislative issues etc.
* **Include a strong communication and awareness-building component** to promote understanding among national leaders and the public at large on the value of reliable and transparent data
* **Map out training and research facilities and capacities**, in order to identify where and how to build the required capacity and knowledge gaps.
* **Address capacity and research issues,** through continual observation and adjustments to accommodate needs arising over the course of the effort.
* **Make fund-raising a major next step**, since the financing raised, particularly for the initial effort, will determine the scope of the Programme and how long it will take to accomplish. Financing this continent-wide, multi-year transformational initiative will be a considerable challenge which will need dedicated resources from supportive partners. Resource mobilization should be a collaborative effort, tapping into traditional supporters of statistics in Africa, as well as advocacy groups and foundations supporting Open Data, Big Data, and statistical improvements in general.