The Africa Data Revolution Report 2016

Highlighting developments in African data ecosystems

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What is the Africa Data Revolution Report?

Just like most regions of the world, Africa is experiencing a data revolution, characterized by an explosion in the volume of data, the speed with which data are produced, the number of data producers and the range of things on which data exist from various sources, coupled with a growing demand for data from all parts of society. This has led to growing recognition that harnessing the data revolution is vital to accelerating sustainable development on the continent.

The Africa Data Revolution Report (ADRR) is a biennial report highlighting developments in national data ecosystems in Africa. The 2016 edition is the inaugural ADRR. It is sponsored by the Economic Commission for Africa (ECA), the United Nations Development Programme (UNDP), the Open Data for Development and the World Wide Web Foundation.

The first ADRR focuses on mapping the data ecosystem in Africa with reference to the production, distribution and use of data, by public, private and civil society actors, as they relate to the 17 United Nations Sustainable Development Goals.

It draws from in-depth case studies of national data ecosystems in 10 African countries: Côte d'Ivoire, Ethiopia, Kenya, Madagascar, Nigeria, Rwanda, Senegal, South Africa, Swaziland and Tanzania.

Key areas

The ADRR 2016 focuses on the following areas: Mapping the key data actors and principles within African data ecosystems , data architecture, technology and platforms, key innovations and strengths and challenges to the data revolution in Africa.

Mapping the key data actors and principles:
The ADRR identifies and describes key actors, communities and systems, their capacities, interactions and "rules of the game", indeed, the enabling environment, and the laws, regulations and principles that govern the production, dissemination and use of data in Africa.

Data architecture, technology and platforms:
The ADRR assesses the infrastructure requirements and the nature and impacts of prevailing protocols governing data production, openness, analysis, and privacy and ethics in Africa, focusing on open data systems, big data and innovations.

Data innovation:
The role of technology is becoming increasingly important in this era of data revolution. A wide penetration of mobile networks and the use of Geographic Information Systems have irrevocably changed the way data are collected, shared and disseminated. The ADRR showcases data innovation cases from various sectors in Africa.

Challenges to the data revolution:
Based on the analysis of data ecosystems in Africa, the ADRR identifies challenges to the data revolution in the following areas: legal, legislative and policy frameworks or principles; financial investments; technology and infrastructure; and data governance (data integration and interoperability, coordination and management).

Key messages

Harnessing the data revolution is crucial to accelerating sustainable development in Africa.

There is an increasing recognition, embodied in the Africa Data Consensus, to harness the data revolution for sustained growth and development in Africa.

Commitment to harnessing data for development in Africa is not limited to public or political authorities and official data communities only; it also includes private, civil society and citizen communities or groups that are increasingly becoming active producers, brokers and users of different types of data in ways that go beyond traditional forms, technological platforms and data use.

African countries are making considerable efforts to strengthen quality, accessibility and timeliness of data production and use by revitalizing national statistical systems, open data policies and platforms, greater generation and use of non-government generated data, especially citizen- and private sector-generated data.

In spite of the growing diversity of data communities on the continent, national statistical systems remain, by far, the most central players, especially in terms of data production.

A growing number of national statistical systems are investing in new technologies for data collection and dissemination, including digitization of data and open data portals.

In countries such as Kenya, Nigeria and South Africa, with a relatively well-developed private sector, a considerable amount of mainly economic, natural resource and environmental data is produced by that sector. The data, however, are utilized mostly by the private sector and are not easily accessible to other stakeholders such as government, academia, civil society and ordinary citizens, except where there are mandatory legal requirements.

National data ecosystems in Africa stand to gain from greater sharing, availability or accessibility of data generated, held and used by the private sector.

The challenge, however, is making this often proprietary data available for the social or public good, in a way that does not diminish its commercial viability for its producers. Different models for achieving this goal are currently being piloted in Africa and elsewhere.

Civil society- and citizen-generated data are also a growing part of the national data ecosystem in Africa, although the degree of growth varies from country to country, depending on factors such as the depth of internet and mobile phone penetration, political systems and literacy levels.

Efforts are under way in most African countries to align national development plans with the Sustainable Development Goals. Significant investments are needed to strengthen the human, institutional and technological capacities of most national statistical systems in Africa, if the continent is to harness the data revolution for accelerated sustainable development.

In many African countries, while the existing data systems, especially national statistical systems, are equipped, at least, in part, to generate data for monitoring the progress of the Sustainable Development Goals, they lack the capacity to generate data for planning towards their implementation. Without this capability, the utility of data for monitoring the progress of the Goals will be compromised.

There is a need to boost the capacity of national data ecosystems, fairly early in the implementation cycle of the Sustainable Development Goals.
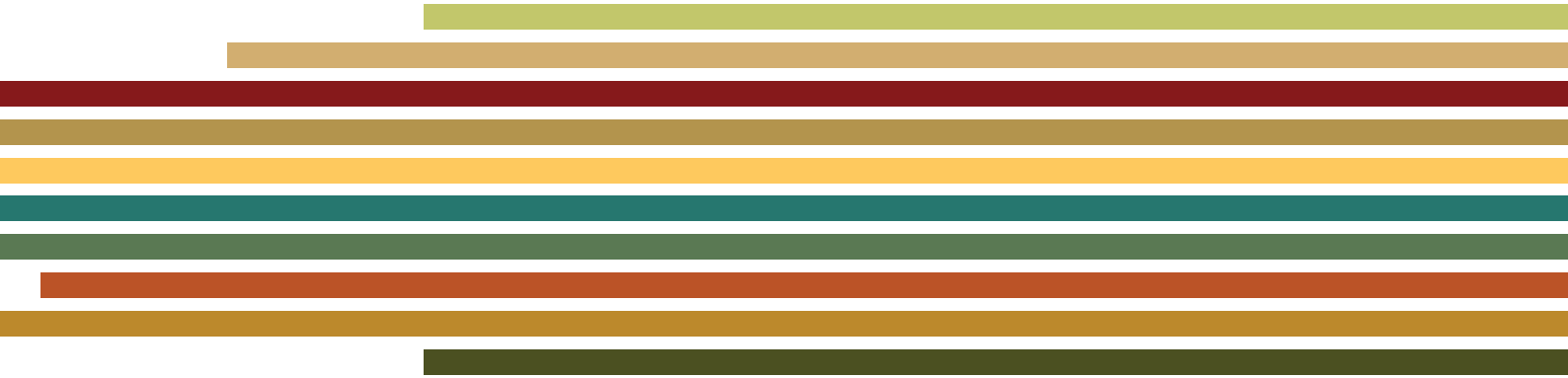
Full report will be released in March 2017 - accessible at the ECA ADRR page
http://www.uneca.org/ADRR2016