Report

Uganda's data ecosystem

2016

May

Part one:
A quantitative review of data production in Uganda

Wilbrod Ntawiha and Bill Anderson

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Contents

Executive summary

This report is the first half of a two-part study making quantitative and qualitative assessments of the state of data production and use in Uganda.

National, continental and global development agendas are all calling for data to play a catalytic role in both the meeting and monitoring of ambitious goals. This study assesses the readiness of the Ugandan national statistical system – an ecosystem that includes both official and non-governmental producers and users of data – to meet these challenges.

We have designed a database to capture and classify key attributes about data producers, data sources and data sets. We have conducted research to identify 92 organisations that produce 1,150 unique datasets published in 300 unique documents or platforms.

We have classified these datasets by type of publisher, sector, timeliness and frequency of production, by provenance, geographic scope and level of disaggregation, method of collection, and accessibility. We hope to refine this methodology to contribute to a collaborative, generic methodology that can be used for all countries.

Our analysis of all 1,150 datasets using this methodology is, in this first part of the study, purely quantitative. We make no attempt at this stage to identify which of these datasets is more important than another. This will be the main focus of the second part of the study.

Based on timeliness and disaggregation criteria we find 59 high-quality datasets produced by 13 separate institutions. We find the Uganda Bureau of Statistics (UBOS) well placed to build on its existing strengths to lead a data revolution for sustainable data.

We find that the biggest challenges facing the national statistical system lie in the production of more timely, disaggregated data.

We find that the biggest obstacle facing UBOS and the data ecosystem in general is insufficient financial investment from both domestic and external sources.

Sustainable data for sustainable development

> *"Data are the lifeblood of decision-making and the raw material for accountability. Without high-quality data providing the right information on the right things at the right time; designing, monitoring and evaluating effective policies becomes almost impossible."* A World That Counts

Data as a key driver in development

The statistics and statistical analysis that are used by governments, nationally and locally, to inform policy-making, allocate resources and deliver services depend on data. This is data that is collected by counting people and things. Whatever the quality of this data, it is the duty of statisticians to extract maximum meaning from the facts at hand. The better the data, the more accurate the analysis, and the better informed the decisions. This study is an exercise to map Uganda's data landscape.

The Ugandan Bureau of Statistics (UBOS) is committed, among other things, to collecting data and disseminating information to both meet and monitor three development frameworks.

- Vision 2040 – Uganda's national development plan
- Agenda 2063 – Africa's continent-wide roadmap for unity, prosperity and peace
- 2030 Agenda for Sustainable Development – the global framework for poverty eradication and sustainable development

The national statistics offices (NSOs) in all African countries currently face the challenge of rationalising their activities to embrace these three tiers. Global monitoring seeks indicators constructed from nationally aggregated estimates, while national development planning requires a far greater degree of disaggregation and accuracy.

Counting people to make people count

Demographic and socio-economic statistics in developing countries have traditionally relied on household surveys and a 10-yearly census as their key data sources. Due to a lack of long-term investment, little progress has been made in many countries in developing robust administrative systems maintained by line ministries, local government and public agencies, or in developing civil registration and vital statistics systems.

Table 1: Characteristics of registry, administrative, census and survey data

Data type	Frequency	Disaggregation (current output)	Disaggregation (microdata)	Setup costs	Maintenance costs
Registry	< Annual	n.a.	Full	High	Low
Administrative	< Annual	District	Full	High	Low
Census	10 Years	District	Full	High	High
Survey	3–5 Years	National	Statistical region	High	High

There is growing and widespread recognition in Africa that surveys, with typical sample sizes of less than one in a thousand households, may well produce nationally aggregated estimates of meaning but cannot deliver sufficiently disaggregated data for use in subnational planning and local service delivery.

Principle 5 of the United Nations' 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 African Charter on Statistics goes further.

> *"Statistics authorities shall not embark upon statistical surveys except where pertinent information is unavailable from administrative records or the quality of such information is inadequate in relation to the quality requirements of statistical information."*

The most-used catchphrase at international statistical conferences focusing on the Sustainable Development Goals is *"Leave no one behind".* This study reflects this ambition by focusing primarily on data that can be disaggregated down to the lowest level of administration.

The data inventory

The observations in this study are based on research conducted in Kampala in early 2016 during which an inventory of all known development datasets for Uganda was established. This is primarily the result of desk research. Ongoing work engaging directly with the data-producing institutions will verify the accuracy of the metadata and expand the scope of the database.

The inventory currently contains information on 1,150 datasets from 300 sources. (A single source such as the Agriculture Census, for example, contains three separate datasets: Agricultural households and holdings; Crop areas; and Crop production)

The inventory is currently available as a downloadable Excel file and an online workbook. All tables and figures relating to the data in this study have been computed from the inventory.

In order to explore the entire ecosystem, we grouped all organisations as government (NSOs, ministries – under which are departments and agencies – and other government agencies), academia (both government and private), non-governmental organisations (NGOs – further categorised as national or international), private sector (sector groups), and multilaterals (United Nation/UN agencies and other multilaterals).

This was followed by an assessment of the institutions thought to be involved in data production under each category. Each institution was assessed on key products, platforms or data portals, reports and news to discover any other non-accessible data sources. The data sources were then further analysed to identify standalone datasets, and to classify them by sector, scope, method of data collection, level of disaggregation, timeliness and accessibility.

The study focuses on data sources created since 2005 and to avoid replication, the inventory only includes the latest edition, but provides information on previous iterations and frequency of production: national household surveys, for example, occur every three years, the latest is 2013 and previous to that 2010.

Table 2: Key field definitions in the data inventory

Field	Format	Definition
Sector	Fixed list	The functional sector that the dataset covers (eg agriculture, health, education)
Primary/secondary	Fixed list	Is the dataset from a primary or secondary data source?
Scope	Fixed list	What geographic portion of the country does the dataset cover?
Level of disaggregation	Fixed list	What is the lowest geographic level of administrative disaggregation that the microdata in the dataset covers?
Data set	Text	The title or brief description of the dataset. This may be a single table or a thematically related group of tables
Data source	Text	The title or brief description of the document or platform where the dataset is published
Publisher	Text	The name of the institution responsible for publishing the data
Official statistics	Boolean	Is the dataset recognised as part of 'official statistics'?
Data collection type	Fixed list	Is the data collected via registry, administrative system, census, survey or other means
Access	Boolean	Is the data available to the public?
Online	Boolean	Is the data available on a public website?
Machine readable	Boolean	Is the data in Excel, CSV, database or other machine-readable format? (This does not include PDF or Word format)
Latest	YYYY	In what year was the data in the most recent version of the dataset collected?
Frequency	Fixed list	How often is fresh data collected?
Previous	YYYY	In what year (if any) was the data in the previous version of the dataset collected?
Next	YYYY	In what year (if any) will the data in the next version of the dataset be collected?
URL	url	A link to the document or page holding the dataset.
COFOG code	Fixed list	A sector code defined by the UN system Classifications of the Functions of Government (COFOG)
COFOG description	Text	The text description associated with a COFOG code

Quantitative analysis of the data inventory

Primary and secondary data

> *"When you find some data on the Web, do you have any information about how it got there? It is quite possible that it was copied from somewhere else on the Web, which, in turn may have also been copied; and in this process it may well have been transformed and edited. If you are a scientist, or any kind of scholar, you would like to have confidence in the accuracy and timeliness of the data that you are working with. In particular, you would like to know how it got there."* Data Provenance: Some Basic Issues

Transparent provenance about the data behind statistics is a big challenge to global institutions and national statistics offices alike. It is often incredibly difficult to track information back to its data source. Similarly, it has not always been easy to provide accurate assessments of which data in the inventory is indeed original.

We find that a majority of the datasets found do originate from primary data sources (58%). This is the real data and the rest of this review focuses on primary sources alone.

All secondary data is derived from the primary sources and it is often difficult to track the provenance from source and whether the secondary data has been replicated, aggregated or modified from the original. Only 29% of datasets published by international agencies are derived from primary sources.

Table 3: Primary and secondary datasets by type of organisation

Type of organisation		Primary	Secondary	Total
Official organisations	Statistical agency	201	62	263
	Central bank	121	1	122
	Ministries	110	96	206
	Other state agencies	57	13	70
Non-official organisations	UN agencies	47	149	196
	Other multilateral agencies	47	92	139
	International NGO	16	29	45
	National NGO	5	9	14
	Private sector		11	11
	Others	65	18	83
	Total	**670**	**480**	**1150**

Table 4: Primary and secondary datasets by method of collection

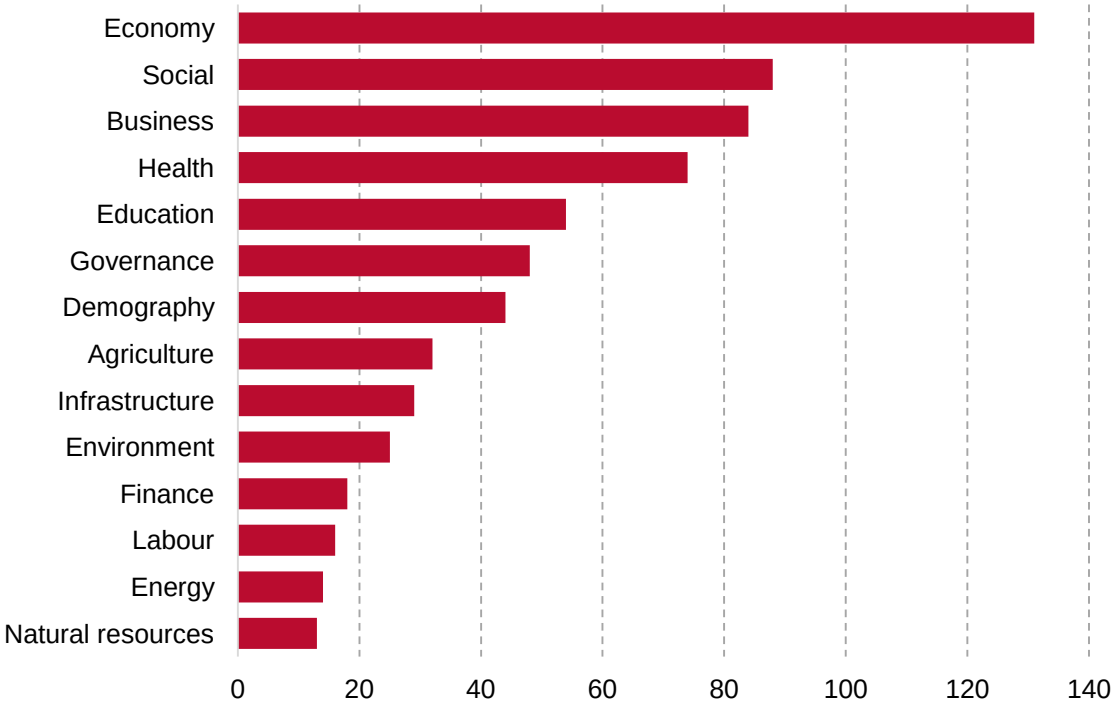
Data collection method	Primary	Secondary	Total
Administrative	217	255	472
Census	35	16	51
Mobile	19	1	20
Survey	399	208	607
Total	670	480	1150

Sectors

> *"While national statistical offices are responsible for compiling and disseminating official statistics, statistical units in line ministries are also responsible for collecting and providing sector specific data which are key to monitoring development progress. It is, therefore, imperative that sectoral requirements are integrated into NSDS design."* Mainstreaming sectoral statistical systems in Africa

Most of Uganda's data is found in the economic sector (20%) followed by social and business (both with 13%), health (11%), education (8%) and governance (7%) out of a total of 670 primary datasets discovered. The social sector (88 datasets) consists of issues related to poverty, social protection, gender, community issues, labour, crime, social and urban development, risk factors, and humanitarian areas. Economy (131 datasets) relates to national accounts statistics such as exports and imports, national income, remittances, production, informal trade and inflation.

Figure 1: Number of primary development datasets for Uganda by sector



Data producers

75% of the primary data produced in the ecosystem is from official sources. This clearly reaffirms the centrality of official statistics as the driver of development data.

The Uganda Bureau of Statistics/UBOS contributes 40% of the data to official statistics. This relatively low proportion highlights the importance of administrative data from other ministries, departments and agencies (MDAs) – 30 in all – that contribute the majority of official datasets. The other key official producers of data are the Bank of Uganda, Ministry of Education, Ministry of Health and Ministry of Finance, Planning and Economic Development.

Figure 2: Share of data production in Uganda by official and non-official sources

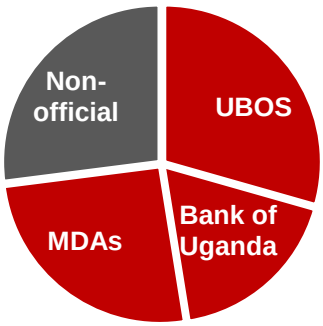
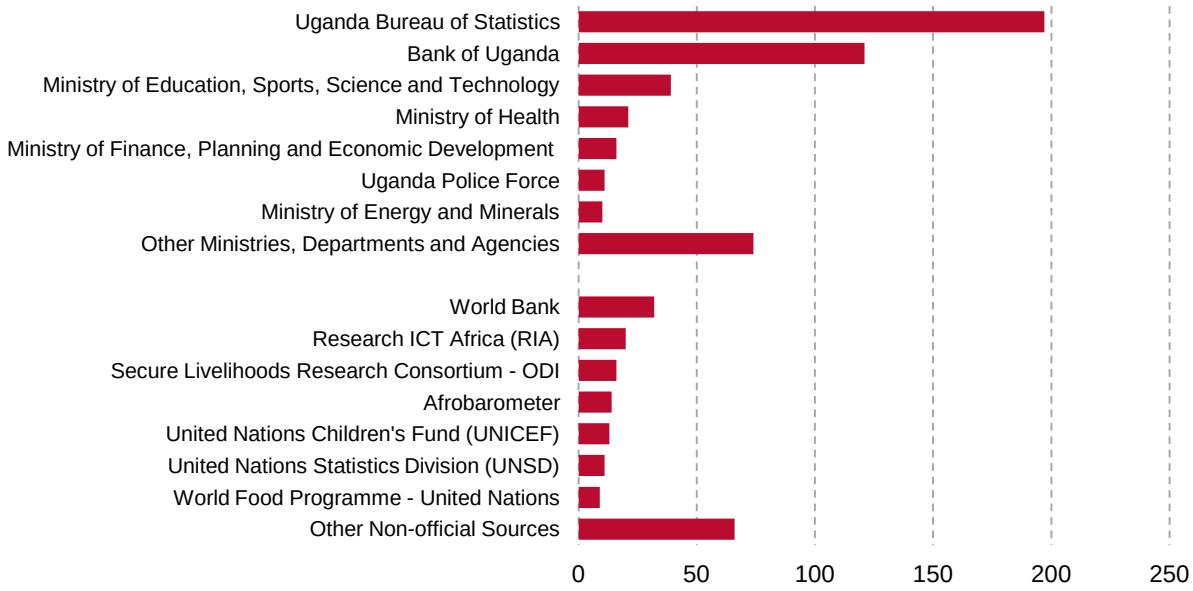


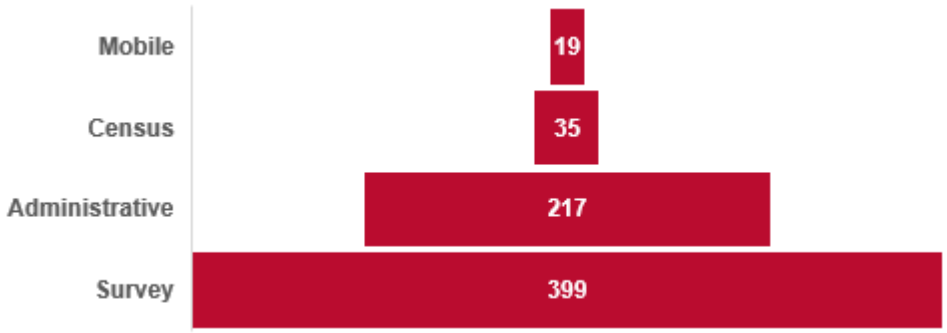
Figure 3: Primary datasets produced by official and non-official institutions in Uganda



Collection methods

More than half of the datasets produced in the national statistical system are collected from surveys (60%). This reliance on surveys has an impact on the availability of geographically disaggregated data as will be seen in the following sections.

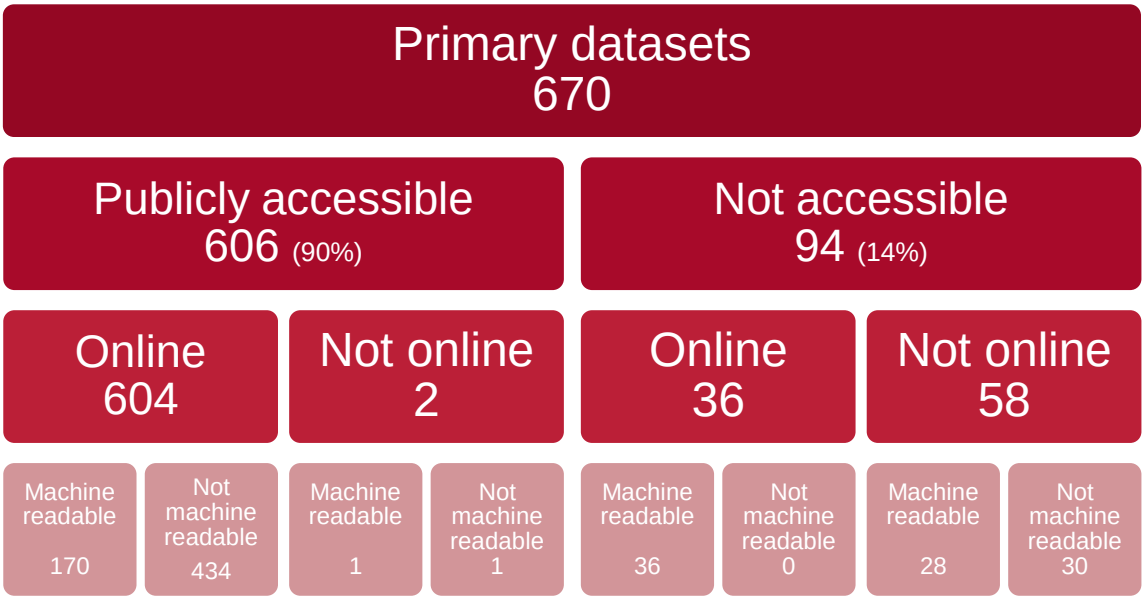
Figure 4: Primary datasets in Uganda by collection method



Accessibility

We found that the majority of primary datasets (90%)[1] are publicly accessible (whether in paper or electronic format). In fact, all but two are available online in one format or another. However, the overwhelming majority of these (72%) are not available in machine-readable formats.

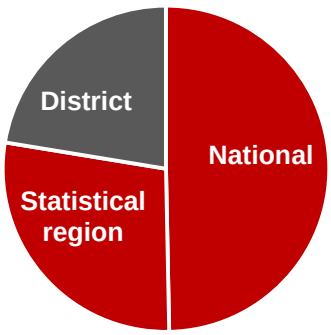
Figure 5: Accessibility of data in Uganda



Geographic scope and level of disaggregation

The majority of primary datasets cover the entire country. Only 32 (5%) cover a subset of statistical regions or districts. The available data is, in general, sufficient to describe many facets of the state, society and the economy at a national level. The majority of the datasets relate to national and statistical regions (74%). However most subnational decision-making, such as allocating resources and planning service delivery, takes place at the district level, or at least requires data that describes district-level detail. Only 21% of the data is fit for this purpose.

Figure 6: Level of disaggregation of primary datasets in Uganda



UBOS currently disaggregates the majority of its data to the level of statistical regions (each consisting, on average, of 11 districts). Only 5% of its data disaggregates down to the sub-district level and is therefore usable by district planners, local government officials and community-based organisations.

A very small proportion of all datasets can be used by district administrators to make decisions beyond the district: 2.3% at sub-county and 0.3% at village level (and this cannot be assumed to be the same for all the districts). We did not find any dataset disaggregated at parish level.

Table 5: Data disaggregation in Uganda by data collection method

	Administrative	Census	Mobile	Survey	Total
National	119	12	4	182	**317**
Statistical region	7	2	3	187	**199**
District	76	19	12	24	**131**
Sub-county	11	2		6	**19**
Village	4				**4**

Table 6: Data disaggregation in Uganda by official institution

	National	Region	District	Sub-county	Village	Total
Uganda Bureau of Statistics	37	124	16	15		**192**
Bank of Uganda	114		7			**121**
Ministry of Education, Sports, Science and Technology	16		22	1		**39**
Ministry of Health	11		8	2		**21**
Ministry of Finance, Planning and Economic Development	14		1	1		**16**
Uganda Police Force			11			**11**
Ministry of Energy and Minerals	10					**10**
Other MDAs	22	12	36	0	4	**74**

Table 7: Data disaggregation in Uganda by non-official institutions

	National	Region	District	Total
World Bank	7	25		**32**
Research ICT Africa	20			**20**
Afrobarometer		14		**14**
UNICEF/United Nations Children's Fund	1		12	**13**
United Nations Statistics Division	11			**11**
Makerere Statistical Consult Limited	7			**7**
Medical Research Council, Uganda and World Health Organization	7			**7**
African Development Bank	3		2	**5**
Other multilaterals	26	3	1	**30**
Others	11		4	15

Sector distribution indicates that conflict[2] (100%), natural resources (74%) and education (70%) have the majority of data disaggregated down to district levels and below. Labour, energy and infrastructure (4%) have no noticeable disaggregation beyond statistical region.

Table 8: Data disaggregation in Uganda by sector

Sector	District	Region	National	Total
Education	30	1	23	**54**
Social	28	37	23	**88**
Agriculture	21	6	5	**32**
Business	19	30	35	**84**
Health	17	36	21	**74**
Demography	14	19	11	**44**
Economy	11		120	**131**
Governance	8	32	8	**48**
Environment	3	3	19	**25**
Infrastructure	2	5	22	**29**
Natural resources	1		12	**13**
Energy		13	1	**14**
Finance		1	17	**18**
Labour		16		**16**

Timeliness and frequency

Periodicity, punctuality and timeliness are key features of quality data.[3] Only a third of 'current' datasets have been produced since the beginning of 2014. Timeliness refers also to the delay between data collection and publication – a dimension not yet captured by our inventory. Our metadata on frequency is also incomplete, with 60% of primary datasets recorded as non-repeating or frequency unknown.

Figure 7: Year of production of primary datasets in Uganda

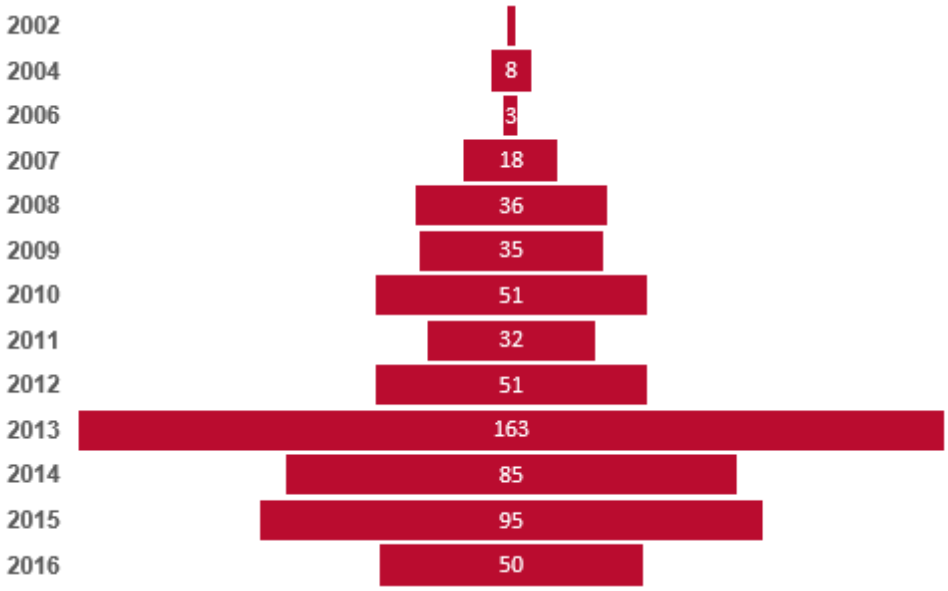
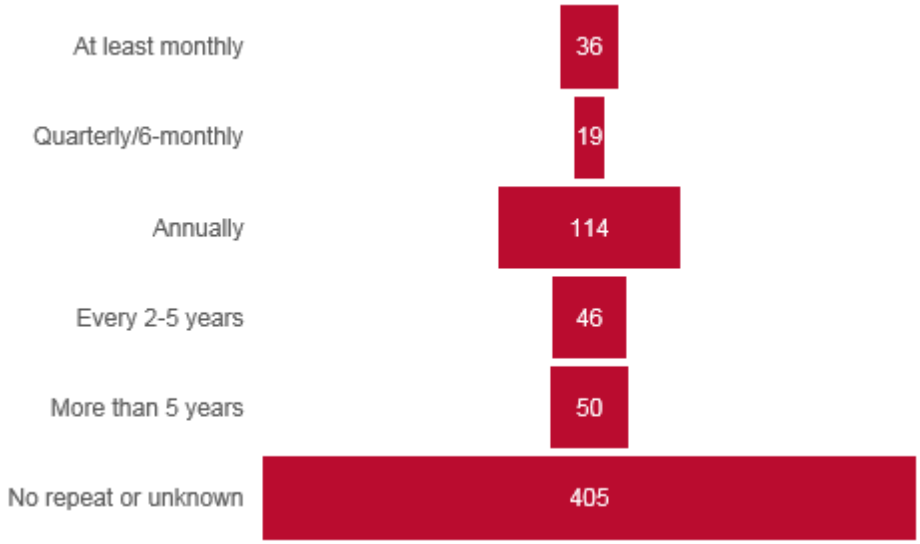


Figure 8: Frequency of production of primary datasets in Uganda



UBOS and the national statistical system

The Uganda Bureau of Statistics/UBOS is Uganda's official provider of statistics responsible for coordinating and supervising the National Statistical System (NSS), which ensures collection, analysis and dissemination of integrated, reliable and timely statistical information. UBOS, formerly known as the Statistics Department under the Ministry of Finance, Planning and Economic Development, was transformed into a semi-autonomous body by the Uganda Bureau of Statistics Act in 1998.

Since UBOS collects data to inform planning and decision-making at the various levels of government, data collection is demand driven. Its clients, primarily ministries, guide UBOS on what is needed.[4]

UBOS produces statistics disaggregated at different levels from national (15%), statistical region (58%) district (22%) down to sub-county (5%). This data is collected by UBOS through censuses (23%), surveys (63%) and administrative sources (13%).

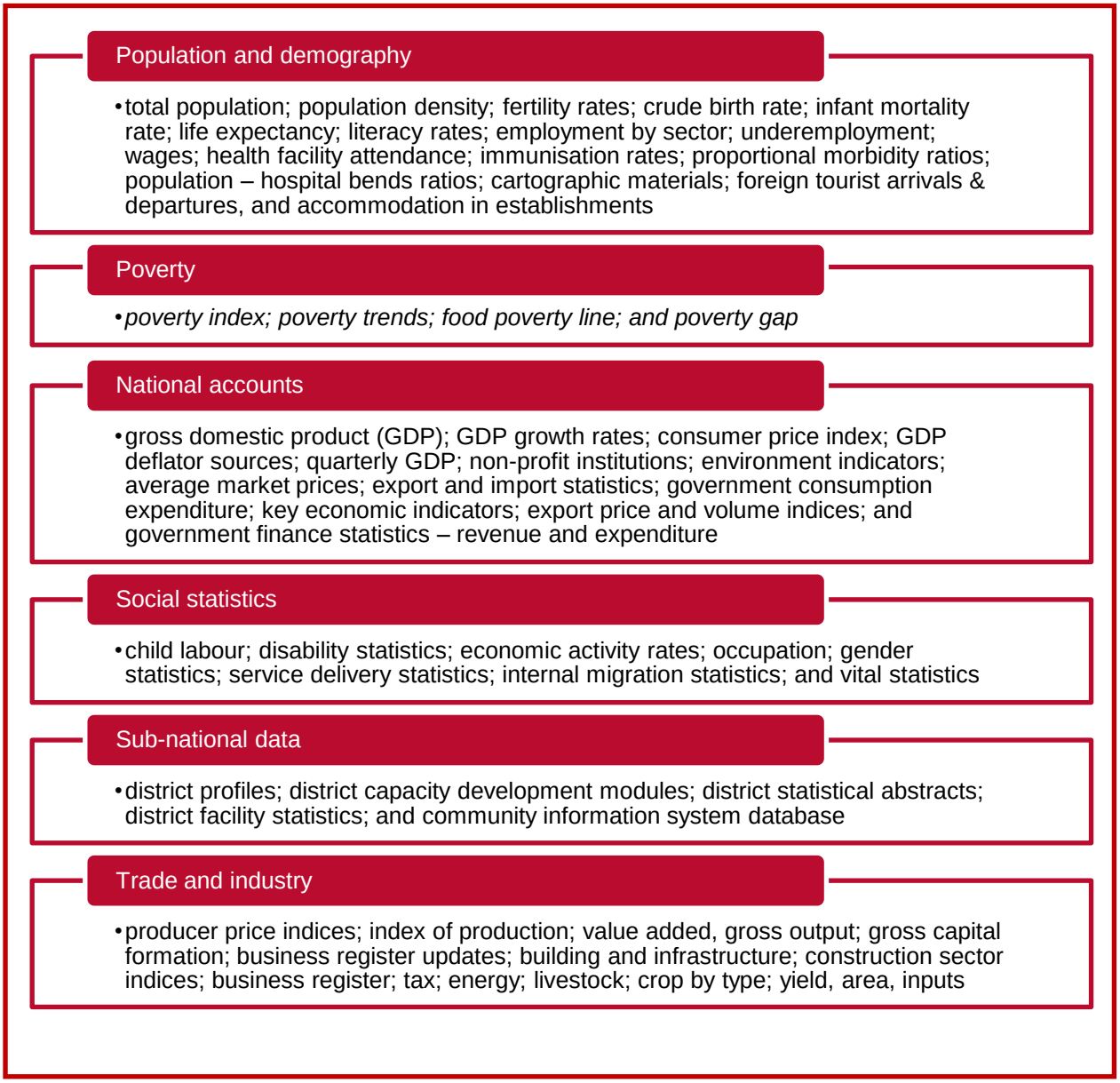
Table 9: UBOS datasets by sector and level of disaggregation

Sector	Primary data			Secondary data			Total
	National	Statistical region	District	National	Statistical region	District	
Business	26	5	5	7	2		**45**
Health		36	1		1	4	**42**
Demography	4	19	13			2	**38**
Governance	1	18	7	1		4	**31**
Social	1	20	1			7	**29**
Agriculture			7	1	6	6	**20**
Labour		16					**16**
Finance	5	1			9		**15**
Energy		13					**13**
Migration						9	**9**
Education		1				3	**4**
Economy			1				**1**
Total	**37**	**129**	**35**	**9**	**18**	**33**	**263**

Key products

UBOS produces a range of statistical and information products developed from its own data collection and from curating administrative data from line ministries, departments and agencies.

Figure 9: Key data products produced by UBOS



Source: 2013/14 Uganda Bureau of Statistics Annual report

UBOS's commitment to subnational data is evident. One of the key products is the community information system (CIS), which, along with the national census, is the most disaggregated data source providing community-level statistics. Unfortunately, due to a lack of sustainable funding, it is only rolled out in 47 of the 112 districts. Statistics from this data can be disaggregated down to the smallest level of administration (village or parish).

Other useful subnational activities fall under the District Profiling and Administrative Records subsection, which supports local governments in developing and maintaining a sustainable statistical system to inform planning and decision-making through compiling and updating of the

higher local government profiles report; higher local governments to compile annual statistical abstracts; and local governments to compile and package administrative data.

Statistics from the most recent census are to be disaggregated down to sub-county level according to the UBOS Strategic Plan (2014).

The main censuses carried out include:

- National Housing and Population Census (2014)
- Census of Business Establishments (2010)
- Census of Agriculture (2008)
- National Livestock Census (2008)

The most recent easily accessible and commonly used surveys include:

- National Household Survey (2012/13)
- National Panel Survey (2011/12)
- Demographic and Health Survey (2011)
- Malaria Indicator Survey (2014/15)
- AIDS Indicator Survey (2011)
- Annual Business Inquiry (2009/10)
- National Service Delivery Survey (2008)

Staffing and structure

The East African Statistical Department in Nairobi first conducted Uganda's official statistical activities in 1948 up to independence (1962) and was disbanded in 1976. The 1961 Statistics Act established a statistics office under the (then) Ministry of Planning and Economic Development for collecting data and coordinating statistical activities in the country.

UBOS was instituted as a semi-autonomous statutory body operating under the Ministry of Finance, Planning and Economic Development under the UBOS Act of 1998. The bureau is organised into eight directorates, each headed by a director, and six divisions, each headed by a manager. As of June 2014 UBOS had 298 staff and only 82% of posts filled.

Directorates

- statistical coordination services; district statistics and capacity development; population and social statistics; agriculture and environment; macro-economic statistics; business and industry; socio-economic surveys; and information technology

Divisions

- Geo information services; administration & human resource; communication & public relations; finance; internal audit; and legal services

Plan for national statistical development

The Plan for National Statistical Development aims at strengthening and widening the scope and increasing opportunities for development of the NSS. It

- provides a vision for the NSS (5–10 years) with set milestones
- presents a comprehensive and unified framework for continual assessment of evolving user needs
- presents priorities for statistics
- presents a plan to build the capacity needed to meet these priorities in a more coordinated, synergistic and efficient manner. (Male-Mukasa, 2005)

The current Plan for National Statistical Development is the second in a series and aims at enhancing data quality and use. The key designers of the plan created a mission of the NSS as

> *"to provide quality and demand-driven statistics and services that support evidence-based policy, planning, decision-making, good governance, research, and development initiatives". (UBOS, 2014a)*

Domestic financing

UBOS is funded primarily from the national budget, topped up by other revenue especially in the form of statistical consultancy services. The amount received from the government varies quite substantially from year to year due to the different activities requested by the government.

The majority of the funding from financial years 2013/14 to 2015/16 were allocated to the 2014 national census. For recurrent expenditures, expenses for goods and services have been higher than for wages. Spending on wages has been declining over the years (from UGX 11 billion in 2012/13 to UGX 8 billion in 2015/16) despite rising salaries and cost of living and greater need for staff capacity to produce quality and timely statistics.

Table 10: Financing for UBOS, 2012/2015

UBOS Financing	2012/13	2013/14	2014/15	2015/16
Income	**Actual**	**Actual**	**Budget**	**Estimates**
Government transfers to UBOS	25,590,324,419	69,599,914,479	111,556,461,000	65,543,461,000
Other revenue	50,253,366	18,337,500	0	0
Total operating revenue	25,640,577,785	69,618,251,979	111,556,461,000	65,543,461,000
Use of income	**Actual**	**Actual**	**Budget**	**Estimates**
Wages	11,775,329,387	11,234,886,023	8,629,514,000	8,629,514,000
Goods and services	13,758,352,288	58,365,028,456	12,378,990,000	23,311,990,000
Census and support to UBOS	0	0	90,547,957,000	33,601,957,000
Total operating expenses	25,533,681,675	69,599,914,479	111,556,461,000	65,543,461,000
Transfers to treasury	78,218,443	18,337,500	0	0

Source: UBOS financial statements (actual) and Ministry of finance budget estimates

Government ministries, departments and agencies have statistical units or data/information divisions that form part of the NSS and which are also responsible for data, statistics, information. The budget supports these units, albeit minimally. The Ministry of Agriculture,

Animal and Fisheries, for example, allocated 3.5% for statistical production in its 2014/15 budget and estimated a lower 2.6% for 2015/16.

Table 11: Statistics budget from the Government of Uganda to the Ministry of Agriculture, Animal and Fisheries

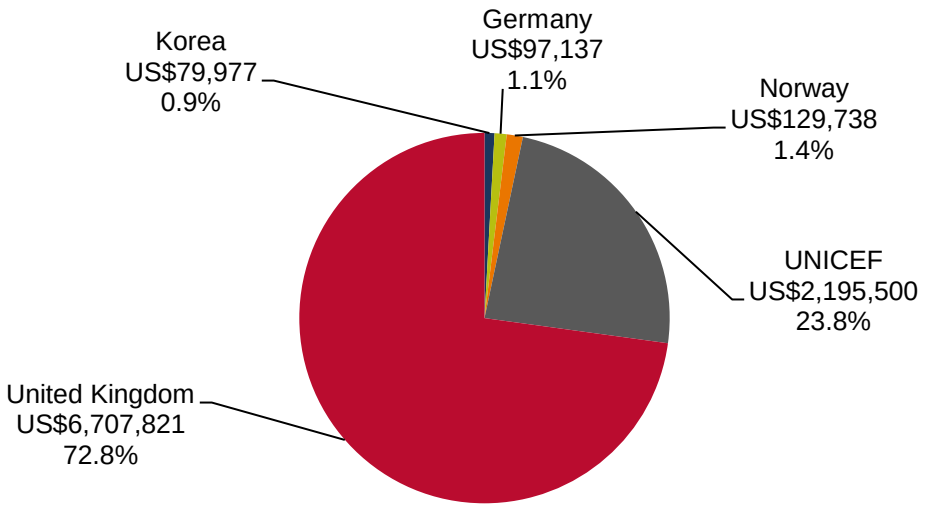
Year	2014/15 budget (UGX million)				2015/16 estimates (UGX million)			
Expenditure type, millions	**Wage**	**Non-wage**	**Develop-ment**	**Total**	**Wage**	**Non-wage**	**Develop-ment**	**Total**
Agricultural statistical unit	-	800	-	800	200	900	-	**1,100**
Plan for national agriculture statistics	-	-	1,499	1,499	-	-	1,356	**1,356**
Policy, planning and support services	2,357	8,327	9,569	20,253	2,398	23,795	17,939	**44,133**
Ministry of Agriculture, Animal and Fisheries	-	-	-	65,460	-	-	-	**93,216**
Percentage to statistics in the department	0	9.6	15.7	11.3	8.3	3.8	7.6	**5.6**
Percentage to statistics in the ministry	-	-	-	3.5	-	-	-	**2.6**

Source: Ministry of Finance, 2015 Annual budget estimates

External financing

Donor support to statistics, between 2009 and 2013, indicate disbursements total of US$9.21 million (average of US$1.84 million per year); however, none was reported to be going to UBOS directly. The majority of this support was provided by the UK (73%), followed by UNICEF (24%); other donors include Norway, Germany and Korea.

Figure 10: Total donor spend on statistics in Uganda from 2009 to 2013

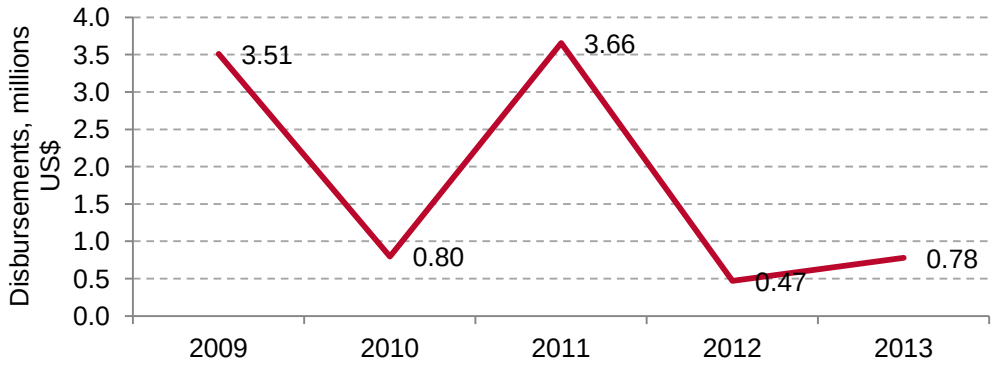


Source: Partner Report on Support to Statistics 2015, PARIS21

Not only is government spending for statistics declining, donor support for statistics is declining and unstable. According to PRESS 2015 data, donor support to statistics decreased from US$3.51 million in 2009 to US$0.78 million in 2013, with higher disbursements in 2011 (US$3.66 million). The irregularity in the trends for donor statistics support is due to unsteady

donor project funding. Unlike UNICEF, other donors have had irregular support for statistics in the country. The UK – the main donor in this area – has dropped funding altogether since 2011.

Figure 11: Annual donor spend on statistics in Uganda from 2009 to 2013 (US$)



Source: Partner Report on Support to Statistics 2015, PARIS21

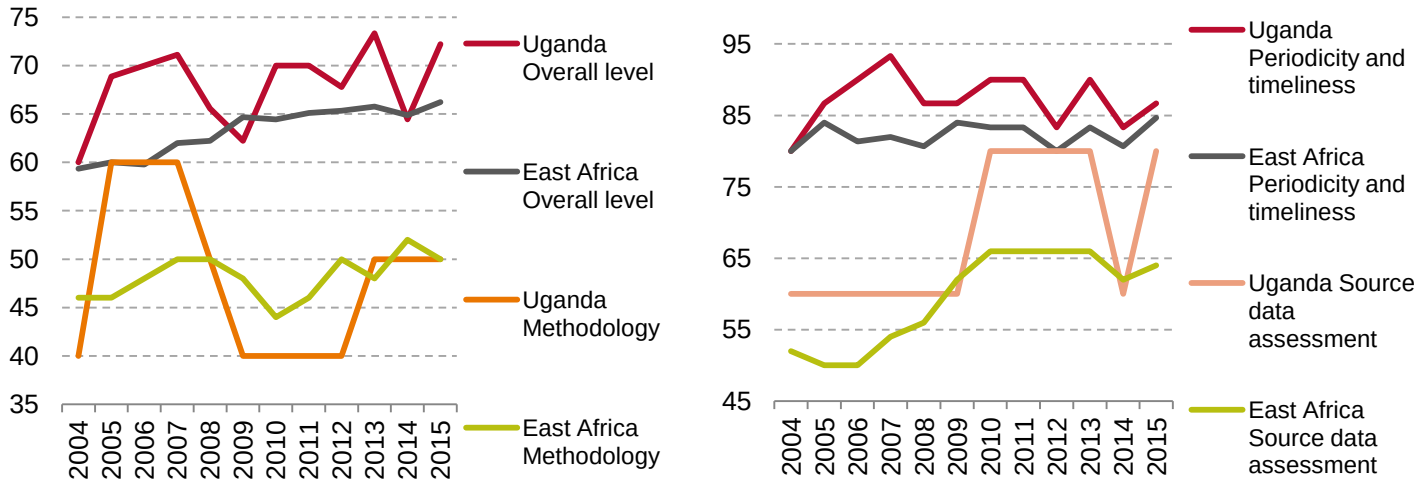
We are aware that the data presented here is incomplete and that more work is needed in this field. A case in point is the Demographic and Health Survey, primarily funded by the USA.

> *"The 2011 Uganda Demographic and Health Survey (2011 UDHS) was implemented by the Uganda Bureau of Statistics from May through December 2011. The funding for the 2011 UDHS was provided by the Government of Uganda, USAID, UNFPA, UNICEF, WHO, Irish Aid, and the UK government. ICF International provided technical assistance to the project through the MEASURE DHS project, a USAID-funded project providing support and technical assistance in the implementation of population and health surveys in countries worldwide."* *Uganda Demographic and Health Survey 2011*

Statistical capacity

UBOS has for many years been considered among the top NSOs in Africa. UBOS statistical capacity assessments from the World Bank indicate that the overall score has been above East Africa's average since 2004. Uganda scores particularly well on periodicity and timeliness, indicating delivery of statistical outputs within standard time. One area in which Uganda does less well is methodology – suggesting that UBOS's ability to adhere to internationally recommended standards and methods can still be improved.

Figure 12: Statistical capacity for Uganda and East Africa (Uganda, Kenya, Tanzania, Rwanda, Burundi)



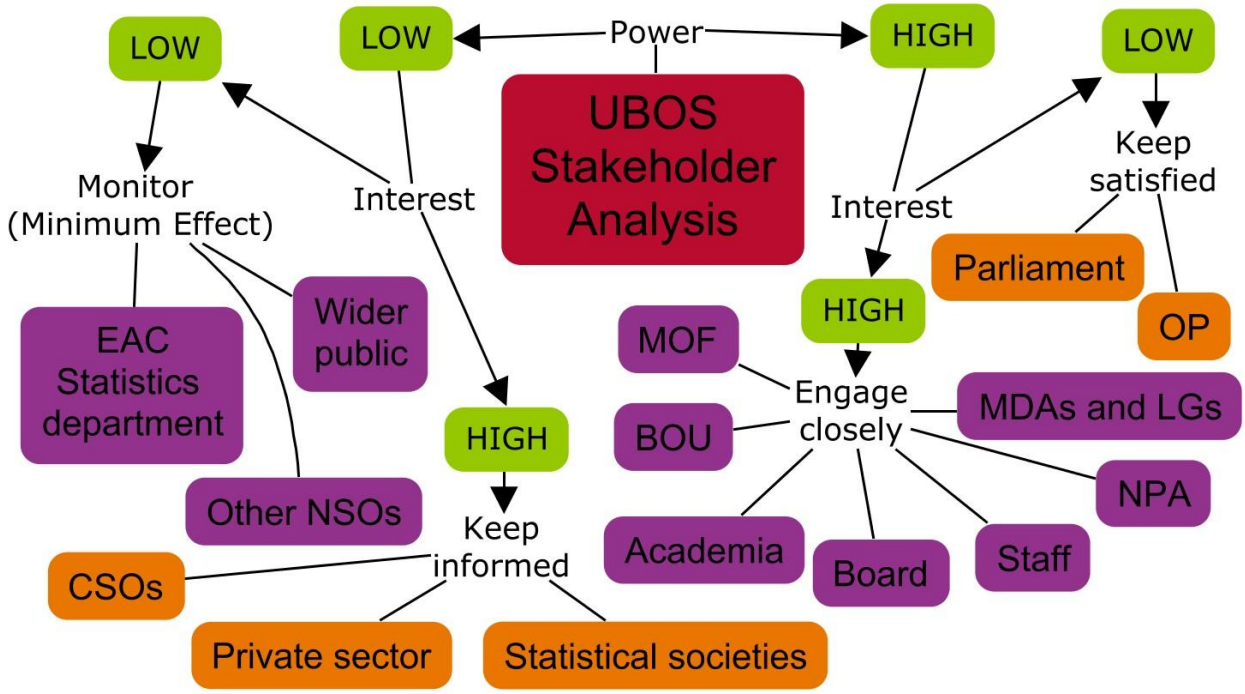
Source: World development indicators (WDI) database of the World Bank

Relationship with ministries, departments and agencies (MDAs)

UBOS considers MDAs as clients and stakeholders in terms of both data use and data production. As data producers, UBOS supports them to build and maintain sustainable systems for data collection, management and dissemination. As data users, UBOS's role is to provide them with high quality statistics that meet their needs in terms of indicator measurement for accountability, planning and decision making.

UBOS engages closely with higher local governments, the National Planning Authority (NPA), the Bank of Uganda (BOU), academia and the Ministry of Finance, Planning and Economic Development, among others. Higher local governments produce subnational data and statistics in areas such as health, education, agriculture, population and budgets. (UBOS, 2014a)

Figure 13: UBOS stakeholder analysis



Source: Derived from UBOS Strategic Plan 2013/14–2017/18

Notes: CSO: civil society organisation; EAC: East African Community; MDA: Ministries, Departments and Agencies; NPA: National Planning Authority; OP: Office of the President; MOF: Ministry of Finance; BOU – Bank of Uganda; NSO: National Statistics Office.

Relationships with other data communities

> *"To ensure that there is a continuous flow of high quality and accessible official statistical data and information and its use especially for public policy, planning and decision-making at every level, the National Statistical System needs to be better planned for and strengthened. The NSS comprises of – data users, data producers, data suppliers and researchers and training institutions – as well as a legal framework underpinning the collection, management, dissemination and use of official statistics." UBOS Plan for National Statistical Development 2014–18*

UBOS regards other non-government data communities as part of the NSS. According to the UBOS Act 1998 *"National Statistics System" includes all agencies in Uganda whether government or not responsible, whether under any enactment or otherwise for gathering statistical data directly through surveys or through administrative action."*

The same act requires UBOS to promote and facilitate development of an integrated NSS and in exercise of its functions, consult and cooperate with other lead agencies with related duties.

Multilaterals

Multilaterals contribute more than a tenth (14.0%) of the primary data in the national statistical system. Half of this is produced by UN agencies. Multilaterals are involved in surveys and support local partners in collecting and reporting evidence.

Figure 14: Key publishers of primary data from multilateral agencies

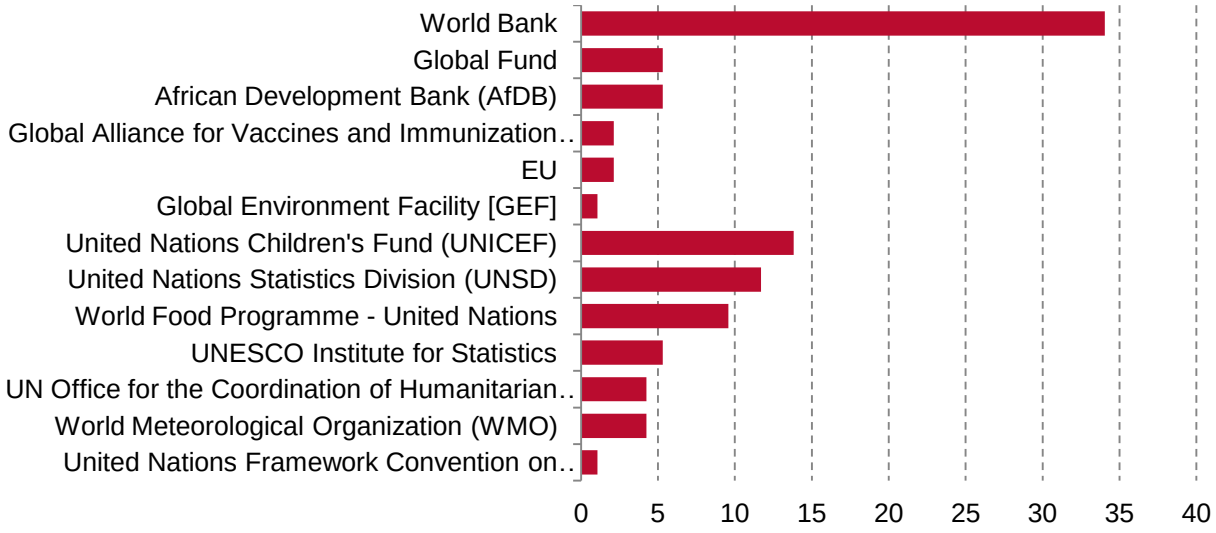
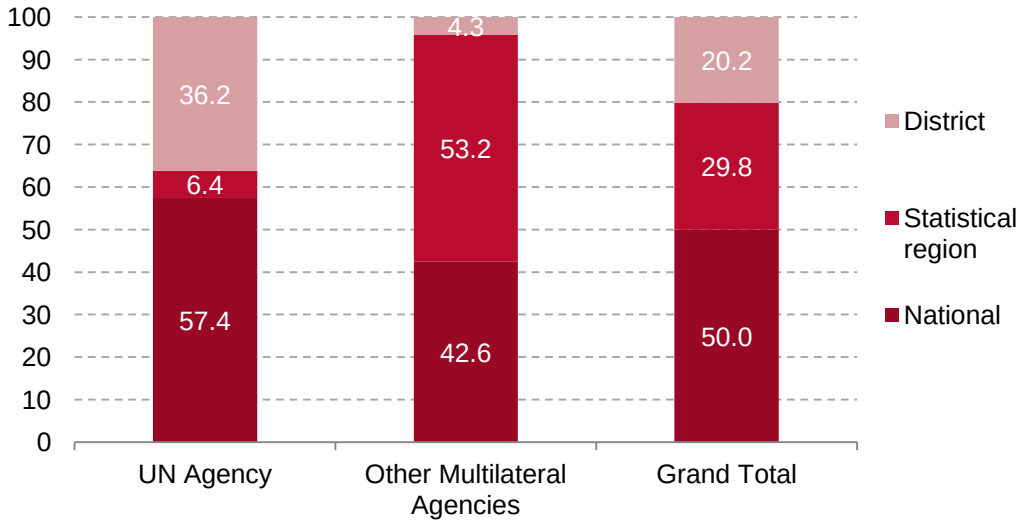


Figure 15: Disaggregation of primary data provided by multilaterals in Uganda



NGOs and the private sector

While data production in Uganda is dominated by government and multilateral institutions there is a small but growing number of organisations from non-official sectors that are entering the frame.

Table 12: Key NGO and private sector publishers of primary data in Uganda. Datasets by level of disaggregation

Organisation	National	Region	District	Total
Research ICT Africa	20			**20**
Secure Livelihoods Research Consortium – Overseas Development Institute		16		**16**
Afrobarometer		14		**14**
Makerere Statistical Consult Limited	7			**7**
Medical Research Council, Uganda and the World Health Organization	7			**7**
INDEPTH Network			5	**5**
International Livestock Research Institute			3	**3**
Anti-Corruption Coalition of Uganda	3			**3**
ActionAid	2			**2**
Climate Change and Africa Political Stability	2			**2**

Academia

In 1980, Makerere University's Institute of Statistics and Applied Economics organised a subregional workshop on the recovery of statistical function in 1980, whose key recommendations included establishing a semi-autonomous, well-resourced central statistics office with regional offices; resuming regular surveys; and developing a work-plan to guide statistics activities in the country. Unfortunately, these proposals were not fully realised until 1986. The institute's efforts are documented in the 1998 UBOS Act, which states that "*The governing body of the Bureau shall be a Board*" and "*The Board shall consist of the following – a representative of the Institute of Statistics and Applied Economics of Makerere University*"

Academia plays a key role in training professionals such as statisticians and analysts involved in collecting, managing, analysing and disseminating data and statistics. This sector also plays a role as data users in producing research and analysis;[5] and as data producers through conducting primary data collection for various research projects.

Academics regularly partner with key data producers to provide expertise and skills in data collection, data analysis and information systems design. In 2014, for example, Makerere University collaborated with UBOS to conduct the Violence Against Children Survey in Uganda.[6]

Key findings

- Table 13 illustrates the main conclusion of this study: the multi-stakeholder national statistical system in Uganda, led by UBOS, is in a very healthy position to press forward with a data revolution that will play a key role in delivering Uganda's Vision 2040 and Africa's Agenda 2063 while also meeting as best it can the shorter-term demands of the global 2030 Agenda for Sustainable Development.

Table 13: **Best practice**: primary datasets in Uganda by publisher and sector that are disaggregated (to district or lower), timely (published since 2014) and accessible (public and online)

Data producer	Health	Demography	Economy	Governance	Social	Education	Agriculture	Business	Environment	Infrastructure	Natural resources	Total
Uganda Bureau of Statistics	1	11		7								**19**
United Nations Children's Fund	5				2	3				1	1	**12**
Ministry of Health	8											**8**
Bank of Uganda			7									**7**
Electoral Commission					3							**3**
INDEPTH Network		1				1						**2**
Ministry of Finance, Planning and Economic Development			2									**2**
African Development Bank					1							**1**
AGRINET							1					**1**
Infotrade			1									**1**
Ministry of Water and Environment									1			**1**
Public Procurement Disposal of Public Assets Authority								1				**1**
Uganda National NGO Forum				1								**1**
Total	**14**	**12**	**10**	**8**	**6**	**4**	**1**	**1**	**1**	**1**	**1**	**59**

- What is more remarkable is that Uganda's statistical progress has been achieved despite a debilitating lack of financial investment and support that has a direct impact on the human and technological capacity available and on operational ambitions. The excellent Community Information System – which requires more funding to extend its scope from 47 to all 112 districts – is facing retrenchment due to a lack of investment.

- A lack of investment is also the major reason for slow progress in developing a functioning civil registration and vital statistics system. UNICEF has supported the establishment of a Mobile Vital Record Systems, which is yielding promising results in registering births, although it is hampered by insufficient funding. Vital statistics derived from registering deaths is literally non-existent.

- Two big challenges face UBOS: the timeliness and frequency of key data products; and the level of geographic disaggregation they contain. These two issues will be a major focus of the second part of this study.

Next steps

- Part Two of this report will take a more qualitative approach to analysing the data inventory. It will identify the most important datasets needed to meet the 2030, 2040 and 2063 Agenda commitments and assess whether they are fit for purpose. It will explore the opportunities and challenges presented by new technologies. And it will attempt to quantify what an ecosystem of interconnected data communities will look like if data revolution rhetoric turns to reality.

- DI will replicate this study for Kenya.

- We will continue to develop and refine our data inventory and the structure of this study to develop a generic template for use in other countries.

- We will collaborate and share with our partners in other organisations and initiatives who are working on similar work streams to build a single common resource for documenting the real-world challenges of the data revolution.

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Notes

[1] It is difficult to collect the whole inventory of non-accessible datasets since most of it is made private and secure.

[2] ACLED is the only data source for the conflict area and is disaggregated up to the sub-county level and indicates exact GPS coordinates for the reported cases. See: www.acleddata.com

[3] UNStat. National quality frameworks. See: http://unstats.un.org/unsd/dnss/docs-nqaf/GUIDELINES%208%20Feb%202012.pdf

[4] How does UBOS determine what statistical data to collect? See: www.ubos.org/uganda-in-numbers

[5] UBOS recognises the need for micro-data by academia in the Plan for National Statistical Development, 2013/14 to 2017/18.

[6] UBOS (2014c) 2013/14 Uganda Bureau of Statistics Annual report. See: www.ubos.org/about-us/ubos-annual-reports