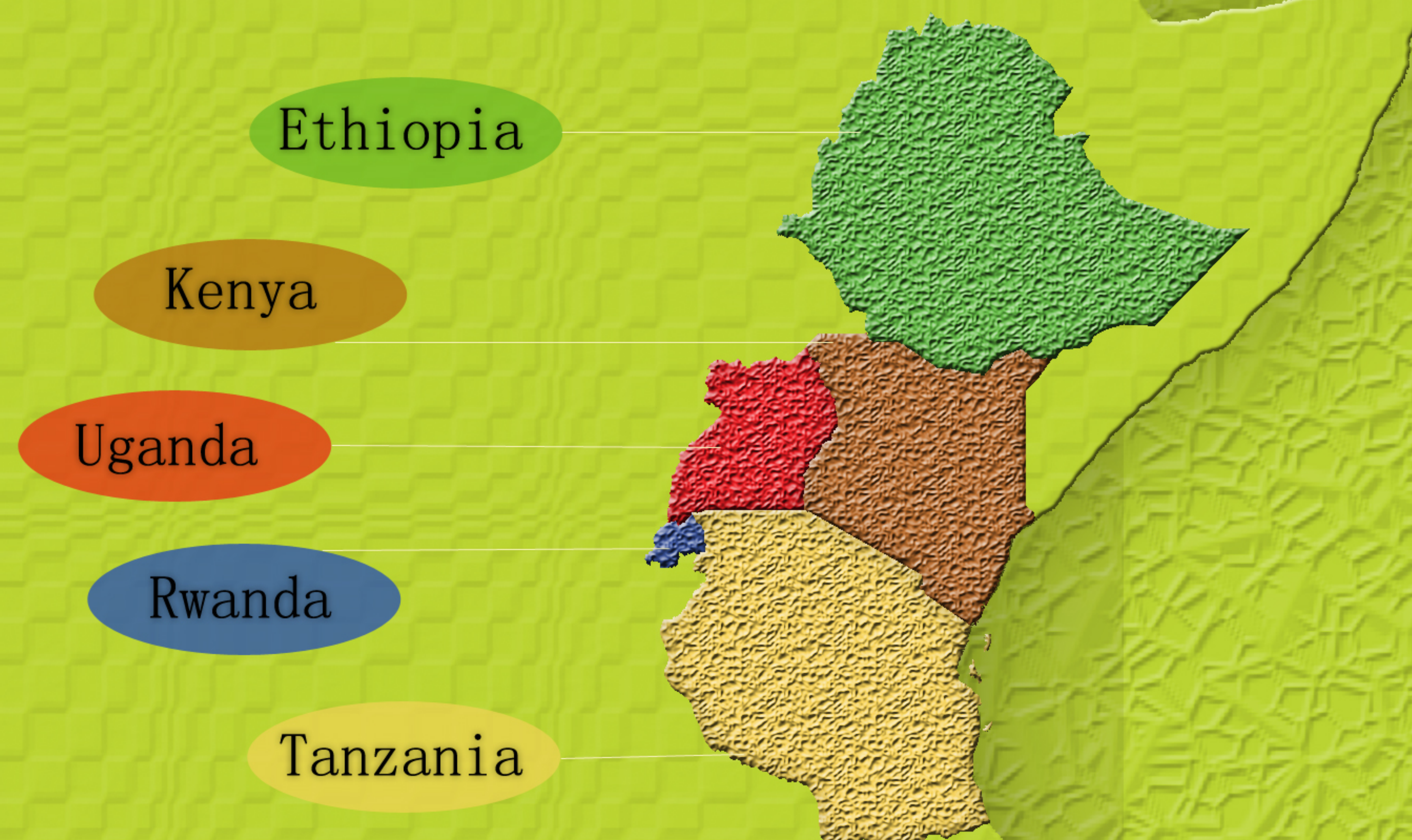


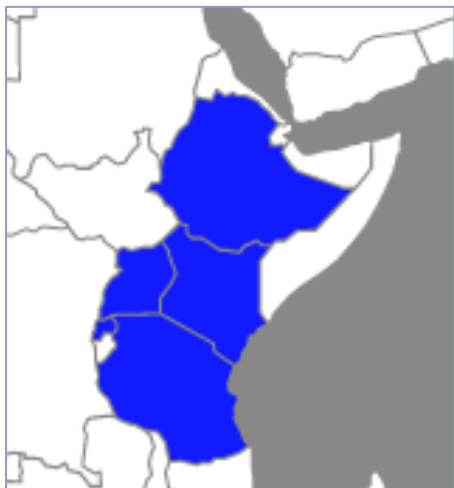
# ADP Regional Quality Assessment

FOCUS : EAST AFRICA



Accelerated Data Program





# **EAST AFRICA**

## **REGIONAL REPORT ON ACCELERATED DATA PROGRAM QUALITY ASSESSMENT 2006-2015**

**OECD/PARIS21**

---



**adp.lhsn.org**

[www.paris21.org](http://www.paris21.org)

---

# Table of Contents



Introduction \_\_\_\_\_ 1

Section 1: Metadata Quality Assessment \_\_\_\_\_ 6

Contact Information of ADP Focal Points in East Africa \_\_\_\_\_ 21

Partnership Information \_\_\_\_\_ 21

*The main objective of this report is to assess the quality and sustainability of the ADP's activities in the 5 ADP participating countries in East Africa. The countries and participating agencies are:*

- **Ethiopia:**  
Central Statistics Agency (CSA)
- **Kenya:** Kenya National Bureau of Statistics (KNBS)
- **Rwanda:**  
National Institute of Statistics of Rwanda (NISR)
- **Tanzania:**  
National Bureau of Statistics (NBS)
- **Uganda:**  
Uganda Bureau of Statistics (UBOS)

## Introduction

The ADP was launched in 2006 upon the recommendation of the Marrakech Action Plan for Statistics (MAPS) to undertake urgent improvements in survey programs for monitoring the Millennium Development Goals (MDGs). With the high-level endorsement in November 2011 of the Busan Action Plan for Statistics (BAPS), the ADP is addressing the BAPS's second priority (i.e., "promote open access to and use of data"). The ADP's goal is **to increase the use and value of survey data**. The ADP supports data producers and users in developing countries by carrying out inventory, documentation, dissemination and preservation of micro-datasets; establishing national and regional survey data repositories to make existing survey microdata more accessible to users; establishing national microdata dissemination policies; and developing and implementing outreach and advocacy programs targeting microdata users (i.e., universities, research centers, independent think tanks, NGOs, development partners, and others) to increase awareness of microdata availability and use of microdata. The ADP takes advantage of tools and guidelines developed by the International Household Survey Network (IHSN).

The ADP is currently supporting agencies in more than 70 countries in Africa, Asia and the Pacific, Latin America and the Caribbean. The ADP was implemented by PARIS21 and funded through contributions from the World Bank Development Grant Facility which began in 2006 and ends in 2015. With the end of the program, a program evaluation was undertaken. Under the tasks and activities undertaken by the ADP, this assessment developed some standardized tools used to render the evaluation comparable across countries in the region and across regions in the world. Over 30 countries in 7 regions were evaluated. The following key areas were evaluated:

- Quality of the metadata produced to describe the household surveys and statistical observation as documented using the DDI
- Quality of the NADA and its visibility for web based dissemination
- A review of the microdata dissemination and data access policies
- Management of users and cultivating relationships with data users
- Institutionalization of the documentation and dissemination processes



Seven countries – Burundi, Rwanda, Kenya, Tanzania, Uganda and Somalia from Central East Africa and the Horn of Africa – are actively participating in ADP initiatives. In total, 29 activities were undertaken in those 7 countries where 478 people from 167 institutions participated in at least one of the ADP activities– Data documentation workshops, NADA administration training or data outreach workshops.

Rwanda is the single country in East Africa which has completed the full ADP activity cycle and successfully institutionalized the microdata management and dissemination processes.

This is a regional report for five East African countries participating in the ADP program. This report will assess each of these areas and compare the performance of the countries in attaining a minimum level or threshold and/or exceeding that threshold. The report will also look at the countries' outlook and ability to respond to the new data agenda being defined by the new SDG measurement agenda and the call for a Data Revolution.

### Summary of ADP Assessment in the Region

Statistical development varies greatly in East African countries. On one part of the spectrum is Ethiopia, the second-most populous country in Africa, with a long history of statistical undertaking in the country. On the other side, is small landlocked country like Burundi with less developed statistical systems. East Africa is the eastern part of the African continent, variably defined by geography or geopolitics. In the United Nations Statistics Division scheme of geographic regions, 20 territories constitute East Africa. However, only six countries are active in ADP activities and five of them (English speaking) are considered for this ADP assessment process. Regional and international agencies like the African Development Bank (AfDB), United Nations Economic Commission for Africa (UNECA) and the country offices of the UNFPA, WB, DFID, ILO, UNICEF etc. are the main supportive partners for the development of the statistical capacities of the member countries in the region.

In its endeavor to support the statistical capacity development of developing countries, the ADP has lent support since 2007 to seven member countries of Central East Africa and the Horn of Africa region, namely Burundi, Ethiopia, Kenya, Rwanda, Somalia (which recently joined the ADP in 2015), Tanzania and Uganda for microdata management and dissemination. With the ADP's support, these countries have conducted a number of workshops in documentation and preservation of their surveys and census microdata and published these in online data catalogs, called the National Data Archive (NADA) found on each of their websites for the dissemination of survey information (data and metadata) for public access. Likewise, formal data dissemination policies were also developed and a number of events were organized for the promotion of data use and engaging with microdata users.

The ADP, in coordination with the National Statistics Offices of member countries, in some cases partnered with the country office of the World Bank and UK Department for International Development (DFID), conducted a number of ADP activities - Microdata Management Toolkit trainings, NADA installation and upgrading

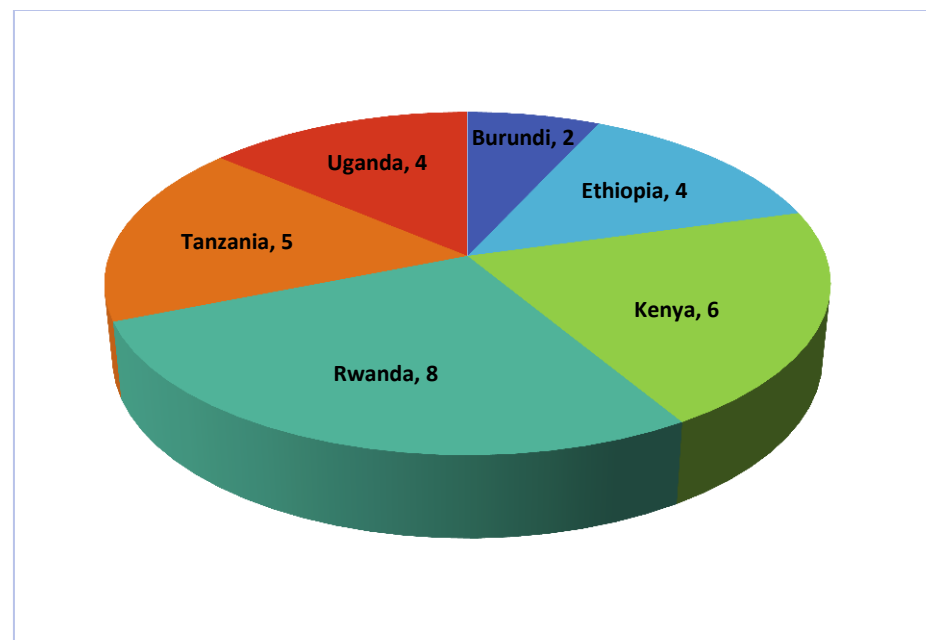


The World Bank Statistical Capacity Score 2015 of East African member countries are:

- Burundi 55.6%
- Ethiopia 68.9%
- Kenya 54.4%
- Rwanda 73.3%
- Tanzania 75.6%
- Uganda 72.2%
- Sub-Sahara Africa 59.9%

workshops, and Microdata Outreach and Advocacy events in the region. The ADP conducted a total of 29 activities in the region and over 428 people from 93 institutions participated and were trained in ADP activities. Figure 1 illustrates how those activities were divided by country. South Sudan was also included in the East Africa work

Figure 1: Number of ADP activities conducted in country



The activities of the ADP are summarized in the input and output visualizations in Figure 2.

Figure 2: Inputs for the implementing ADP initiative in the region

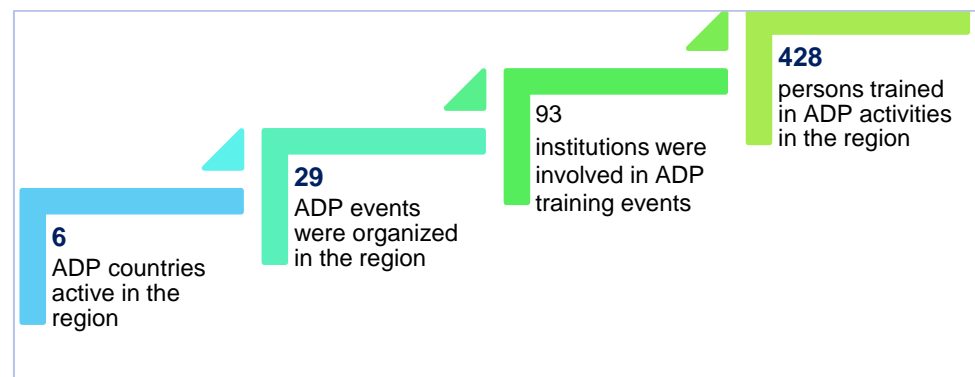




Figure 3 provides the summary of the outputs of the ADP in the region. These are the primary outputs as defined by the goals and objectives of the ADP. \*expenditures only include in-country activities and exclude regional workshops.

Figure 3: Outputs for the implementing ADP initiative in the region



## ADP Assessment

The ADP assessment in South Asia reviewed the following five countries: Ethiopia, Kenya, Rwanda, Tanzania and Uganda. The assessment workshop took place in Nakuru, Kenya in September 7 - 11, 2015.

This report is organized in the following manner:

- Metadata Assessment
- National Data Archives

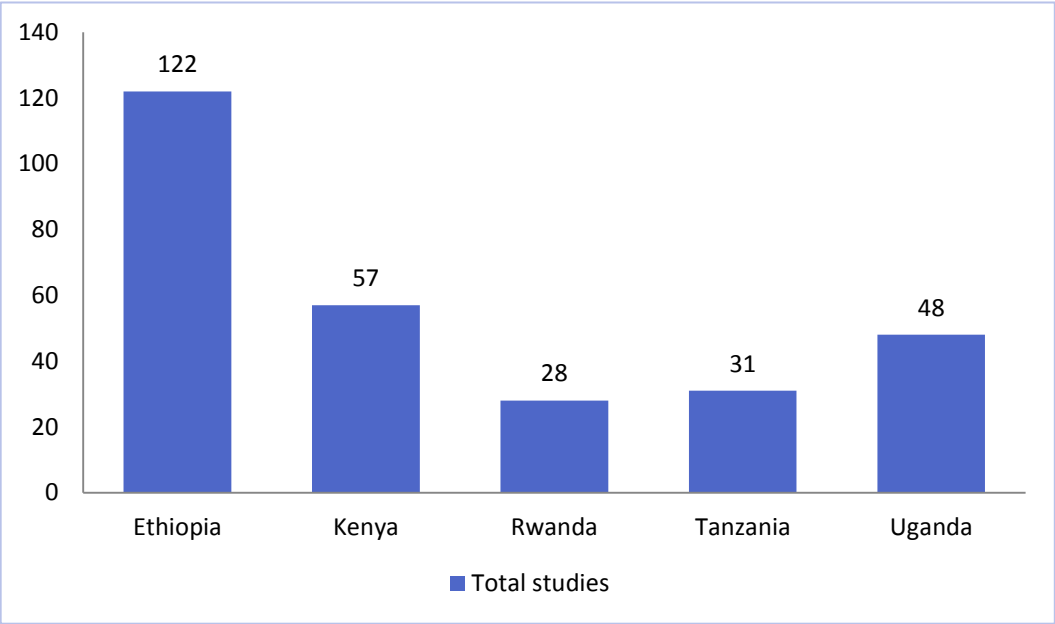


The Central Statistics Agency of Ethiopia (CSA) has the largest number of studies published on its National Data Archive (NADA) among ADP participating countries in Africa.

- Progress in data dissemination and legal constraints
- Institutional commitment and user management

These four areas form the basis for defining key performance indicators which provide a relative measure of how countries performed in the region. The primary outputs monitored are the number of available studies on the National Data Archives. Figure 4 provides an overview of the outputs per country evaluated.

Figure 4: Number of studies available in country NADA



The final section of this report will review the data priorities in the changing environment provided by the need to respond to the calls for measuring sustainable development as defined by the Sustainable Development Goals (SDGs) and look into the innovative approaches in the data process reviewing the statistical processes as defined by the Generic Statistical Business Process Model (GSBPM).

The report also provides a series of recommendations and an estimate of the costs required to sustain the process of data development; catalyze change and assure higher quality data is made available at the right time. Following the regional review, a more detailed country section is provided.



**KEY FACTS****(Metadata quality)**

- The average DDI quality score of East Africa is 62.2%.
- Ethiopia is top of the DDI quality ranking among the 5 participating countries in East Africa.
- Kenya is at the bottom and also has the largest variation in metadata qualities of the studies posted on the NADA .
- Kenya has critical scores in three categories - Data processing, Data appraisal and Variable description.

## Section 1: Metadata Quality Assessment

Metadata are descriptive elements that help researchers and policy makers assess the quality of the data and undertake more effective research. Different standards have been developed by different user communities and, in the case of the ADP, the standard which was introduced was the Data Documentation Initiative (DDI). The DDI is an international effort to develop a standard for describing social science data. It is a standard that is designed to be interoperable and exchangeable for both human and machine exchange. The concept of the DDI and documentation are used interchangeably. The metadata assessment evaluated the quality of the “documentation” from the standpoint of the utility of the information to a researcher. Details of the processes undertaken during the review are provided in the individual country reports.

Table 1 provides the results based on the standard Metadata Quality Assessment tool which was used to perform the evaluation. The scores are based on a scale of 0-100 and evaluate the quality of the information under the primary headers provided.

**Table 1: Summary of the DDI quality assessment in various elements**

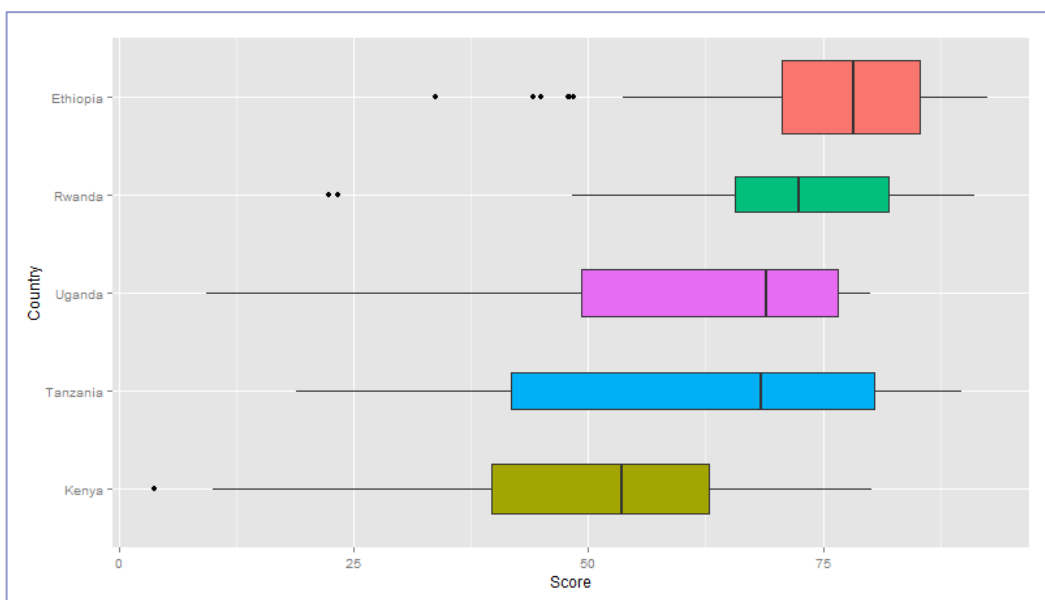
| Metadata category                           | Average score (%) |           |           |           |           |
|---|-------------------|-----------|-----------|-----------|-----------|
|   | Ethiopia          | Kenya     | Rwanda    | Tanzania  | Uganda    |
| <b>Total score</b>                          | <b>77</b>         | <b>45</b> | <b>70</b> | <b>61</b> | <b>58</b> |
| Identification of the study                 | 82                | 73        | 83        | 81        | 78        |
| Version of metadata                         | 47                | 56        | 58        | 46        | 40        |
| Overview of the study                       | 97                | 69        | 76        | 72        | 72        |
| Geographic coverage                         | 93                | 35        | 78        | 76        | 74        |
| Producers and Sponsors                      | 97                | 81        | 89        | 98        | 89        |
| Sampling                                    | 47                | 58        | 53        | 66        | 61        |
| Data collection                             | 64                | 33        | 62        | 43        | 54        |
| Data processing                             | 71                | 17        | 46        | 54        | 32        |
| Data appraisal                              | 49                | 6         | 22        | 28        | 39        |
| Data access                                 | 81                | 24        | 25        | 40        | 27        |
| Data files                                  | 74                | 63        | 77        | 60        | 51        |
| Variable description                        | 91                | 17        | 77        | 55        | 54        |
| External resources (Questionnaire & report) | 80                | 47        | 75        | 58        | 72        |
| External resources (Document's description) | 76                | 42        | 73        | 62        | 64        |
| Metadata citation and use                   | 68                | 64        | 74        | 76        | 63        |
| Study exists in IHSN catalogue              | 74                | 44        | 72        | 67        | 72        |



On average, the region shows a moderate quality in terms of the metadata produced with an overall quality score of 62.2%. Ethiopia ranked first in the regional ranking of the assessment achieving an overall score of 77%. But, it also has low scores in Versioning of the studies, Sampling information and Data appraisal sections. However, Ethiopia did achieve high scores across all other categories. Amongst the five countries, Kenya received relatively low scores and ranked at the bottom. Its scores on Data processing, Data appraisal, Data access and Variable description were critically low.

Figure 5 shows that the variation in DDI scores of all five countries is high. Among the five countries, Ethiopia has the largest number of studies with high quality scores and a relatively small DDI quality dispersion. It has few outliers at the lower end of the quality score scale. Contrary to this, Tanzania has the widest range of DDI quality scores. Its DDI scores range from 89.7 to 18.9, which is mainly due to study version, Data collection, Data appraisal, and Data access which are poorly documented. The DDI quality of the other three countries – Kenya, Rwanda and Uganda - are also not consistent and have a range of about 70 points. Kenya has one outlier with a very low quality score. These countries, particularly Uganda, Tanzania and Kenya, need serious consideration to improve the metadata quality of studies posted on their NADAs.

Figure 5: Range of DDI quality scores by country





**KEY FACTS (NADA quality):**

- The average NADA quality score in East Africa is 71.2%.
- Rwanda ranks on top among the 5 countries in NADA quality, while Uganda is at the bottom.
- Absence of innovations for online promotion of the NADA, the lack of studies cited to publications and not having data dissemination policies linked to the NADA are the elements for the greatest loss of scores.

**Section 2: NADA Quality Assessment**

Through the International Household Survey Network (IHSN), the ADP promoted the use of an online archiving software known as the National Data Archive (NADA). The assessment of the NADA catalog site was conducted through a comprehensive review of evaluating items such as:

- Visibility of the catalog: Is the site well integrated with the primary website and does it have clear links and descriptions?
- Registration: The NADA requires users of datasets to register. This process requires an email exchange which is done at a machine level. The functionality of the registration is critical to maintaining users.
- Search and filters: These are key to browsing the archive and help present information to the user in more efficient ways.
- Data Dissemination Policy: This should be available and integrated into the NADA so researchers can quickly understand the processes of accessing data.
- Citations: The NADA has a functionality to track publications that are using national survey and administrative data. This functionality is considered important for monitoring use.
- Innovation: This measures innovative and creative presentation of the NADA to the user through online tools (such as YouTube clips).
- Days to respond users' queries: How long does the NSO take to data users' queries and requests?

Table 2 shows the average of each of the eight categories. The scores below are based on a range from 0-100.

Table 2: NADA quality scores by category and country

| Category                  | Average score (%) |       |        |          |        |
|---------------------------|-------------------|-------|--------|----------|--------|
|                           | Ethiopia          | Kenya | Rwanda | Tanzania | Uganda |
| <b>Total score</b>        | 69                | 80    | 82     | 77       | 48     |
| NADA visibility           | 57                | 43    | 81     | 81       | 62     |
| NADA Registration         | 25                | 75    | 100    | 100      | 75     |
| Search and Filters        | 100               | 100   | 100    | 89       | 78     |
| Data dissemination policy | 0                 | 0     | 100    | 0        | 0      |
| Data access               | 100               | 100   | 100    | 100      | 100    |
| Metadata and Citations    | 0                 | 50    | 0      | 100      | 0      |
| Innovation                | 0                 | 0     | 0      | 0        | 0      |
| Days to respond           | 100               | 100   | 100    | 100      | 100    |

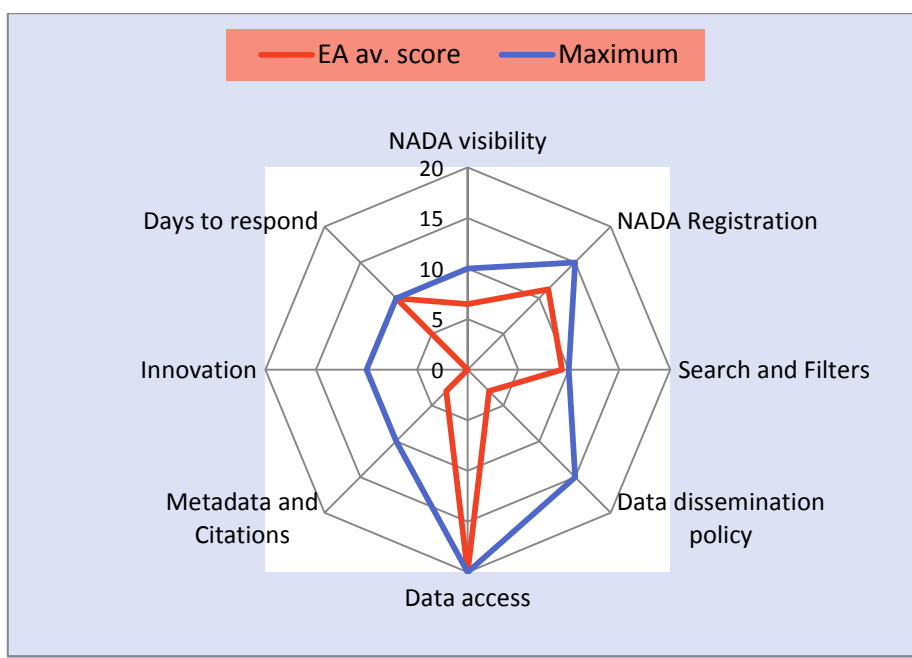


### Main findings

- In general, the overall quality of the National Data Archives is good. The average score for the five East African countries is 71.2%, but the quality variation is high among countries and needs improvement.
- The element which accounted for the greatest loss of score was the absence of innovations for online promotion of the NADA. None of the countries monitored survey use by maintaining a catalog of citations, except Tanzania, and only Rwanda has a data dissemination policy attached to the NADA.
- The categories the countries excelled are the Data access, Search & filters and Days to respond to users' queries. Although the datasets from Ethiopia and Uganda are not directly available online through the NADA application, they are accessible through alternative channels within the same institution.

Figure 6 provides quicken overview of the regional averages of the NADA evaluation scores. The inner box with red boundary represents the relative position of NADA quality of participating East African countries compared to the total quality scores of the NADA in different dimensions (the outside "footprint"). For this evaluation, a great deal of weight was placed on access to data.

Figure 6: Radar diagram of NADA assessment quality for the region





## Section 3: Status on Dissemination

### 3.1: Data Access

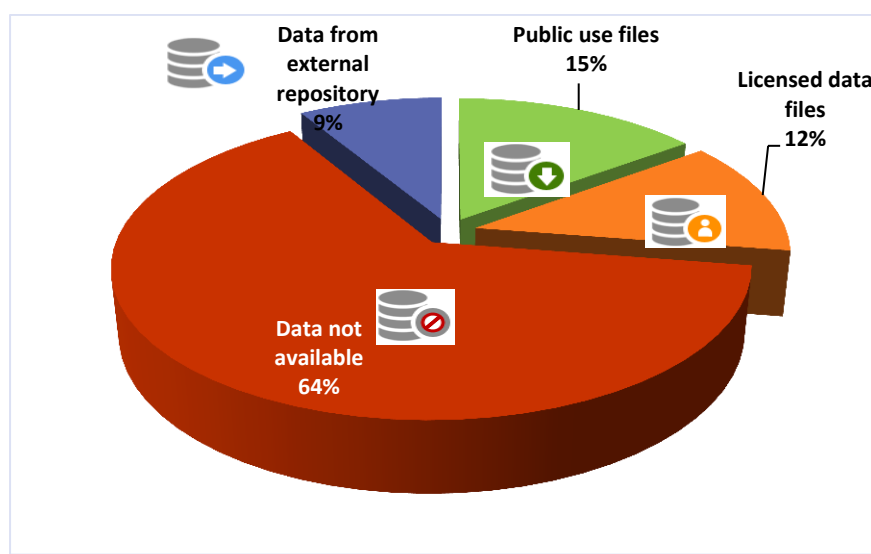
The National Data Archive – NADA Catalog - has five types of data access:

- Public use files: Microdata is downloadable through an online process
- Licensed files: Some data require licensing procedures and more in-depth reviews.
- Data from external repository: A link is provided to the website of actual producer of data.
- Data Enclave: Data is available on-site in controlled environments.
- Data not available: No data is downloadable.

It is important to note that in many cases, although the microdata is listed as “Data not available”, there are other channels of delivering microdata access not specifically defined in the NADA system. These include: data for sale, or walk-in requests for data. Since it was not possible to reflect those other channels in the evaluation scores, it is important to acknowledge that the following scores correspond only to the online channels provided by the NADA.

Normally, the Public use files and licensed data files are accessible to users. Figure 7 provides an illustration of the kinds of data access available through the NADAs. It is good to note that about 27.4% of the documented datasets are readily available through the NADA catalogs of the five countries in the region.

Figure 7: Types of Data Access in 5 countries of East Africa



- Only 27.4% data are accessible online for user access. Most of the datasets are not available from NADA, but could be available from other channels like direct request to NSO onsite.
- All data from CSA, Ethiopia and UBOS, Uganda are Data not available type.



**KEY FACTS (Data dissemination policy):**

- Four countries – Ethiopia, Kenya, Rwanda and Tanzania have a separate data dissemination policy.
- Uganda has drafted a microdata dissemination policy
- Kenya is revising its data dissemination policy.
- The Statistics Act of Rwanda mentions dissemination of unit level data.

### 3.2: Status on the Dissemination Policy & Statistics Act

The East African region is relatively well organized in terms of the data dissemination process compared to rest of the ADP participating countries in Africa. Apart from Uganda, the other four countries have a well-defined data dissemination policy and the microdata are mostly available through their NADAs. Uganda also has a draft policy that has already benefitted from consultation with stakeholders. The draft is in the process of receiving Government approval. The Kenyan National Bureau of Statistics is in the process of their periodic review of their data dissemination policy. The revision will be completed in 2016.

Ethiopia and Uganda do not provide microdata through the NADA, but they have internal procedures and practices for disseminating survey and census microdata to users through other channels. The survey and census microdata are accessible to through channels like onsite data request, on CD-ROMs with payment, etc. Particularly in Uganda, a clear dissemination procedure and calendar is still lacking and data access is provided to users on a case by case basis. It could be expected that the new policy to be finalized will define the dissemination procedure more elaborately.

Table 3 provides a review of the status of the data dissemination policy evolution in each country.

Table 3: Status on Data Dissemination Policy and Statistics Act

|  | Ethiopia        | Kenya           | Rwanda | Tanzania        | Uganda                   |
|--|-----------------|-----------------|--------|-----------------|--------------------------|
| Statistics Act allows Microdata Access?  | NO              | NO              | YES    | YES             | NO                       |
| Is the Statistics act available online?  | YES             | YES             | YES    | YES             | YES                      |
| Dissemination Policy allows Microdata Access (or similar guidelines)?  | YES             | YES             | YES    | YES             | Draft                    |
| Is it for the NSO or NSS?  | NSO             | NSO             | NSS    | NSO             | NSO                      |
| Is the dissemination policy available online?  | YES             | YES             | YES    | YES             | NO                       |
| Regulation of Dissemination Policy includes Calendar of Publications, Type of Users, Type of Data Access per survey, NADA & DDI Standard | YES (partially) | YES (partially) | YES    | YES (partially) | YES (in draft)           |
| Other channels to Microdata Access available?  | YES             | YES             | YES    | YES             | YES                      |
| % Data Accessible through NADA Catalog   | 2%              | 65%             | 75%    | 61%             | 0%                       |
| Progress of Dissemination Policy (if not approved or updated)  | NA              | NA              | NA     | NA              | 75% (for Govt. approval) |



**KEY FACTS*****(Institutional progress):***

- Ethiopia and Rwanda have successfully internalized the microdata documentation, preservation and dissemination processes.
- Kenya, Tanzania and Uganda have developed expertise in data documentation & dissemination, but the process is still supported by ADP funding.
- The 5 countries still lack an internal budget and specific program for NADA promotional and data outreach activities.

## **Section 4: Institutional Progress and Relation with users**

As part of the assessment, a survey was sent to each National Statistics Offices to elicit responses and identify areas where there could be relative strengths and weaknesses in the internalization of ADP processes. The responses of that survey provide the contents to this section. The NSO survey covered areas such as:

- Institutionalization of data documentation activities
- Undertaking data curation activities<sup>1</sup>
- Regional and sub-regional support for data support activities
- Relationship with users

### **4.1 ADP Institutionalization**

- Ethiopia and Rwanda have been documenting new surveys internally as part of the related division's job description. The trained staff from Kenya have also gained the required skills to facilitate data documentation workshop without consultants.
- NADA focal persons in Ethiopia and Tanzania have developed enough skills to handle their NSO's NADA independently and also served as ADP consultants to provide NADA support to neighboring countries. The NADA staff from the other three countries have also gained the required skills and experience to manage, maintain and update the NADA catalog independently, but they still need some external support.
- Ethiopia and Rwanda budget regular internal funding for microdata documentation and dissemination and are self-reliant. The documentation of new surveys and publishing on the NADA are part of the NSO staff responsibilities who are assigned to ITC or data dissemination section. However, it is not specifically mentioned in their job descriptions.

<sup>1</sup> Data Curation is defined as an institutional approach to data documentation that involves a more in-depth management of data and metadata within the archiving and dissemination processes of the NSO.



- With ADP support, a new data dissemination policy has been developed by the National Institute of Statistics of Rwanda in 2014. Uganda has prepared a first draft of the policy and Kenya is working on revising their data dissemination policy.

#### **4.2 Process of documentation and dissemination in the region**

- Ethiopia and Rwanda have internalized the data documentation process in their agencies and have been archiving new surveys and censuses within a certain time frame of release of survey results. The other three agencies have also gained a level of skill to data archiving, but no specific budget has been allocated to data documentation activities in each agency.
- Data dissemination through the NADA is well managed in all five agencies and the NADA maintenance and updating is done as part of each agency's regular budget to IT and dissemination activities. The IT staff/NADA focal person of all five agencies have developed the required skills to carry out NADA administration and maintenance.
- A level of expertise has been developed in all five countries for NADA maintenance and updating, but they may still need support in this regard.
- All five agencies in the East Africa region have high desires and potential to fully internalize the data archiving and dissemination processes in their agencies.

#### **4.3 Regional and subregional support**

- The ADP has developed some experts in national statistics offices and also allocated some consultants to each region for microdata documentation and NADA maintenance. The NSO staff who have developed expertise in data management or NADA maintenance could provide support to another countries or agencies as well as the ADP expert/consultant. In East Africa, the ADP consultants for data documentation are located in Ethiopia, Kenya and Rwanda, and for NADA support in Ethiopia and Tanzania.
- All five countries are aware of the consultation resources available to assist countries in microdata documentation and NADA management.
- All countries responded that there is no regional organization working on data curation, but DataFirst at the University of Cape Town could provide technical support for microdata archiving and dissemination.



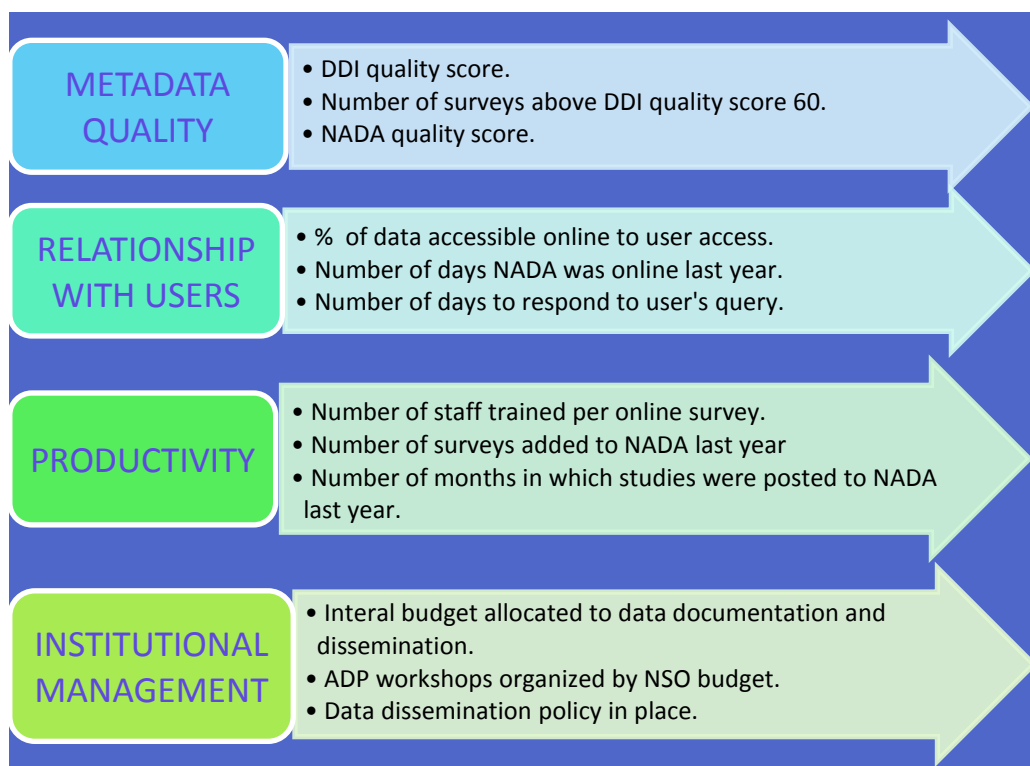
#### 4.4 Relation with users

- Apart from the NADA launching event, all five countries in the region have organized at least one microdata outreach workshop - Rwanda conducted three such workshops with ADP support. No internal budget, however, has been allocated in the yearly program of each NSO for such data outreach and user engagement events. However, the countries, especially Rwanda, have introduced NADA in some other user-producer fora for the release of survey results.
- Normally, the countries receive feedback from users for further improvement of the dissemination processes through e-mails to the NSO and from user-producer fora for the release of survey results. The agencies also respond to users' queries on time, but the agencies do not have a formal procedure to keep users recorded and do not regularly communicate with the users.

### Section 5: Key Performance Indicators

The Key Performance Indicators (KPIs) are designed to provide an overall score based on 4 different criteria each equally weighted. Figure 8 provides a summary of the components of the KPIs used to determine a final score.

Figure 8: Composition of Key Performance Indicator categories





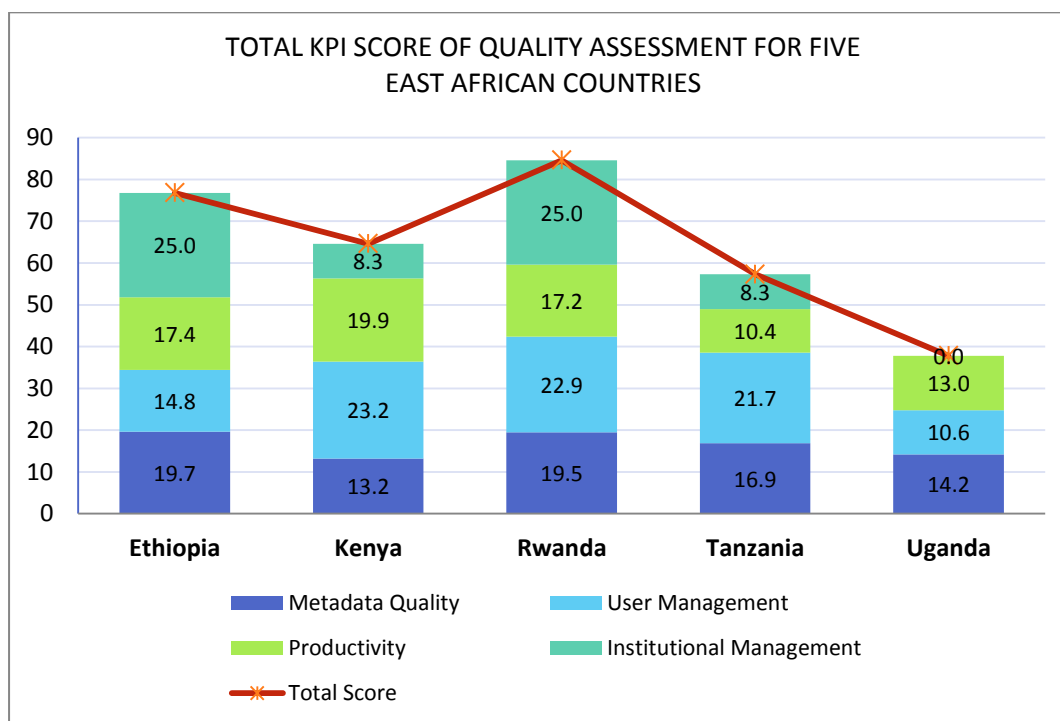
**KEY FACTS**

(Performance indicators):

- Rwanda ranks on top with an overall score of 83 followed by Ethiopia (76), Kenya (60), Tanzania (55) and Uganda (36).
- Rwanda performed well user and institutional management, but relatively weakly in productivity.
- Ethiopia is good at institutional management and moderate in the other three categories.
- Kenya is the best at user management but very weak in institutional management.
- Tanzania has moderate scores in metadata quality and user management, but poor scores in productivity and institutional management.
- Uganda scores "0" in terms of institutional management and has weak performance scores in the other three categories.

Figure 9 shows that Rwanda can be considered the highest performer. This is primarily due to high scores in institutional management, metadata quality and user management. Likewise, Ethiopia, the second best performer also has high scores in institutional management, and metadata quality, but its performance in user management is below average. The two countries that have adopted the data documentation and dissemination tools and standards with greatest commitment are Rwanda and Ethiopia. Kenya and Tanzania are in 3<sup>rd</sup> and 4<sup>th</sup> position but have mostly similar scores. They scored well in user management but need improvements in other dimensions. Unlike the other four, Uganda has the lowest performance score, and this is mainly due to "0" in institutional management and the performances in other three areas which are also weak. Therefore, Uganda can be seen as the country with the greatest room to improve its performance in all four sectors: metadata quality, user management, productivity and, most importantly, institutional management.

Figure 9: Key Performance Indicators for East African countries





## **Section 6: Innovation & Data Revolution**

Tied very closely to the processes of data documentation and dissemination is the ability of an NSO to innovate and adapt to the changing data environment. Indeed, it could be said that the KPIs discussed in Section 5 are proxies of a country's likelihood and ability to be innovative and open regarding data dissemination. As part of this workshop, two days were taken to assess the NSOs attitudes and activities under the 'Informing the Data Revolution Project' (IDR) undertaken by PARIS21. As part of this two day assessment, a special questionnaire was sent to the participating countries in order to assess the "bottle necks" or areas of resistance in improving the data process. This was not specific to microdata but rather evaluated all processes in an NSO using the Generic Statistical Business Process Model (GSBPM). The following are the conclusions:

### **1. General**

Given the differences in the group in terms of population size (ranging from Ethiopia's population of 187.9 million to Rwanda's 11.2 million population), the complexity of NSS governance, platforms, software etc. it was not easy to determine common issues affecting all countries. However, there was agreement on a number of general points.

### **2. NSS Integration and Coordination**

In all cases, there was a lack of integration within the NSS – the role of the statistical office was often secondary to other line ministries and there was little or no central coordination of standards or dissemination of statistics.

### **3. Regional support**

The need for strong regional support and coordination was recognized to establish training programs and expertise, workgroup, and knowledge transfer. Regional organizations could give impetus to the definition of standards and the sharing of best practices possibly also by organizing the exchange of software tools among the countries of the region. Regional coordination could be based on the UNECE HLG template – this was discussed with UNECA and will be followed up. Data communities should be established in line with the recommendations of the African Data Consensus. Regional activities should be coordinated together with existing groups, like the African Group on Statistical Data Management.

### **4. Training**

Training activities could often be implemented at a regional level, training the trainers for many different countries, thereby improving the sharing of experience between



countries. The countries expressed needs for training and expertise in the following areas:

- Backup & recovery – archiving
- SDMX and data exchange techniques
- Modernization of statistical processes
- Seamless end to end solution (using CSPA principles of Service Oriented Architecture)
- Principles of Data Management and Database Management Systems
- Big Data
- Data Warehouse
- Software sharing and Open data/Open source principles

### **5. Dissemination**

There were no dissemination standards used by any of the countries in the group and no centralized data portal including data from other NSS members. Output formats included pdf, Excel, GIS maps, CD-ROMs etc. The critical activities in the final GSBPM phase are those connected with the management of releasing dissemination products. Here, respondents underlined the need to implement a statistical "product catalog" to improve users' awareness of statistical production outputs. Also, a strong push towards digitalization and the related improved timeliness of disseminated data were requested

### **6. GSBPM main "pain points"**

The main processing bottlenecks identified in common in the group by GSBPM sub-process were:

- Design phase: processing and analysis
- Build phase: build or enhance dissemination components, and build data collection instruments
- Collect phase: set up collection, and create frame and select sample
- Process phase: integrate data
- Analysis phase: validate outputs
- Dissemination phase: manage user support

### **7. Areas where specific technical needs were identified:**

- Data backup & recovery
- Big Data sources, techniques and guidelines
- Statistical Data Warehouse technology
- Promote open source solutions
- New tools & methods for data collection – hand-held devices in data collection



- Social media introduction and for web analytics
- Integrating production systems from data collection to dissemination

## **Section 7: Conclusions & Recommendations**

### **7.1 Short Term ADP Type Activities<sup>2</sup> for Follow Up**

- Follow up with Uganda to finalize the data dissemination policy and add up new studies on NADA.
- Support Kenya to revise and update its data dissemination policy.
- Follow up with countries and assure details of the quality assessment is properly transmitted.
- IHSN should include a category "Data available onsite" type in order to correctly define the data access types which are accessible from NSO premises.
- Extend the microdata management process effectively in other research institutes like IFAKARA health institute and sub-regional statistics training centers like EASTC (East Africa Statistical Training Centre).
- Advocate with development partners to require documentation in the statistical activities they sponsor.
- Continue to provide assistance in the quality review of documentations while encouraging countries to internalize the documentation process.
- Encourage the extension of the NADA to manage collections from major data producers in the National Statistical System.
- Support promotion of NADA and data use events, especially targeting the academic users and researchers.

### **7.2 Mid and Long Term Support on Data Management and Dissemination**

Fully sustainable and operational data management systems will always require support, if only for keeping relevant and sharing experiences among the various data producing and using entities in the region. Our point-of-view is that the best actions for assuring sustainable results will require national and regional contextualization; contexts that are

---

<sup>2</sup> The ADP activities include data documentation, dissemination process and promoting data use as well as a continuous relation with users.



focused on increasing data use and applications by innovative local and regional users and researchers. Harnessing this engine of innovation will ultimately provide the bottom-up force for developing responsive national statistical systems.

#### **7.2.1: Regional Context**

Regional support should be promoted particularly within and through organizations that have been given the legal mandate to undertake regional integration. This includes groups like the African Development Bank (AfDB), the United Nations Economic Commission for Africa (UNECA), and the East Africa Statistical Training Centre (EASTC). Regional organizations like UNECA and the AfDB have been also supporting countries on statistical capacity development and production of quality data for policy planning and impact evaluation of national and international development programs. These organizations could collaborate to allocate funds to NSOs and programs designed to support data development, management and encourage a harmonized data dissemination system including both aggregated and unit level data. Demand from the users' side such as the African Development Bank, universities and research groups will provide the necessary push for the NSOs to maintain its data portals including microdata archives.

#### **7.2.2: National Context**

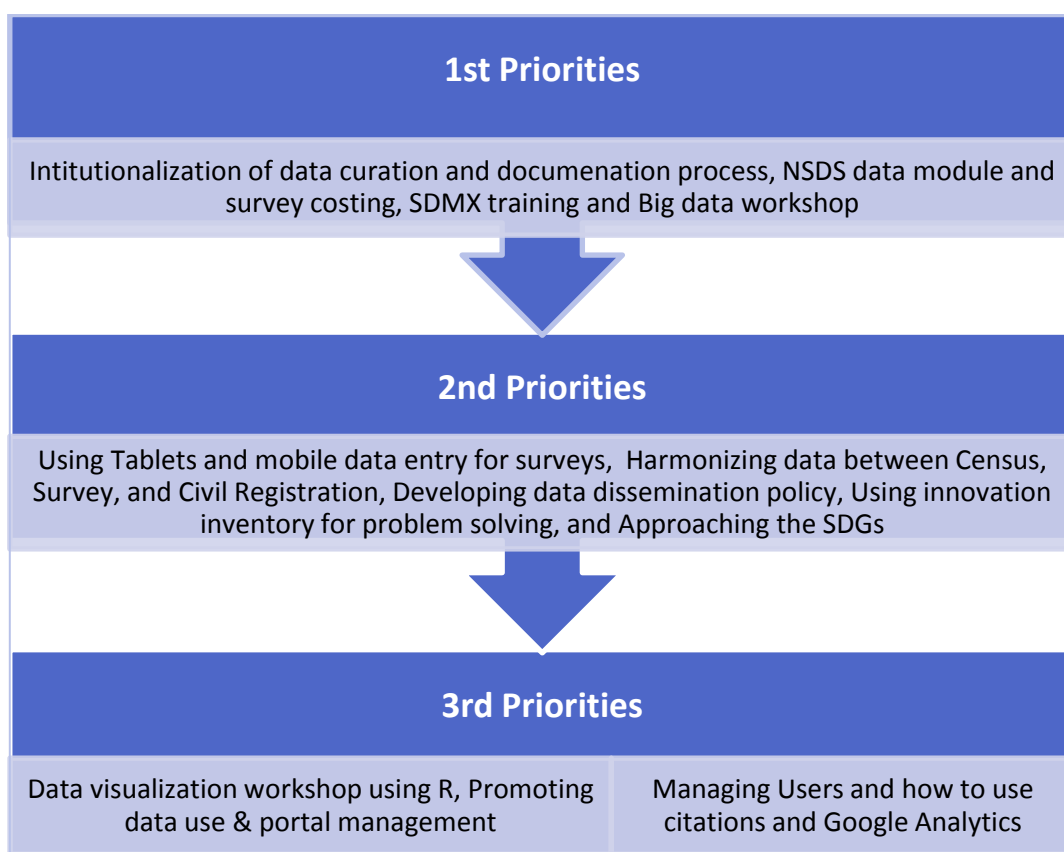
There is a clear desire in the NSOs to pursue ADP activities. Sharing best practices, experiences, and benefits will further promote the use of these tools. There is now a growing demand for microdata and the NSOs are moving to meet this. It is to be expected that other agencies in the national statistical systems will want to be part of the national data archives. The NSO of Ethiopia and Rwanda have successfully developed expertise in data management and dissemination. Kenya, Tanzania and Uganda have also built an adequate level of skill in data management and dissemination. For the sustainability and institutionalization of the process, these activities should be planned in the yearly program of each NSO and supported by internal funding. Furthermore, a comprehensive data dissemination policy or dissemination guidelines are necessary to establish and expand the process in the NSS. The NSOs that have not allowed data access online should review their Data Access policy to allow certain microdata to be shared or disseminated through the NADA. On top of that, a continuous interaction with key data users is vital to add value of the process and receive feedback for further improving the data management and dissemination processes.



## Section 8: Looking Forward

### Country Priority for Post 2015 Data Development Agenda

As part of the forward looking component of the assessment, a questionnaire was sent to each NSO for expressing their priorities for data development activities in view of the post-2015 development agenda. The questionnaire contains 14 options ranging from Data curation, Data harmonization, Dissemination policy design, User engagement, Promoting data use, big data issues and the use of mobile data collection technologies among others. The analysis of the five countries' reporting shows their priorities in following order.





**Contact Information of ADP Focal Points in East Africa**

---

**Biniyam TADESSE**

National Data Archive  
[binihame@yahoo.com](mailto:binihame@yahoo.com)

**Ariv M Severe**

National Data Archive  
[ariv.severe@nbs.go.tz](mailto:ariv.severe@nbs.go.tz)

**Lynn Woolfrey**

Microdata management  
[lynn.woolfrey@uct.ac.za](mailto:lynn.woolfrey@uct.ac.za)

**Ruben Muhayiteto**

Microdata management  
[ruben.muhayiteto@statistics.gov.rw](mailto:ruben.muhayiteto@statistics.gov.rw)

**Partnership Information**

---

**OECD/PARIS21**

2 rue André Pascal. F-75775 Paris Cedex 16

**Tel.** +33.1.45.24.15.04

**Fax** +33.1.44.30.61.43

<http://www.paris21.org/Data-products>





# **A**ccelerated **D**ata **P**rogram

**2006-2015**