



Data sharing among the African Union Commission, the Economic Commission for Africa and the African Development Bank

I. Background

1. Many development partners need data from member States on a continuous basis for their development agendas. The data needed in most cases includes socioeconomic data from countries and overlaps among the different institutions. Partners have been deliberating in various forums on how to curb this duplication of effort and the resulting response burden on member States.
2. Partners at the global level at the Committee for the Coordination of Statistical Activities have been discussing modalities of data sharing among international organizations. The Committee recommended adopting the Statistical Data and Metadata eXchange (SDMX) initiative for data and metadata exchange at the global level.
3. At the regional level, the African Statistical Coordination Committee – comprised of four African organizations, namely, the African Development Bank (AfDB), the African Union Commission, the Economic Commission for Africa (ECA) and the African Capacity-Building Foundation – has taken a number of steps towards coordination and sharing. Notably, the joint *African Statistical Yearbook* is one such initiative born out of the strengthened collaboration among these organizations in their work to address the numerous statistical challenges facing the continent.
4. The principles “Governing International Statistical Activities”, adopted in 2005, states that “sources and methods for data collection are appropriately chosen to ensure timeliness and other aspects of quality, to be cost-efficient and to minimize the reporting burden for data providers” and recommends “sharing collected data with other organizations and collecting data jointly where appropriate”.
5. The present report presents the data-sharing initiatives presently reflected by AfDB, the African Union Commission and ECA.

II. Knowledge-sharing week

A. Objective of the meeting

6. AfDB, the African Union Commission and ECA held a knowledge-sharing week from 13 to 17 June 2016 in Addis Ababa. The objective of the meeting was to learn from statistical production processes in the three institutions. The meeting allowed all participants to propose means of avoiding duplication in data collection efforts by capitalizing on the capabilities and expertise of each institution. This initiative will result in reducing not only the cost of data collection, but also the reporting burden, which weighs heavily on national statistics offices.

B. Presentations and discussions

7. Various presentations were made during the five-day workshop. The three institutions presented their respective statistical activities, products and data collection flows from countries and other data providers. Other presentations included AfDB's Open Data Portal (ODP); a live demonstration of various mobile apps by AfDB; the Executive Statistics Monitor mobile app by ECA; collaboration and coordination of current joint data collection activities, such as the *African Statistical Yearbook* and the African Regional Integration Index; and an overview of the SDMX standard.

8. The workshop also discussed forecasting and modelling activities by AfDB and ECA. The African Economic Outlook macro model was presented by AfDB and its functions – including feeding data and running projections – were extensively discussed. Case studies on the model for specific countries were made. ECA presented the work being undertaken to develop its own forecasting model.

C. Breakaway sessions

9. Following the presentations, two working groups were constituted to discuss ways for the three organizations to integrate their data collection and sharing apparatuses. Group one was tasked with discussing ideas on improving data collection, sharing and flows. Group two deliberated on establishing a common data platform.

10. Group one discussed different aspects of data collection, exchange and flows, and reached consensus on the following issues:

(a) Pan-African organizations (PAOs) should explore ways of using SDMX to improve data collection and exchange among the institutions and among African countries;

(b) PAOs should build internal capacity in the use and implementation of SDMX;

(c) Members agreed to use ODP as a means to collect the data required for the preparation of the 2017 edition of the *African Statistical Yearbook*;

(d) AfDB was requested to share with the other PAOs the results of assessments of national statistics offices and a calendar of release;

(e) All PAOs were requested to share between them all their data holdings available, including in order to leverage the data gaps in the respective institutions;

(f) All PAOs were requested to share their regular data needs to facilitate establishment of common data collection;

(g) A common set of indicators/data was to be agreed upon by the PAOs; however, each PAO was to handle its ad hoc/special data needs accordingly. This common set was to be a living set with expanding capabilities;

(h) Each PAO was to share spatial data with its relevant department in charge of geography information system in its organization;

(i) The PAOs were requested to expand data collection partnerships to other international organizations and United Nations agencies, ensuring a form of harmonization;

(j) Each PAO was to maintain its data portal with interfacing capabilities to one common data platform for the common data set;

(k) The PAOs were requested to make use of the division of labour dynamic existing between them so as to harness the comparative advantage existing in each, for data collection, so as to avoid replication, duplication and burdens; for instance, data on social and demographic statistics was to be collected by ECA, financial statistics by AfDB, and energy statistics by the African Union Commission;

(l) The directors of the PAOs were requested to contact the heads of national statistics offices, to allow access to any and all data provided to the International Monetary Fund (IMF), including private data;

(m) All PAOs should adopt an active data collection strategy, i.e. collection as and when released, hence obtaining the data immediately;

(n) The PAOs were requested to explore alternative sources of data from both within and outside the country, and develop a basic source list that may be referred to, especially when data from the national statistics office was unavailable;

(o) The PAOs should develop a strategy to keep track of all calendars of release of each country;

(p) The PAOs should develop standard metadata frameworks for collection of any statistical data, including citation of sources data;

(q) The PAOs should produce a project document that illustrates a road map of the implementation of data collection and sharing framework among the PAOs.

11. Group two believed that ODP could improve the work of the joint *African Statistical Yearbook* production and that it could be a key aspect of data sharing area to explore for a larger collaboration. This group took stock of the following:

(a) ODP had so far been accessed by AfDB and the African Union Commission only;

(b) The three institutions used a common data collection template for the production of the *African Statistical Yearbook*;

(c) The three institutions currently maintained separate data management systems;

(d) Dissemination of *African Statistical Yearbook* data was done only through the *Yearbook* publication. No other common platform existed for accessing the *Yearbook* data online; however, the three institutions were willing to disseminate their outputs through OPD.

12. The following are the key steps suggested towards a common data platform by the group:

(a) Recommend using ODP as a common place for data collection;

(b) Create an instance for the *African Statistical Yearbook*–ODP as a common set of indicators and require countries to fill in;

- (c) Organize trainings on how to use the platform for data collection and sharing;
- (d) Pilot ODP with a number of countries before going for live production;
- (e) Draw conclusions, and consider applying to the full African countries scale;
- (f) Develop bridges to the different databases that exist in the three institutions.

13. Both working groups concluded that the joint *African Statistical Yearbook* should be the main vehicle driving forward for this collaboration because it was already being produced using a common data collection process that included all three organizations. However, the flaws that underpinned the current process – namely, the absence of a common database to manage data collection and storage – led to confusion among actors and caused frequent delays. To remedy these deficiencies, both groups agreed to use a common platform based on AfDB’s Open Data initiative, which was to be called “Africa Data Portal”.

14. The Strategy for the Harmonization of Statistics in Africa recommended capitalizing on the continent’s flexible as well as international statistical quality frameworks. One of these was IMF’s General Data Dissemination System (GDDS), which has been enhanced (e-GDDS). E-GDDS comes along with the National Summary Data Page, hosted by ODP. ODP also serves as the primary means to disseminate and collect data available under the GDDS framework – further reinforcing the choice of ODP as the most viable tool to host a pan-African statistical database.

D. The way forward

15. Following the recommendations made by the participants at the knowledge-sharing week, as an outcome of the working groups, it was agreed to use ODP to store the *African Statistical Yearbook* data. Success in this endeavour will lay the groundwork for a larger-scale collaboration for common data collection and storage among the three PAOs.

16. The ultimate goal of this initiative is to establish a unique data repository at the continental level available to organizations wanting to access data on Africa. All three agencies will agree on a comprehensive list of indicators that covers their needs. They also share the responsibility for data collection. Once collected, the data available in the repository can be used not only for the *African Statistical Yearbook* but for other needs of the three organizations. The participants also acknowledge the vision and usefulness of the African Information Highway and the benefits of implementing a continent-wide data collection, storage and dissemination system using ODP.

17. The idea behind the African Information Highway is to create an African platform for data collection, exchange and dissemination that includes all countries, as well as regional and subregional organizations. This platform will allow seamless data exchange at the continental level, resulting in a reduced reporting burden on countries and securing easy access to the same data for all organizations interested in collecting data from African countries. Countries will in fact upload the data once in the platform, hence removing the need to fill multiple questionnaires with different formats for each international organization.

18. ODP has been widely tested and accepted as an efficient tool for data collection, exchange and dissemination. During the last four years, AfDB, in close collaboration with IMF, made constant improvements to the platform to

incorporate all the functionalities needed to make the platform perform as efficiently as possible.

19. There seems to be no significant challenge to adapt ODP for the *African Statistical Yearbook*, or for any other data collection activities in general. ODP can accommodate templates that can be filled online or downloaded in different formats (including Microsoft Excel) for countries to report data. Once submitted, this data will be stored in a central common databank within ODP. This centralized databank will allow authorized parties to have the same level of access to all the data in real time, streamlining the platform's governance system.

20. As a first step towards the establishment of the ODP continental data repository (as recommended by the Strategy for the Harmonization of Statistics in Africa and in line with the African Information Highway vision, and in light of the recommendations of the knowledge-sharing week), there is a need to implement data collection for the *African Statistical Yearbook*, which is already managed by the three organizations from data collection to publication.

III. Statistical Data and Metadata eXchange for the *African Statistical Yearbook* production process

21. AfDB, the African Union Commission and ECA have been working for some time to find ways of improving data collection from countries for the publication of the *African Statistical Yearbook*, and have tried a number of tools, including common Excel questionnaires, databases and use of online web pages to submit requested data. Recently, due to the advancement and maturity of tools for SDMX implementation, the three institutions have agreed to also try out SDMX to curb the challenges facing in compiling and standardizing data collection for the *African Statistical Yearbook*.

22. AfDB, the African Union Commission and ECA compile data from African countries. These datasets are shared among the three organizations for validation and production of the *African Statistical Yearbook*. However, the structure of the data and metadata compiled from countries varies significantly and makes it difficult to validate, prepare and aggregate for publishing the dataset in the *Yearbook*. These complexities have been resolved through time-consuming and resource-intensive validation and review of data by the three institutions as well as discussing on a face-face meeting with countries.

23. As a result of these challenges, the three pan-African institutions are currently looking at the SDMX standard to harmonize *African Statistical Yearbook* data exchange through the use of uniform structures and common concept and code list definitions. In recent years, SDMX has been increasingly used to structure and exchange statistical data across a range of statistical domains, across a number of international organizations and in a number of countries. SDMX has been implemented for national accounts, balances of payment, prices, Millennium Development Goals and other domains to facilitate data exchange and dissemination. The launch of the SDMX Global Registry in 2014 has further facilitated the implementation of projects involving several international organizations by providing a central reference point for all global SDMX artefacts. These developments indicate that SDMX has matured enough to support the harmonization and data exchange needs for the *African Statistical Yearbook* and can also be extended to other data needs of the three institutions. SDMX has also proven effective in reducing response burden, machine-to-machine data sharing, and integrating data dissemination with other existing systems such as ODP and legacy databases in other organizations and member States.

IV. Objectives and scope

24. This initiative envisages creating and implementing an SDMX framework for the *African Statistical Yearbook* data exchange among the three institutions as well as national statistics offices, which are main providers of *Yearbook* data. The exercise will cover all data flows among the three institutions and between the 54 national statistics offices. The objective of this initiative is to develop an SDMX framework to describe the data flows. The project is also to showcase an SDMX implementation in Africa which could be an advocacy tool for African member States to go for implementing the tool in their respective national statistical systems.

V. Benefits

25. The project would increase the quality of data from member States as well as standardize data which could easily be used for aggregation at the regional and subregional levels through the use of common structural metadata for their description. Users of the data would also benefit from the availability of a common, modern technical infrastructure for querying data from the public. Participating member States would benefit from a unified set of metadata artefacts describing the data to be transmitted to other international organizations which may need similar indicators. This project therefore represents an opportunity for national statistics offices to standardize and streamline their dissemination of regular data specifically of the *African Statistical Yearbook* to the three institutions.

VI. Issues for discussion during the meeting of the Committee of Directors General of National Statistics Offices/Statistical Commission for Africa

26. The three institutions would like the meeting to deliberate on the following:

- (a) Allowing access to any and all data provided to IMF, including private data to the three institutions;
- (b) Establishment of one-stop data-sharing mechanisms in the national statistical system for development partners to avoid duplication of effort and reduce response burden;
- (c) Support for the implementation of ODP for data sharing for the *African Statistical Yearbook*;
- (d) Support for the use of SDMX for future data-sharing activities.

Annex

Road map for the establishment of a common database for the *African Statistical Yearbook*

No.	Activity	Institute
Phase I: Planning		
I-1	Prepare a draft road map	ECA
I-2	Prepare a report on ODP	AfDB
I-3	Review and revise the draft road map	AfDB, AUC, ECA (lead)
I-4	Agree on the road map	AfDB, AUC, ECA (lead)
Phase II: Development		
II-1	Prepare a current list of <i>African Statistical Yearbook</i> indicators	AfDB, AUC, ECA (lead)
II-2	Prepare metadata item list	AfDB, AUC, ECA (lead)
II-3	Confirm thematic assignment among institutes	AfDB, AUC, ECA (lead)
II-4	Submit proposal of new or revised indicators	AfDB, AUC, ECA (lead)
II-5	Review and revise the metadata item list	AfDB, AUC, ECA (lead)
II-6	Develop ODP <i>African Statistical Yearbook</i>	AfDB
II-7	Train on ODP <i>African Statistical Yearbook</i> (beta)	AfDB (lead) , AUC, ECA
II-8	Agree on the final list of indicators	AfDB, AUC, ECA (lead)
II-9	Agree on the final metadata item list	AfDB, AUC, ECA (lead)
II-10	SDMX training	AfDB, AUC, ECA (lead)
II-11	Compile metadata for all indicators	AfDB, AUC, ECA (lead)
II-12	Prepare documentation of validation rule and aggregation method to be implemented by ODP <i>African Statistical Yearbook</i>	AfDB, AUC, ECA (lead)
II-13	Have a preparatory technical meeting on the questionnaire to be used for ODP <i>African Statistical Yearbook</i>	AfDB (lead) , AUC, ECA
II-14	Design new questionnaire based on the technical meeting	AfDB (lead) , AUC, ECA
II-15	Revise ODP <i>African Statistical Yearbook</i>	AfDB
II-16	Final test of ODP <i>African Statistical Yearbook</i>	AfDB (lead) , AUC, ECA

II-17	Prepare information leaflet on ODP <i>African Statistical Yearbook</i> for stakeholders	AfDB (lead), AUC, ECA
Phase III: Launch		
III-1	Announce the official launch of ODP <i>African Statistical Yearbook</i> and communicate with countries	AfDB, AUC (lead), ECA
Phase IV: Production of the <i>African Statistical Yearbook</i>		
IV-1	Countries fill questionnaire and upload to ODP <i>African Statistical Yearbook</i>	
IV-2	Countries fill questionnaire and upload to ODP <i>African Statistical Yearbook</i>	
IV-3	Internal review	AfDB, AUC, ECA (lead)
IV-4	Produce the first draft of the <i>African Statistical Yearbook</i> and send the draft to countries for review	AfDB
IV-5	Countries validate the data	
IV-6	Internal review by respective institutions	All
IV-7	Have a data reconciliation meeting with partners	AfDB, AUC (lead), ECA
IV-8	Have a validation meeting with countries	AfDB, AUC, AUC (lead)
IV-9	Have a post-validation meeting	AfDB, AUC, AUC (lead)
IV-10	Produce the <i>African Statistical Yearbook</i>	AfDB (lead), AUC, ECA
IV-11	Disseminate the <i>African Statistical Yearbook</i>	AfDB (lead), AUC, ECA
Phase V: Evaluation		
V-1	Prepare questionnaire to evaluate the process	ECA
V-2	Review and revise the questionnaire	AfDB, AUC, ECA (lead)
V-3	Send the questionnaire to stakeholders	AfDB, AUC, ECA (lead)
V-4	Analyse the survey result and prepare an evaluation meeting	AfDB, AUC, ECA (lead)
V-5	Have the evaluation meeting	AfDB, AUC, ECA (lead)
V-6	Submit an evaluation report including the way forward to scale up the common database to other indicators	AfDB, AUC, ECA (lead)