THE AFRICA INFORMATION HIGHWAY INITIATIVE

Enhancing Data Quality, Management & Dissemination in Africa
(www.afdb.org/statistics)

Information Note

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December 2013
1. **Background**

1.1 As part of its statistical capacity-building program, the African Development Bank Group launched the African Information Highway (AIH) initiative in November 2012. The overall objective is to significantly increase public access to official and other statistics in Africa, while at the same time supporting Regional Member Countries (RMCs) to improve data quality, management, and dissemination.

1.2 Under the program, data portals/open data systems\(^1\) with common IT platforms have been developed and installed in all 54 African countries and in 16 African subregional and regional organizations. A description of the applications at AfDB, in RMCs and sub-regional organization is provided in the attached Annex. The AIH initiative involves establishing live data links between the AfDB and RMCs’ national statistical offices, central banks, and line ministries on the one hand (country data), and development partners, international organizations and other users including the general public on the other. This arrangement will facilitate data exchange, validation, analysis, and dissemination among all stakeholders. The system incorporates a data submission tool that will facilitate direct reporting of country data to the AfDB’s data portal, using common international standards, thus positioning the AfDB as a hub for development data on African countries.

**The Africa Information Highway**

1.3 This common IT platform has been installed in all African countries and in a number of subregional and regional agencies.

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\(^1\) Open Data Platform and the Data Portal System are two different concepts. While data portals contain the official national statistical data that are disseminated and fully controlled by the national statistics office, the open data contain data from national and other sources and allow users to create and share content directly on the Open Data Platform or through social networks such as Twitter, Facebook and Blogs.
2. **Rationale for the Initiative**

2.1 Over the years, many African countries have significantly scaled up their data collection efforts but challenges remain with regard to the timely dissemination of the data to users. This problem has been highlighted at a number of pan-African and international meetings in recent years. This was the imperative driving the Busan Action Plan for Statistics of December 2011, which called upon stakeholders to promote full access to official statistics to enhance transparency, accountability, and good governance in developing countries. It was also highlighted at the 4th Statistical Commission for Africa, held in Cape Town in January 2012. One outcome of that meeting was a resolution requesting the AfDB to assist African countries to improve data management and dissemination. Similarly, the African Union Summit of July 2012 called upon the AfDB, AUC, and ECA to support countries to develop effective data management and dissemination systems aimed at open access to official statistics. The Africa Information Highway is a direct response by the AfDB to those requests. It aims at significantly increasing access to quality data for managing and monitoring development results in African countries, including tracking progress on the MDGs. The recent G8 summit of June 2013 echoed the need for open data systems as a way of enhancing transparency and good governance to scale up development effectiveness – the Africa Information Highway aims to turn this aspiration into a reality.

3. **Strategic Thrust of the Africa Information Highway**

3.1 *AfDB as a hub/knowledge center for development data on RMCs:* One of the key objectives of this initiative is to make the AfDB’s Africa Information Highway platform a “one-stop center” for development data on Africa. This will position the AfDB as the primary source for development data on RMCs and underpin its role as a knowledge center for the continent. The system facilitates the timely submission of data to AfDB by RMCs, SROs, and other development agencies, which will then be accessible to all stakeholders and the general public. So far, the International Monetary Fund (IMF), African Union Commission (AUC), regional economic communities (RECs), the Economic Commission’s Joint Research Unit (JRU), and the World Health Organization (WHO) have indicated their readiness to use the AfDB platform as a hub for their data collection from African countries.

3.2 *Promoting the regional integration and harmonization agenda:* The initiative promotes the regional integration and harmonization agenda by linking all RMCs to a common Open Data platform hosted by the AfDB. Through its capacity-building component, it promotes adherence to common statistical methodologies for the collection, storage, and dissemination of data, thereby ensuring comparability and harmonization of data to international standards. This “single source” approach for data management ensures that all data producers will progressively adopt the same methodologies and formats for data production, analysis, and reporting.

3.3 *Reducing the data-reporting burden for RMCs:* Currently, RMCs’ national statistical offices receive many requests for data from international organizations that all need the information in different formats. At the same time, there is an increased appetite for official statistics from policy makers, private sector, researchers, civil society, non-governmental organizations, the media, and the general public. National statistical offices seeking to meet all these demands in a timely fashion are often engaged in repetitive and time-consuming tasks, which are costly in terms of manpower and finances. The AfDB’s Open Data Platform
addresses this challenge in a very effective way. National statistical offices only need to upload data once onto the Open Data Platform using common SDMX standards and formats already agreed upon by all stakeholders. The data so reported in the AfDB’s Open Data Platform will then be made available to users in real time. This will significantly reduce the data-reporting burden for countries.

3.4 **Improving data quality through enhanced adherence to international standards:** The Open Data platform also facilitates the collection, validation, analysis, and sharing of data among countries and with international development partners. This “single source” approach for data management ensures that all data producers will progressively adopt the same methodologies and formats for data production, analysis and reporting. The initiative therefore provides an opportunity for countries to adopt international statistical standards for greater comparability and improved data quality at the country, regional, and international levels.

3.5 **Significantly improving data exchange among RMCs:** The interlinkage of African countries via a common IT platform will allow the seamless exchange of data and other relevant methodological information, thereby promoting best practices in data production, management and reporting. This will significantly enhance data quality and timeliness; improve development outcomes and effectiveness, as well as facilitating comparison of performances across countries.

3.6 **Increasing data access, enhancing transparency, accountability, and governance:** The Africa Information Highway offers policymakers, analysts, business leaders, investors, researchers, students, civil society organizations, non-governmental organizations, and the general public easy access to official statistics from multiple international and national sources. The availability of more reliable and timely development data on African countries will promote evidence-based decision-making, thus leading to greater transparency, accountability and improved governance. This will serve as an advocacy tool to foster an increased level of investment for Africa’s development agenda, from both development institutions and the private sector.

3.7 **Enhancing collaboration with the IMF and other partners:** Since the launch of the AfDB’s Africa Information Highway initiative, a number of requests for collaboration have been received from sister agencies such as the IMF, World Bank, European Union, WHO, FAO, and others. As a first step, the AfDB is scaling up its collaboration with the IMF, in view of the high level of cooperation that already exists between the two institutions, and the reliance of AfDB’s programming and operational activities on IMF data in certain sectors. In this context, the IMF will henceforth use the AfDB system for its own data collection and dissemination needs in Africa. The IMF data collection framework has already been piloted in three African countries (Tunisia, Nigeria, and Rwanda) with coverage to be extended to five additional RMCs by the end of 2013, with full roll-out scheduled in 2014.

3.8 **Enhancing RMCs’ access to capital markets:** One of the key objectives of the AfDB–IMF collaboration on the Open Data system is to assist more African countries to develop national summary data pages, which will be regularly updated. The aim is to speed RMCs’ subscription to the IMF Special Data Dissemination Standard (SDDS), which is used as a benchmark by many investors operating in emerging economies. Subscription to the IMF’s SDDS through the AfDB’s Africa Information Highway initiative will therefore benefit a number of African countries that wish to access capital markets. Currently only five African countries (South Africa, Mauritius, Tunisia, Morocco, and Egypt) subscribe to the SDDS.
3.9 **Platform for the monitoring and evaluation (M&E) of development outcomes:** The Open Data Platform provides an effective tool for the management of national baseline and sector administrative statistical data (Annex). These are crucial for the M&E of sector and national-level development outcomes for projects and programs undertaken by regional governments and development partners. In particular, the Open Data Platform provides the datasets needed for the formulation and implementation of project log-frames and the Results Measurement Framework of Country Strategy Papers (CSPs).

3.10 **Enhancing data support for Bank operations:** The IMF plans to upload its historical data on African countries onto the AfDB Open Data Platform and to use this system for future data collection and updating. The AfDB Open Data Platform will therefore become the reference point and source for both AfDB and IMF data on African countries. With this arrangement, a number of AfDB programming and project data requirements that were previously available only from the IMF will now be accessible via the Bank’s Open Data Platform. The system can also be used by the operations complexes for collecting other country-specific indicators at a much lower cost to the Bank, as countries will provide the data directly and in real time through the data submission tool. The system can also be used to automatically generate standard CSP tables and charts, thus reducing document preparation time.

4. **Challenges for Effective Implementation**

4.1 As with any new and ambitious undertaking, challenges are expected. For instance, many African countries will not initially have the requisite internet infrastructure or bandwidth to gain maximum benefit from the system. Nevertheless, it is evident that data dissemination by all world-class statistical organizations is driven by Information Technology (IT) via the Internet. It is for this reason that the initiative has been designed to incorporate a capacity-building component. Countries are being encouraged to host their own data portal/open data systems, which will require them to have at least the minimum infrastructure in terms of ICT networks, equipment and trained personnel.

4.2 For countries with only limited IT capability and capacity, the AfDB has made plans to assist them. It will host platforms for countries that are unable to do their own hosting until such time as the RMCs have established the requisite infrastructure to maintain their own systems. In the meantime, support will be given by the AfDB to strengthen their IT infrastructure and technical staffing.

4.3 In terms of regional internet infrastructure, a clear trend toward expanded coverage is already evident. The Africa Information Highway initiative will incentivize countries to mobilize investments and develop a robust internet infrastructure, in order to reap maximum benefits from the system. It is envisaged that the Information Highway will operate in all African countries, although for countries with slower internet speeds, navigating the system will be slower.

5. **Conclusion and the Way Forward**

5.1 The Africa Information Highway will create a “one-stop” common platform for reliable and timely development data on African countries for all stakeholders, including RMCs, SROs, RECs, development agencies, and the general public. By design, it promotes the harmonization of methodologies and concepts and the adoption of the common
international standards in the production, management, and reporting of data. The easy exchange of data and access to all users facilitates the sharing of experiences and best practices, thereby enhancing data quality, timeliness and credibility.

5.2 The cooperation with the other development partners in subscribing to the Bank’s Open Data Platform as the single data source of choice on African RMCs will strengthen the Bank’s leadership in advocacy and statistical development in Africa. It underscores the AfDB’s role as the prime knowledge hub for the continent.

5.3 The Highway will further promote the development effectiveness of the Bank’s operational engagements and those of other development partners in RMCs. It provides an effective coordination framework for the formulation, implementation, and M&E of national and regional development strategies among governments, development partners, and the private sector. It therefore contributes to the management for results agenda and to increased transparency and accountability.

5.4 This initiative presents a unique opportunity for the AfDB to take the lead in the implementation and promotion of international statistical standards across all countries in the region and in enhancing the quality of the data disseminated by African countries. By revolutionizing data management and dissemination in Africa, the Highway will support the continent’s efforts to engage more effectively in the global information economy.

5.5 Within the Bank, ESTA will initiate discussions with various departments to ensure that their specific data needs for operational, policy, research, and other activities are fully addressed through this initiative. In this regard, the AfDB’s Africa Information Highway provides a robust framework that will, to a large extent, successfully meet the Bank’s programming, operational, and other data requirements. In its consultations with various Bank departments, ESTA will also assess the added value that could be made available through its ongoing collaboration with the IMF, and from other sources accessible via the AfDB’s Open Data system.
ANNEX

1. APPLICATIONS AT THE AFDB

2. APPLICATIONS AT THE COUNTRY & SUB-REGIONAL LEVELS

3. PLANNED SYSTEMS BEING PILOTED IN SELECTED COUNTRIES
1. APPLICATIONS AT THE AFDB

(A) The Open Data Platform

The AfDB’s Open Data Platform is a user-friendly tool for extracting data, creating, and sharing customized reports, and visualizing data across themes, sectors and countries through tables, charts, and maps. Through the Platform, users are able to access a wide range of development data on African countries, consolidated from multiple international, national official and other sources. Users can visualize time series development indicators, perform comprehensive analysis at country and regional levels, utilize presentation-ready templates or create their own data, visuals, blog, share their views and work with others. The website also provides new users with an introductory video on how maximize their use of the Open Data Platform, tailored to their own specific needs. The platform also facilitates the collection, analysis, and sharing of data among countries and with international development partners.

(B) Data Portal System

(i) The AfDB Data Portal: The portal contains more than 800 socio economic indicators. The Portal provides multiple customized tools to gather indicators, analyze them, and export them into multiple formats.

(ii) Millennium Development Goals (MDG) Data Portal: This application is similar to the current Data Portal in the Bank but dedicated wholly to MDG goals and indicators.

(iii) Africa Infrastructure Knowledge Portal (AIKP): The AIKP website currently includes information on 24 Sub-Saharan Africa (SSA) RMCs collected over the period 2006-2008 and covering the following sectors: energy, ICT, irrigation, water and sanitation and transport (airports, ports, railways, roads, and urban transport). It also includes information on the fiscal costs relating to each of the sectors, future sector investment needs, sector performance indicators, and unit costs in each sector. The AfDB is currently conducting surveys in the remaining 28 RMCs to collect infrastructure data on these countries which will be made available by the end of 2013. This data and the ensuing knowledge products will be populated in the Bank’s Data Portal as well as on the AIKP website.

(iv) The Africa Food Security Monitor: The Africa Food Security Monitor provides access to data, information, and publications on agriculture and food security in one user-friendly platform. It features a set of visually-compelling tools (advanced graphics and mapping capabilities), a powerful analytical interface, and automated reporting functionality to allow its users to monitor, analyze, and report the state of food security in African countries.

(v) Regional Integration Portal: The database contains information on: economic context; economic performance; growth and key growth drivers; financial integration; trade; business climate; social context; environmental context; and, Bank Group regional operations. The data are grouped at the Africa, country & regional economic community (REC) levels. The database will be extended to integrate information on: political commitment; financial commitment; competitiveness; infrastructure development; RECs Organizational structures, financing modalities for regional integration etc.
(vi) **Africa Trade Monitor**: The application aims to provide a solution featuring visually-compelling maps and a powerful analytical interface to view data in one user-friendly platform. The Africa Trade Monitor allows users to easily monitor, analyze, and report Africa’s trade statistics.

(vii) **The Africa Financial Markets Portal**: The portal provides an all-inclusive platform to navigate the financial sector development indicators, display general information and to offer customized tools for data accessibility, analysis and display.

(viii) **MFW4A Portal**: The Making Finance Work for Africa Portal provides a solution featuring a visually-compelling interactive map, insightful and informative reports and a powerful analytical interface to view data in one user-friendly platform. This application has four major modules including Maps, Data Explorer, Reports and Metadata.

(ix) **The CPIA Data Center**: This tool provides governments, researchers, civil society organizations and individuals a quick access to the historical performance of CPIA scores and ratings produced by AfDB vis-a-vis an important number of external reference indicators. At this stage, the CPIA Data Center offers a total of 120 different CPIA related indicators covering all ADF countries for the period 2004-2010. When possible, the information is offered both in scores and in rankings to facilitate comparative analysis.

(x) **AfDB KPI Dashboard**: This solution provides access to a flexible, graphically rich navigating tool for the Bank quarterly performance. Users can navigate KPIs at the regional and country level using the MAP interface and to customize in several ways several dashboards for all KPIs which are not related to RMCs. The MAP, the DASHBOARD and the ANALYTICAL REPORTS views offer the opportunity to slice and dice data in many ways. Users can create their individual FAVORITES views and every screen offers export facility to Excel, PDF or to printers.

(xi) **The Fragile States Portal**: This web-based application portal consolidates information on Fragile States, providing a one-stop-shop platform to navigate these indicators and their documents and offer customized tools for data management, analysis and display. The Portal features visually-compelling interactive maps, insightful and informative reports and an analytical interface to view data in one user-friendly platform. The availability of this information aims at facilitating the Bank and other stakeholders to make strategic choices and define overall objectives.

(xii) **Operations Database Portal**: This portal is a one-stop-shop web-based platform that consolidates information and data on approvals and disbursements of Bank Group operations on all Regional Member Countries since the inception of the Bank. The approvals information include the traditional loans, grants and lines of credit, private and public equity investments, emergency operations, HIPC debt relief, loan reallocations and guarantee, Post Conflict Country Facility and Special funds operations such as the African Water Fund (AWF), the Rural Water Supply and Sanitation Initiative (RWSSI), the Climate Investment Funds (CIF), the Congo Basin Forest Fund (CBFF). The approvals information are provided on a time series basis with sector, financing instruments, region and window classifications while the disbursements information include only disbursements on loans and grants with sector classification.
DataM: This tool is an agricultural data management tool which has recently been installed at AfDB and is being deployed in RMCs to support agricultural modeling and policy work. DataM is a joint venture with the joint Research Center of the European Union. It is intended to ease the daily work in quantitative modeling and policy analysis in the agriculture sector. It collates data from main databases on agriculture (consumption, production, exports, imports, prices, etc.) in RMCs as well as in other countries of the world and then allows easy data access, exploration, visualization, reporting and analysis. The main advantage of DataM is that it facilitates data harmonization, comparability and policy simulation to inform decision-making in the agricultural sector.

The AfDB Statistics iPad Application: This iPad application was implemented to provide mobile access to key statistics managed by ESTA.

2. APPLICATIONS ALREADY IMPLEMENTED AT THE COUNTRY & SUB-REGIONAL

(i) Country Data Portals: These are official Data Portal managed by the National Statistical Offices in each RMC. The Portal provides many advanced features for analysing, visualizing, and reporting socio-economic data on two levels: national and internal district levels. Each Portal includes powerful tools for the administrators to update data and metadata, manage dashboards and many other features.

(ii) The Country Open Data Platform: This is a user-friendly tool for extracting data, creating, and sharing customized reports, and visualizing data across themes, sectors and countries through tables, charts, and maps. Through the Platform, users are able to access a wide range of development data on African countries, consolidated from multiple international, national official and other sources. Users can visualize time series development indicators, perform comprehensive analysis at country and regional levels, utilize presentation-ready templates or create their own data, visuals, blog, share their views and work with others. The platform also facilitates the collection, analysis, and sharing of country data among countries and with international development partners.

(iii) Millennium Development Goals (MDG) Data Portal: This application is part of the Country Data Portal but dedicated wholly to MDG goals and indicators.

3. PLANNED SYSTEMS BEING PILOTED IN SELECTED COUNTRIES

(i) E-Government Data Sharing Initiative: The idea behind this initiative is to help countries link all datasets from various government institutions across the country into a one-stop center knowledge network. This facilitates quick access by senior government officials to key information necessary for decision making.

   a. Global Data Repository and Country Data Repository. With respect to the Global Data Repository, all African countries should have a complete picture on global economic conditions and especially so for their neighboring countries. For that purpose, countries are requesting some help on gathering and updating key global datasets. Similarly, the Country Data Repository will compile all datasets released by government agencies within each country. The
final dataset will be provided to each government agency for analysis, planning and decision making.

b. **Data Portals for most Government Agencies** within each country. Following the success of Data Portals released by all African countries, several countries have requested for similar solutions to be implemented within different government agencies. The following examples have been piloted in various countries:

i. **Central Bank Data Portal and various regulatory applications**: The system has a unified data warehouse and analytical tools for processing financial, macroeconomic, monetary statistics and banking data needed to facilitate effective bank supervision and macro prudential stress testing.

ii. **Ministry of Finance Data Portal**: This solution provides greater transparency and publicity of the budget process and expenditures, and enables: Representation of budget data in visually compelling format, focusing on impactful data visualizations; Accessibility and at-a-glance interpretability of data for a wide range of users; One-stop-shop principle for providing key budget information Government program monitoring and analysis; and Public debt profile monitoring and analysis. The solution is also designed to assess development of a country and its territories, country’s money policy, and financial markets.

iii. **Tourism Portal**: This portal is designed to disseminate tourism data for African countries. The portal provides data from official sources such as World Development Indicators, UN World Tourism Organization, World Travel & Tourism Council, The Travel & Tourism Competitiveness Report, and Africa Infrastructure Country Diagnostics. The portal provides features to analyze, visualize, and report data on the tourism industry, including highlighted indicators and dashboards.

iv. **Customs Data Portal**: This solution is being implemented to disseminate customs data of all African countries. The portal provides many advanced features to analyze, visualize, and report data for different customs stations and procedures. Each portal includes powerful tools for administrators to update data and metadata, manage dashboards, and perform many other tasks.

(ii) **Open Data Solutions for Universities and Research Organizations**. Following the success of Open Data applications released for all African countries, it is only logical to extend this initiative to research communities within each country.

(iii) **Mobile Solutions**. It is important for all African countries to get some visibility to their key statistics within the mobile space. With that vision in mind, two solutions should be considered: one solution for the public and one solution for top government officials.

(iv) **Data Collection Applications**. All African countries are in need of automating their ongoing efforts to collect data from various regional offices. Another initiative should be
considered is crowd-sourcing approach to data collection. Our vision is to expand our current Food Prices Data collection efforts.

(v) **Data Management Application.** The idea is to help African countries manage all the data they currently have and disseminate efficiently relevant statistics to the public and for internal use.

(vi) **Implementation of NSDP for all countries.** In partnership with IMF we would like to help countries build and disseminate on a regular basis their official NSDP. IMF has committed to provide technical assistance for this initiative.

(vii) **Country Infrastructure Monitor:** The idea behind this solution is to compile data on all development projects for a specific country. The project is being piloted in Sierra Leone under the Ministry of Finance. Nigeria has also requested for the application. Following its full development, the tool will be made available to all RMCs.

(viii) **Country Situation Room:** This concept is a logical extension of the E-Government system. The idea here is to take full advantage of all data available for policy making purposes. The intention is to provide countries with a necessary level of technical capabilities to understand statistical relationships between different factors/indicators and simulation capabilities to experiment with different scenarios. This logic will include country national and international level data.

(ix) **DataM:** This tool is an agricultural data management tool which has recently been installed at AfDB and is being deployed in RMCs to support agricultural modeling and policy work. DataM is a joint venture with the joint Research Center of the European Union. It is intended to ease the daily work in quantitative modeling and policy analysis in the agriculture sector. It collates data from main databases on agriculture (consumption, production, exports, imports, prices, etc.) in RMCs as well as in other countries of the world and then allows easy data access, exploration, visualization, reporting and analysis. The main advantage of DataM is that it facilitates data harmonization, comparability and policy simulation to inform decision-making in the agricultural sector.

(x) **Stat TV and Statistics Now:** Two applications should be considered: one for TV stations and one for media outlets (news agencies, magazines, PR agencies, etc.). With these applications African countries will be able to update media agencies with official data on a regular basis.