

Ajakaiye, Olu

**Article**

## Enhancing data generation for national development in Nigeria: Institutional and structural issues

CBN Journal of Applied Statistics

**Provided in Cooperation with:**

The Central Bank of Nigeria, Abuja

*Suggested Citation:* Ajakaiye, Olu (2012) : Enhancing data generation for national development in Nigeria: Institutional and structural issues, CBN Journal of Applied Statistics, ISSN 2476-8472, The Central Bank of Nigeria, Abuja, Vol. 03, Iss. 1, pp. 139-149

This Version is available at:

<https://hdl.handle.net/10419/142061>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

# Enhancing Data Generation for National Development in Nigeria: Institutional and Structural Issues<sup>1</sup>

Olu Ajakaiye<sup>2</sup>

---

## 1.0 Introduction

The concept of data has been defined in various ways depending on the context and purpose. For the present purposes, data can be defined as “factual information used as basis for reasoning, discussion or calculation” (Merriam-webster Dictionary). Correspondingly, data generation for development can be conceived as the process of gathering a body of factual information about the aspects of development of interest for the purposes of reasoning, discussion and calculations around the development status, process and prospects of the society. In this presentation, attention is focused on data generation for the purposes of reasoning, discussing and calculating the status, process and prospects of economic development.

Economic development has also been defined in various ways. Again for the present purposes, economic development will be conceived as the process of economic growth and structural transformation (Ajakaiye, 2002). Clearly, data, as a gathered body of facts about the economy, is a basic requirement in the process of economic growth and transformation. Foremost, facts about the economy are necessary in order to appreciate the current state of the economy in terms of growth and structural change. It is also required to understand the functioning of the economic system and how the growth and structural changes are occurring. On the basis of the knowledge of state and functioning of the economic system, plausible, realistic and attainable targets of growth and structural change can be set for the economy over a specified period of time, be it short (annual or quarterly or monthly), medium (typically 5 years) and long term (usually 10 years and beyond). For these purposes, some form of formal and/or intuitive model would have been constructed and simulated to inform the targets

---

<sup>1</sup>Presented at the Retreat on Enhancing Data Generation Processes for National Development organized by Statistics Department, CBN at Kini Country Guest Inn, Akwanga, Nasarawa State, October 18-20, 2012.

<sup>2</sup>Prof. Olu Ajakaiye is Executive Chairman, African Centre for Shared Development Capacity Building, Plot A21, Mokola Layout Extension, P.O. Box 20247, University Post Office Ibadan.

set. Analyses of data are required for the design of policies and programmes likely to attain the set targets. Data are also required for effective monitoring and impact/outcome assessment.

Against this background, the quality, frequency, timeliness and comprehensiveness of data are of paramount importance for effective development planning, plan implementation and plan outcome. Happily, these pertinent issues are already slated for discussion in this retreat. Therefore, in this presentation, attention is focused on institutional and structural issues in enhancing data generation for development in Nigeria

The rest of the presentation is organized as follows. In the next section, institutional and structural features of the Nigerian economy and their implications for data generation for economic development policies and actions are discussed. Thereafter, some suggestions for enhancing data generation for economic development policies and actions in Nigeria are proposed. This is followed by some concluding remarks.

## **2.0 Institutional and Structural Features of the Nigerian Economy: Implications for Data Generation for Development**

A salient institutional feature of the Nigerian economy is that it is a mixed economy characterized by the existence of institutional arrangement in which the private and public sectors exist and the productive resources are owned and controlled by these economic agents. Available data from the National Bureau of Statistics (NBS) shows that the share of government final consumption expenditure in total expenditure on GDP increased steadily from around 10% in 2007 to about 12.5% in 2011. Similarly, data from the latest release of the World Development Indicators (WDI) suggests that total government revenue excluding grants which was around 8 % in 2004 increased to around 10% by 2008. The indication is that while evidence suggests that, contemporarily, the private sector is dominant in national economic activities, government is the single largest controller of a significant component of national income and expenditure.

Turning to the structural features of the Nigerian economy, there is ample evidence to show that a large part of the economy is dominated by peasant and informal activities. For example, as at 2010, agriculture accounted for about 41% of GDP and distributive trade accounted for about 19% of GDP. Agriculture in Nigeria is peasantry and distributive trade is basically informal.

Each of these features has implications for data generation for development and these are considered in the rest of this section.

## **2.1 Implications of Institutional (Mixed Economy) Feature**

An implication of the mixed economy feature of the Nigerian economy for data generation is that data from the public sector can be obtained administratively while data from the private sector can be obtained through establishment, household and mixed surveys. Administrative data are expected to be generally easier to collect as the various ministries, departments and agencies (MDAs) at all levels of government are expected to keep records of their operations and make them available to interested and eligible parties. When, as part of the civil service reforms of 1988, the departments of planning research and statistics (DPRSs) were established in all MDAs, a major lacuna in administrative statistics was expected to have been solved.

In the minimum, the MDAs at Federal, State and Local Government levels are expected to collect, collate, analyze and publish administrative data on the operations of the ministry. In addition, each ministry is expected to consolidate the data from their parastatals and agencies with theirs to produce a comprehensive administrative data on their areas of operation. Similarly, state ministries are expected to collate, consolidate, analyze and publish the administrative data from their agencies and the relevant departments of the local governments in the state.

The state ministries are thereafter expected to furnish the corresponding Federal Ministries with the state level data for consolidation and publication. Finally, each federal ministry is expected to forward the consolidated administrative data to the National Bureau of Statistics which should, in turn, make these available to all interested parties, including the CBN. For comparability, the processes for data collection and analysis are expected to be standardized.

Experience, however, shows that staff of the DPRSs found it more convenient (and probably more attractive) to concentrate on procurement activities as opposed to the planning, research and statistics duties. Moreover, the skills required to carry out the functions of data generation to aid research, planning and impact assessment within the MDA were generally lacking and there were no sustained efforts to build capacity of the staff. This problem is more severe at the state levels and very precarious at the local government level.

Moreover, in an environment characterized by corrupt practices, data generated by the DPRSs of the MDAs are unlikely to be reliable even if the requisite skills are present in the relevant DPRSs. Relatedly, the integrity of administrative data from the MDAs may also be contaminated by the perceived or real implications for budgetary allocations. The result is that the expectation that accurate and comprehensive administrative data will flow regularly from NDAs remains unfulfilled.

Turning to data from the private sector, two groups of sources can be identified, namely, establishment and household. In modern economies, establishment surveys are the veritable sources of information about production, employment, factor incomes, depreciation, indirect taxes, subsidy on production, corporate income taxes, investment exports and imports. Household surveys are sources of information about household income, consumption expenditure and savings. In such economies, establishments maintain copious data for use internally, for rendering statutory returns to government agencies and for responding to specialized surveys by statistical agencies and researchers.

It turns out that, with the possible exception of the financial institutions, especially banks and other financial institutions, several modern establishments do not maintain copious records even for internal uses. This is particularly the case with small and medium enterprises. Large scale enterprises, including financial sector establishments that do have such data, typically, are reluctant to make them available for various reasons including corrupt practices, tax avoidance and fear of free ridership especially with respect to information on technology, business strategy and related issues. In such situations, establishments tend to maintain different records for different purposes – one for internal management uses, another for mandatory returns to various agencies and yet another for shareholders!! There are indications that this phenomenon is not limited to developing countries as obviated by the startling revelations of the practices of several organizations in the developed countries in recent times. The upshot of the foregoing is that data from establishment surveys should be carefully scrutinized before use.

## **2.2 Implications of Economic Structure**

Data from households are normally obtained through household surveys. Such surveys include employment, income and expenditure surveys conventionally referred to as integrated household surveys. There are also demographic and

health surveys. In the Nigerian context, where a large part of production activities takes place at the household level, especially agricultural production, wholesale and retail trade, establishment surveys will necessarily miss out these activities. Meanwhile, these activities account for about 59 per cent of GDP in 2010. In order to capture data on these activities, the integrated household surveys also include modules on production activities. For agriculture, the practice is to carry out a census of agricultural activities usually every 10 years and carry out sample surveys at intervals between censuses. The benchmarks obtained from the census and surveys are used to estimate agricultural sector output for intervening periods. For distributive trade which is largely informal, the approach is to capture the data as part of the integrated household surveys.

Like establishment surveys, household surveys also have their own challenges in terms of data reliability. Whereas establishments maintain different records for different purposes, households also tend to respond differently to different questionnaires depending on the perceived intention of the questioner by the respondent. Moreover, there are socio-cultural and even political considerations that may influence the reliability of data collected from households. What is generally true is that the response rate tends to be higher and the speed of data collection tends to be faster in the case of household surveys as opposed to establishment surveys. Also, statistical properties of household survey data tend to be better especially if the population census frame is used in the sampling.

### **2.3 Implications of Federalism**

In a federation, data collection is usually on the concurrent legislative list. The only exception is the national population census which is normally on the exclusive legislative list. However, collection of vital statistics is typically on the concurrent legislative list. Needless to say, the institutional (mixed economy) and structural (sectoral composition) attributes of the economy at the national level are manifest in the states and local governments. It has been mentioned that the challenges of administrative data collection, collation, analysis and publication are more severe at the state level and precarious at the local government level. Therefore, the integrity of sectoral administrative data is generally in doubt. Foremost, several states and local governments do not collect the relevant administrative data implying that consolidated data at the federal level is based on incomplete data for lower levels of government. This situation is partly responsible for the incomplete data on state and local government fiscal operations contained in the CBN Annual Reports over the years.

At the Federal level, the National Bureau of Statistics (NBS) is a parastatal of the National Planning Commission. The NBS is charged with the responsibility of coordinating national statistical system, consolidate, publish and store data on all aspects of the Nigerian economy and society with the exclusion of Population Census and related activities which is the responsibility of the National Population Commission. The NBS, therefore, is expected to conduct necessary censuses and surveys required to gauge status of development, illuminate the functioning of the socio-economic system and lately, present prospects of the economy over the medium term. Of note, the NBS conducts monthly surveys and produces the monthly consumer price index and the associated price inflation rates. The organization has been responsible for the computation of the national accounts of Nigeria. Recently, and with active support and encouragement of the CBN, the NBS has started producing quarterly GDP series which are quite instrumental to the conduct of monetary policy. It is also quite remarkable that the NPC and NBS are spearheading the estimation of state GDP in collaboration with the state governments. This initiative should provide vital statistics to the state governments which can be used to gauge growth and structural transformation at that level of government.

The NBS also conducts a series of integrated household surveys on the basis of which it produces analysis of the poverty situation in the country at intervals depending on availability of funds often from donor organizations. The survey results and analysis, like those of other surveys, are presented by state and by geopolitical zones. Quite often, the reports generate considerable controversy as the findings tend to be disappointing to some stakeholders.

Perhaps the most popular data produced by the NBS is the consumer price index (CPI). The CPI is produced monthly on the basis of which the all important inflation rate is computed. Again, this data is presented at state level and by commodity groups. Probably because of its popularity and importance to the monetary authorities, this activity is carried out regularly implying that it is well funded.

Over the years, surveys of establishments in the various sectors are less regular perhaps because they are not directly of interest to major domestic and international constituencies. Meanwhile, it is these sectoral establishment surveys that are necessary for credible national accounts statistics and the input-output tables which reveal the structure and intensity of inter-industry transactions in the economy. Clearly, the accuracy and integrity of the national accounts statistics

will be enhanced if resources are provided to enable the NBS carry out the establishment surveys necessary to provide appropriate and realistic benchmarks for estimating national accounts. Reliance on historical benchmarks and failure to produce input-output tables as well as the Social Accounting Matrix at regular intervals will detract from the accuracy, reliability, integrity, comprehensiveness and information contents of the national accounts statistics. The implication is that such data may not really be reflecting the status and functioning of the economy and hence weaken the analysis of its prospects based on such data. In essence, the development process is likely to be blind!!

Virtually all states have state statistical bureau which is typically part of the ministry of finance and economic planning. These bureau are supposed to develop sampling frames for various sectors of their economy and conduct sample surveys (and censuses where necessary) of activities in their states. However, relatively few of the state statistical agencies are active as many of them face capacity problems in addition to poor funding. The result is that the much desired integrated national statistical system where national statistical data for national development are standardized and consolidated from local government to state government level and subsequently to federal level remains unrealized.

Relatedly, because of the weak statistical systems at the state level in terms of weak capacity and poor funding, most states and virtually all of the local governments do not make effective use of the data produced by the NBS, the CBN and other agencies. In essence, development processes in most states and local governments are relatively blind!!

### **3.0 Suggestions for Enhancing Data Generation for National Development**

From the foregoing, it is clear that there is need for enhancing the data generation processes for development in order to illuminate the development status, processes and outcome. Towards this end, the integrity of administrative data should be enhanced. To begin with, the MDAs at all levels of government should be encouraged to support their DPRSs through provision of necessary funding, equipment and well capacitated staff so that they can produce credible data on all areas of operations of the MDAs, use them internally and publish them for other users. Each DPRS should also be supported to hold regular sectoral producers and users consultative forums with a view to ensuring that the data produced meet the needs of the users and enlighten the users about the strengths and weaknesses of the data set.



All state ministries and agencies should regularly forward their respective administrative data sets to the corresponding federal ministries and agencies for collation, consolidation and publication. The federal ministries and agencies should, in turn transmit the consolidated data sets to the NBS for further dissemination and archiving.

The NBS should regularly interact with the state statistical bureaus to standardize the processes for collecting, processing and analyzing administrative data to facilitate comparability and archiving. Each state bureau should do the same with the local governments in the state.

The NBS and all state statistical bureaus should be properly funded so that they can conduct credible surveys in all sectors of the economy and society at regular intervals. Failure to do so may jeopardize the quality and integrity of the data and hence blur the actual status, processes and prospects of the economy and society. Specifically, the NBS should be fully funded by government to carry out all requisite surveys necessary to produce credible, consistent and comprehensive data. Data collection activities of the NBS should not be dictated almost exclusively by the desires and preferences of international organizations through funding. This situation has resulted in apparent concentration on household surveys at regular intervals than establishment surveys thus rendering the benchmarks used in compiling the national accounts obsolete. Moreover, paucity of such surveys blinds the policy makers to the challenges and opportunities of growth and structural transformation processes in the sectors. Policies and programmes made on the basis of such inaccurate data are likely to be ineffective and, indeed, misdirected.

Correspondingly, the state governments should adequately fund their statistical bureaus so that they can do state level surveys necessary to illuminate the development status, processes and prospects of the states. These bureaus should be well staffed by very competent personnel who can carry out such surveys, process the data and present the results in useful ways to all stakeholders.

Finally, NBS and the state statistical bureaus should regularly dialogue with users of their data in order to enhance the relevance and utility of the data they produce.

In order to standardize the processes and ensure that the most current methodologies are adopted by all state statistical bureaus, the NBS should regularly hold workshops for staff of the state statistical bureaus. Such workshops should also provide opportunity for NBS to enlighten the staff of state

statistical bureaus on the best ways to use the data produced by the NBS and how state level data can be complementary to those of NBS. This will also avoid wasteful duplication of efforts.

The challenges of inaccurate data from establishment and household surveys in developing countries are enormous. With respect to establishment survey data, large and small scale establishments should be encouraged to create and maintain very good statistical units that will produce data for their internal use as well as for other users.

The problem of manipulated data is more daunting in such establishments. One way to address it partially is to regularly audit the data through cross referencing. For example, the responses to key components of industrial survey questionnaires should be compared with the returns the establishments submitted to NEC, CAC, FIRS and PENCOR.

The impurities in the data from household surveys can be addressed through well designed survey instruments with appropriate filters and cross referencing. It may also be useful to translate the questionnaires to local languages ensuring that the translations are as accurate as possible. Survey instruments should be designed taking account of the socio-cultural tendencies in the locality.

#### **4.0 Concluding Remarks**

In conclusion, it must be acknowledged that the quality, frequency, integrity and timeliness of the monetary sector data are generally the highest in Nigeria. However, recent events in the developed world suggest that the CBN should not rest on its laurels. It may therefore be useful to occasionally audit the data from the financial institutions by comparing what they supply to the CBN with what they supplied to other regulatory agencies and the FIRS, for example.

It must also be acknowledged that the CBN supports and collaborates with NBS, universities and research organizations in data collection and analysis. The series of studies on Nigeria's informal sector of the 1990s, the quarterly GDP and indeed the regularity and integrity of the CPI are outcomes of these collaborations. The CBN should consider extending the collaboration with NBS to include decent and regular establishment surveys as this is necessary to produce more current benchmarks, more comprehensive, more reliable and more consistent data to illuminate the growth and structure of Nigerian economy. This is important because the conduct of monetary policy depends critically on data

from the financial sector as well as from the real sectors of the economy. High quality monetary sector data combined with low quality real sector data may result in misdirected monetary policy. In order to avoid this risk, a more elaborate collaboration between the CBN, the NBS and hence state bureaus of statistics should be actively encouraged.

### **Selected Bibliography**

Ajakaiye Olu (2002) *Economic Development in Nigeria: A Review of Experience During the 1990s* (NISER Monograph no. 1, NISER, Ibadan)

Ajakaiye Olu (2003) *The Centrality of Planning to alternative Development Paradigms in African in Bade Onimode (ed) African Development and Governance Strategies in the 21<sup>st</sup> Century: Looking Back to Move Forward: Essays in honour of Adebayo Adedeji at Seventy* (ZED Books, London)

Ajakaiye Olu (2008) *Towards Securing Fiscal Policy Coordination in Nigeria in Paul Collier, C.C. Soludo and C. Patillo (ed) Economic Policy Options for a Prosperous Nigeria* (Palgrave Macmillan, UK)

Bowles R.A, D. K. Whynes (1979) *Macroeconomic Planning* (George Allen and Unwin, London)

Central Bank of Nigeria (Various years) *Statistical Bulletin*, (CBN, Abuja)

CBN (Various years) *Monetary Policy Reviews* (CBN, Abuja)

European Central Bank (2012) *Central bank Statistics as a Servant of Two Separate Mandates – Price Stability and Mitigation of Systemic Risk Proceedings of Sixth ECB Conference on Statistics, April 17-18* (ECB)

National Bureau of Statistics (Various years) *National Accounts of Nigeria* (NBS, Abuja)

NBS (2009) *Annual Abstracts of Statistics* (NBS, Abuja)

NBS (various years) *Socio-economic Surveys* (NBS, Abuja)

NBS (various years) *Economic Outlook* (NBS, Abuja)

National Planning Commission (2009) *Nigeria Vision 20:2020* (NPC Abuja)

National Planning Commission (2010) Transformation Agenda, 2011-2015 (NPC, Abuja)

Taylor L. (1979) Macro Models for Developing Countries (McGraw-Hill Book Company, New York)

World Bank (2012) World Development Indicators (World Bank, Washington D.C.)