

The development direction towards the post-2015 (SDGs) on Korea statistical capacity building experiences

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1. Introduction

South Korea has achieved rapid development over the past 50 years. GNP per capita has increased significantly to \$ 24,000 in 2013 from a mere \$ 79 in 1960, and has changed into a donor country in 2009. In fact, Korea was the ODA recipient the year before that. Korea's economic development practices are regarded as some of the best practices for many countries around the world. Korea's successful economic development is in large part due to it being a societal-based system, built by strong leadership. Therefore, one might use statistical indicators to predict the demand of economic development for such a system for evaluation purposes.

However, many countries around the world, including Korea, are still not exerting a sufficient capacity for measuring social development. The statistics system of most countries is decentralized, not centralized, because there are many limitations on the production of indicators for measuring the development of a society. Nevertheless, KOSTAT (Korea Statistics) has put for a lot of effort in recent years to attempt to compensate for these limitations and inadequate conditions.

This paper hopes to present the desired future direction that the UN would like to pursue by illuminating the recent efforts concerning the development and the promotion measures of the Korean statistical system for measuring social progress.

2. The Improved Practices of the Official Statistics System

a. Adopting Statistics-Based Policy Evaluation, and Reviewing the Central Government Statistical Budget.

Since 2007, KOSTAT has reviewed in advance whether statistics are needed if the national authorities want to establish a new law or amend their legislation. KOSTAT has recommended that it needs to insert an additional article about the necessary statistics if necessary, or to make use of the existing statistics.

KOSTAT has reviewed the central government's statistics budget and has started from the budget of 2011 since the resolution of the National Statistics Committee (Chair: Minister of Strategy and Finance) in 2009. KOSTAT sends the results to the Ministry of Strategy and Finance so that they may reflect upon their suggestions of the estimated statistics budgets before National Congress reviews. This allows us to ensure that the appropriate budget needed for new and improving statistics will be allotted. It also attempts to ensure for the efficient use of statistical resources through the budget cutting of certain statistical similarities and/or duplicates.

Nevertheless, these efforts have not significantly improved the situation in such a way as to actually improve the budget, and the enlargement of manpower of statistical produces based on the statistics budget reviewing system, and the statistics-based policy evaluation system, over a five year period.

b. Building a New Social Development Indicator System

In order to achieve information based society in the 21st century, and to point out exactly what the current status of Korea is, and to assess and diagnose such a society, Korea established a national indicator system named "e- Nara" in 2006. It was also hoped that this system would predict the future situation of Korea through its ability to service 735 indicators. Indicators provided by this system include approved national official statistics, various administrative data, as

well as private data. Citizens, professionals and policy makers can read about the changes through the time series data from the results of policy implementation, but they can also understand the trends on the graph, the analyzed data and the illustrations of the indicators.

KOSTAT has recently built and serviced a national key indicator system for 143 key indicators in 2014. This is to meet the global trend needed to judge a balanced national development situation through a system of indicators made up of a variety of indicators which include economic, social and environmental issues, rather than using a single indicator system. People can now more easily and systematically grasp the existing national development situation. In 2013, for the national selection of key indicators, Professors, Researchers, and Journalists from all walks of life participated and held parliamentary hearings in order to choose those indicators which had been collected through extensive opinions. The system has stratified the national situation for well-being and social progress by 3 main layers: economic, social and environmental sectors. The sectors are composed of 16 areas and 62 sub-areas. In addition, it added the 178 secondary indicators to complement the main indicators, and 128 international indicators for comparison with other countries.

c. Building Administrative Database System for the Production of Official Statistics in Conjunction with Court Data, National Tax Data, Management Data and Others Since 2008

In 2009, Korea inserted a relevant provision into the statistics law on statistical statistics which stipulated that the statistical agencies of the central and local government can request administrative data for use by the head of the public authority, if necessary, to create new statistics. KOSTAT has utilized the administrative data to create new statistics and to complement the existing statistics. 5 of 58 statistics are new, 36 of 58 statistics are complementary statistics that are developed by leveraging statistical administrative data. In recent years, KOSTAT developed an online price index and a mobile migration statistics on a trial basis by using big data for the study of future policy.

The recent developments of Administrative statistics are as follows: individual house ownership statistics, back to farming statistics, wage labor administrative statistics, business statistics for the creation and extinguishment of air emissions accounts.

3. Efforts for the Development of the New Environments

a. To legislate an Administrative Management Law relating to the Establishment of Administrative Data Population Database.

KOSTAT started using the administrative data (DB) which is comprised of 141 different types of administrative data in 2014 in order to create statistics that go back to 2008. Also, KOSTAT has tried to enact an administrative data law to replace the existing survey statistics law, for example, that of the population census, and to promote the creation of administrative data-based statistics in 2015.

The field of statistics is expected to increase the reliability of data by applying statistical quality control, and by ensuring the protection of personal information in the administrative data by using various masking techniques as it builds and increases its statistical bank. KOSTAT also tries to make possible the creation of synthetic statistics using survey statistics, big data and administrative data. Administrative statistics gleaned through management data is expected to continue to gradually increase the number of available statistics. It will be easy to register and publish administrative statistics as the official statistics with the declaration and the certification of a simple procedure without prior authorization in the near future.

b. To Strengthen the Independence of the Statistical Agency Demand from Institutional Policy

When necessary, current statistical agencies working with Korean institutions distribute their results of compiling statistics to a ministry or agency in order to discuss the details related with a policy interest in advance before publishing

these statistics. The neutrality of these statistics could become a matter of concern under this system. For instance, the current system makes use of the asymmetry of statistical information, which can give benefits to certain groups and where elections are concerned, and renders it so that it can undermine the political neutrality of statistics to cause social problems often. Korea will amend the statistics law in such a way that it will prevent to provide statistics in advance no more than 24 hours before it release, for resolving the asymmetries problem of information and preventing the political use of statistics.

c. To Research a Management Method on How to Improve the Statistics Production on Compiling Survey Statistics, Administrative Statistics and Synthetic Statistics.

Due to the complexity of the social and environmental situation, as well as because of privacy protection issues, the survey method used on the website is problematic. Furthermore, it is not a suitable or efficient statistical method where significant cost issues are concerned. However, if we take advantage of administrative data, we can quickly create a cross-linked through the data fusion, and this will render the gathering of statistics much less costly.

In order to take advantage of the administrative data obtained in the management of various government and public corporations, including the statistical advantage with the recent big data, KOSTAT will enable the management and the use of statistical data by switching to a “report,” or a “registration,” system. Because of the commercial purposes of certain enterprises, there is a great deal of limits to the participation of private institutions, However the use of big data has been highly increasing in commercial and public that is also very important to make a official statistics for public use. They make the convergence between public institutions and administrative, which seems to be quite useful, and would be able to service the public better.

The new plan will also reduce the burden of holding onto institutions that give incentives to the statistical agency to support the costs and the manpower to produce statistics. The cost of standardization will support the cost of the building time series of administrative data for the notification or registration of statistics with the national budget. To this end (2015), research will have been done regarding the improvement of statistics management plans and support statistics production from 2016.

4. Problems and Limitations

a. Different Governing Bodies making it Difficult for the Efficient use of Public Data and Official Statistical Data

All public institutions, including government departments, should send their files to the public data portal (www.data.go.kr) of the Ministry of Government Administration and Home Affairs in accordance with the public data law enforcement act of 2014. The data sent to the public data portal in accordance with the law, including the existing public data, is stored of 11, 888 sets out of a full file data, 21, 087 sets, at the end of year 2014.

However, because not all of the public authorities are statistically designated agencies, the statistics of many public institutions have not been used in the public domain. According to the public data law, national security information, personal information, data, certain information of limited use by a third party, including data not of a legitimate license for use, i.e., information from other laws, is prohibited to use.

< Limitations Provision of Public data Supply >

- ✓ According to the "Freedom of Information Act", Limitation Targets of Information: National Security Information, including Personal Information.
- ✓ As Containing the Third Party Right, Invalid License information or Data.
- ✓ Other Laws' Special Provisions.

Because of this KOSTAT cannot receive the required name, address, age and basic personal information on statistics production due to the provisions of the Privacy Act. Namely, individual data received from organizations that have public data for the production of statistics. Analysis linked inter-personal information is difficult to compliment statistics. In fact, it is more difficult to utilize statistics because this information is masked.

Public data is managed by the Ministry of Government Administration and Home Affairs to manage the registration records in public institutions. Official statistics is managed by KOSTAT under the Ministry of Strategy and Finance to coordinate the planning of general economic policy. Thus, there are dual management bodies in different departments, which make it difficult to produce official statistics using an efficient public data.

b. Big Data, Standardized for Official Statistics Data, such as Public Efforts, Lack of Quality Control System.

The decentralized statistical system is such that under no circumstance can the public authorities have influence over data with respect to its quality and use. In the case of South Korea, in 2015 we currently assigned 302 government institutions to produce 58 public institutions of official statistics only. Except for the data of most public institutions, they are not managed by official statistics. A variety of information, such as real-time data which are public and private data that is SNS, mobile location information, stock quotes, currency quotes, the spot prices of agricultural products such as gold, etc. has been used as a management information of the big corporate, however, it has not used as official statistical data that makes problems to perform public policy and small business. Regarding big data it has not a standardized rule or, manual for making international comparisons from the Statistical Office of the world's nations, which will play a major role to make big data the official statistics. There is a lack of research statistics, administrative statistics, general statistics, statistics fusion and principles in management. Existing research Statistics protection of personal information, respondents members, false responses, while increasing the efficiency and effectiveness of the research that is decreasing, cloud information (SNS, mobile location information, online information), and administrative information of various types of information has become critical information in both real life and for national policy.

Therefore, new statistics will have to respond to changes in the paradigm of traditional research, administration and the use of public resources, research statistics, administrative statistics between the big data fusion concept for the creation and understanding of statistics, data standards and the principles and guidelines for the situation required.

c. Lack of Management Principles and compiling of Survey Statistics, Administrative Statistics, Synthetic Statistics

While the efficiency and effectiveness of compiling survey statistics is decreasing due to the protection of personal information, the absent respondent members, the false responses, cloud information (SNS, mobile location information, online information) and administrative information of various types has become critical information in both real life and for national policy. The statistics of national statistical agencies will create new demands to make it easier to gather and process statistics using this important information and will provide official statistics for the users. Therefore, to respond to the paradigm of the change for substituting traditional survey and the understanding of new statistics for the mixed statistics among big data, administration and survey data, the use of public and administration resources, the necessity of survey statistics in the big data era, the compiling method of statistics is needed for the data standardization and the principles and the guidelines for the situation required.

d. Lack of Transparency in Sharing and Publication of Official Statistics.

Under the influence of the government information publication 3.0 (G 3.0: the freedom of information 3.0), KOSTAT tried to reduce the negative side effects surrounding the sharing of information through the statistical inspection, not satisfied with the increased numbers of official statistics. For example, a publication delay, information asymmetry resulted in something disclosure due to the consultation with a particular institution such as a ministry, has to be removed

or inhibited with a systemic stability device for better transparency and to ensure the neutrality of statistics, including the publication of statistics.

In 2013, KOSTAT checked the actions of parties that didn't submit data to the National Statistical Office statistics, as well as certain incorrect practices, all of which hindered the use of statistics, delayed the publication of statistics or statistical results. This resulted in the increase of a higher rate of the official statistics on national statistical data systems (KOSIS) and the users have significantly improved their accessibility of their available statistics. The reason that KOSTAT wanted to increase the release of official statistics and the rate of the stored official statistics in statistics DB (KOSIS: KOrea Statistical Information System) was because recently the new government also presented G 3.0 (the freedom of information 3.0).

- ✓ Official statistics inclusion rate on KOSIS; 75.3%, December 31, 2014 (official statistics of 16.1% p↑ than previous year)
- ✓ The internet users to official statistics: 1,774 million, December 31, 2014 (users of 461 million ↑ than previous year)

However, if the group does not share specific information as proprietary information, it is not conducive to the development of society. Public information shed by enabling two-way communication with citizens is worth contributing to greater national and social development. KOSTAT has made a lot of effort to reduce the asymmetric use of statistics from reluctant departments. Unfortunately, it coordinating efforts still couldn't help to exert the disclosure of statistics significantly.

5. Suggestions for Development Direction: Preferred Role of the UN for the Successful Implementation of the SDGs

The UN just has recommended a voluntary implementation of the national report for its developmental goals of the previous millennium. Each country will pursue SDGs obliged to report the implementation process and outcomes, and evaluate the plans from 2015 to 2030. Also, this report says that the UN is expected to strengthen the participation of civil society in the process of developing indicators to assess the degree of quality of life, such as replacing qualitative growth and quantitative indicators to evaluate the growth of the gross domestic product while agenda setting and implementing goals.

a. Establishing and Supporting the Role of NSO required for the Successful Implementation and the Promotion of Post-2015, SDGs .

For SDGs, it should be easy for the UN to collect a variety of data in order to make mandatory reporting for the national implementation process, outcomes and the statistical indicators required for the evaluation of performance in a timely manner. The UN should make the system mandatory, and disseminate the standardized reporting manual, as well as the evaluation, monitoring and operation of the system, to help build it for the statistics agencies of a country.

For the implementation of the post-2015, SDGs, an organization and budget system is needed. However, each country adopted a decentralized statistical system. This will not be sufficient for the organization and budget of NSO than those of the Korea experiences for the improvement of statistics production environments. Therefore, the necessary organization and budget, along with the required system should be ensured so that the national statistical system can actually run under the principles for official statistics, and be revised in more detail.

b. UN Guidelines Establishing the Implementation of SDGs

The UN should support the unification and strengthen the independence of NSO, the reporting entity Statistical Office, and encourage the neutrality of indicators produced from other ministries.

The UN should provide the scope and definition of official statistics, information security, as well as the standardization procedures and quality control guidelines for statistical surveys, administrative and synthetic statistics.

Using administrative data for statistical production, ensuring transparency of the statistical publication, establishing the role of statistical agencies on statistical capacity-building and coordination should be included on the principles of official statistics.

6. Conclusions

MDG adopted by the UN in 2000 has contributed to the improvement of education, poverty and hunger and the overall health conditions of many countries. However, many countries have a situation that thanks to the improper management of the MDG indicators, statistics capabilities are lacking. Of course, to generate sufficient funds, the WB, OECD (PARIS 21) etc., used for the implementation of the MDG, many countries are still vulnerable of the NSO's statistical capacities, including the building capabilities of statistics production.

In the case of Korea Statistics, the statistical system is decentralized, but the management and the standardization of statistics, the use of administrative data, and the statistical coordination, etc., are still weak due to weak coordination system.

Thus, we should establish the statistical ability to accurately predict the future and evaluate the past and present. If we do so, the world will be able to cooperate in the promotion of post-2015 and the SDGs.

Therefore, the construction of the statistical system easily taking advantage of all data that private sectors could take part in the production of official statistics, the NSOs' independent role of statistics coordination to the other ministries has to be given as soon as possible. Furthermore, the data of the country will be given to the national Statistics Office.

When NSOs (National Statistical Offices) have the right authority to act as a sufficient statistical coordination unit, I think they will successfully play an important role for the promotion of the Post-2015(SDGs) to produce the necessary statistics indicators in a timely manner.

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