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Topic 3: Challenges Facing Each National Statistical Office

Meeting Challenges and Innovating Government Statistics

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I. Introduction

About 3 months ago, on 7 August 2012, the National Bureau of Statistics of China (NBS) celebrated its 60th anniversary. Over the past 60 years, the government statistics in China has been developing and growing through continuous exploration, reform and innovation. The current statistical system has taken international principles and practice and is able to meet the requirements of China's economic and social development. Nationwide statistical survey system has been set up including population census, agriculture census, economic census and regular surveys covering areas such as economic, social and demographic development, scientific activities, resources and environment. We have developed China's national account system based on United Nations' 1993 SNA, and a series of statistical standards and classifications that are consistent with international standards and classifications. Major data collection, transmission, processing and storage have been computerized through networks, and statistical information is disseminated regularly through media and many other channels. Statistical legislation has been reinforced to cover major operations and procedures. The past 60 years also witnessed the organizational development of government statistical system, which consists of NBS and its provincial survey branches, statistical offices of local governments and of line ministries. Statistics has served as important basis for the government in formulating economic and social development strategies, in implementing major economic and social policies, and in providing public services and management. It has also helped enterprises to understand the market in order to make decisions for production and marketing, and facilitated researchers to conduct case studies. It is important for citizens to participate in economic and social activities and for the international community to understand China.

II. Challenges of Chinese Government Statistics

The Chinese National People's Congress approved in last year the "*Programme for the National Economic and Social Development 2011-2015*", with focus on accelerating the change of mode of economic growth, continuing reform and opening to the outside world, safeguarding and improving people's livelihood, in order to promote the sustained economic growth and harmonized social stability. The *Programme* calls for strategic adjustment of economic structure by expanding domestic demand, consolidating agriculture sector, upgrading manufacturing sector, further developing service sector, promoting urbanization and coordinating urban and rural development. The *Programme* also highlights the importance of science and innovation in the course of development, the improvement of welfare of population, and the building of a resource-saving and environment-friendly society. The new situation of development has put forward new requirements, and the government statistical agencies are facing with following new challenges.

1. Dramatic increase in statistical demand. To make scientific and effective macroeconomic policies, the central government needs more comprehensive and better quality economic statistics. To perform their functions in economic and social management, local governments require large quantity of statistical information related to the areas of their jurisdiction. The line ministries ask for data on different industries to fulfill their duty of management and providing relevant services. There is also an increasing demand for statistics from the general public. The current statistical surveys conducted by government statistical agencies could not sufficiently meet those requirements.

2. Extremely complicated situation of respondents. As the world's largest country in terms of population, China has over 1.3 billion people living in some 400 million families at 650,000 villages in 40,000 towns. There are more than 400,000 agricultural production units in China, about 8 million enterprises or establishments and another 30 million small business units engaged in manufacturing and service industries. The society is undergoing a period of rapid development and the economic entities are very active. The dynamic nature of the economy and the large size of mobile population made it extremely difficult and costly for statistical agencies to conduct surveys on population, labour force, households or enterprises.

3. Increasing complexity in organizing statistical surveys. Continuous and profound changes have taken place for economic entities in terms of industries and ownership, and the same applies to population structure, family composition and the social structure. Such changes have brought about challenges when we develop programmes, decide on contents and mode of data collection for statistical surveys.

4. Growing difficulty in collecting data. With the continued economic and social development, the awareness of business and the public in protecting their privacy has been increasing. Respondents are more and more reluctant to provide personal information such as education, marriage, occupation, income and housing, or business information such as financial statements. They are more conscious about the resources and time that might be spent on responding to statistical surveys. As refusals

are increasing, we found it more difficult to obtain data directly from enterprises and from the public.

III . Measures to Innovate Chinese Government Statistics

To face the challenges and to hold the opportunities of development in order to play a greater role in serving the country's development strategy, NBS made analysis on the past experience and practice, the current statistical environment and its advantages, took into consideration the international best practice, and proposed the direction and measures for future reform and development of government statistics in China.

1. Reform of Statistical Methodology

Statistical agencies in China have been improving its survey system over the past years. Further efforts will be made in the following areas:

a) Overall design of statistical survey system. Consolidation is to be made with regard to population census, agriculture census and economic census to clarify their coverage, to coordinate their contents, in order to develop a regular census system that covers all important areas of the national conditions without overlapping or duplication. For regular surveys, approach will be adopted aiming at integrated design of surveys on enterprises, households, natural persons or land plots.

b) Statistics on service industries. Statistics on service industries are relative weak in China and are identified as the area that would be strengthened in future. In 2011, the Chinese government approved *Recommendations on Strengthening and Improving Service Statistics*. According to this document, NBS will take the lead in coordinating with various ministries to set up, on basis of economic census and administrative records, the system of service statistics that could reflect in a comprehensive way the development of China's service industries and the corresponding information sharing system.

c) Statistics on employment and livelihood. The currently separated household surveys on urban and rural households will be integrated to use unified standards, concepts, indicators and coordinated method of sampling and implementation. The labour force survey will be improved to better reflect employment and unemployment status. Labour and wage statistics will be enhanced to show wage differences on various industries or job posts.

d) Improving statistical indicator systems. Efforts will be made to integrate indicators that illustrate the quality, structure and efficiency of economic activities, to improve statistical indicators on science and technology to meet the needs of building an innovation-oriented country. We will also further streamline statistical indicators, re-design statistical report forms for respondents by making available business records of enterprises.

2. Continuous Improvement of Statistical Monitoring System.

a) Statistical monitoring system on income distribution. System has been set up to monitor, on quarterly basis, the level, structure and change in disposable cash income of urban and rural households by province, and on annual basis, the quantity of disposable cash income and its share in national income, the difference in income across regions and industries. Special emphases are put on monitoring the cost of living of low-income groups.

b) Statistical monitoring system on resources and environment. The current monitoring system focuses on energy-saving and reduction of energy consumption of the nation and by province, and on progress of energy saving and reduction of key energy consumption industries or enterprises. Further efforts will be made to develop monitoring system on quarterly energy consumption of key service industries, to set up statistical monitoring system that meet the needs of estimating the green-house gas emission, and to make study on non-fossil energy consumption. Monitoring on projects that return farmland to forest will be continued.

c) Statistical monitoring system on economic performance. Monthly monitoring will be continued on production and management of industrial enterprises, on producers' prices of key industrial products, and on housing market of key cities. We will start on compilation of industrial production index to reflect the production, sales and inventory of manufacturing enterprises, and on compilation of domestic trade index to reflect changes on distributive markets. We will also improve business climate surveys. Another important area is the monitoring of price changes, such as the bi-weekly monitoring of prices of key agricultural products, 10-day monitoring of food prices, and monthly monitoring of prices of capital goods for agriculture production.

d) Statistical monitoring system on social development. We will continue to implement monitoring on MDG goals, on progress of developing a well-off society, on the implementation of programme for the development of women and that for the development of children. Poverty monitoring is also conducted for all poverty-driven counties in China.

3 . Further Efforts to Improve the Statistical Capacity

a) Reforming the mode of producing statistics. The NBS started to implement in 2010 the "On-line Reporting Project" consisting of a unified register of business units, an integrated enterprise reporting system, a consolidated data capturing and processing platform, and an internet-based on-line data collection system. This project aims at standardizing the process of statistical surveys and hence improving the statistical capacity. At present, over 700,000 large enterprises in manufacturing, construction, wholesale and retail distribution and housing development industries are participating in the project by transmitting responses to e-questionnaires to NBS through internet. Hand-held devices are now used in 550 cities or counties to collect price data on household consumption and on farm products which are transmitted

directly to NBS. In the future, NBS plans to expand the on-line reporting project to cover all possible surveys, including household survey, price survey, investment survey, key service enterprise survey, and even to cover survey on small enterprises. The project will also be able to provide relevant information service to subscribed enterprises. Our goal in the near future is to allow all respondents of business units to have access to internet-based e-questionnaires and provide data directly to NBS, and to equip all survey interviewers with hand-held devices for conducting field surveys using real-time transmission of data to NBS. This computerized data collection, processing, storage and dissemination process will also allow statistical agencies at various levels to share statistical data in line with pre-designed authorization.

b) Exploring new sources of data. Various government agencies in China maintain relatively complete administrative records that could meet the needs for statistics on business units, population and service industries. Efforts are made at present to explore the use of administrative records kept by ministries and accounting or business records maintained by enterprises, aiming at producing more statistical information mainly by utilizing these records. On the other hand, large volume of data in electronic form are produced by enterprises through e-business and logistics networking. Many of such “big data” are closely related with official statistics. How to utilize such data is an important and new topic for NBS. For instance, we could think of using e-business transaction data to produce price statistics, using production or accounting data of large enterprises to produce business statistics, or using e-transaction data of large department stores or supermarkets to produce domestic trade statistics. We will evaluate the quality of such “big data”, explore relevant statistical methods to use such data, and develop standards to turn such data into basic information that could then be processed in a meaningful way.

4. Utilization of New Information and Communications Technology

The development of information and communications technologies (ICT) is introducing profound changes in the mode of production and living of human being. NBS is fully aware that the utilization of ICT has a bright future in statistics, and will significantly change the mode of statistical operation. We will take a proactive attitude in using new technology, such as remote sensing, GIS, GPS, networking, cloud computing etc., in censuses, agriculture statistics, industrial statistics, population statistics, investment statistics, and in demarcation of urban/rural areas. Using the resources of e-governments at central and local levels, we will speed up the construction of network infrastructure with better data processing, storage and transmission capability, so that our statistical network could cover all provinces, cities and down to township-level statistical activities. We will also accelerate the development of a stronger databank system, including business registers, geospacial databank, metadata, primary databank, integrated databank, and dissemination databank.