

Challenges and Opportunities Faced by the Management of NSO in the ICT Era ----A Case from China

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I. As other countries, the National Bureau of Statistics (NBS)—the NSO of China is facing a lot of challenges and opportunities in the management of national official statistics in the ICT era.

Opportunities:

----Giving more possibility to improve the NSO's statistical capacity of producing and disseminating qualified statistical data by using ICT to reconstruct and improve the statistical production processes.

----Enlarging the means of data collection, for example, using the digital records of administration and commerce activities.

----Exchanging views of both statistical theory and practice among the world easily.

Challenges:

----The users need more and more qualified, timely, details and easily to get statistics.

----The requirement of unified data center for a country that is the website of NSO should serve the role of NSN (Notational Statistical Net).

----The coordinator function of NSO need to be strengthened, for example, the NBS is a coordinator of GDDS of IMF in China.

----Some special challenges in China:

- 1) In the transition period: mechanism, methods and “data” itself are in the transition period.
- 2) From relative “closing” to “open”: the Regulation of Government Information Releasing was issued this year; China has subscribed to GDDS in 2002.
- 3) The statistical capability of China is still weaker as a developing country.
- 4) The contradiction between the government unified purchasing and the continuity of ICT work in statistics.

II. To take the opportunities and overcome the challenges, NBS of china has made big efforts and achieved some results. But there are still a lot of problems.

The current status of ICT application and China national statistics information network started in 1986 has initially taken a shape.

In terms of hardware, mainframe, workstations and hosts of over 150 sets, PC server of 1600 sets, and PCs 33,000 sets are in service in Statistics Bureaus at the level of county and above.

In terms of software, in addition to legal copies of system software and common software, application software of common and specific purpose for processing of reporting tables and forms, statistics tables and forms, and for statistics analysis have either been independently

developed or imported.

In network development, a framework has been built up. It connects NBS with provincial statistics bureaus in 31 provinces (autonomous regions and municipalities) and city statistics bureaus in 33 key cities. WAN capacity expansion and update at national and provincial level, WAN development at provincial and city level, and extension to bureaus at county level are underway.

In data processing, China national statistics information network has met the data processing requirement of conventional statistics tables and forms and of general census. It has done, since 1986, much data processing on large scale surveys, and on special subject census, in addition to conventional annual statistics reports. Those in case are 1986 national survey on female fertility, national sample survey on 1% of the population and survey on input and output in 1987, the 4th population census in 1990. Since then all the census carried out by the NBS are treated by ICT tools from data collection to data processing. The OCR technology was first used on 230 million sheets of tables and forms nationwide in the national census on agriculture in 1997. After then, OCR technology was also used in different kinds of national census.

With the development of statistics information network in statistics bureaus at each level, network based statistics endeavors and information service was launched and network technology application realized:

- 1) Data transmission through e-mail.
- 2) Office automation and official document processing, statistics database query, and information release at Internet/Intranet workstations by NBS and provincial statistics bureaus.
- 3) China national statistics information website officially opened to the public on February 26, 1999.
- 4) Straight submission of report on-line by 28000 large manufacture companies and 3000 real estate enterprises has been launched nation-wide in 2002.

But there are still a lot of problems in the course.

----The philosophy of using ICT still need renew or modernized, that is that ICT is not only a tool, but it give us a opportunity to reconstruct traditional statistical production process and new management method.

---- There is no good enterprise architecture or general informationization plan for ICT using.

---- Lack of uniform data rules, lack of data exchange criteria, and lack of unified application system, all lead to an imperfect database development and use at all level statistics bureaus and different fields.

----Information islands.

----Lack of integrate database, meta-database and the exchanging criteria among different databases and agencies.

----Lack of unified platform for the treatment of statistical processes from design to dissemination.

----The security problem for statistical ICT system.

III. How to solve the problems: national effort and International Corporation.

----Give more training and explaining about the importance of using ICT to reconstruct

official statistics and the successful case study in some countries to the top leaders and staff of NSO.

----Because the official statistics production processes are so “standard”, that means almost all country use the same way to produce statistical products, there is possibility for the international statistical and ICT experts working together to create an (or a set of) “unified” software of statistical production processes. During the course, maybe there are some languages problems for the software, but the main principles and the frameworks are good model for all countries around the world. The SDMX project is a very good start and example. By this way the statistical capacity and the application ability of all developing countries could be improved quickly, effectively and efficiently.

----Now NBS of China is concentrating on the construction of statistical informationization: reconstructing the statistical production processes by using ICT, building up integrated database and meta-database, building up a platform for data processing. Any suggestion, comment and support are welcomed.