

The background features a white central area. On the left, there is a vertical blue bar. A horizontal black bar is positioned above the title. Below the title, a large, light blue curved shape sweeps across the bottom right corner of the page.

Statistical Policy and Survey Management

A. Statistics Act

The Statistics Act was enacted in January 1962 and most recently amended in April 2009 in order to ensure the reliability of statistics and the efficiency of the operation of the statistical system. The act imposes obligations on KOSTAT to publish and disseminate compilations and to maintain the confidentiality of information collected under the act. The key provisions of the Statistics Act are as follows.

1) Approval for Compiling Statistics

Agencies which compile official statistics are required to obtain prior approval from the Commissioner of KOSTAT. Approval should also be obtained in cases in which approved statistics have been suspended or altered.

2) Confidentiality

Data collection by statistical agencies must carry a legal guarantee in terms of protecting of the confidentiality of individual returns. Private information obtained from individuals, juridical persons or bodies in the process of the compilation of statistics are required to be kept confidential.

3) Prohibitive Use of Data

The utilization of statistical data collected for designated or general statistics is prohibited for other purposes than originally intended or without proper permission.

4) Consultation and Approval of Statistical Results for Publication

The head of agencies compiling official statistics must immediately submit the results to the Commissioner of Statistics Korea. After consultation with Commissioner and upon his/her approval, the results shall be published. This provision aims at not only ensuring the timely publication of results, but also securing the reliability of official statistics.

5) Quality Evaluation on Official Statistics

In order to reinforce the credibility of official statistics, KOSTAT is obliged to perform quality evaluations on the compilation and dissemination of official statistics both regularly and irregularly.

6) Use of Administrative Data and Taxation Data

The Commissioner of KOSTAT can require the use of administrative data of other administrative organizations. Additionally taxation data can be utilized in the compilation of statistics due to the revision of the Framework Act on National Taxes. (February 2009)

B. Statistics-based Policy Management System

The Statistics-based Policy Management System reflects the importance of statistics in making a policy. It was launched in January 2008 in accordance with Article 33, Statistical Act Enforcement (amended on October 23, 2007)

According to the system, each government agency has an obligation to check the statistics necessary for a policy and to submit the paper of request to KOSTAT. KOSTAT examines and conciliates a government agency's opinion, and if necessary, has the right to report KOSTAT's opinion, which might necessitate the development or improvement of statistics, into State Council with legislative bill. Consequently, this process can increase the effectiveness of a policy and institute. The key examination inquiries are as follows.

(Section) Statistical Index

- Have all statistical indexes necessary for policy been presented?
- Does an alternative exist in the case of an inappropriate statistical index?
- Has a stable and reliable system been built already?

(Section) Plan for Statistical Development

- Is the plan appropriate for purpose of survey, object of survey, survey items, survey periodicals, etc.?
- Does it overlap with an existing statistical survey?
- Has the government agency that is carrying out the improvement plan been fully consulted?

C. Statistical Standards and Classifications

The Statistical Standards Team of KOSTAT defines statistical terminologies and develops statistical classifications. Major activities for development of standard statistical classifications are as follows:

1) Defining Statistical Terminologies

Defining statistical terminologies involves providing clear scope and concepts of subjects, units, items, etc in various statistical surveys. KOSTAT published “Statistical Terminology Dictionary” in September 1994 and “Collection on the Use of Statistical Terminology” in December 2006.

2) Korean Standard Industrial Classification (KSIC)

The main purpose of the KSIC is to provide a set of activity categories that can be utilized for the collection and presentation of statistics according to such activities. KSIC was adopted in the mining and manufacturing areas in 1963 and in the other industry areas in 1964. In accordance with the second, the third and the fourth revisions of the International Standard Industrial Classification (ISIC), the KSIC was revised in 1970, 1991, 2000, and in 2007 respectively. The KSIC was revised (9th revision) to reflect recent changes in industries, and the 4th revision of ISIC 2007. The sections and divisions of the KSIC are almost the same as the categories of ISIC Revision 4, but KSIC is further subdivided into five-digit levels (sub-classes) to meet national requirements. The 2007 KSIC revision contains 21 sections, 76 divisions, 228 groups, 487 classes and 1,145 sub-classes.

3) Korean Standard Classification of Occupations(KSCO)

The KSCO was developed to provide a system for classifying and aggregating occupational information obtained by means of population census and other statistical surveys, as well as from administrative records. KSCO 2007 has replaced the one issued in 2000 and is the 6th revision since the original edition of the KSCO, which was established in 1963. The 6th revision, currently used for statistical and other purposes, reflected the 3rd revision of the International Standard Classification of Occupations (ISCO) and the rapid change in Korean occupational structure by increasing the number of items under the heading "Occupation". The structure of KSCO 2007 consists of 10 major groups, subdivided into 52 sub-major groups, 149 minor groups, 426 unit groups and 1,206 sub-unit groups.

4) Standard Korean Trade Classification(SKTC)

The SKTC is designed to classify all commodities entering external merchandise trade. However, the original version of the SKTC, which was established in 1964, was intended for use in the classification of all commodities entering production and internal merchandise trade rather than external merchandise trade. Although the Sections (one-digit) and the Divisions (two-digit) of the original version of the SKTC were constructed with the classification scheme of the SITC, the version did not use a standard classification for all commodities of international trade due to the reasons mentioned above. In 1967, the original version was revised in order to make it more suitable for classifying commodities entering both internal trade and external trade in accordance with the structure of the SITC. The classification scheme of SKTC 2005, which is based on the SITC Revision 3, consists of 10 sections, 67 divisions, 261

groups, 1,033 sub-groups, 3,425 five-digit headings and 5,403 six-digit headings as basic categories and two more digit headings for the corresponding ten-digit headings of HS/K.

5) Korean Standard Classification of Diseases(KCD)

The KCD has been developed to make a system of categories to which morbid entities are assigned according to established criteria. The original classification of diseases in Korea was established in 1952, reflecting the principle and structure of the sixth revision of the International Standard Classification of Disease (ICD). Since the first revision in 1973, the KCD has been revised in line with the corresponding revision and update of the ICD, and the fifth revision of the KCD is the latest one and came into effect on 1 January 2008. The coding scheme of the KCD consists of 22 chapters, 2,045 three-digit categories and 12,225 four-digit categories.

6) Korean Functional Classification

The Korean Functional Classifications are reference classifications that divide the purpose of individual consumption expenditures(including acquisition of goods, services, financial assets) incurred by institutional sectors, namely households, non-profit institutions serving households, general government and producers. They are intended also for use in compilation of gross domestic product and conducting household consumption expenditures and consumer price surveys. The four functional classifications are as follows: (1) COICOP-K(the Classification of Individual Consumption According to Purpose of Korea) (2) COPNI-K(the Classification of Purpose of Non-Profit Institutions Serving Households of Korea) (3) COFOG-K(the Classification of the Functions of Government of Korea) (4) COPP-K(the Classification of Outlays of

Producers According to Purpose of Korea). The COICOP-K and COPNI-K were developed in 2008 based on the respective UN functional classifications. Similarly, COFOG-K will be developed in 2009. KOSTAT has a medium and long term plan to develop COPP-K. Statistical agencies should consult with KOSTAT when they inevitably need to apply standards different from national standard classification. KOSTAT developed several derived classifications in close collaboration with relevant statistical agencies. For example, KOSTAT manages some 20 derived classifications including Information and Communication Technology Classification, Tourism Industry Classification, Cultural Industry Classification, Classification of Status in Employment, Human Resources in Science and Technology Classification, etc.

D. Statistics Quality Management

1) History

KOSTAT introduced the Statistics Quality Management System in 1999, in recognition of the fact that highly qualified statistics are essential for the infrastructure of national governance. In 2002, a Statistics Quality Management team was organized to assess the quality of data produced within KOSTAT. In 2005, the team was promoted to the Statistics Quality Management Division in the Statistics Policy Bureau and set up a three-year plan for data quality assessment of all approved statistics. Since the revision of the Statistics Act in 2007, the rotational assessment is carried out every 5 years while self-assessment is conducted every year.

2) Definition

- Statistical quality: The totality of features or characteristics of a statistic that bears the ability to satisfy stated or implied needs of customers.
- Quality management: activities using the PDCA (Plan Do Check Act) cycle for securing and maintaining required quality of users.
- Dimensions of quality
 - a) Relevance : value contributed by data to users (determined when it meets user needs)
 - b) Accuracy : degree to which data correctly estimates 'true' value
 - c) Timeliness/Punctuality : length of time between event and availability of data / adherence to publication schedule
 - d) Comparability : over time and space (determined when it follows the national and/or international standards)
 - e) Coherence : within & across datasets (determined when it can be successfully joined with other statistical information)
 - f) Accessibility/Clarity : suitability of media form/information environment, availability of metadata
- Statistics Quality Management System: A system which combines all methods to produce statistics in order to fulfill the quality dimensions economically as well as to satisfy the users' requirements from statistical planning to publication by reviewing each production process. The quality of process determines the quality of product.

3) Quality Assessment Programs

- Rotational Assessment Program(RAP) is a thorough quality assessment program of all approved statistics over a five-year rolling period.
 - Conducted by external experts (recruited through open competition)
 - Uses effective quality assessment tool (ISO 9001 certified)
 - Identifies problems & present recommendations (by statistics & theme) to statistical agency and then provide feedback

Procedure of RAP (Rotational Assessment Program)



- Ad-hoc Assessment Program(AAP) is conducted when experts raise reasonable doubts on the quality of certain statistics.
- Self-Assessment Program(SAP) is a self-assessment program of all approved statistics annual basis, using the DESAP(Development of Self-Assessment Program) originated checklist by the person in charge of the statistics.

E. Sample Design and Management

1) Sampling of Household Surveys

The sample surveys for households are divided into two groups, monthly surveys and yearly & occasional surveys. Monthly surveys include Economically Active Population Survey, Household Income & Expenditure Survey and Rentals for Housing Survey. Yearly and occasional surveys include Social Statistics Survey, Time Use Survey and Private Education Expenditure Survey.

The design of household samples is revised on a 5-year interval in years ending with '2' and '7' as soon as data compilation is finished in order to utilize the Population & Housing Census data, which is performed every 5 years, in establishing the population.

The household samples have a total of 25 stratifications based on the administrative districts, 7 metropolitan areas and 9 provincial areas, and the sampling is performed in 2 steps at each layer. At the first step, the enumeration districts are sampled and then households are sampled within each enumeration district. Usually the rotation sampling method is favored in which some of sample households change every month in order to maintain the appropriate sample size at 4~6 households per enumeration district.

Enumeration districts are sampled using the proportionate probability sampling method so that the size of each district is proportionate to the sample size of households and each household is randomly sampled and self-weighted. Parameter estimation is a ratio estimation according to post-stratification where estimated population, the auxiliary information of the population, is used.

2) Sampling of Establishments Surveys

The Mining & Manufacturing Survey and Service Industry Survey are monthly surveys and the samples are revised every 5 years. With respect to yearly surveys such as the Construction Work Survey, Transportation Survey, Wholesale & Retail Trade Survey and Other Professional, Scientific and Technical Activities Survey, each sample is designed 2 months prior to the start relevant survey.

The population for the samples is based on the Industrial Census, Service Industry Survey and Mining & Manufacturing Survey and the samples are selected by the cut-off method or applied cut-off method. All large establishments are taken into the samples while smaller establishments are partially included or excluded altogether.

3) Sampling of Agricultural and Fishery Surveys

The Farm Household Economy Survey, Fishery Household Economy Survey, Agricultural & Livestock Production Cost Survey, and Household Food Grain Consumption Survey are current monthly surveys in which their statistics are compiled annually and the samples are designed every 5 years. The population is based on the Census of Agriculture, Forestry and Fisheries.

Annual surveys include the Agricultural Survey, Fishery Survey, and Establishments Food Grain Consumption Survey. The population of the Agricultural Survey and Fishery Survey is derived from the results of the Census of Agriculture, Forestry and Fisheries and their samples are designed every 5 years. In terms of the Establishments Food Grain Consumptions Survey, its sample is designed in October and the survey is performed in November.

The samples of the Farm Household Economy Survey, Fishery Household Economy Survey, Agricultural Survey and Fishery Survey were designed in 2007 and their population was the result of the 2005 Agricultural and Fishery Census.

F. Management of Statistical Population

1) History

In the context of managing the statistical population for establishments, KOSTAT launched the Total Establishment Survey in 1981 performing the 2nd survey in 1986 and 3rd survey in 1991. In 1994, it expanded to the Census on Establishments which has been performed annually in cooperation with 16 local authorities.

2) Establishment of Statistical Population DB

For the purpose of an integrated management of statistical populations concerning establishments, as well as an efficient use of survey data, the Integrated Management System for establishment statistics has been under construction since 2003.

Some of the system was completed in 2003 including the Establishments Population DB, Enterprises Population DB, Basic Statistics for Establishments DB, and Mining & Manufacturing Statistics DB and so on.

Since 2004, additional DBs have been established as follows:

Wholesale & Retail Trade Statistics DB and Service Industry Statistics DB in 2004, Transportation Statistics DB in 2005, Business Activities DB and Service Industry Census DB in 2006, and Construction Statistics DB and Professional, Scientific & Technical Service Statistics DB in 2008, etc.

Currently, KOSTAT is establishing a DB for the use of administrative data, such as tax and resident registration data.

G. Survey Consulting and Management

In 2007, KOSTAT launched the ‘Survey Consulting and Management Service’. It assists other organizations in compiling new statistics, especially when its statistical infrastructure is fragile. In addition, it has to quickly respond to new statistical demands for policy decision making.

KOSTAT performs an annual needs survey for central government organizations and their affiliates, collects the results, consults with potential candidates for the service, and then decides if service will continue in the next year.

Decision Criteria for the Survey Consulting and Management Service

- a) Statistics under the jurisdiction of central government organizations and their affiliates
 - * In terms of statistics of local authorities, local statistical offices or branches of KOSTAT perform the surveys and for the statistics of private organizations, the KSPI(the Korea Statistics Promotion Institute) subcontracts with them and later commits the surveys to the local statistical offices or branches.
- b) Statistics requiring nationwide survey
- c) Statistics requiring face to face interviews
- d) By agreement between KOSTAT and incumbent organization

H. Future Survey Plans

The survey environment is deteriorating as the public becomes increasingly sensitive to privacy and confidentiality and conditions for the field staff performing face-to-face interviews becomes more difficult as one-person households and dual income families grow. These trends facilitate an increase in burden and cost. In order to reduce the burden of response and effectively produce official statistics, KOSTAT has already achieved some institutional improvements and additional innovative developments are underway. They are as follows:

1) Utilizing ICT (Information and Communications Technology)

Satellite Remote Sensing Technology

Traditionally, agricultural surveys were mainly based on actual surveys in which interviewers had to visit door to door which decreased the efficiency of surveys due to increases in work burden and frequent non-sampling errors. Hence, KOSTAT introduced Satellite Remote Sensing Technology in order to keep pace with recent trends in which more image data of satellites are actively being utilized in statistical production in order to raise the efficiency of agricultural surveys and reduce work burden of enumerators. In 2006, Korea successfully launched KOMPSAT-2 (Korea Multi-Purpose-Satellite-2) and we are now in the process of shifting surveys such as the Agriculture Census, Cultivated Land Survey and Crops Survey to remote sensing.

Electronic Surveys including the Internet survey

In order to proactively respond to the aggravated survey environment and growing response burdens, KOSTAT has been performing the electronic surveys including the Internet survey since 2004. Starting from monthly statistics, which suggest noticeable reduction in reporting and work burdens, it currently relies on Internet surveys in the production of 22 statistics. In addition, KOSTAT has a plan to raise the current rate of electronic surveys, from 17.8% in 2009 to 40% in 2012 by encouraging CASI(Computer Assisted Self Interviewing) and CATI(Computer Assisted Telephone Interviewing) in various surveys.

2) Survey Consolidation

Integrated Economic Survey

Since the annual surveys by industry were performed at different time periods, repetitive visits intensified the burdens of the respondents and each survey as well. Thus, KOSTAT decided to conduct the Economic Census in 2011 integrating scattered annual and monthly surveys and implement them in the same period.

Reorganization of government-approval statistics

With the increase in new and recently approved statistics, the effective management of government-approved statistics has been an important issue and will be a major challenge in the future. Thus, KOSTAT established a comprehensive management plan for the approved statistics of KOSTAT and all other national statistical agencies. As a result, these efforts have profoundly contributed to the reduction of reporting burdens and efficient expenditure of national resources including the budget.

3) Use of Administrative Data

KOSTAT has a plan to broaden the use of administrative data in statistical compilation in the context of relieving burdens of the public and saving survey cost. With respect to this, the Framework Act on National Taxes has already been revised in order to enable taxation data to be used in the compilation of statistics so that, though revenue officers have the duties of confidentiality and disclosure, they must provide taxation data when necessary data is required for statistical purposes.