DATA FLOW AND STATISTICAL ORGANIZATION IN INDONESIA

NUGROHO

A main source of information of a country is its Central Bureau of Statistics (CBS). In this connection, the role of the CBS within the statistical organization of Indonesia is worth describing.

Short history

Actual statistical activities started in 1850 when the Dutch Governor General of the Netherlands East Indies Government set up a statistical unit to collect and compile administrative statistics. This information was incorporated in a statistical yearbook as an annex to the Governor General's Annual Report ("Jaar Verslag", later called "Indisch Verslag") to the Queen. In 1918 this statistical unit became the Statistical Division of the Agricultural Department in Bogor ("Departement van Landbouw" in Buitenzorg). As is indicated by its status, the main activities of the Statistical Division at that time were more concerned with agricultural commodities, in particular the so-called commercial agricultural crops such as: rubber, sugar, coffee, tea, palm-oil and kernels, tobacco, cinchona, cocoa, copra, pepper, nutmeg, cassava, maize, nuts, etc.

Realizing that it was not only crop and production data that were important, but also statistics on exports, prices, and receipt of foreign currencies, in 1925, the Government shifted the CBS from the Agricultural Department to the Department of Economic Affairs ("Departement van Economische Zaken" in Batavia), Jakarta. This was the situation until 1957, when Prime Minister Juanda stated that "the CBS does not only have to do with economic data only,

but also with social indicators as well, such as population, labour, education, health, law enforcements, etc.". He took six basic decisions, in order that the CBS function properly as the barometer of the country. These decisions were:

a) The CBS must not belong to any ministry or department: from that year on CBS belongs to the Cabinet of the Prime Minister

b) The Statistical Act of 1934 must be reviewed. The new regulation passed Parliament in 1961, and is called Statistical Law, No. 7, 1961

c) The CBS must have its branch offices throughout the country. It is impossible to undertake the huge national task by having only one office in the capital. Since 1963 the CBS has had a branch office in almost every subdistrict throughout the whole country.

d) An inventory of all basic data must be compiled. For this purpose, during 1961 — 1964, three important censuses took place: the Population-Census (1961), the Agricultural-Census (1963), and the Industrial-Census (1964)

e) The CBS must organize a statistical training centre to develop skilled labour. To achieve this the Academy of Statistics was established in 1958 thereby providing an opportunity for various statistical training, not only for CBS personnel but also for other government agencies

f) Collaboration with the outside world must be intensified. A United Nations Special Fund Statistical Research and Development Project (UN SF SRDC) was set up (1962 — 1967), with the main goal of improving the statistical data of the country.

These rapid developments, however, came to an almost complete halt during 1964 — 1965, due to both political aspirations (Indonesia's withdrawal from UNO, etc.) and the general antipathy of the incumbent administration to statistics.

The new government under President Soeharto transferred the CBS to the President's Office in 1966. The present status of the CBS is that of an interdepartmental body operating under the State Secretariat for Budgetary Purposes. It cooperates closely with the National Development Planning Agency (the BAPPENAS) and other government departments in its statistical work. Since many government departments have their own specialized statistical

sections, an important responsibility and role of the CBS is to coordinate and assist these various government statistical activities. Through the Statistical Law 1961, the government, indeed, confirmed the primacy of the CBS in the organization and coordination of statistical services throughout the country. During the past few years the CBS has cooperated in efforts to reduce existing duplication, fill some of the most apparent gaps, and improve the quality of statistical output. It is currently in the process of improving its capabilities to serve all government agencies involved in economic and social policy making and planning.

Present organization

The head-office is located in Jakarta, and is staffed by some 1.200 personnel of whom only 22 are university graduates while a further 184 are graduates from the Statistical Education and Training Centre of the CBS. The head-office consists of 95 sections organized into 30 divisions and 6 bureaus. In addition, the field staff of CBS is about 3,500; some of whom are paid by the Department of Interior and the regional governments. Branch offices are located in provincial and regency capitals, and CBS staff are also located in the subdistricts.

The CBS is headed by a Director General and a Deputy Director General. It is organized into three subject-matter Bureaus (Bureau I — Research and Analysis; Bureau II — Current Statistics; Bureau III — Census) plus a Secretariat, a Data Processing Centre and a Statistical Training & Educational Centre (see Organizational Chart):

Bureau - I (Research & Analysis) with 4 divisions:

1. National Income — 5 sub-divisions: (i) Agricultural Sector, (ii) Industrial Sector, (iii) Trade, Transport & Communication, (iv) Banking, Insurance & Public Finance, (v) Regional Income
2. Statistical Reports & Analysis Division — 3 sub-divisions: (i) Analysis, (ii) Indicators, (iii) Econometrics
3. Statistics Development Division — 3 sub-divisions: (i) Survey Analysis, (ii) Survey Planning, (iii) Editing, Coding, Checking
4. Special Analysis Division

Bureau - II (Current Statistics) with 6 divisions:

1. Agricultural Statistics Division — 4 sub-divisions: (i) Food, (ii) Fisheries & Animal Husbandry, (iii) Production Index, (iv) Commercial Crops
2. Industrial Statistics Division — 6 sub-divisions: (i) Large & Medium Manufacturing Industries, (ii) Small Scale Industry, (iii) Construction, (iv) Production Index, (v) Mining, (vi) Electricity & Gas
3. Trade, Transport & Communication Division — 7 sub-divisions: (i) Imports, (ii) Exports, (iii) Inter-insular Trade, (iv) Transport, (v) Tourism & Communications, (vi) Domestic Trade, (vii) Documents
4. Social Statistics Division — 3 sub-divisions: (i) Education, (ii) Judicial, (iii) Cultural Statistics
5. Finance & Price Statistics Division — 6 sub-divisions: (i) Public Finance, (ii) Money & Banking, (iii) Wholesale & Retail Prices, (iv) Producer's Prices, (v) Consumer Price Index, (vi) General Indices
6. Population & Labour Statistics Division — 5 sub-divisions: (i) Demography, (ii) Labour, (iii) Living Conditions of Labour, (iv) Wages, (v) Government Employees

Bureau - III (Censuses) with 4 divisions:

1. Planning Division — 3 sub-divisions: (i) Basic Planning, (ii) Operational Planning, (iii) Analysis & Evaluation
2. Field Operation Division — 3 sub-divisions: (i) administration, (ii) Reporting, (iii) Control
3. Analysis & Presentation Division — 3 sub-divisions: (i) Review, (ii) Processing, (iii) Presentation
4. Documentation Division — 2 sub-divisions: (i) Documents Inflow, (ii) Cartography & Directory

Secretariat with 6 divisions:

1. Regional-Office-Affairs Division
2. Finance-Division — 4 sub-divisions: (i) Treasury, (ii) Control of Regional Offices, (iii) Accounting, (iv) Payrolls
3. Personnel Division — 6 sub-divisions: (i) Promotion, (ii) Social Security, (iii) Personnel Records, (iv) Regional Personnel, (v) Disciplinary Unit, (vi) General Administrative Unit
4. Internal-Office-Affairs Division — 5 sub-divisions: (i) Office Service & Transport for Employees, (ii) Inventory Unit, (iii) Typing & Expedition, (iv) Archives, (v) Printing
5. Consultation & Information Division — 2 sub-divisions: (i) Public relations, (ii) Press release
6. Annual Statistics & Publications Division — 3 sub-divisions: (i) Publications & Circulation, (ii) Sales, (iii) Yearbook

Statistical Training & Education Centre, with 4 divisions:

1. Education & Training through Foreign Aid Division
2. Faculty Division — 3 sub-divisions: (i) Education, (ii) Laboratory & Practices, (iii) Students' Affairs
3. Medium Term Statistical Course Division — 3 sub-divisions: (i) Short Term Courses for Field Officers, (ii) Medium Term Courses of 6 months, (iii) Correspondence Courses
4. Library

Mechanical Data Processing Centre with 6 divisions:

1. Secretariat — 3 sub-divisions: (i) Equipment & Maintenance, (ii) Training, (iii) Internal Administration
2. System Analyst Division (Senior System Analysts and System Analysts)
3. Programming Division (Senior Programme, Programme-I, Programme-II, Programme Trainees)
4. Editing & Coding (3 sub-divisions)

5. Data preparation (one sub-division for 90 column-cards, one for 80 column)
6. Computers Operational Division (one sub-division for serving the ICL-1902A, another one for UNIVAC 1004 & 1050)

Every branch office in the provincial and regency capital is divided into technical and administrative divisions each headed by a division chief.

Main activities

Copies of the Government's Instructions and the Presidential Decrees describing the duties of every sub-division as well as a list of the CBS publications are available at the Secretariat. They indicate the following main sources of data:

1. Population and Labour

There are three main sources of demographic statistics in Indonesia:

a) Censuses

According to the Census-Law 1960, the CBS is to undertake a population census every ten years. Only two popcensuses were taken since the end of the Second World War, i.e. one in 1961 and another one in 1971. The results of both censuses have been issued in a series of some fifty tables for each province, covering regional distribution, detailed sex-age composition, marital status, place of birth, type of economic activity, education, literacy, number of blocks, number of households, housing conditions, data on use of housing, labour force, school population, etc.

b) Surveys

Before 1970 several surveys were conducted by the various Departments, a.o.:

(i) demographic surveys (by the CBS) covering Java & Madura and the capitals of Outer Island provinces.

The aims of the surveys were primarily providing data for estimating rates of births, deaths, natural increases, and also to gain some idea of internal migration.

(ii) national sample surveys (by the CBS), which are multipurpose in nature. The general purpose is to gain statistical information on social and economic conditions necessary for development and planning, both as a cross-section picture of socio-economic characteristics of the population and also to describe changes in these characteristics especially when combined with corresponding data from other sources at different times.

(iii) labour force sample surveys (by the Department of Manpower) to obtain information needed for labour force analysis. The most elaborate of these surveys was the LFSS of Java & Madura (1958), the most recent was held in South Sumatra (1959).

However, all of these surveys have ceased due to a combination of financial and other factors.

c) Registration

Through registration the Department of Health collected (during 1957 — 1964) statistics of births and deaths from municipalities and regencies in Java and Madura and some areas of the Outer Islands. Due to financial limitations and declining response this was discontinued in 1965. The government is now introducing a sample registration system. A working team consisting of the CBS, the Department of Interior, Department of Health, The Indonesian Institute of Sciences (LIPI), Family Planning Board, Demographic Institute, etc. was set up to carry out this project.

Within the framework of preparations for the second Five-Year Development Plan (1974 — 1979) all data on Labour and Employment were brought together into three large volumes (covering more than 1500 pages) under the title of *Data on Manpower in Indonesia, 1956 — 1971*. Apart from the CBS, analysis of demographic data is also undertaken by other

institutions, such as the Institute of Demography, University of Indonesia and the Indonesian Institute of Sciences.

2. Social statistics

a) Educational statistics are compiled mainly by the Department of Education and Culture, which has for some years enjoyed technical assistance from the UNESCO. The main tables published concern number of schools, teachers, students, by type of education, number of graduates by type of school, number of faculties & number of students in universities and institutes by field of study, number of public libraries, etc.

b) Statistics on religion. Two principal bodies are involved in the collection of data on religious affairs, namely the Department of Religious Affairs and the CBS. The data collected by both bodies are very simple (number of those who profess a religion; number of places of worship; number of hajis i.e. those who have made a pilgrimage to Mecca, number of marriages, divorces and reconciliations among Moslems).

c) Cultural statistics. Comprises data on films (imported and domestically produced by origin, by kind of stories, by size/length) on news papers and other publications, amusement centres, boyscout-movements, museums, political parties, sport-activities, etc.

d) Health statistics. These are exclusively in the hands of the Department of Health, however, there is good collaboration with the CBS, particularly in the processing of data and in training of personnel. The most important data available is on health facilities, health officials, data on family planning, epidemic diseases, morbidity & morality, pharmaceutical industries and pharmaceutical wholesalers, number of hospitals, dispensaries.

e) Statistics on law enforcement is largely collected by:
   (i) the police force (strength of the police force; juvenile delinquency; crime and transgressions)
   (ii) the Department of Justice (number of persons convicted of offences; number of persons prosecuted).

3. Agricultural statistics cover both agriculture proper and forestry, fisheries and livestock.

a) Until very recently the responsibility for reporting crop area statistics was with the Agricultural Extension Service (AES) of the Department of Agriculture. Reporting is complicated by both the widespread cultivation of mixed crops, and by the need for monthly reporting, since both planting and harvesting go on continually all the year round. As regards crop production statistics, the AES was responsible for data from outside Java & Madura, while CBS provided data for Java & Madura. Since 1973 there have been efforts to centralize the responsibility of data in the CBS.

b) Statistical data on forestry is regularly published by the Directorate General of Forestry, covering the area under forests, production of timber, firewood and charcoal, sales and royalties of forest products, exports of principal forest products, and labour in the forestry industry. The production data relates only to recorded production.

c) Data on the number of cattle, buffaloes, horses, pigs, goats and sheep is collected by the Veterinary Service of the Department of Agriculture. This body also compiles data on the number of livestock slaughtered, based on information, received from the slaughter houses and licenses issued for local slaughter.

During the last quarter of 1973, the second Agricultural Census was taken (the first one took place in 1963). Advanced tables will be published at the end of the first quarter of 1974.

d) Data on sea fisheries is collected by the local officers of the Directorate of Sea Fisheries. In Java and Madura statistics of quantity and value of fish auctioned are taken as referring to catch. Outside Java-Madura where there are no auctions, the officer estimates the catch on the basis of fishing equipment used. Data on inland fisheries are collected by the regional branch offices of the Directorate of Inland Fisheries. Estimates are built up on the basis of data provided by regional wholesalers seeking permits for

transportation and local information collected from the owners of salt water ponds, fresh water ponds, etc. With the assistance of a FAO expert, a fishery-census will be taken in early 1974 aimed at obtaining more detailed data on equipment, production, marketing, earnings of the fishermen, etc.

e) An index-section in the CBS contains indexes of agricultural production.

4. Industrial statistics comprise manufacturing, electricity, gas & steam and mining. There are three main sources of industrial statistics in Indonesia:

a) Censuses
The first of these took place in 1964, consisting of two enquiries: (i) a census of large and medium manufacturing establishment and (ii) a sample survey of small scale manufacturing activities. The second one will be taken around August-September 1974 with emphasis on obtaining more elaborate data for the small scale manufacturing industries. This stress is due to two factors:

(i) data on large and medium scale industries is being recorded through surveys and registration.

(ii) for the other components of the industrial statistics (such as electricity, gas & steam and mining) adequate information is available, since the number of units is very limited.

b) Surveys
For the large scale industries there are not only regular annual surveys, but also regular quarterly surveys for selected industries and with shorter questionnaires (limited to three main questions: labour, production and wage). For the medium scale there are regular annual surveys.

c) Registration
Once every year, registration of large and medium industries takes place to up date the *Directory of Manufacturing Industries.*

5. Trade, transport, communication

The CBS is responsible for the publication of international trade statistics. The raw data is based on the import and export documents received from the various seaports and airports, and also from the port offices. The commodity classification has recently been shifted to the revised SITC. For tax-purposes, the Directorate General of Customs and Excise shifted their commodity classification to the BTN (Brussels Trade Nomenclature). The Central Bank (= Bank Indonesia) also compiles certain statistics on the value of imports and exports based on foreign exchange documents. By way of checks and for internal use the Department of Trade also collect trade statistics data from its branch-offices throughout the country.

Statistics relating to the various forms of land, water and air transportation are collected and compiled by the transport statistics-section of CBS. Copies of reports required for regular publication are supplied by other departments or agencies of government. Since railways are state owned and air carriers are limited in number, railroad- and air-transport statistics are accurate. However, the road and water-transport statistics, leave very much to be desired.

CBS also compiles, as secondary statistics data on post, telephones, telegraphs, etc. The communication statistics-section of CBS is in close collaboration with the relevant authorities. As shown in the organizational chart, the Trade, Transport and Communication Division is also responsible for statistics on hotels & tourism (tourist traffic, based on an analysis of visas and counts made by customs and immigration officers).

6. Money and Banking, Wage & Prices

The main sources of data on money and banking are:

(i) the Department of Finance (public finance: government receipt & expenditure, savings).

(ii) the Central Bank (Bank Indonesia) which publishes on a regular basis (annual and quarterly) monetary statistical data as well as economic analysis (money supply), balance of payments, etc).

(iii) other financial institutions, e.g. the Bank Rakyat Indonesia (People's Bank of Indonesia, concerning credits granted by rural and village banks, conditions of village paddy-banks, etc.), the Government's Pawnshop Service, the primary cooperatives, etc.

The sources of data on prices are considerable:

(i) the Prices and Financial Statistics Division, CBS collects data on consumer prices (from provincial and regency capitals), producer prices (of selected commodities), wholesale prices (of some 40 commodities throughout the country), retail prices (of more than 300 commodities (domestic as well as imported goods). This division also calculates the price-indices of 11 essential commodities at every weekend.

(ii) other Departments, such as the Department of Interior, Department of Trade, Department of Agriculture, the Logistic Bureau also collects data on prices (rural, trade, agricultural products, essential commodities, respectively) without sufficient coordination. Data on wages are gathered by the CBS (limited to wages of estate workers and salaries of government officials) and by the Department of Manpower. Through the NSS (National Sample Surveys) the CBS also surveys wages in rural areas. Some private companies also collect data on wages, but this is restricted to internal use only.

7. National Income

Efforts to build up national income estimates were made by Dr. S.D. Neumark (1952), Drs. Muljatno Sindudharmoko (1956), Dr. Baranski (1958). The Statistical Law, 1960, stated (Article II, point 2) that it is the responsibility of the CBS to estimate the country's national income. Successively Mr. K.N.C. Pillai (National Income Adviser from UNSF - SRDC, 1963—'65) and Mr. C. Ross (UNDP, 1968—'69) rendered services to the CBS in building up a useful set of national accounts for Indonesia.

The results presented so far are confined to estimates of national income by industrial origin (at current and at constant prices) and extrapolations of national income at constant prices. The most recent series is the *National Income Estimates of Indonesia 1958—'72*. The most serious problem faced in attempting to formulate good estimates is not so much a lack of knowledge or technical skills on the part of the personnel in charge of the national accounts, as the absence of an appropriate statistical base.

Recent Development

The statistical situation is still far from satisfactory:

(i) there is as yet no overall statistical policy in the country.

(ii) the productivity of the statistical system is very low due largely to a lack of adequate organization and facilities.

Realizing this, with the aid of the World Bank and the UNDP, the Government has reviewed means to improve its national statistical system and strengthen the CBS. The Statistical Development Project (SDP) which evolved from these deliberations includes the provision of assistance to jointly to develop and implement:

(i) the new statistical work programme of the CBS which concentrates upon providing more reliabe and timely data in important economic and social sectors as a basis for current decision-making and for long-term planning, and

(ii) a new programme for advising and training CBS's staff on statistical methods management and organization. A team consisting of advisers (of which four have already arrived) will render their technical assistance to the CBS.

The team will comprise:

(i) a Project-Manager who is to submit to the UN and the IBRD reports on the progress and problems of the project, to administer project funds and to act as a channel of communication between CBS and UN in various matters (purchases of equipment, nomination of CBS's staff for fellowship, etc.)

(ii) an agricultural statistician who will concentrate on the crop cutting and other sample enquiries for the collection and compilation of current agricultural statistics

(iii) an agricultural statistics expert who will assist the CBS in analyzing the results of the 1973 agricultural census

(iv) an industrial statistics expert to advise the CBS on the sensus taking, in conducting the annual surveys of the large and medium establishments, in the quarterly surveys of selected manufacturing establishments

(v) an expert in construction statistics necessary to overcome the present absence of adequate information on construction (due to lack of data on outlays for construction by the government, on construction activity by manufacturing establishments, and on other private construction)

(vi) an expert in transport statistics to advise the CBS on systematic collection of freight and passenger traffic statistics from carriers which could be integrated into consistent regional flows for all major transportation modes

(vii) an expert in household sample surveys to assist the CBS in reviewing and improving the household sample surveys

(viii) a sampling expert to furnish advice, assistance and training in the use and design of sampling in a wide range of applications

(ix) an expert in field operations to assist the CBS in the development programme for field operations and in training regional office chiefs and their deputies in charge of field operations

(x) an expert in data processing who will assist the director of the Data Processing Centre (DPC) — CBS in the organization, use and management of the electronic computer facility and the training of system analysts and programmers.

(xi) an expert in data processing who will advise on system analysis

(xii) an expert in demographic statistics and analysis intended to furnish advice and assistance in respect of

(a) the tables, analysis, publication and use of the 1971 population-census

(b) preparing population projections and other related studies

(c) improvement and development of current demographic statistics

(xiii) an expert in statistical training to advise and assist in improving the Academy of Statistics — CBS, and also with respect to the organization, the in-service training of CBS staff including its regional offices, and of other government statistics departments

(xiv) an expert in government and national accounts to assist CBS in compiling an adequate set of pubic sector accounts that should be established in a national accounting framework and should apply to the economic and functional classifications to the UN-SNA

(xv) short term advisers: provisions is made for a total of 18 months short-term consulting services

Besides the above mentioned Statistical Development Programme, the CBS enjoys technical assistance from other international agencies, such as the Asian Institute, the Asian Statistical Institute, the Colombo Plan (Australia, Canada, India, Japan, U.K.), ECAFE, the FAO, Ford Foundation, the ILO, Institute of Social Studies of the Netherlands, ISEC (Indian Stat. Education Centre), ISI, the UNESCO, the UNICEF, the UNIDO, US-AID, WHO, etc.

As a consequence Indonesia looks forward to a more effective and stronger statistical system in the near future.

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