

Philippines - Census of Philippine Business and Industry 2006, Agriculture, Hunting and Forestry Sector, and Fishing Sector

National Statistics Office

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Overview

Identification

ID NUMBER

PHL-NSO-CPBI-AFF-2006-v1.0

Version

VERSION DESCRIPTION

v1.0 edited non anonymized data

PRODUCTION DATE

2009-06-30

NOTES

NA

Overview

ABSTRACT

The 2006 Census of Philippine Business and Industry (CPBI) is one of the designated statistical activities undertaken by the National Statistics Office (NSO). It sought to collect and generate information on the levels, structure and trends of economic activities in the entire country. Data collected from the census will served as a benchmark for the measurement and comparison of national, regional and provincial economic growth.

The data collected from the 2006 CPBI will constitute bases upon which the government and private sectors can formulate policies and evolve economic development plans. Specifically, the census data are used in constructing national and regional income accounts of the Philippine economy; formulating and monitoring plans and policies in the attainment of national and regional economic goals; determining and comparing regional and provincial economic structures and performances; providing updates for the frame of establishments; and conducting market research and feasibility studies.

The scope of the census consisted of 14 sectors of the Philippine economy as classified in the amended 1994 Philippine Standard Industrial Classification (PSIC). All information collected from the census refers to calendar year 2006 except for employment data which is as of 15 November 2006.

This metadata, however, contains the documentation of two sectors namely: Agriculture, Hunting and Forestry sector and Fishing sector classified as major divisions A and B in the amended 1994 PSIC. Data collected are on employment, compensation, revenue, subsidies, cost, fixed assets, intangible assets, capital expenditures and inventories. It also includes the procedures undertaken in all phases of the operation, scope and coverage, sampling design, publication volume, copy of questionnaire used, and other administrative and informative documents related to the census operation.

KIND OF DATA

Census/enumeration data [cen]

UNITS OF ANALYSIS

Establishment

Scope

NOTES

The 2006 CPBI is a nationwide undertaking confined to the formal sector of the economy and as such excludes the informal

sector. The formal sector is composed of the following:

- a. corporations, partnerships, cooperatives, and associations;
- b. single proprietorships with total employment of 10 or more;
- c. single proprietorship with branches; and
- d. foundations and cooperatives.

As such, the 2006 CPBI for agriculture, hunting, forestry and fishing covers all agriculture, hunting, forestry and fishing establishments engaged in economic activities classified according to Major Divisions A and B, respectively, of the amended 1994 Philippine Standard Industrial Classifications (PSIC). These are the following:

- a. all agriculture, hunting, forestry and fishing establishments establishments with total employment of 10 and over
- b. all agriculture, hunting, forestry and fishing establishments establishments with total employment of less than 10 except under single proprietorship with single establishments.

The 2006 CPBI for agriculture, hunting, forestry and fishing collected the following major data items:

- Employment
- Compensation
- Revenue
- Subsidies
- Cost
- Capital expenditures and sale of fixed assets, including losses and damages
- Capital expenditures for intangible assets
- Book value of fixed assets
- Value of intangible assets
- Inventories

TOPICS

Topic	Vocabulary	URI
agricultural, forestry and fishing [2.1]	CESSDA	http://www.censsus.gov.ph

Coverage

GEOGRAPHIC COVERAGE

National coverage

GEOGRAPHIC UNIT

The geographic domain was the region for establishments with total employment of less than 20. For those with total employment of 20 and over, the geographic domains were the province, independent component city, chartered city and highly urbanized city, and all NCR municipalities.

For a complete listing of the geographic domains, refer to technical documents Section 'Sampling Domain' of the Publication

Volume.

UNIVERSE

All establishments engaged in agriculture, hunting, forestry and fishing activity.

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
National Statistics Office	National Economic Development Authority

OTHER PRODUCER(S)

Name	Affiliation	Role

FUNDING

Name	Abbreviation	Role
National Statistics Office	NSO	

OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
National Statistical Coordination Board		Review and clearance
NSO Technical Working Groups		In-charge in the plans and design of the census

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Josephine S. Albino	JSA	NSO-ITSD-ISD	Documenter
Dulce A. Regala	DAR	NSO-ITSD-ISD	Reviewer
Fe Vida N. Dy-Liacco	FVNDL	ADB Asia	Reviewer

DATE OF METADATA PRODUCTION

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DDI DOCUMENT VERSION

Version 1.0 (August 2009)

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DDI-PHL-NSO-CPBI-AFF-2006-v1.0

Sampling

Sampling Procedure

The 2006 CPBI used stratified systematic sampling with five-digit PSIC or groups of five-digit PSIC and/or four-digit PSIC or groups of four-digit PSIC and/or three-digit PSIC or groups of three-digit PSIC serving as first stratification variable and total employment as the second stratification variable.

The sampling design for the 2006 CPBI consists of the following:

- a. Determination of geographic domain
- b. Determination of industry domain
- c. Determination of employment strata
- d. Determination of sampling unit
- e. Determination of sample size
- f. Sample allocation
- g. Sample selection.

For the complete details of the above-mentioned procedures and sampling frame used, refer to technical documents Section 'Sampling Design' and 'Frame of Establishments', respectively, of the Publication Volume.

Data of non-responding establishments were imputed manually and electronically based on established imputation methods. Sources of information were from previous reports of the same establishment, or from report of other responding establishment with similar characteristics, financial statements filed at Securities and Exchange Commission. 'Hot and cold deck' imputation methods were used for partial and total nonresponse.

Response Rate

The total number of sample establishments for the agriculture, hunting and forestry sector is 1,605. This is broken down by establishments size, that is, 651 for establishment with total employment of 20 and over while it is 954 for establishment with total employment of less than 20.

The overall response rate is 91.7 percent for the agriculture, hunting and forestry sector. For establishments with total employment of 20 and over, the response rate is 88.3 percent while that for establishments with total employment of less than 20 the response rate is 94.0 percent.

For the fishing sector, the total number of sample establishments is 689, that is, 156 for establishment with total employment of 20 and over, and 533 for establishment with total employment of less than 20.

The overall response rate is 97.5 percent for fishing sector. The response rate is 93.6 percent for establishments with total employment of 20 and over, and 98.7 percent for establishments with total employment of less than 20.

Weighting

Sample weights (W) for the establishment data were computed as,

$$W = N/n$$

where:

N = total number of establishments

n = total number of sample establishments

Weight Adjustment Factor for Non-response

To account for non-response in the non-certainty strata, the adjustment factors n/n' was multiplied with the weight (W) of each sampling unit. The sampling weight was recomputed as

$$W' = N/n * n/n' = N/n' \text{ General Formula}$$

where:

n' = total number of responding establishments in a stratum

For the agriculture, hunting and forestry sector, the weight of each sample establishment is N/n' . For the fishing sector, all establishments are taken as certainty samples, that is, the selection probability is 1 hence the weight of each sample is 1.

Refer to technical documents Section 'Estimation Procedure' of the Publication Volume for the complete details of weight adjustment factor for non-response.

Questionnaires

Overview

The 2006 CPBI utilized four types of questionnaires with NSCB approval numbers and expiration date of June 30, 2008. The questionnaires used were structured based on the 2000 CPBI Forms 1 and 2 questionnaires, and from the comments by the Technical Committee on Survey Design, NSCB Technical Staff and Technical Working Groups on Questionnaire Design and Processing Manual.

The 14 sectors of the economy were grouped into four namely: agriculture, industrial, construction, and business and services. Each group utilized only one questionnaire and were administered to all sample establishments regardless of employment size.

The agriculture group utilized CPBI Form No. 1 with NSCB approval NSO-7404-01, the questionnaire used for the agriculture, hunting and forestry sector, and fishing sector.

Refer to documentation for the copy of CPBI Form No. 1.

In addition, an e-questionnaire or electronic copy of forms for the 2006 CPBI was developed for respondents to submit via the NSO Website. The file of the e-questionnaire is in excel format and can be accessed using Microsoft Office Excel. Every page in the CPBI questionnaire has a corresponding worksheet in the e-questionnaire. The file has also a macro-program that enables the user to create an encrypted text file of the supplied data. The encrypted file is then emailed to NSO (ITSD-Receipt and Control Unit) for submission by respondents, thus facilitating data collection.

Data Collection

Data Collection Dates

Start	End	Cycle
2007-06-01	2007-07-29	N/A

Time Periods

Start	End	Cycle
2006-01-01	2006-12-31	N/A

Data Collection Mode

Self- administered questionnaire and face-to-face interview in some instances.

Data Collection Notes

Questionnaires were personally delivered to the sample establishments by the staff of provincial statistics offices. The purpose and importance of the census were explained to the respondents.

Generally, the questionnaires were left with the establishments. The respondents were given 30 days within which to accomplish the questionnaire. As the deadline approached, reminder letters were sent by the provincial offices to the sample establishment regarding the date the accomplished questionnaire will be collected.

Aside from the usual method of collection of data, beginning with the 2006 CPBI, the NSO also utilized current technology, such as the e-mail and NSO Website, to improve survey operations particularly in the collection of establishment's data. Although, the overall response to this method of data collection was still low (0.1% of total workload).

Refer to the documentation Section 'Field Operations' of Publication Volume for additional information on data collection including the levels of training conducted prior to data collection.

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Data Collectors

Name	Abbreviation	Affiliation
National Statistics Office	NSO	National Economic Development Authority

Supervision

Supervision was done by Regional Directors, Provincial Statistics Officers, and regional and provincial statisticians while spotchecking was done by selected Industry and Trade Statistics staff (ITSD) with the assistance Provincial Statistics Officers/Statistical Coordination Officers to ensure the efficient conduct of the census operations.

Two rounds of spotchecking were conducted by selected ITSD staff in January to February 2008 and in April 2008 to further improve the response rate and quality of reports. Selected provinces were visited based on their response rates and number of uncollected questionnaires. Establishments with total employment of 100 and over were prioritized. During the spotchecking, the ITSD staff held meetings with field staff to discuss and assess the problems encountered in data collection. They also visited sample establishments found to be non-responding, closed and those with problems in the submitted 2006 CPBI questionnaires.

Data Processing

Data Editing

Manual editing of data was done in three levels, as follows:

- Field editing of data was done by the field men, hired SRs and provincial staff upon collection of the accomplished questionnaires from the sample establishments. The objective is to check for completeness and consistency of entries in the questionnaires, following the instructions provided in the Field Operations and Processing Manual. Any inconsistent or missing data was corrected at this stage as this can be immediately verified from the respondents.
- Office verification was done by provincial office staff upon receipt of the accomplished questionnaires from the field men and hired SRs. In some instances, the staff contacted directly the establishments through phone call or sent email inquiries to verify some inconsistent or missing data.
- Desk verification was done by the ITSD staff to check the consistency and reasonableness of entries in the accomplished questionnaires. Consolidated reports of enterprises were disaggregated at the firm level based on the reports submitted by the enterprise using ratios and proportions of individual firms to enterprise. This process also validated the status of establishments that were non-responding and reported closed, cannot be located, transferred, and out of scope. Telephone inquiry was extensively utilized to verify information from the establishment's contact person. The internet was also used to obtain information on the contact address and to research for information on the status of the establishment.

Other Processing

Machine Processing

Machine processing consists of data entry, structural and consistency checks and encoding of updates, and generation and analysis of completeness of questionnaires with ID validation and summary file reports.

A microcomputer-based machine processing and tabulation system for the 2006 CPBI was developed by the IRD staff using Census and Survey Processing (CSPRO) software. The system consisted of three modules namely: data entry module, validate data module which includes structural edit and completeness check, and tabulation module.

Data entry was done by IRD-Information and Technology Operations Division staff and ITSD subject matter staff while the remaining machine processing activities were done by the subject matter staff. CSPRO version 3.0 was used with a highly structured data entry program. Range checks and skips were incorporated in the program.

Validate data module checked the acceptability of entries, completeness and consistencies of data items in the questionnaire including the completeness of responding samples with that of the Sample Reference File.

The tabulation module consisted of the generation of unweighted and weighted tables for establishments with total employment of 20 and over and less than 20. The unweighted tables are simply the tally tables for the responding samples, that is, without adjustment for the weight of each sample.

The final tables were subjected to review and analysis to check for internal and external consistency and completeness of data, including the correctness in the computation of derived variables and indicators.

Imputation Methods Used

Data of non-responding establishments were imputed manually and electronically based on established imputation methods. Sources of information were from previous reports of the same establishment, or from report of other responding establishment with similar characteristics, financial statements filed at Securities and Exchange Commission and other establishment-based surveys such as MISSI and QSPBI. 'Hot and cold deck' imputation methods were used for partial and total nonresponse. Following were the imputation procedures used:

Estimation of missing data items using data of other responding establishment

Ratio estimation was utilized to assign values for missing data using other accomplished questionnaire of responding

establishment with the same establishments' characteristics as auxiliary information in the estimation process.

Example:

To compute for the detailed costs given only the total cost. By ratio estimation and using data from an accomplished questionnaire of the same stratum, compute for the following:

- Cost structure of the accomplished questionnaire; and
- Detailed costs by applying the computed cost structure ratio

Estimation of missing data items using other data of the same questionnaire

Several equations were provided in the Field Operations and Processing Manual to check the consistency and reasonableness of data items in the questionnaire. These were the equations to derive the missing data items in the questionnaire.

Estimation of missing data items from external records

Supplementary information from external records were utilized to estimate the missing data in the questionnaire. Some of these were:

- Financial statement of the sample establishment
- Past ASPBI report of the same sample establishment

Data of unit or total nonresponse, the following data were the data sources:

- financial statement of the sample establishment
- past ASPBI report of the same sample establishment
- questionnaire of other responding establishment with the same establishments' characteristics, that is, with the same PSIC, ATE size and geographic domain

A dummy questionnaire was prepared for each sample establishment identified as unit nonresponse. Indicated in the cover page of the dummy questionnaire was the source data.

During the summarization stage of machine processing, cases of closed/stopped operation before 2008, CBL/transferred, out of scope and duplicate sample establishments in non-certainty stratum were imputed if the number of responding establishments (n') in the stratum is less than 50 percent of the total number of samples (n) in the stratum.

Data Appraisal

Estimates of Sampling Error

The estimates of standard error by sector and industry were computed as input to the design of succeeding survey, in this case, the 2008 ASPBI.

Other forms of Data Appraisal

Indicators were derived to check for the consistency between data items and also compared with indicators of previous economic surveys and censuses. Growth rate of variables were also checked with data obtained from top 1000 corporations, as released by Securities and Exchange Commission.