# Energy Asset Accounts of the Philippines
## Coal

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**Workshop on Energy Statistics for ASEAN Countries**
**21 – 23 November 2017,  Kuala Lumpur, Malaysia**

# Outline

**About PSA**

**Coordinative Mechanism**

**Development of Physical Accounts for Coal**

# About PSA

## The Philippine Statistics Authority (PSA)

In September 2013, the President approved **Republic Act No. 10625 – *An Act Reorganizing the Philippine Statistical System***, which abolished the former BAS, BLES, NSCB and NSO, and established the Philippine Statistics Authority (PSA).

Implementing Rules and Regulations (IRR), approved on December 11, 2013 and took effect on December 29, 2013

### Functions of the PSA
*"Coordinate with government departments and local government units (LGUs) on the promotion and adoption of statistical standards"*
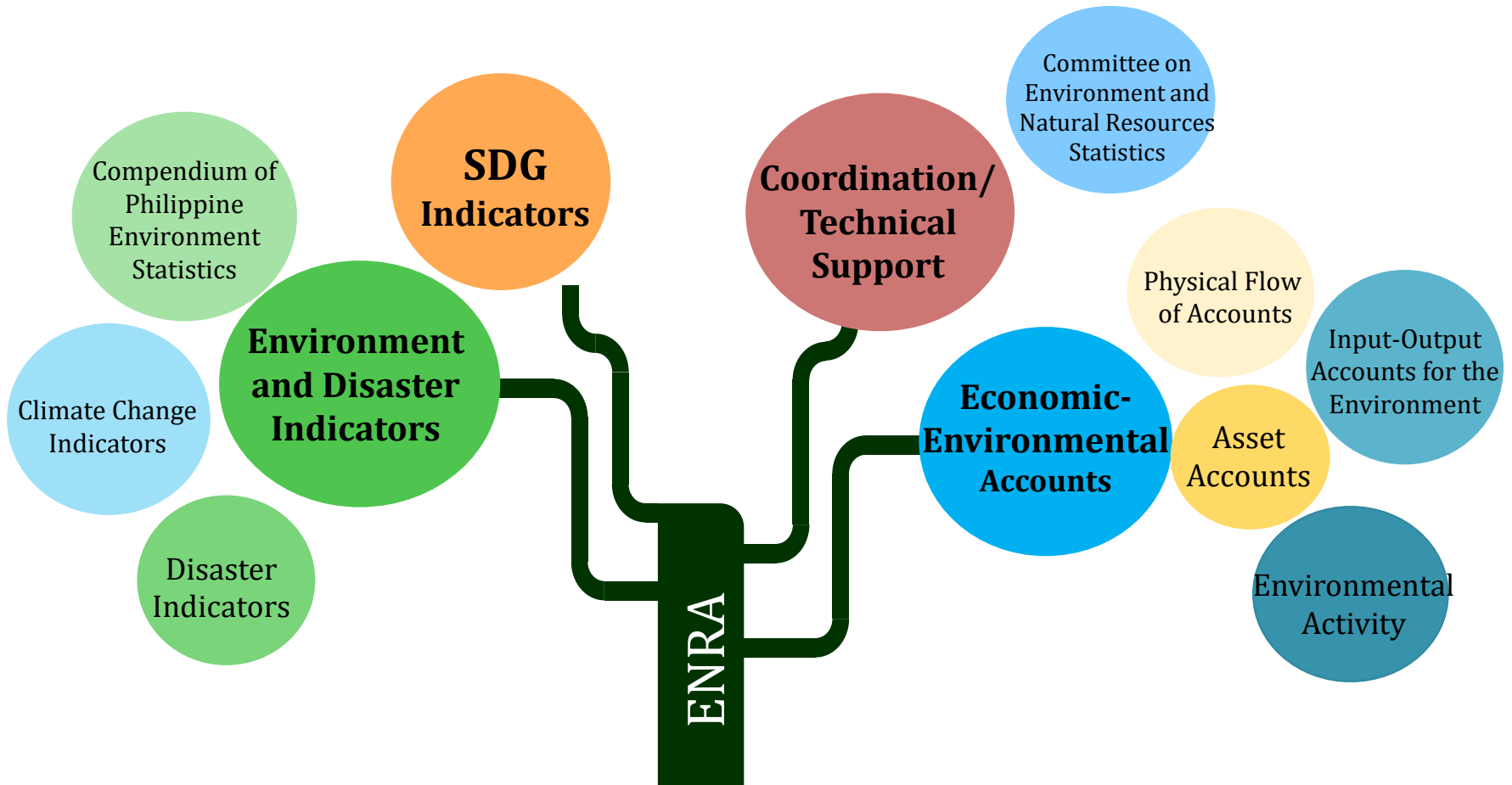
# About PSA

## Environment and Natural Resources Accounts Division (ENRAD)

# Coordinative Mechanism

**Interagency Committee-Environment and Natural Resources Statistics**

- venue for discussion and resolution of issues,
- review current techniques/methodologies
- recommend policies; and
- workable schemes towards the improvement of environment and natural resources and other related statistics

# Coordinative Mechanism

**Technical Working Group on Energy Statistics**

Serve as forum for discussion and resolution of concerns/problems and issues in the compilation, processing, and dissemination of energy resources statistics, accounts and other related indicators in terms of accuracy, completeness, timeliness, and relevance

Review and enhance the concepts, techniques, and methodologies used in the collection, processing, and reporting of energy resources statistics and accounts to ensure conformity with the prescribed statistical standards and classification system;

Recommend improvements in the methodology of compiling energy resources statistics and accounts and formulate measures to ensure that the data requirements of the same are being generated and addressed by all concerned agencies;

Prioritize outputs that will address the more urgent statistical requirements in the Philippine Statistical Development Program, including those required to monitor/measure accomplishment of relevant chapters of the Philippine Development Plan and its Result Matrix;

Provide data/information support in the development, generation, and maintenance of ENR frameworks, including identification of viable data sharing/exchange platform for various end-users.

# Development of the Physical Accounts for Coal

# Data Requested from DOE

| | Data Needed | Description | Aggregations and Scales | Period Covered |
|---|---|---|---|---|
| 1 | Volume of discoveries | These refer to **estimates of new resources** that commonly arise through exploration and evaluation | -By mine per province or coal region | 2000-2015 |
| 2 | Volume of reserves reappraised | Reappraisals refer to the **changes that arise due to reassessment of quality and size of the stock, and the economic viability of extraction** (including changes due to development of extraction technology) | -By mine per province or coal region | 2000-2015 |
| 3 | Status of each mine | This pertains to the **status of each mine site for each year in the accounting period**, preferably. This is essential in the classification of the energy resources and could be indicated as any of the following: <br> -under exploration <br> -production ongoing <br> -suspended/terminated by the government <br> -ceased operations <br> -affected/destroyed by catastrophes <br> -undergoing rehabilitation/final decommissioning | -By mine per province or coal region | 2000-2015 |

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# Data on-hand

| Data | Period Covered/as of Date |
| --- | --- |
| 1) Coal reserves by coal region | as of 31 December 2013 |
| 2) Coal reserves by coal region | as of June 2016 |
| 3) Coal reserves by coal region | as of 31 December 2015 |
| 4) Coal reserves by mine | 2000-present |
| 5) Coal Production | 2004-2015 |

# Philippine Statistics Authority

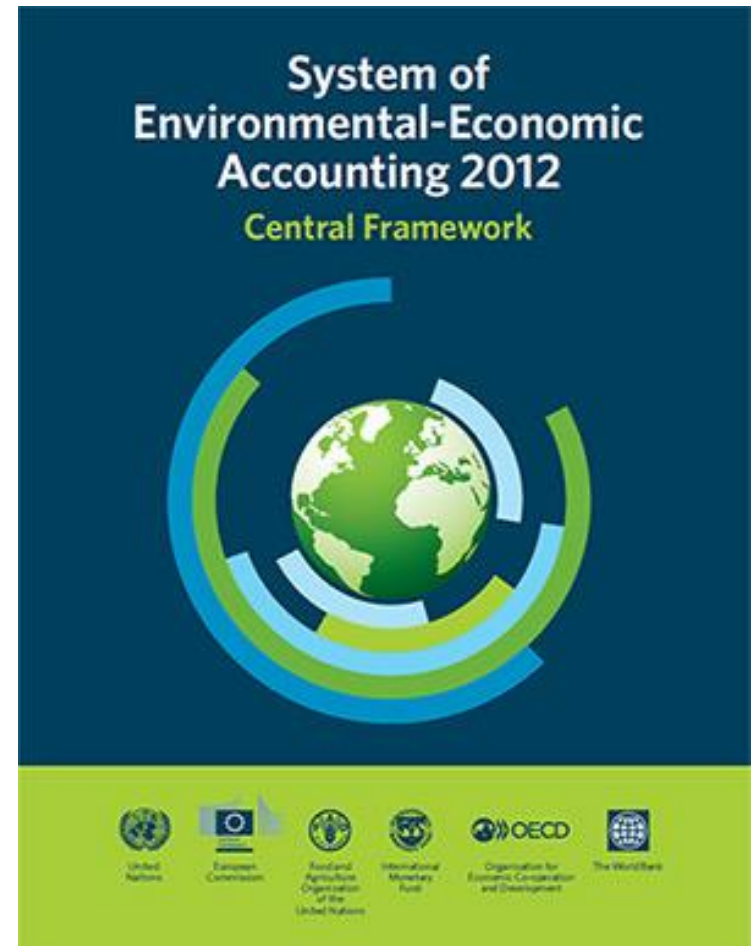| Data/Information Needed | Availability | Recommended Action |
|---|---|---|
| Production data | Time series data available from Production Accounts Division | Ready for use in stock accounts |
| Volume of coal reserves | Data on proven, probable and in-situ reserves per coal region in 2013 and 2015 only are available | Compute for stocks in the following years using available reserves data and production data. |
| Volume of reappraised reserves | Not available | For follow-up |
| Volume of new discoveries<br><br>Status of mines | Data on start and end of activity, and current status of mine were given in one file (for Coal-Operating Contractors only) | To follow up data on small-scale mines |

# Data on-hand

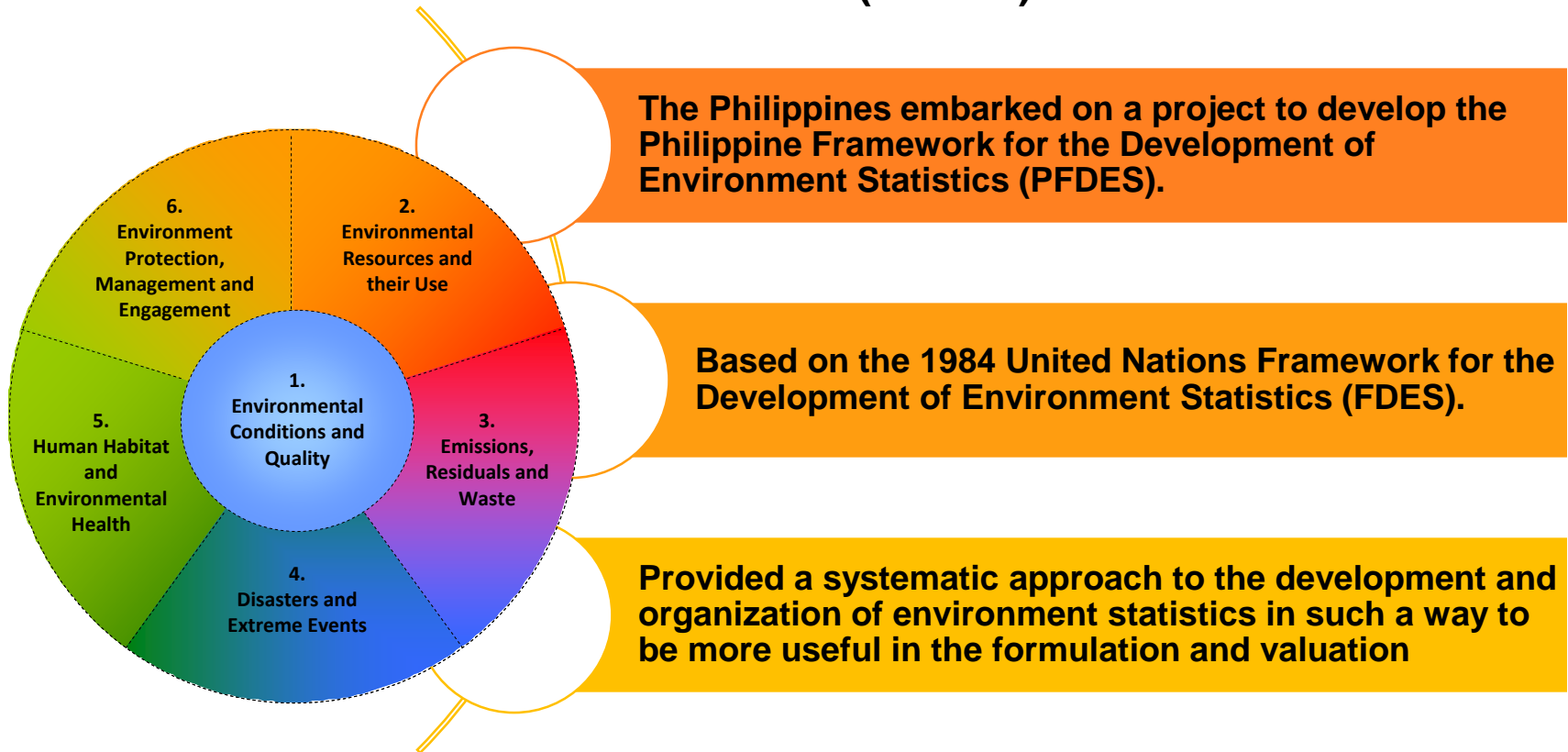| Data | Period Covered/as of Date |
|---|---|
| 1. Oil, Natural Gas and Condensate Reserves <u>by Basin</u> | As of 31 December 2015 |
| 2. Oil, Natural Gas and Condensate Production <u>by Field</u> | 2004-2015 |

# Framework

The framework used for the estimation of the physical accounts for energy resources is the **UN System of Environmental-Economic Accounting 2012 Central Framework (SEEA-CF)**

The SEEA-CF is aligned with the accounting structure of the System of National Accounts (SNA), and contains concepts, definitions and classifications that facilitate the integration of economic and environmental statistics.
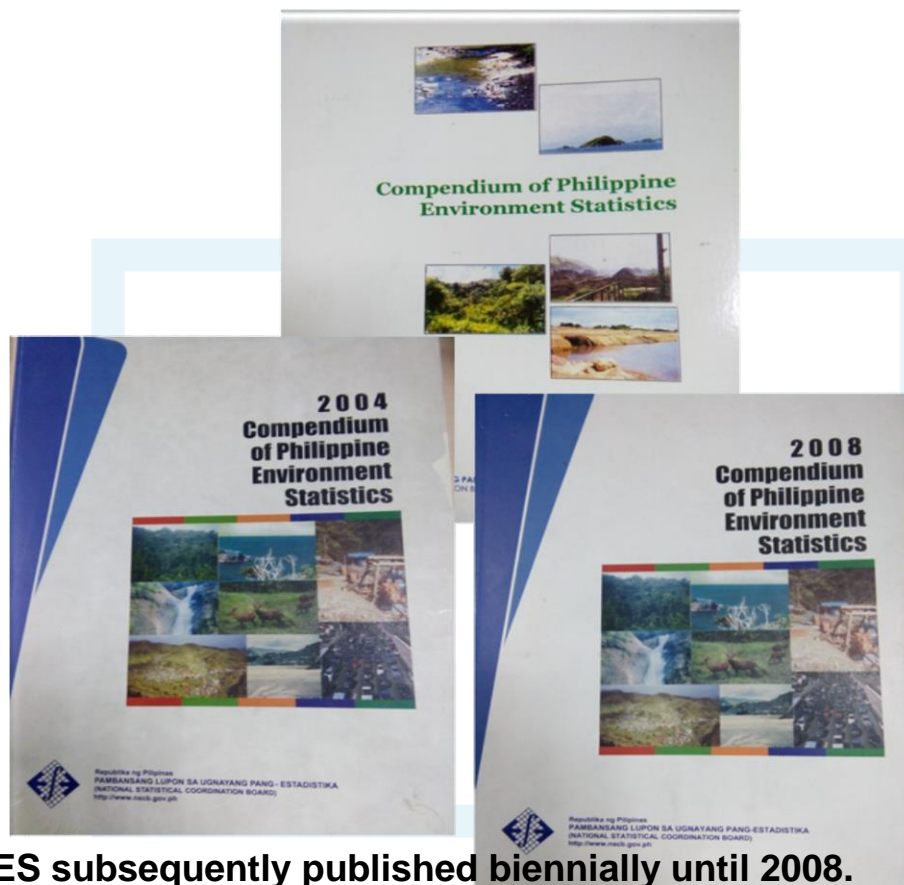
# Development of Environment Statistics

**Philippines Framework for the Development of Environment Statistics (PFDES)**

6. Environment Protection, Management and Engagement

2. Environmental Resources and their Use

5. Human Habitat and Environmental Health

1. Environmental Conditions and Quality

3. Emissions, Residuals and Waste

4. Disasters and Extreme Events

**The Philippines embarked on a project to develop the Philippine Framework for the Development of Environment Statistics (PFDES).**

**Based on the 1984 United Nations Framework for the Development of Environment Statistics (FDES).**

**Provided a systematic approach to the development and organization of environment statistics in such a way to be more useful in the formulation and valuation**

# Development of Environment Statistics



**The Philippine came out with the first edition of the Compendium of the Philippine Environment Statistics (CPES) in 2000**

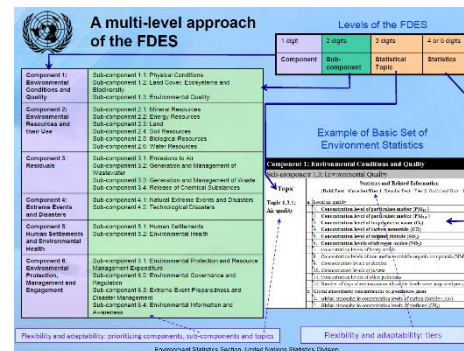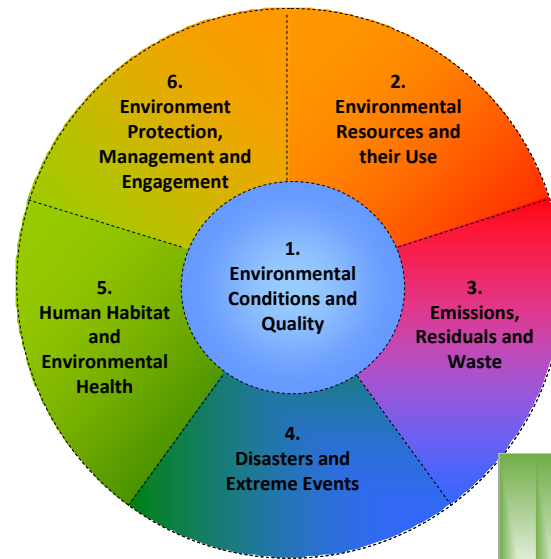•**The CPES subsequently published biennially until 2008.**

# Development of Environment Statistics

**Framework for the Development of Environment Statistics (FDES) 2013**

- Describes the scope and components of environment statistics; harmonizes data with common standards.

- UN Statistical Commission endorsed revised FDES (2013):

    - Recognizing its importance to *2030 Agenda for Sustainable Development*

    - Adds core set of environment statistics & *links to SEEA*



**2014** Compendium of Philippine Environment Statistics

REPUBLIC OF THE PHILIPPINES
PHILIPPINE STATISTICS AUTHORITY

**Development of Environment Statistics**

# Environment Statistics

Environmental Conditions and Quality

Environmental Resources and Their Uses

Residuals

Extreme Events and Disasters

Human Settlements and Environmental Health

Environment protection, management and engagement

**200**

Tier 2 statistics

**100**

**Tier 1**
Statistics
(Core set)

**158**

*Tier 3* statistics

# Primary Energy Sources

| Environmental Resources and Their Uses | | | |
|---|---|---|---|
| Data/Indicator Requires | Data Available | Source of Basic Data | Year |
| Nonrenewable energy resources<br>• Coal<br>• Natural Gas<br>• Crude Oil and Condensate<br><br>Renewable energy resources<br>• Hydro<br>• Geothermal<br>• Solar<br>• Wind<br>• Biomass excluding charcoal<br>• Biodiesel<br>• Ethanol | Energy Balance Table<br>(in thousand tons of oil equivalent) | Department of Energy | 2002 to 2013 |

# Power Generation by Sources

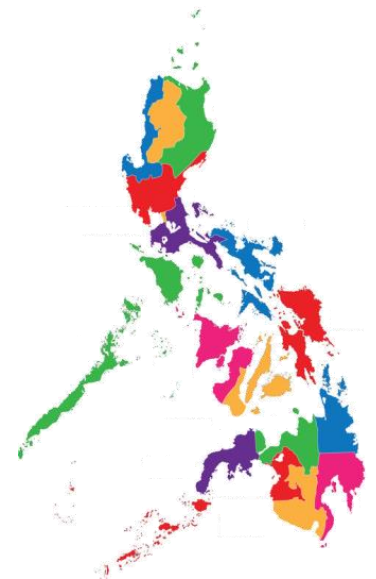| Environmental Resources and Their Uses | | | |
|---|---|---|---|
| Data/Indicator Requires | Data Available | Source of Basic Data | Year |
| Energy Source:<br>• Oil-Based<br>• Hydro<br>• Geothermal<br>• Coal<br>• Other renewable<br>• Natural Gas | Power Generation by Source (in gigawatt-hour) | Department of Energy | 2000 to 2013 |

# Generation of Establishment-Based Statistics: Philippines

**Presented by:**

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**United Nations Economic and Social Affairs, Statistics Division (UNSD)
Workshop on Energy Statistics for ASEAN Countries
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➢ **Executive Order No.352** – **Designates statistical activities for adoption by the government**

**– CPBI, ASPBI, QSPBI, MISSI and PPS are designated statistical activities which ensure the provision of budget**

# ESTABLISHMENT BASED SURVEYS

**Annual Survey of Philippine Business and Industry (ASPBI)** and **Census of Philippine Business and Industry (CPBI)**
 one of the establishment based surveys where data on energy statistics is being generatedate

➢ **data from establishment-based surveys are used in:**

 ✓ **System of National Accounts (SNA)**

 ✓ **Sustainable Development Goals (SDG 9)**

 ✓ **generating MSME (micro, small and medium establishments/enterprises) data using total employment**

 ✓ **gathers information to updating the characteristics of the list of establishments**

➢ **data from establishment-based surveys are used in:**

    ✓ **Generating indicators** for industries such as

        ▪ **Value added**

        ▪ **Labor productivity**

        ▪ **Average compensation**

    ✓ **evaluating the performance of industries** for **national and regional development planning and monitoring**

    ✓ **data enclave** for **researchers**

**The following activities are being adopted by ASPBI and CPBI:**

➢ **uses concepts and methodologies patterned after United Nation System of National Accounts and Organization for Economic Cooperation and Development (OECD)**

➢ **provides Technical Notes or Explanatory Texts for every special release and publication to ease in understanding of data**

➢ **uses classification standards**

    ✓ **Philippine  Standards  Industrial  Classification**

    **which is aligned with ISIC Rev 4**

    ✓ **Philippine  Standard  Geographic  Classification**

    **as of 31 December 2016**

✓ **Utilization of**

- ▪ **Sampling Methodology**

- ▪ **Questionnaire Design**

- ▪ **Data Processing, Review and Tabulation**

➢ **Utilization of Sampling Methodology**

**- CPBI and ASPBI uses stratified systematic sampling design with 5-digit PSIC serving as industry strata and total employment as the second stratification variable**

➢ **Utilizes Questionnaire Designs in all surveys**

| CPBI / ASPBI |
|---|
| **Parallel with the Philippine accounting principles and Systems of National Accounts** |
| **7 types of self-administered and web – based sectoral questionnaires** |

**Table 3.2  List of Data Items in the 2016 ASPBI Questionnaires**

**ITEM NO. DESCRIPTION** (Cover Page)

Name and Address of the Establishment and Its Reporting Unit

Control Panel for Establishment Characteristics *(For PSA Use Only)*

1 Business and Registered Name in 2013, Business Address, Company Website and Establishment Tax Identification Number (TIN)

2 Economic Activity or Business in 2013

3 Year Started Operation

4 Legal Organization in 2013

5 Economic Organization in 2016

6 Capital Participation as of December 31, 2016

7 Employment as of November 15, 2016

8 R&D Personnel as of November 15, 2016

9 Number of Production/Construction Workers as of November 15, 2016    (For ASPBI Forms 2, 3 and 4)

10 Total Hours Worked by Production/Construction Workers in 2016    (For ASPBI Forms 2, 3  and  4)

11 Income in 2016

12 Subsidies Received from the Government in 2016

13 Expense in  2016

14 Sales from E-commerce Transactions in 2016

15 Capital Expenditures, Sale and Book Value of Tangible Fixed Assets,  inc Losses and Damages in 2016

16 Capital Expenditures for All Tangible Fixed Assets by Mode of Acquisition in 20136

17 Capital Expenditures and Book Value for Intangible Assets in 2016

18 Total Assets as of  December 31, 2016

19 Average Capacity Utilization Rate of the Establishments in 2016  (For ASPBI Form 2 and 3)

20 Inventories in 2016

21 Branches, Divisions, Plants Owned and Controlled (for Main Office)

# Data items collected from the surveys

**Table 2.2  Scope and Coverage of the ASPBI**

**2009 PSIC SECTION**

**A-** Agriculture, Forestry, and Fishing

**B -**Mining and Quarrying

**C -**Manufacturing

**D  - E**ectricity, Gas, Steam, and Air Conditioning Supply

**E  -**Water Supply; Sewerage, Waste Management and Remediation Activities

**F  -**Construction

# Table 2.2  Scope and Coverage of the ASPBI

## 2009 PSIC SECTION

**G -** Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles

**H -** Transportation and Storage

**I -** Accommodation and Food Service Activities

**J -** Information and Communication

**K -** Financial and Insurance Activities

**L -**Real Estate Activities

**M -**Professional, Scientific and Technical Activities

**N -**Administrative and Support Service Activities

# Table 2.2  Scope and Coverage of the ASPBI

**P** -Education

**Q -** Human Health and Social Work Activities

**R -** Arts, Entertainment, and Recreation

**S -** Other Service Activities

The following sections of the 2009 PSIC are excluded from the scope of this survey and all other establishment-based surveys of PSA:

**O -**Public Administration and Defense; Compulsory Social Security

**T -** Activities of Households as Employers; Undifferentiated Goods and Services Producing Activities of Households for Own Use

**U -** Activities of Extra-territorial Organization and Bodies

# Data Processing, Review and Tabulation

➢ **Maintain of an Establishment Data Management System (EDMS)**

**With Modules ensuring that procedures and instructions in all processes are uniform**

- ✓ **Data Entry**
- ✓ **Data Validation**
- ✓ **Summary File Report**
- ✓ **Completeness Check**
- ✓ **Tabulation**

**Amount of time spent between data collection and release date**

➢ **Adherence to a** **System of Designated Statistics** **with specific release dates posted in the PSA website at the beginning of every year**

➢ **Timetable of detailed activities are prepared as guide in all phases of operation**

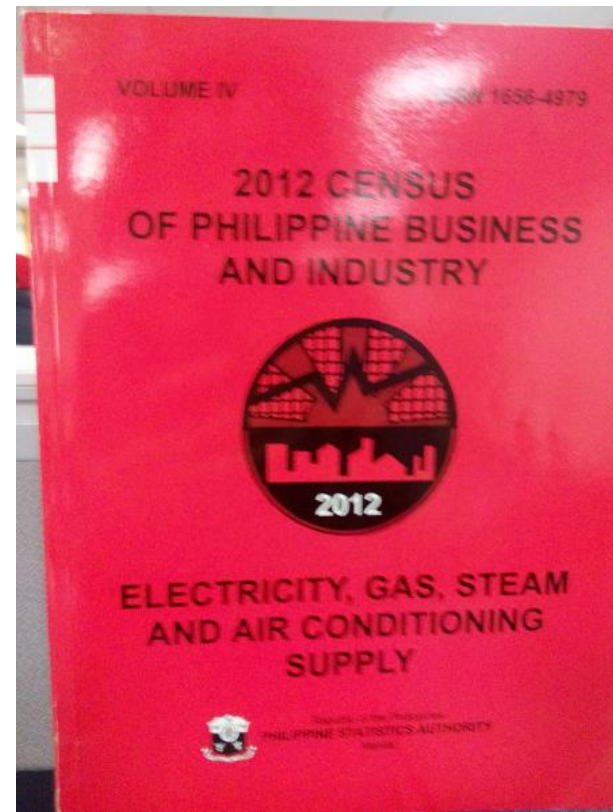➢ **Done during planning workshops alongside with other divisions and services of the Office**

**Collection and distribution of questionnaires to the sample establishments are done in the field offices**

➢ **E- copy publication**

➢ **Printed copy of publications**

# Thank you!
# Salamat Po!

http://www.psa.gov.ph

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