COUNTRY PRACTICE
IN ENERGY STATISTICS

Topic/Statistics: Current Survey of Production（A part for energy）

Institution/Organization: Ministry of Economy, Trade and Industry

Country: Japan

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CONTENTS

Abstract

Write a short abstract of the statistics, and try to limit it to one page. The purpose of the abstract is to give the reader a general overview of the statistics/topic. It should therefore include a brief overview of the background and the purpose of the statistics, the population, the sample (if relevant), the main data sources, and the main users of the statistics. The abstract should also mention what is the most important contribution or issue addressed in the country practice (e.g. the practice deals with challenges of using administrative data, using of estimation, quality control, etc.). If there are other elements that are considered important, please feel free to include them in the abstract.

Keep in mind that all relevant aspects of the statistical production will be covered in more detail under the different chapters in the template. Therefore, the abstract should be short and focused on the key elements. What the most important elements are can vary from statistics to statistics, but as a help to write an abstract you can use the table below. The table can either replace a text or can be filled out in addition to writing a short text.

Key elements	
Name of the statistics	Current survey of production
Background and purpose of the statistics	This survey is conducted to clearly identify the monthly trends in industrial production and obtain basic materials for mining and manufacturing policies. This survey has been conducted since 1948.
Population, sample and data sources	All establishments which produce the selected survey items (concerning energy statistics, crude oil, natural gas, petroleum products, and a coal products are selected as survey items)
Main users	
Important contribution or issue addressed	The results of the survey are utilized extensively not only within METI but also by other national administrative organizations, local governments, industry associations, enterprises, banks and research and survey institutes. Also, these statistics are used as the basis for Indices of Industrial Production (Production, Shipment, and Inventory) (IIP), Input-Output table of inter-industrial relations (IO), preliminary Quarterly Estimates of GDP (QE) and other secondary-processed statistics.
Other remarks	

1. General information

1.1. Name of the statistics/topic

The statistics/topic could either be a specific energy statistics (e.g. electricity production) or a topic within energy statistics (e.g. energy balances). For more information, please see Section III of the Instructions.

Current survey of production

1.2. History and purpose

State when the statistics were first published.

1948

Describe briefly the main purpose of producing the statistics and why it is relevant.

The current survey of production has been conducted to monitor month-to-month changes in manufacturing and mining outputs in Japan and obtain basic data on the industries available policy-makers. ,

1.3. Reference period

State the time period the data are collected for.

As of the last day of every month

1.4. Frequency

Specify how often the statistics are disseminated (e.g. annually, monthly, quarterly, etc.). If the statistics are not produced at regular intervals, state at what times they have been produced in the past and the main reasons behind the irregularities.

Every month

1.5. Dissemination

Describe how the statistics are published (e.g. printed publications, online publications, online databases, etc.). If applicable, include the web address to the main website of the statistics.

Printed publications and website http://www.meti.go.jp/english/statistics/tyo/seidou/index.html

1.6. Regional level

State the lowest geographical level (e.g. administrative regions, municipalities, etc.) for which the statistics are made available to the public.

Japan only

1.7. Main users

Identify the key users of the data and the main applications. Include both internal and external users, and if possible try to distinguish between end users and others.

1.8. Responsible authority

Write the name of the institution and department/office with the main responsibility for disseminating the statistics (e.g.: Statistics Norway, Department of Economics, Energy and the Environment).

Office of Current Survey for Mining and Manufacturing , Minister's Secretariat Research and Statistics Department , Ministry of Economy, Trade and Industry

State the national legal basis for the data collection. Include a complete reference to the constitutional basis, and web address to an electronic version (e.g.: The Statistics Act of 16 June 1989 No. 54, §§2-2 and 2-3, http://www.ssb.no/english/about_ssb/statlaw/forskrift_en.html).

Article 13, The Statistics Act http://www.stat.go.jp/english/index/seido/pdf/stlaw.pdf

If the data collection is not based on a legal basis, give a short description of other agreements or volunteer arrangements.

If applicable, give reference to national and international commitments that are legally binding (e.g. EU statistical legal acts).

1.9. Resource requirements

Specify how the production of the statistics is financed (e.g. over the ordinary budget, project based support, financial support from other institutions or organization). If applicable, state the contracting entity (e.g.: Ministry, EU Commission, OECD). A contracting entity is any entity which is ordering a survey or the compilation of a statistics, and paying for it

Government Expenditure (General Accounting)

Specify the resource requirements for producing the statistics (e.g. man-labour days, number of workers involved in the statistical production process of the statistics/topic in question).

3 METI staffs mainly engage in the conducting of the survey for the energy related products. Others help them with reception of the questionnaires,-publication, data-processing, planning and scheduling of the survey operation etc.

1.10. International reporting

List any international organizations and names of reporting schemes that the statistics are reported to. If available, also include the website where the reported data are published (e.g. International Energy Agency, Monthly Oil Statistics, UNSD, etc.).

To provide monthly production data of natural gas and crude petroleum to UN/MBSQE.

2. Statistical concepts, methodology, variables and classifications

2.1. Scope

Describe the scope of the statistics (e.g. the statistics cover supply and use of all energy products in Norway, classified according to International Standard Industrial Classification of All Economic Activities – ISIC).

All the places of business which produce crude oil, natural gas, petroleum products, and coal products are objects.

2.2. Definitions of main concepts and variables

Describe the main concepts (e.g.: territory principle, resident principle, net calorific value, gross calorific value).

Produce the survey items within Japanese territory

Describe the main variables (e.g. how are the different energy products defined in the statistics? How are production, intermediate consumption, final consumption, transformation, feed stock, the energy sector, etc. defined?).

Concerning crude oil and natural gas;
- Production (Kl)
- Consumption (Kl)
- Shipments (Kl)
- Amount (Kl)
- Values (million yen)
- Others (Kl)
- Month-end inventory (Kl)
- Crude oil production details by oil source;
  - Light crude oil
  - Condensate
- Natural gas production details by mineral deposit;
  - from oil fields
  - from gas fields & coal fields(Structure type, water-soluble)
- Breakdown of natural gas consumption/shipment by industry;
  - for crude petroleum and natural gas
  - for chemicals
  - for other manufactures
  - for power generation
  - for gas generation
  - for other industries
- Number of persons engaged at the end of a month

Concerning coke (in iron manufactures, in other manufactures);
- Production
- Receipt
- Consumption
- Shipment-sales volume
- Shipment-sales amount (million yen)
- Shipment-others
- Month-end inventory
- Production capacity/operating ratio (iron manufactures, other manufactures);

Production capacity
Operating ratio
Number of persons engaged at the end of month

Concerning petroleum products;
(Products are gasoline, naphtha, jet fuel, kerosene, gas oil, fuel oil, lubricating oil, paraffin wax, asphalt, LPG, petroleum coke, recovered sulphur, refining material and blending component oil, off gas, etc.)
Production
Receipt
Consumption (fuel for use in refinery)
Shipment - to sales section
Shipment - to transfer out
Shipment - own use
Conversion to another product
Inventory
Semi-products receipt and shipment;
(Semi-products are slack gasoline, slack kerosene, slack gas oil, slack fuel oil, slack lubricating oil, slack wax, slackcoke)
Receipt
Increase or decrease
Shipment
Month-end inventories
Number of persons engaged at the end of month

2.3. Measurement units

Describe in what unit the data is collected (e.g. physical unit (m3, metric tons), monetary unit (basic prices, market prices)). Describe in what unit the data is presented. Describe if the calorific values are collected (e.g. on a net vs. gross basis) and how they are used.

If applicable, describe the density of the energy product(s) and the estimated *thermal efficiency coefficients* of different energy products and consumer groups or by appliance. Thermal efficiency coefficient indicates the share of the energy products which is actually usable for end consumption. Descriptions of density and thermal efficiency coefficient could alternatively be put in an annex.

Ton (Coke, paraffin wax, asphalt, LPG, petroleum coke, recovered sulphur)
Kilo-litter (Crude oil, petroleum products, lubricating oil, etc.)

m3(Natural gas)
Number of persons
Japanese Yen

2.4. Classification scheme

Include references to relevant international and national standard classifications. If national, give a brief description of the standards. If available, include web addresses to the electronic version of the standards).

2.5. Data sources

Give an overview of the different data sources used in the collection and compilation of the statistics/topic (e.g. household survey, enterprise/establishment survey, administrative data/registers, foreign trade statistics, production statistics and other primary/secondary data sources).

Examples of administrative sources/registers are: business register for enterprises and establishments, population register, land register, housing and building registers, tax registers, international trade registers, etc.

2.6. Population

Describe the entire group of units which is the focus of the statistics (the population).

All establishments which produce the selected survey items (Concerning energy statistics, crude oil, natural gas, petroleum products, and a coal product are selected for the survey items)

Specify the following statistical units:

- Reporting unit
- Observational unit
- Analytical unit

Examples of different kind of statistical units include: enterprise, enterprise group, kind-of-activity unit (KAU), local unit, establishment, homogeneous unit of production.

In most cases the reporting unit, observational unit and analytical unit are identical, but there are examples where this is not the case. In electricity statistics, you may find that energy companies (the reporting unit) provide data about different consumers like the individual household or manufacturing company (the observational unit). The analytical unit may be a group of energy consumers, defined by the ISIC.

Reporting unit : establishment
Observational unit : establishment
Analytical unit : establishment

2.7. Sampling frame and sample characteristics

Describe the type of *sampling frame* used in the collection and compilation of the statistics (e.g. list, area or multiple frames). A sampling frame is the source material or device from which a sample is drawn. Note that the sampling frame might differ from the population.

For each survey(s) used for the compilation of the statistics, specify the *sampling design* (e.g. random, stratified, etc.). Describe the routines employed for updating the sample. Include information about the sample size, and discuss to what extent the sample covers the population (e.g. energy consumption in the sample compared to total energy use by the population).

Note that chapter *2.7: Sample frame and sample characteristics* may overlap with chapter *3.4: Grossing up procedures.*

2.8. Collection method

For each survey used for the compilation of the statistics/topic, describe how the data are collected (e.g. face-to-face, telephone, self-administered, paper and internet-based questionnaires, or administrative data and registers).

Paper and internet-based questionnaires

2.9. Survey participation/response rate

For each survey used for the compilation of the statistics/topic, specify the average response rate, or refer to response rates for specific surveys conducted.

3. The statistical production process

3.1. Data capture and storage

Describe how the data is captured and stored (e.g. if the respondent replies using Internet-based questionnaire, the received data are electronically transferred to the production database. Paper questionnaire responses are keyed manually to the production database).

If the respondent replies by Internet-based questionnaire, the received data are electronically transferred to the production database. In case of replying by paper questionnaire operators manually input the data into the production database .

3.2. Data editing

Describe the regular routines employed for detecting and correcting errors. This may include:

- Manual routines for detecting and correcting errors
- Automatic error-detection (and correction)
- Micro- and macro editing procedures
- Data validation procedures
- Outlier identification
- Processes and sources used for quality controls

Running examination program, notice error point; Comparing current data to past data, if it is excessively increased/decreased than past, assuming error. Check for significant increases in the unit price. Check for row/column displacement. Horizontal balance checking: Inventory at the end of the previous month + production for the current month + reception for the current month - consumption for the current month - shipping for the current month (for sale or others) = inventory at the end of the current month etc. After detecting errors by computers, office workers judge error or not, and correct. If an unclear point remains, in order to confirm, telephone call or e-mail is made to the respondent.

3.3. Imputation

Describe the principles for imputation and the assumptions that these principles are based on.
Note that this chapter may overlap with chapter *3.2: Data editing* and chapter *5.2: Accuracy*

The data for the previous month are used as estimated data for the current month for establishments whose data have not arrived.

3.4. Grossing up procedures

Describe how the population is divided into strata and what statistical models the estimations in the strata are based on. Describe how sub-indices are combined into aggregate indices and how uncertainty is estimated.

3.5. Analytical methods

Give a description of any analytical methods used to adjust the data (e.g.: seasonal adjustment and temperature adjustment). A more detailed description of the analytical method can also be included as an annex.

4. Dissemination

4.1. Publications and additional documentation

Describe the form of dissemination of the statistics/topics in question (e.g. printed publications, website, etc.). Please provide relevant website link(s) if available.

Printed publications and website http://www.meti.go.jp/english/statistics/tyo/seidou/index.html

Give a complete reference to publicly available statistics databases where data from the statistics can be extracted. Include web addresses if available online.

Indicate whether you charge users for access to the statistics at any level of aggregation.

No

4.2. Revisions

Describe the current revision policies. E.g.: Is historical data revised when new methodology, new definitions, new classifications etc. are taken into use? Is the data continuously revised, or is the data revised at certain points in times (e.g. every third year, annually, etc.)?

If applicable, describe any major conceptual or methodological revisions that have been carried out for this statistic/topic in the past.

4.3. Microdata

Describe how microdata are stored.

For several years, microdata are saved in a statistics database.

Specify if microdata are available for scientific and/or public use. If so, describe under what conditions these are made available.

Microdata are available under the following conditions; - To produce statistics by an administrative organ, a local public entity, an incorporated administrative agency, an incorporated national administrative agency or inter-university research institute, in Japan. - To produce statistics etc., that are recognized as serving the public interest, by university researchers in Japan.

4.4. Confidentiality

Describe the legal authority that regulates confidentiality, and what restrictions are applied to the publication of the statistics.

The Statistics Act (Article 3, 39, 40, 41 and 43) protects the confidentiality of any information supplied by individuals, judicial persons or other organizations, and ensures that the information is used for statistical purpose only. The Act also stipulates the penalty for offenders (Article 57, 58, 59, 60, 61, and 62)

Describe the criteria used to suppress sensitive data in statistical tables (cell suppression).

Suppression is a method of disclosure avoidance used to protect companies' confidentiality by not showing (suppressing) the cell values in tables of aggregate data for cases where one or two establishment(s) are represented or dominate the cell value. To make sure the primary suppressions cannot be closely estimated by subtracting the other cells in the table from the marginal totals, additional cells are also suppressed.

Describe how confidential data are handled.

Confidential data are represented as X.

Describe any confidentiality standards that go beyond what is legally required.

5. Quality

5.1. Relevance

State to which degree the statistical information meet the real needs of clients/users.

5.2. Accuracy

State the closeness of computations or estimates to the exact or true values that the statistics were intended to measure.

Measurement and processing errors
Discuss the measurement and processing errors that are relevant for the statistics. Try as far as possible to give an estimation of the size and scope of the errors.

Non-response errors
State the size of the unit non-response and the item non-response, distributed by important variables in the population (e.g. region, industry). Consider if the non-response errors are systematic, and if so, describe the methods used to correct it. Indicate whether the effects of correcting non-response errors on the results have been analysed, and, if so, describe them.

Sampling errors
Discuss the size of the sampling errors. Compare the population and sample with regards to important properties (e.g. coefficient of variance).

Other sources of error
Discuss other sources of errors that might be relevant for the statistics. E.g.: Model assumption errors, coverage errors

5.3. Timeliness and punctuality

Specify the time between the end of the reference period and publication.
If the statistics are published both as preliminary and final figures, specify the time between publication of preliminary and final figures. You should also point out whether the publication date is set according to certain rules (e.g. advance release calendar, a specific day or prior to other publications).

Preliminary report; Published about 30 days after the end of reference period.
Revised report; Published about 15 days after publication of preliminary report.
Advanced release calendar for next year is published at the publication date of preliminary report in December.

Point out if there have been any major discrepancies between the planned publication date and the actual publication date in recent years. If so, state the length of this discrepancy and its cause.

5.4. Accessibility

Describe how easily accessible the statistics are. In particular, is there an advance release calendar to inform the users about when and where the data will be available and how to access them?

Are metadata and other user support services easily available? Are there particular groups that don't have access to the published statistics (e.g.: visually disadvantaged)?

Advanced release calendar and metadata are released on the website.

5.5. Comparability

Discuss the comparability of the statistics over time, geographical areas and other domains.

Comparability over time
Discuss comparability over time and include information about whether there have been any breaks in the time series of the statistics and why. Also describe any major changes in the statistical methodology that may have had an impact on comparability over time.

Comparability over region
Discuss comparability over geographical areas, and include information about whether the statistics are comparable to relevant statistics published by other countries and/or international organisations.

Comparability over other domains
Discuss comparability over domains, and include information about whether the statistics are comparable between different industries, different types of households etc.

5.6. Coherence and consistency

Discuss the coherence/consistency between preliminary and final figures.
A substantial gap may exist between preliminary report and final report if estimated data on establishments whose data did not arrive in time for the preliminary report are significantly different from the data actually collected for the final report.
Discuss the coherence/consistency between monthly, quarterly or yearly statistics within the same subject area. Can the results of different frequencies for the same reference period be combined in a reliable manner?

Discuss the coherence/consistency with other related statistics (also those produced by other institutions/organisations on the same subject).

6. Future plans

Are there any current or emerging issues that will need to be addressed in the future? These could include gaps in collection, timeliness issues, data quality concerns, funding risks, confidentiality concerns, simplifications to reduce respondents' burden etc.?

Annexes

Illustrations and flowcharts
Illustrations and flowcharts are useful to summarize information and to get a better overview of the statistical production process. Illustrations and flowcharts can either be places in annexes or be included under relevant paragraphs in the template.

E.g.:
- A conceptual flowchart which illustrates the flow of data in the production of the statistics.
- A flowchart which illustrates the main tasks in the production process and the dependency between them.

Time schedule
Include a time schedule for the different phases of the statistical production process. The statistical production process *may* be divided into the following phases. Phase 1-3 may only be relevant for when a new statistics/survey is set up.

1. **Clarify needs** (e.g. map users needs, identify data sources)
2. **Plan and design** (e.g. plan and design population, sample size, how to analyze and edit data)
3. **Build** (e.g. build and maintain production system, test production system)
4. **Collect** (e.g. Establish a frame, draw the sample, collect data)
5. **Edit** (e.g. identify and code micro data, edit data, imputation)
6. **Analyse** (e.g. quality evaluation, interpret, analyse)
7. **Disseminate** (e.g. publish data, user contact)

Questionnaires
Include the complete questionnaire(s)/survey form(s) used

Example of publication tables
Include an example of a typical table published for the statistics. Include web addresses if available online.

Detailed description on analytical methods
If relevant, a detailed description of analytical methods used in the statistical production (like seasonal adjustment, temperature adjustment etc.) may be described in an annex. A short description can also be included in chapter 3.5: Analytical methods or under other suitable chapters.