

2013 Agricultural Census

Budget

The Agriculture Census 2013 of Thailand was funded only through the National Budget.

Background

The Thailand Agricultural Census had been earlier conducted five times: 1950, 1963, 1978, 1993 and 2003. The census aims to provide basic information on the fundamental structure of agriculture which will constitute the bases for which policymakers and planners will continuously formulate plans for development, monitoring, and evaluation related to agriculture. Under the Statistics Act 2007, the National Statistical Office (NSO) is mandated to carry out censuses of the country. The 2013 Agricultural Census was also undertaken in accordance with the recommendation of the Food and Agricultural Organization (FAO) for conducting agricultural census every 10 years.

This census round had extended the scope of agricultural activity to include sea salt farm, as according to the Cabinet approval (1st March 2011), as well as to include questions on

marine fishery and coastal aquaculture into the enumeration form.

Census objectives

1) To collect basic information on the fundamental structure of agriculture, such as number of agricultural holdings and agricultural holding, freshwater aquaculture, sea salt farm, utilization of land, land tenure status, area under crops/sea salt farm/freshwater aquaculture, number of livestock, use of fertilizer, use of agricultural machinery, manpower involved in agricultural activities, etc.,

2) To provide those information at administrative units (village) for developing policy and plans in both national and sub-national level

3) To provide the basis for sampling frame for other surveys undertakings related to agriculture marine fishery and coastal aquaculture

4) To determine changes of basic information on agricultural structure over the past 10 years

Uses of census information

Census information provided to public and private agencies, academic institutions and international organizations are for the following uses:

Information on agriculture

1) To develop plans and policies related to agricultural economy in both national and sub-national levels, and to monitor and evaluate country's development plans

2) To study trend and directions of changes in agriculture and economic growth of the country

3) To determine and support information for formulating policy about land distribution for farmer

4) To develop policy on land use of appropriate crops for each area in order to maximize the use of land for agriculture

5) To provide information on characteristics of farm holders such as sex, age, work status, income and debt from agricultural activity, education, etc., which can be used to study the demographic of farm holders and socio-economic status of their household and the income dependency of agricultural households, in order to formulate policy for assisting farm holders, especially the poor farmers

6) To provide information on agricultural manpower for the study on labor intensive in agriculture and labor migration from rural to urban

7) To provide the basis for sampling frame for other surveys related to agriculture of Ministry of Agriculture and Cooperatives and other relevant agencies

8) To provide information for the compilation of National Accounts in agricultural sector

9) To provide data for academic researchers and general publics for studying an in-depth analysis related to agriculture and relevant issues

Information on marine fishery and coastal aquaculture

The census information also provides the basis for sampling frame for the detailed surveys on marine fishery and coastal aquaculture located in 24 coastal provinces.

Scope

The scope of this census round covered the agricultural activities on crops, livestock, freshwater aquaculture and sea salt farm, which were operated for selling purpose. Data gathered on these agricultural activities were:

1) **Cultivating crops**; rice, para rubber, permanent crops and forest, field crops, vegetable crops/herb and flower/ornamental plant, pasture, tree nursery and mushroom culture (including cultivating rice for owned consumption)

2) **Rearing livestock**; only selected animals which are cattle, buffalo, pig, goat, sheep, chicken, duck, goose and silkworm (including raising of cattle/buffalo for agricultural work)

3) Freshwater aquaculture; all kind of fishes.

Including fancy fishes and sea creatures, shrimp and other kinds of freshwater sea creatures such as frog, soft-shelled turtle, crocodile, etc. (including brackish-water creatures raised in freshwater area such as giant tiger prawn, snapper, etc.)

4) Sea salt farm; only sea salt farm located in 7 provinces which are Chachoengsao, Chon Buri, Chanthaburi, Samut Sakhon, Samut Songkhram, Phetchaburi and Pattani

Exclude 1) Agricultural activity for education, experiment,

competition, sport and leisure

2) Agricultural services, i.e. plough service by using tractor, well digging service, animal breeding service, egg hatching service, etc.

Census date

This refers to 1st May 2013.

The census date was set as the reference date in obtaining census information, for example, agricultural holdings, area of holdings and characteristics agricultural activities, and so forth.

Coverage

The census coverage covered all agricultural holdings, who engaged in cultivating crops, rearing livestock, freshwater

aquaculture and sea salt farm, whether in municipal or in non-municipal area, throughout the country.

This census was adopted the 'Closed Segment Concept' within the province for data collection, that means the agricultural holder who operated agricultural activities only within their current province will be listed and enumerated.

Agricultural holdings

Holding

A holding is an economic unit of agricultural production (cultivating crops, rearing livestock and culturing fresh water) under single management comprising all livestock kept and all land used wholly or partly for agricultural production purposes, without regard to title or legal form. The holding's land may consist of one or more parcels, located in one or more separate areas of the same province.

Holder

A holder refers to a civil or juridical person who exercises management control and takes major decisions over the agricultural holding operation. The holder has technical and economic responsibility for the holding and may undertake all responsibilities directly, or delegate responsibilities to a hired manager. A hired

manager participating in economic and financial responsibilities in addition to managing the holding is considered a holder.

Area of Holding

Area of holding is the combined area of all the holding's parcels in the province, including land owned by the holder, rented from others and land under other tenure forms. (Land owned by the holder but rented to others are excluded).

The holding area includes farmyard, land occupied by farm buildings and holder's house located on the holding.

Land Tenure

This refers to the arrangements or rights under which the holder holds or uses holding land. A holding may be operated under one or more tenure forms as follows:

1) Owned : A holder is considered an owner of a piece of land if

(1) he, according to the law, has a full right in it, i.e. he possesses a land certificate such as title deed, NS 3, SK 1 which is issued by the authority concerned, he may have the right on the land which is resulted by the law or he may possess some certificates, according to the Land Reform Act, which legally permits him to operate the land; or

(2) he occupies and cultivates the land as if he were the owner as in the case of inheritance pending documentary evidence or pending the separation of the title deeds or other important documents; or

(3) he has occupied and cultivated the land continually without any resistance for 10 years and over.

2)Rented : A renter is one who rents the land from another person for agricultural operation and he has to pay rents to the land owner by cash or crop product.

3)Mortgage : A contract whereby a person, called the mortgagor, assigns a property to another person, called the mortgagee, as security for the performance of an obligation, without delivering the property to the mortgage.

4)Sale with right of redemption : A contract of sale whereby the ownership of the property sold passes to the buyer subject to an agreement that the seller can redeem that property.

Census Methodology

A combination of complete and sample enumeration was applied for the 2013 Agricultural Census. In this method, the questionnaire was divided into two parts. The first part was used for collecting data on basic agricultural structure from all holdings whereas the second part was used for collecting data on other agricultural structure data from a 25% sample of holdings.

Data enumeration

The data collection was conducted in all provinces throughout the country during 1 - 31 May 2013. There were altogether around 20,000 manpower to carry out the census; comprising of enumerators (agricultural village volunteers) for 15,000 persons, supervisors (agricultural extension officers) for 3,000 persons and the NSO staff for 2,000 persons. The field staff were sent out to interview the household head of all households (listing) in order to find agricultural households and consequently interview for detailed information on agricultural activities (enumeration).

Innovation of conducting agricultural census by using tablet

Modern technologies were implemented for census data collection as follows:

1. Using tablet for data collection instead of the traditional paper form, in order to improve the efficiency of the field operation.
 - 1.1 Be able to immediately check for data consistency and completeness
 - 1.2 Reduce time for data processing; be able to present the result in timely manner
 - 1.3 Be able to identify the location for the field operation of each enumerator by using GPS which enhanced the quality control of enumerator's work according to their assigned enumeration areas
 - 1.4 Be able to constantly upload data to the Server in the Cloud Computing system

2. Using Web Application for monitoring progress in field operation in almost real time

2.1 Be able to track the field work of each enumerator linked to the maps on the tablet

2.2 Be able to monitor progress in field operation by different levels of the field management hierarchy – enumerators, supervisors and NSO staff – in order to make decision about where to redirect resources in case of delayed field work or unmet deadline.

Data dissemination and publication

1. Data dissemination

1) Preliminary report; general information of all household from the listing form will be disseminated at provincial level, regional level and whole kingdom.

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2) Advance report; information from the 1% data from the enumeration form will be disseminated at regional level and whole kingdom, for which users can obtain some basic results from this report prior to the completion of the final report.

3) Final report; detailed information of the 100% data from the enumeration form will be disseminated at provincial level, regional level and whole kingdom.

2. Publication

1) Documentation, Report, Fact Sheet, CD-ROM

- 2) Web site <http://www.nso.go.th>
- 3) Data Warehouse
- 4) Geographic Information System: GIS

Evaluation of census data

After the completion of census field work, NSO has carried out the Post Enumeration Survey (PES) in order to evaluate the quality of census data. The PES was conducted for all households of the selected enumeration areas throughout the country. The Stratified Single-Stage Sampling was applied to this PES. That is, there were four strata referring to four regions – Central, North, Northeast and South and provinces in each region were represented as sub-stratum. Within each sub-stratum, the enumeration areas were systematically selected; the total samples were 1,280 enumeration areas. After the PES field operation, information between the census and the PES were processed for matching check. And then the process for investigation was to analyse and evaluate errors of the census coverage and the census content, for example the information on the agricultural activity engagement such as livestock, growing rice, planting para rubber, planting permanent crops and planting field crops, etc.

Census committee consist of

1. Census Administration Committee (National Statistical office and representative from related Ministry)

2. Census Sub-committee (National Statistical office)

2.1 Questionnaire and Instruction

2.2 Mapping

2.3 Public Relation

2.4 Data Processing