

Pakistan - Agricultural Census, 2010

Pakistan Bureau of Statistics (PBS)

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Overview

Identification

ID NUMBER

PAK_2010_AC_v01_EN_M_v01_A_OCS

Overview

ABSTRACT

Agriculture is an extremely important sector of Pakistan's economy. It plays a vital role and lays down the foundation for economic development and growth in this country. Agriculture contributes more than 21 per cent to the Gross Domestic Product (GDP) and provides employment to 45 per cent of the total labour force of the country. It provides raw material to the industrial sector on one side and is a market of industrial products on the other side. In the export earnings, direct as well as indirect share of agriculture is very high. Thus, it is prudent to construe that agriculture plays a multidimensional role in the economy of Pakistan.

Almost 64 % of the population of Pakistan resides in rural areas and earns its livelihood, directly or indirectly, from agricultural activities e.g. crop cultivation, livestock rearing, labour in agriculture, agriculture input supply, transportation of agricultural output to the market etc. Therefore, development of agriculture is synonymous to the development of the country. The availability of timely, accurate and reliable data is precondition for sound agricultural planning and development. The data from the Agricultural Census thus provide a concrete basis from which the agriculture sector can ultimately develop through evidence-based policy designing. The Agricultural Census Organization (ACO) has conducted five Agricultural Censuses in Pakistan: 1960, 1972, 1980, 1990 and 2000. The present report is the sixth one in the series. The Agricultural Census 2010 was undertaken to fulfil the following objectives:

OBJECTIVES

1. To generate basic information on the structure of agriculture.
2. To develop detailed basic information about the agricultural resources, state of their utilization and to find out the degree of acceptability of modern farming practices among the farming community for the purpose of regional, provincial and national development, planning and research in the field of agriculture.
3. To collect information about livestock population.
4. To fulfil data needs of the international agencies like FAO which require the country's information for a worldwide study of agricultural resources in order to formulate international policies in matters relating to the supply of food and raw materials on sustainable basis.

KIND OF DATA

Census/enumeration data [cen]

UNITS OF ANALYSIS

Households

Scope

NOTES

The scope of the census included the collection of data on:

- Type, size, tenure and parcels of farms
- Land utilization
- Irrigation

- Area under crops and orchards
- Number of fruit and non-fruit trees
- Use of manures
- Fertilizers and plant protection measures
- Use of agricultural machinery
- Livestock population
- Loan and its sources
- Casual and permanent hired agricultural labour
- Household members by age, sex, qualification and their contribution towards agriculture
- Type of residential structures
- Economic activities of household members and their main source of income

TOPICS

| Topic | Vocabulary | URI |
|------------------------------------|------------|-----|
| Agriculture & Rural Development | FAO | |
| Land (policy, resource management) | FAO | |
| Forests & Forestry | FAO | |
| Labor | FAO | |
| Livestock | FAO | |
| Gender | FAO | |
| Infrastructure | FAO | |
| Access to Finance | FAO | |

Coverage

GEOGRAPHIC COVERAGE

National coverage

UNIVERSE

The statistical unit was the holding (farm), defined as "the aggregate area of land operated by member(s) of one household alone or with the assistance of member(s) of other household(s), without regard to location, size or title and normally used for crop production". It also included nomadic livestock holdings

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

| Name | Affiliation |
|-------------------------------------|-------------|
| Pakistan Bureau of Statistics (PBS) | |

OTHER PRODUCER(S)

| Name | Affiliation | Role |
|------|-------------|------|
|------|-------------|------|

| | | |
|---------------------------------|---|----------------------|
| Agriculture Census Wing | Pakistan Bureau of Statistics | Technical assistance |
| Agriculture Census Organization | Ministry of Economic Affairs and Statistics | Technical assistance |

Metadata Production

METADATA PRODUCED BY

| Name | Abbreviation | Affiliation | Role |
|----------------------------------|--------------|-----------------------------------|------------------------------|
| Office of Chief Statistician | OCS | Food and Agriculture Organization | Adoption of metadata for FAM |
| Census team, Statistics Division | ESS | Food and Agriculture Organization | Metadata producer |

DDI DOCUMENT VERSION

PAK_2010_AC_v01_EN_M_v01_A_OCS_v01

DDI DOCUMENT ID

DDI_PAK_2010_AC_v01_EN_M_v01_A_OCS_FAO

Sampling

Sampling Procedure

SAMPLING FRAMES:

Updated sampling frames are the prerequisites of sampling to avoid introducing a bias in the selection of sampling units. For the purpose, different sampling frames were prepared involving great deal of effort and expense and were used for the proper selection of representative samples for Agricultural Census 2010. The sampling frames were:

1. **Mouza Lists:** Mouza lists were updated at district level for each Tehsil through Mouza Census 2008. For sampling purpose, these lists contained only rural, partly urban and Bechiragh (unpopulated) Mouzas arranged by Patwar Circles and Kanungo Circles showing Mouza-wise total area, cultivated area as per 2006-07 revenue records and number of households according to the population census 1998 in that Mouza. These lists excluded purely forest, under dam and urban Mouzas. As the Mouza lists were based on Patwar Circles, they also provided the frame of Patwar Circles, although implicitly. Subsequently, the lists of Mouzas of the selected Patwar Circles served as the sample frame for the selection of Mouzas.
2. **List of Urban Blocks:** A complete district-wise list of urban blocks of approximate size of 200 to 250 households per block, prepared by Federal Bureau of Statistics (FBS).
3. **List of National Certainty Holdings (NCHs):** Lists of NCHs were prepared throughout the country at district level in all the Mouzas / Dehs / villages. NCH lists included all government agriculture & livestock farms as well as all private farms of 100 acres or more land owned / operated may be at one place or scattered in different Mouzas / districts / even provinces.
4. **Complete List of Households:** A list of households in each selected Mouza showing total area, area owned and rented-in constituting their farm / holding was prepared by the enumerators during the field operation.
5. **List of Mouza Certainty Holdings (MCHs):** During preparation of household list in a selected Mouza, a list of livestock holders having 25 or more cattle and / or buffaloes; 25 or more camels; 50 or more sheep and / or goats was prepared and such households were treated as MCHs. In addition, from a complete list of households in a Mouza / Deh / village, those households farming 20 acres or more land as area owned and / or area rented-in were also segregated as MCHs. In selected urban blocks, households having / operating agricultural land or having any number of livestock were also treated as MCH. The nomads / gipsy / migratory people, if found in the boundary of selected Mouza / urban block during household listing or enumeration, were also treated as MCH.

See detailed explanation in external materials

Questionnaires

Overview

Three types of census forms were used in the AC 2010.

1. Form I was used for household listings in the selected mouzas or urban blocks for further selection.
2. The second questionnaire (Form 2) was for households reporting owned or rented-in land, it was divided into fourteen parts and was spread over eight pages.
3. For landless households, a short questionnaire (Form 3) was used. It contained all of the questions in Form 2, except for those relating to land and crops.

The AC 2010 questionnaires covered 10 of the 16 core items.¹ recommended for the WCA 2010 round. The following core items were not covered:

- (i) "Sex of agricultural holder";
- (ii) "Age of agricultural holder";
- (iii) "Main purpose of production of the holding";
- (iv) "Presence of aquaculture on the holding";
- (v) "Presence of forest and other wood land on the holding";
- (vi) "Other economic production activities of the holding's enterprise".

Data Collection

Data Collection Dates

| Start | End | Cycle |
|------------|------------|-----------|
| 2009-12-14 | 2010-01-31 | Phase I |
| 2010-02-22 | 2010-04-10 | Phase II |
| 2010-05-17 | 2010-06-30 | Phase III |

Data Collection Mode

Face-to-face [f2f]

Questionnaires

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Data Processing

Data Editing

DATA PROCESSING AND TABULATIONS

Data entry was done by the Federal Bureau of Statistics, Data Processing Centres, Lahore and Islamabad. However, data processing was performed only at DP Centre, Lahore. The data processing and tabulations were carried out through a number of steps devised in a logical scheme of work as:

DOCUMENTS CONTROL:

A well-planned control room was established in ACO for maintenance of census documents. After retrieval of documents from the field, these were checked in the control room regarding required and completed number of questionnaires. One kitbag was assured for each selected Mouza / urban block. Differences found were brought into the notice of concerned officers for proper treatment from the field. Then kitbags were arranged district and Tehsil wise in an array so that any Mouza / bag could be traced out without any difficulty. A coding plan for this census was prepared with the help of computer programmers showing one code for each and every Tehsil of the country and documents were arranged according to the coding plan.

MANUAL CODING:

Coding refers to the assignment of a specific number / code to the information asked in a particular question during enumeration to facilitate the data processing on computers. The data items of main questionnaires were pre-coded with the help of computer programmers. However, identification of every questionnaire and their serial numbers within Mouza / urban block were given manually by the staff of ACO. Any serial number, Tehsil code missing or illegible was made correct during coding. Then the questionnaires were tagged together for one Mouza / urban block to make them ready for manual editing and further data processing steps.

MANUAL EDITING:

Manual editing is a process to make the data recorded on a questionnaire consistent if inconsistencies are found among data items within the questionnaire. For this purpose manual editing instructions were prepared on the basis of theoretical mutual relationships among data items. In the light of those instructions manual editing was performed by the staff of ACO to make the data ready for keying. Ambiguous and illegible writings were also made correct during this step.

DATA ENTRY AND EDIT- CORRECTION:

After manual editing the data were entered in computers at Data Processing Centre (DPC) by Key punch Operators. Then the data were processed by the computer programmers through already developed computer programmes for the purpose. The programmers produced computer printouts as the first edits for each district. These edits were checked at ACO with source documents and errors were made correct, if found. The second edit was produced by the programmers after processing the errors found during the first edit and the process went on and on till the data of a particular district were declared error free. The correction of data through computer edits till the data are error free with the help of source documents is termed as edit-correction. After declaring data error free, tabulations were produced.

TABULATIONS:

Tabulations are the actual presentation of data for data users. A tabulation plan comprising of 90 tables was prepared at the time of census planning and preparation. In the light of instructions already conveyed to the programmers for each column and row of each table, they produced data tabulations for each district, province and at country level as requested by the ACO.

Data Appraisal

No content available