State of Palestine
Palestinian Central Bureau of Statistics

Household Farming Survey, 2015
User Guide

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- **Introduction**

Data on agriculture is necessary to draw up policies and plans for the future development of this sector. Agriculture plays a vital role and represents a significant share of the Palestinian Gross Domestic Product (GDP), and of the Palestinian labour force. Statistical data on Household Farming is a components of agricultural sector and with direct to the economy; PCBS has henceforth implemented a survey on Household Farming.

Household Farming Survey 2015 conducted from 24 March 2015 to 31 May 2015 aims to provide data on the structure of Household Farming sector to inform future policies and plans for development.

Data include availability of a garden, use of garden in agricultural activity and the reasons of unused arable area, as well as the numbers of reared livestock (domestic), distribution patterns of the production from garden and Livestock (Domestic).

- **Concepts and Definitions**

The following concepts and their definitions are based on international recommendations in the fields of agriculture and Household farming statistics, while taking into account the particular aspects of Palestine:

- **Household:**
One person or a group of persons with or without a household relationship, who live in the same housing unit, share meals and make joint provision of food and other essentials of living.

- **Reference Date:**
This refers to the moment on which the census data are based. Normally, it refers to midnight of the day preceding the reference period. Thus, the findings of the census or survey relate to that night.

- **Household Farming:**
It is a small area of agricultural land (be less than one dunum for an open cultivated area or less half a dunum for a protected cultivated area) surrounded the housing unit and can be used for cultivated crops, and /or raising animal regardless of type. The numbers as follows: less than five heads of sheep and / or goats, and / or less than 50 birds or any type poultry like pigeons, turkeys, and / or less than 50 rabbits and / or less than three beehives. The main purpose of production is household consumption, gifting, or to be sold to increase family income.

- **Permanent Crops (including trees horticulture):**
A crop growth cycle of more than one year that does not need replanting after each season and for the previous few years. For example, olive trees, citrus trees, and nuts. It is possible to grow permanent crops in intensive agriculture or scattered. The area planted with crops include two ways.

- **Vegetables:**

This is a set of temporary crops used mainly for fresh consumption, including fruit vegetables such as pumpkins, eggplants, okra, maize and green legume; root vegetables such as carrots, radishes, and onion; leafy vegetables such as lettuce and spinach, plus strawberries, watermelon and musk melon. Vegetables can be grown open or protected.

- **Field Crops:**

This is a set of temporary crops including cereals such as wheat and barley; legume crops such as chick peas and broad beans; oil crops such as sunflower, sesame, peanuts; tuber crops such as potatoes and onions; medical crops such as anise, sage, and mint; spice crops such as cumin, anise and black cumin; and fodder crops such as clover, alfalfa and sern.

- **Domestic Animals:**

Refers to all animals kept or reared in gardens; they include sheep, goats, and birds such as broiler, layer, turkeys, pigeons… etc, and beehives. Provided, (the numbers are as follows: less than five heads of sheep and / or goats, and / or less than 50 birds or any type of poultry like pigeons, turkeys, and / or less than 50 rabbits and / or less than three beehives

- **Product Distribution Pattern:**

The ways in which the olive product are distributed for, such as sale, export, self consumption …etc.

- **Region:**

According to current administrative divisions, Palestine was divided into two geographic regions (areas): The West Bank and Gaza Strip. The West Bank was divided into 11 Governorates while Gaza Strip was divided into 5 Governorates.

- **Survey Questionnaire:**

The questionnaire for the Household Farming Survey 2015 was designed based on the recommendations of the United Nations, and the questionnaire used for Survey of the Impact of the Israeli Unilateral Measures on the Social, Economic, and Environmental Conditions of the Palestinian Households. The specific situation of Palestine was taken into account, in addition to the requirements of the technical phase of field work and of data processing and analysis. The questionnaire consisted of the main items as follows:

Identification data:
Indicators about the household.

Data of household farming:
Included indicators on households by availability of a garden, households who have a garden by use of garden in agricultural activity, households who have a garden and non-used in agricultural activity by reason, area , of garden, number of horticultural trees cultivated in a garden by type, cultivated area of temporary crops (vegetables and field crops) in a garden, households by rearing of livestock (domestic), numbers of reared livestock (domestic) by type, and product distribution pattern of a garden and livestock products.

- **Target Population:**

It consists of all Palestinian households who reside normally in Palestine during 2015.

- **Sample and Frame:**

The sampling frame was based on a master sample which was updated in 2013-2014 for (Expenditure and Consumption Survey (PECS) and Multiple Indicator Cluster Survey (MICS)) surveys, and the frame consists from enumeration areas. These enumeration areas are used as primary sampling units (PSUs) in the first stage of the sampling selection.

The sample size is 7,690 households for Palestine, of which 6,609 households responded.

- **Weights and Estimations Calculation:**

The weight of statistical units (sampling units) in the sample is defined as the mathematical inverse of the selection probability where the sample of the survey is two-stage stratified cluster (PPS) sample. Thus, in the first stage we calculate the weight of enumeration areas depending on the probability of each enumeration area. second stage we calculate the weight of households in each enumeration area. Initial household weights resulted from the product of the weight of the first stage and the weight of the second stage. Final household weights were obtained after adjustment of initial weights with the household estimates of the middle of 2015 with regard to design strata (governorate, locality type).

- **Variance Calculations:**

Variances were calculated for the most important indicators and the variance table is attached with the final report. There is no problem with the dissemination of results on national.

- **Reference Period:**

The time period (reference) for this survey is, which is sufficient for the return of required data, is the agricultural year 2013\2014, which is defined as the period extending from the beginning of October to the end of September of the next year. For this survey it covers the period extending from the beginning of October 2013, to the end of September 2014. The reference period for this survey, ruminant indicators was an enumeration day according to international recommendations: which was 24/03/2015.

- **Data Collection:**

Fieldwork activities started on 24/03/2015 and lasted until 31/05/2015. Field workers were distributed to all governorates according to the sample size of each governorate. The field work team consisted of 55 members, including 10 supervisors, 7 editors and 38 field workers.

- **Response and Non Response Rates**

7,690 households had been reached as a representative sample of Palestine, where the number of completed questionnaires amounted to 6,609 questionnaires of which 4,536 questionnaires were in the West Bank and 2,073 questionnaires in Gaza Strip. Weights were amended at the level of design strata to modify effects of refusals rates and non-responses:

- **Data Processing:**

Preparation of Data Entry Program

The data entry program was prepared using Access software and data entry screens were designed. Rules of data entry were established to guarantee successful entry of questionnaires and queries were used to check data after each entry. These queries examined variables on the questionnaire.

Data Entry

The Household Farming Survey questionnaire was programmed and the data were entered into the computer in the offices in Nablus, Hebron, Ramallah and Gaza. At this stage, data were entered into the computer using a data entry template developed in Access

Editing of Entered Data
Special rules were formulated for editing the stored data to guarantee reliability and ensure accurate and clean data.

Results Extraction and Data Tabulation
An SPSS program was used for extracting the results and empty tables were prepared in advance to facilitate the tabulation process. The report tables were formulated based on international recommendations, while taking the Palestinian situation into consideration in the data tabulation of the survey.

- **Data Quality**

The concept of data quality covers many aspects, starting from the initial planning of the survey to the dissemination of the results and how well users understand and use the data. There are seven dimensions of statistical quality: relevance, accuracy, timeliness and punctuality, accessibility and clarity, comparability, coherence and completeness.

Data Accuracy
This includes many aspects of the survey, mainly sampling errors due to the use of a sample, and also non sampling errors from workers and survey tools. It also includes the response rates in this survey and their effect on the assumptions. This section includes:

Sampling Errors:
Data of this survey may be affected by sampling errors due to use of a sample rather than a complete enumeration. Therefore, certain differences are expected in comparison with the real values obtained through censuses. Variances were calculated for the most important indicators and the variance table is attached with the final report. There is no problem with the dissemination of results on national.

Summary for Variance Calculation for Main Indictors

Indicator	Estimate	Standard Error	C.V%	95% Confidence Interval		Number of Observations
				Lower	Upper	
Percentage of households who have a garden in Palestine	27.4	0.9	3.3	25.7	29.3	1,855
Percentage of households who do not have a garden in Palestine	72.6	0.9	1.2	70.7	74.3	4,749
Percentage of households who have a garden in Palestine and utilized in agricultural activity	91.9	0.9	1.0	89.9	93.5	1,699
Percentage of households who have a garden in Palestine and do not utilized in agricultural activity	8.1	0.9	11.3	6.5	10.1	156
Percentage of households in Palestine who are rearing of livestock (domestic)	10.0	0.5	5.0	9.0	11.0	671
Percentage of households in Palestine who are not rears of livestock (domestic)	90.0	0.5	0.6	89.0	91.0	5,933

Non Sampling Errors:
The non-sampling errors are possible to occur at all phases of implementing the project, through data collection and entry which could be summarized as non-response errors, and responding errors (respondents), and interview errors (fieldworkers) and data-entry errors. To avoid errors and reduce the impact, fieldworkers received intensive training on how to conduct interviews, interview tips, things that should be avoided. The training had, practical and theoretical exercises. Fieldworkers also received a guide which contained a private key questions of questionnaire, mechanism to fill questionnaire and methods of dealing with respondents to reduce refusal rates and providing correct and non-based data, Also data entry staff were trained on the data entry program, which was tested before starting the data entry process.

As for office work, they had been trained for a special auditing of questionnaires and error detection, which greatly reduced rates of errors during fieldwork. In order to reduce the percentage of errors during data entry, the program was designed to enter data so as not to allow any mistakes during the process and contained many of logical terms. This process led to disclosure of most of errors that had not been found in earlier phases of the work, where they were correcting all the errors that had been discovered.
After the completion of the previously mentioned audits, data consistency was examined by computer using frequency and cross tables as turned out to be quite consistent, Errors impact was not detectable on data quality. This in turn gave a good impression of those in charge of the survey that we could rely on this data and extract reliable statistical and high significant indicators on the reality of corruption in Palestine

Comparability
Data and indicators of the Household Farming Survey 2015 were compared by technical personnel with data and indicators from the Impact of the Israeli Unilateral Measures on the Social, Economic, and Environmental Conditions of the Palestinian Households survey. The results indicated that there was consistency between data, with some variations.

Comparison of Data

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Data Quality Control
Several measures were implemented to ensure quality control in the survey. They included training of fieldworkers on basic skills before the start of data collection, conducting field visits to field researchers to ensure the integrity of data collection, in addition to conducting a survey. The audit questionnaire was conducted before data entry using a program that does not allow any mistakes to occur during the process of data entry. The data were then examined to ensure that they were free from errors not discovered earlier. After receipt of the raw data file, cleaning and inspection of outliers was carried out and the consistency of the different questions on the questionnaire was checked

Technical Notes

This part presents important technical notes on the indicators presented in the results of the survey:

- Household Farming Survey, 2015 implemented as an annex to the Area Households survey, which covered different subjects.
- Answers to questions on area, number of trees in a garden and livestock numbers are approximate.
- There is some indicators have high variance, it was referenced in the published tables.