

World Programme for the Census of Agriculture 2010

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Abstract: The World Programme for the Census of Agriculture 2010 (WCA 2010), released by FAO at the end of 2005, introduces many changes as compared to previous decennial Programmes. These were adopted following many consultations, including discussions at regional meetings around the world, intensive meetings with specialists within FAO who represent data users' views in their respective disciplines, and a large Technical Consultation with the participation of statisticians and data users from different parts of the world.

The new Programme is more explicit in the recommendation regarding the selection of items to be included in the census, by proposing a modular approach. While the modules present suggestions for holding level collection of structural data, in response to increasing demand for community level data, items of information at the lowest administrative unit or even for smaller geographic area are recommended for collection as part of the agricultural census; the statistics unit here is the community or village which is a completely new aspect in an agricultural census.

Linkage between population census and agricultural census is stressed in WCA 2010; a matching text is included in the United Nations Recommendations regarding population census for the 2010 round. Structural data on aquaculture which were the subject of a supplement in the previous World Programme are integrated in the WCA 2010, in a section of the publication. Based on experiences gained regarding gender statistics in the 2000 round of agricultural censuses, a concept of sub-holding is introduced in WCA 2010 to address this issue for application in specific conditions of a large number of countries.

This paper makes a general presentation of the World Programme for the Census of Agriculture 2010, with emphasis on its new aspects and other salient features of the publication, linkages between censuses, and a review of other WCA210 changes.

1. Introduction

The World Programme for the Census of Agriculture 2010 (WCA 2010) was released at the end of 2005 by FAO. This new Programme takes into account the views of many producers and users of statistics. Consultations were held in various regions of the world and at the FAO Headquarters. This consultation process led to major changes to the scope of the agricultural census as compared to earlier Programmes, including the Programme for the World Census of Agriculture 2000. The changes involved the introduction of new domains of data items recommended for collection by countries and modifications of some of the existing ones.

Overall the scope in the WCA 2010 has a larger number of recommended data items than the previous Programmes. Here a new presentation has been adopted to allow flexibility so that countries can make a selection of domains and of items to be included in the agricultural censuses, leaving other items to be collected in follow-up surveys. This modular approach presents the agricultural census as part of an integrated programme of agricultural census and

surveys.

2. Scope in the World Programme for the Census of Agriculture 2010

The WCA 2010 presents data items for collection at two levels: (i) items for agricultural holdings; and (ii) items to be collected at community level. Community level data is a new dimension in the agricultural census and they are introduced to meet the increasing demand for such data; a presentation of these items will appear later in this paper. The items for agricultural holdings are grouped into 13 modules – one core module and twelve supplementary modules.

2.1 Items recommended for the core modules

A small number of data items (16) are recommended for collection from all agricultural holdings, to obtain essential information on the structure of agriculture and to derive frames for use during the census to collect other items of the supplementary modules or in other follow-up surveys. It is expected that countries planning to conduct an agricultural census will be able to undertake a complete enumeration covering these 16 data items. If this proved to be impossible, countries should collect information of the core module from a very large sample so as to be able to use the results for the said purposes.

Box 1: Items Recommended in WCA 2010 for Core Module of Agricultural Census

0001	Identification and location of agricultural holding
0002 ⁺	Legal status of agricultural holder
0003	Sex of agricultural holder
0004	Age of agricultural holder
0005	Household size
0006	Main purpose of production of the holding
0007	Area of holding according to land use types
0008	Total area of holding
0009	Land tenure types on the holding
0010	Presence of irrigation on the holding
0011	Types of temporary crops on the holding
0012	Types of permanent crops on the holding and whether in compact plantation
0013	Number of animals on the holding for each livestock type
0014	Presence of aquaculture on the holding
0015 ⁺	Presence of forest and other wooded land on the holding
0016	Other economic production activities of the holding's enterprise

Note: + indicates a new or substantially modified item as compared to previous Programmes

2.2 Items for consideration for the supplementary modules

A number of new domains of data items are proposed in the new programme. Among the twelve supplementary modules, six introduce new domains of items or provide an expanded list of items for some previously adopted data domains. The modules for new domains are presented below, before a summary of commonly known data domains.

2.2.1 Irrigation and water management

Seven items are recommended in this module: area of land irrigated according to land use type; area irrigated according to method of irrigation; area irrigated for each type; sources of irrigation water; payment terms for irrigation water; other types of water management practices; presence of drainage equipment.

2.2.2 Agricultural Practices

Seven items are recommended for this module: use of agricultural chemicals; use of good agricultural practices; use of organic agricultural practices; use of genetically modified crops according to crop type; selected machinery and equipment used on the holding according to source; non-residential buildings according to use; percentage of each major agricultural product sold.

2.2.3 Agricultural services

Seven data items are proposed under this module: receipt of credit for agricultural purposes; source of credit; type of collateral for credit; period of loan or credit; sources of agricultural information; sources of agricultural extension services; travelling time to nearest periodic or permanent agricultural produce market.

2.2.4 Household food security

Five items are included at the household level for the family of the agricultural holder and one item for children aged under 5 years. For the household, the five items are: existence and extent of food shortage during the last twelve months; whether the household fears a food shortage during the future twelve-month reference period; frequency of normally eating selected food products; effects of natural disasters; extent of loss of agricultural output due to natural disasters. For children under 5 years, the item proposed is “height and weight.”

2.2.5 Aquaculture

Five selected items are recommended in this module: Area of aquaculture according to type of site; area of aquaculture according to type of production facility; type of water; sources of water for aquaculture; type of aquacultural organism cultivated. For countries that need to cover more structural information on aquaculture, reference may be made to an existing FAO publication on this subject.

2.2.6 Management of the holding

Two items are proposed for the holding and four for each sub-holding – a new concept that has been introduced (see further down in this paper). For each holding: Identification of sub-holding; identification of sub-holder. For each sub-holding: sex of sub-holder; age of sub-holder; area of crops managed for each crop group; number of livestock managed for each livestock group.

2.2.7 Commonly known data domains and items

Six other supplementary modules presented in WCA 2010 are more common in agricultural census:

- “Land” module includes seven items.
- For the module on “Crop”, three items for temporary crop type, four items for permanent crop type, and seven items for the holding are recommended.
- “Livestock” module proposes two items at the holding level and nine items for each livestock type.
- “Demographic and social characteristics” module presents two items for the holding and five items for each member of the holder’s household.
- “Farm labour” module includes one item for each household member of working age, four items for each economically active household member, and three items for the holding.
- “Forestry” module covers four items for the holding.

3. Community-level data

In response to increasing demand for the information at community level, data items at the lowest administrative level or other recognized smaller geographic level are proposed. Only information related to agriculture is proposed for collection on a complete enumeration basis.

Box 2: Possible List of Items for Collection of Community-Level Data through Agricultural Censuses

Geography

- 2101 Location
- 2102 Agro-ecological, climatic, topographical, or soil types
- 2103 Land use
- 2104 Area of communal grazing land
- 2105 Area of communal forest
- 2106 Travelling time to the nearest major urban centre
- 2107 Whether the community has year-round access to the nearest urban centre by a motorable road
- 2108 Whether the community is prone to natural disasters, such as droughts and floods

Socio-economic conditions

- 2201 Population according to different population groupings
- 2202 Number of households
- 2203 Economic status (if applicable)
- 2204 Economic activities
- 2205 Whether there are seasonal food shortages (if applicable)

Community infrastructure and services

- 2301 Presence of a fertilizer dealer; if not, travelling time to the nearest fertilizer trading centre
- 2302 Presence of a pesticides dealer; if not, travelling time to the nearest pesticides trading centre
- 2303 Presence of a seed dealer; if not, travelling time to the nearest seed trading centre
- 2304 Presence of a credit institution; if not, travelling time to the nearest credit institution
- 2305 Presence of irrigation facilities
- 2306 Area equipped for irrigation
- 2307 Availability of veterinary services; if not, travelling time to the nearest veterinary services
- 2308 Presence of a periodic or permanent agricultural produce market; if not, travelling time to the nearest periodic or permanent agricultural produce market
- 2309 Existence of agricultural produce collection network
- 2310 Presence of food storage facilities.
- 2311 Presence of agricultural processing facilities
- 2312 Presence of facilities for maintaining agricultural machinery
- 2313 Existence of farmers' associations, cooperatives, and other bodies providing support and services to farmers.
- 2314 Availability of agricultural extension service
- 2315 Whether electricity is connected
- 2316 Presence of a primary school; if not, travelling time to the nearest primary school
- 2317 Presence of a health facility; if not, travelling time to the nearest health facility
- 2318 Presence of radio, telephone, and Internet services
- 2319 Availability of public transport: bus, train, boat

Development programmes

- 2401 Presence of specific development projects in the community

The data items are grouped into four categories:

- Geography (8 items)
- Socio-economic conditions (5 items)
- Community infrastructure and services (19 items)
- Development programmes (1 item)

Considering the extreme usefulness of this type of data, countries are urged to collect data at community level and process them for early release of results. Thematic maps may be produced out of these results which may be particularly useful for food security policy and identification of poverty pockets.

4. Selecting data items for agricultural census and the modular approach

Considering the large number of data items proposed in WCA 2010, it is virtually difficult to include them all in any national agricultural census programme. Guidance is provided in the WCA 2010 publication for a modular approach to be adopted in national agricultural census. It is recommended that countries:

- Cover all the items (16) of the core module on a complete enumeration basis;
- Select a number of supplementary modules (among the 12 proposed) for inclusion in the agricultural census, either for complete enumeration or for sample enumeration. Furthermore, countries may include all the items of the selected modules or only a selected number of them in the agricultural census exercise; and
- For other modules or data items not selected for the census, data may be collected in follow-up surveys using frames obtained from the agricultural census, or in separate statistical operations.

5. Sub-holding and sub-holder

Some countries may feel that the concept of agricultural holder alone does not adequately reflect the management of holding, and in particular, fails to recognize the role of women in managing agricultural activities. To overcome this problem, the concepts of “sub-holding” and the associated “sub-holder” have been introduced in WCA 2010.

A sub-holding is defined as a single agricultural activity or group of activities managed by a particular person or group of persons in the holder’s household on behalf of the agricultural holder. There may be one or more than one sub-holding in a holding.

A sub-holder is a person responsible for managing a sub-holding on the holder’s behalf. There is only one sub-holder in a sub-holding, but there may be more than one sub-holder in a holding.

6. Agricultural Census in the National Statistical System

National censuses are extremely large and costly undertakings. However, in the past, many countries have seen their agricultural census as an independent statistical exercise separated from their programme for the collection of other agricultural statistics. Such an approach tends to be costly and often leads to divergent data from various surveys. The new programme provides for agricultural censuses to be conducted as the central component of the system of agricultural sample surveys. Under this scenario, the agricultural census/survey programme can be viewed as having two related elements: (i) the agricultural census; and (ii) the series of agricultural sample surveys based on the agricultural census, called the thematic agricultural

surveys.

There is also considerable commonality between the population and housing census and the census of agriculture. For this reason, FAO has worked closely with the United Nations Statistics Division to explore ways in which the relationship between the two censuses can be strengthened that can save costs and enhance the usefulness of the data. The possibilities of integration of the two censuses exist in the following ways:

- use of common concepts, definitions and classifications;
- sharing field materials;
- using the population census as a household frame for the census of agriculture;
- making use of agriculture-related data from the population census;
- collecting additional agriculture-related data in the population census;
- linking data from the two censuses;
- conducting the two censuses as a joint field operation.

The WCA 2010 stresses that the opportunity for coordinating the various national census activities should be actively explored at an early stage in the census planning process, and be taken into consideration in developing national statistical plans. Countries should make the necessary administrative arrangements to foster close collaboration between the census development teams and to ensure that all avenues for coordination are explored.

An opportunity for integration of an agricultural census with an aquaculture census also exists, wherever aquaculture production industry is important and such a census is to be conducted. There is a strong interest in many countries to link aquaculture with agriculture by carrying out the agricultural and aquaculture censuses together. Agriculture and aquaculture are seen to be closely related because:

- Aquaculture involves the raising of fish in captivity or cultivation of aquatic plants, which is analogous to rearing of livestock or cultivation of crops under agricultural production.
- Aquaculture is often integrated with agricultural production, such as in rice-cum-fish culture.
- Aquaculture and agriculture commonly share the same inputs, such as machinery and labour.

The WCA 2010 provides an option to conduct an aquaculture census at the same time as the census of agriculture to cover all aquaculture production, and yet keeping it conceptually separate from agricultural census. Countries are strongly urged to examine this option if aquaculture is an important sub-sector in their economy.

The integrated approach to survey/census planning could particularly prove cost-effective in small island countries where carrying out a statistical operation such as a census is a rare opportunity. Integrating the surveys and censuses also increases the scope of analysis of data gathered through various statistical operations, and hence enhances the utility of existing data for policy makers.

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