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# Asia and Pacific Commission on Agricultural Statistics

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**Lessons learnt from the WCA 2010 in Asia and the Pacific Region  
and update on the preparations for WCA 2020**

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## ***Abstract***

*This paper presents an update on the preparations for WCA 2020. In particular, it presents the international context, the census place in the integrated survey framework, the vision and proposed changes. The update is preceded by an overview of the progress made towards implementation of the 2010 World Programme for the Census of Agriculture (WCA 2010), in particular in Asia and the Pacific. Finally, the paper shows the process and next steps towards the preparation of the WCA 2020.*

## 1. OVERVIEW OF THE WORLD CENSUS OF AGRICULTURE 2010 ROUND

FAO prepared and issued in 2005 a programme for the 2010 round of agricultural censuses, which covers the period 2006-2015. A considerable number of countries around the world have already conducted their agriculture census during the 2010 round. A review of the implementation of agricultural censuses for this round, based on information available to FAO, shows that so far, out of a total of 192 FAO member countries 105 countries have already conducted an agricultural census and about 43 are planning to carry out one during the next two years. This is expected to result in an unprecedented high rate of participation of countries in a WCA round. The last record related to 122 participating countries in WCA 2000 round. The number of countries that conducted an agricultural census during a rounds since 1960 ranges between 90 and 122.

Asia and the Pacific Region here refers to the 47 countries and territories covered by FAO Regional Office for Asia and the Pacific. Out of these 47 countries and territories 27 are represented in APCAS as of April 2010 (22 are APCAS member countries, while 5 territories are represented by USA and France).

From the previous APCAS session held in 2012, 6 more countries (Cambodia, Indonesia, Sri Lanka, Thailand, Philippines, New Zealand) have completed their agricultural census. The Table below, prepared on the basis of information available to FAO, presents Asian and Pacific countries which have already conducted an agricultural census and those which are planning one in the current decadal round (2006-2015). Out of 47 countries and territories, 28 have conducted an agricultural census, 6 are planning to carry out one before the end of the round, and on 13 remaining countries no information was available to FAO at the time of writing the paper.

**Table 1: Agricultural Censuses in Asia and Pacific region in the 2010 WCA round (2006-2015)**

<b>Asia and Pacific (47)<sup>1</sup></b>		
<b>Census conducted (2006-2013)</b>	Australia (2011), Bangladesh (2008), Bhutan (2009), China (2007), Cook Islands (2011/2012), Fiji (2009), India (2010/11), Japan (2010), Korea Rep. of, (2010), Lao PDR (2010/2011), Myanmar (2011/2012), Nepal (2011/2012), Niue (2009), Pakistan (2010), Russian Federation (2006), Samoa (2009), Vanuatu (2007), Viet Nam (2007 and 2011/2012), American Samoa (2007), Guam (2007), Northern Mariana Islands (2007), Mongolia (Population census 2012), Cambodia (2013), Indonesia (2013), New Zealand (2012), Philippines (2012), Sri Lanka (2013), Thailand (2013),	<b>28</b>
<b>Census planned 2014-2015</b>	Afghanistan (2014), Iran (2014), Malaysia (2015), Solomon Islands (2014), Timor Leste (2014), Tonga (2014),	<b>6</b>
<b>Information not available</b>	Dem Rep.of Korea, Kazakhstan, Uzbekistan, Micronesia, Marshall Islands, Nauru, Palau, Papua New Guinea, Tuvalu, Kiribati, Maldives, New Caledonia, French Polynesia.	<b>13</b>

<sup>1</sup> Asia and Pacific region includes 47 FAO member countries and territories.

## Implementation of the new features of the WCA 2010

The new features recommended by FAO in 2010 WCA Programme include: (1) modular approach which recommends collection of data on key structural variable through a core module by complete enumeration and use of more detailed thematic modules including detailed variables by sampling, (2) integration of the census operation into a comprehensive programme of censuses and surveys, including linkages with population census, and (3) collection of community-level data [FAO, 2005].

The implementation of the WCA 2010 round is still ongoing and not all countries have provided their reports to FAO perhaps because the results are not released yet, so it is too early to present a complete account of the adoption and application of the recommendations on the new features by countries. Nonetheless, a review of experiences of selected Asian and Pacific countries in implementing the above features is presented below.

The **modular approach** to data collection was advocated as a strategy to meeting increasing data demands from the agricultural census within a budget constraint. In Asia and Pacific region, as per information available up to now, the following countries have already adopted the modular approach to census planning: Cambodia (2013), India (2011), Lao PDR (2011), Myanmar (2010), Nepal (2011), Pakistan (2010), Vanuatu (2007).

The guidelines contained in the WCA 2010 programme and those from United Nations Statistics Division (UNSD) on Population and Housing Censuses advocated for a stronger coordination between the two censuses. The guidelines have been further elaborated in the form a joint publication of FAO and UNFPA entitled, "Guidelines for **Linking Population and Housing Censuses with Agricultural Censuses**" [FAO/UNFPA, 2012].

During the current WCA (2006 – 2015), so far about 9 countries from Asia and Pacific region are reported to have used the approach of designing their agricultural census based on agriculture related information collected in the population census. The countries are: Afghanistan (2011), Cambodia (2008), Cook Island (2011), Fiji (2007), Nepal (2010), Niue (2006), Mongolia, Vanuatu (2009) and Timor Leste (2011).

Given the strong demand for data with the communities as statistical unit, a **community-level component** had been included in the WCA 2010, and countries were encouraged to include this component in their agricultural censuses programmes according to national circumstances and data requirement. In Asia and the Pacific the following countries have collected data at community level: Cambodia (2013), China (2007), Indonesia (2013), Lao PDR (2011), Myanmar (2011/2012), Nepal (2011/2012) and Pakistan (2010).

The recommended list of data items in WCA 2010 Programme, allows countries to include items concerning aquaculture and forestry. About 35 and 52 percent of the countries included in their questionnaires items on aquaculture and forestry, respectively. Out of these countries, some went far beyond the item list recommended in the Programme and included separate modules for aquaculture and forestry activities, depending upon importance of these themes for the country. The following countries have covered the above mentioned items: Japan (2010), Myanmar (2011/2012), Cambodia (2013), Samoa (2009).

The following conclusions can be drawn from the Asia and the Pacific experience so far:

- Countries used quite frequently the modular approach. The review indicates that there does not exist a unique design to implement the modular approach which can be applied to all county situations. Each country has the liberty to decide its own survey architecture and the related sampling designs based upon the structure of its agriculture, administrative set-up, data demands, and availability of human and financial resources;
- The conclusion of Linking Population and Housing Censuses with Agricultural Censuses is that the extent of use of population census for collection of agriculture related information varies across countries.
- The importance of multi-faceted Community-level data, at the village or the commune level, is being increasingly realised in the countries for assessing the infrastructure and services available to agricultural holdings and to help in formulating, executing and evaluating community projects. The cost of collection of this type of information was foreseen as marginal and far outweighs its benefits.

## **2. WORLD CENSUS OF AGRICULTURE PROGRAMME 2020 (WCA 2020)**

FAO is currently in the process of developing the World Census of Agriculture Programme 2020 (WCA 2020) covering agricultural censuses to be carried out by countries between 2016 and 2025. It is the 10-th round in the decennial programme of agriculture censuses, which started in 1930, and the 7th subsequent round promoted by FAO.

### **a. International Context**

The WCA 2020 Programme is being developed at a crucial time for the international statistical agenda, in the context of the Post 2015 Development Agenda and the Busan Action Plan for Statistics, which highlight new and emerging needs for statistics. These include the interaction between agriculture and environment, known as Green Growth, food security and sustainable agricultural development, increased volatility in the agricultural industry, and the increasing call by the international community and national governments to measure the impact of development policies and programmes. Structural data on agriculture remains crucial, with emerging needs pointing to data on climate change, environment, land and water use; and data on rural poverty. The international community has made calls to establish a Global Partnership on Development Data that brings together diverse stakeholders - government statistical offices, international organisations, CSO'S, foundations and private sector, and which underlines the

central role of the activities aiming at eradicating poverty and tackling the global and regional challenges that have adverse effects on the citizens of developing countries.

In this context, the WCA 2020 will stress the need for an integrated system of agricultural statistics in decision making, by providing data for monitoring and evaluation and to serve as a sound evidence base. Evidence based policy encourages accountability, which will be even more crucial in the Post 2015 context. The WCA 2020 Programme will ensure that the agricultural census remains a key source for production of quality agricultural data, by sharing common goals with the emerging international agenda: to provide better statistics to design, monitor and assess national agricultural policies, development programmes and meet the data needs for monitoring international policies.

**b. Scope of the Census and its place in the Integrated Survey Framework**

The WCA Programme has been rightly focused on agriculture holdings in the past, and it should continue to fill this key role for the agriculture sector, particularly for crops and livestock for the 2020 Programme (including aquaculture activities in the household). The statistical unit for agriculture should remain the agriculture holding, as used in WCA 2010, and coverage should continue to be all such holdings, or a representative large sample of these holdings. This is to ensure comparability of the statistical series over time and to enable the production of economic data on the agriculture industry for the System of National Accounts.

The Global Strategy has recognized the increasing demand from users for agricultural data covering a broader context - not only the economic dimension of production data traditionally covered in the agricultural census, but also the social and environmental dimensions. There has also been an increasing demand for data from areas such as forestry and fisheries not just for holdings but also for rural households and for communities. The 2010 Programme has already provided guidance on collection of aquaculture data within the census. In order to meet the need for this broader scope of data outside the statistical unit of the agricultural holding, the census should be linked to the Integrated System of Agricultural Statistics. Guidance will be given on the role of the census and its links to other data collection operations..

One of the most important roles of the Census is to provide the frame for ongoing agriculture-related surveys. However, for surveys whose unit of enumeration is not the holding, but rather rural households, the forest land unit, etc., the frame would not be produced entirely by the Census but rather by a range of data sources. There would thus be a need to understand the relationship between the agriculture census and other censuses, such as fishery and aquaculture, forestry and rural surveys, particularly in terms of the units of enumeration.

In the integrated statistical system, the position of the census is as part of a programme of agricultural surveys, based on the agricultural census. One of the most important roles of the

Census is to provide the frame for ongoing agriculture-related surveys. Other key roles of the census are to provide:

- structural data on the agricultural sector;
- benchmarks for current agricultural statistics;
- current operational and performance data
- small/custom geographic areas'; *and*
- data on rare or emerging commodities.

Broader data needs, which extend beyond the scope of the Agricultural Census, will be covered by the programme of surveys in the Integrated Survey Framework. The agricultural census is often, in some countries a unique opportunity for data collection, and as a result there is often pressure to cover a wide range of topics. However, it is also important to keep in mind that the Agricultural Census cannot meet all the data needs of users. It is only one source of data in an integrated statistical system, and should focus on structural data on agriculture. Therefore, in order to meet users' needs, when planning the census it is important to consider how the census fits into the entire statistical programme,

### **c. Vision for the WCA 2020 Programme**

The WCA 2020 Programme will retain the key features of the 2010 Programme, which have been shown to be successful and have been recommended by countries to be retained (at previous regional agricultural commissions - APCAS 24<sup>th</sup>, AFCAS 22<sup>nd</sup>, AFCAS 23<sup>rd</sup> and IICA 26th). These features are the modular approach, the linking of the population and housing census with the agricultural census and the collection of community level data.

- **Modular approach**

The WCA 2020 Programme will better clarify the different components of the modular approach in particular which components are part of the Census data collection exercise and which components are part of subsequent follow-up surveys. In addition, how to conduct the modular approach with collection of core items as a full enumeration and supplementary items as a sample survey will be better explained. Various options are possible for data collections in the field, and these options will be presented.

- **Linking population and housing with agricultural census**

The WCA 2010 Programme recommends greater integration of the Population and Housing census with the agricultural census mainly because the former can provide a household frame for the latter. The recommendations are flexible with a range of options based on the level of coordination and integration which is feasible in a country. Countries have different needs, levels of experience in integrating censuses and capacity – the options presented allow for different levels of integration based on country characteristics but provide flexibility to meet the different

countries needs. One suggestion is the linking of data between the two collections through inclusion of key data items on agriculture in the population census, which can range from basic core items to a range of supplementary items. This approach is detailed in the FAO/UNFPA Guidelines for Linking Population and Housing Censuses with Agricultural Censuses (FAO and UNFPA, 2012).

- **Community level data**

The WCA Community Level Survey will continue to be promoted as important component of the WCA 2020 Programme. The community survey data variables need to be reviewed and updated in light of the new data requirements identified through user consultations for better coverage of common land as well as the data requirements of the Global Strategy, such as information about rural infrastructure. Again, use of the proposed data items will be clearly identified and documented with the help of the appropriate subject-matter experts.

- **Additional areas**

At the same time, there are increasing resource constraints and need for more timely data. As such, the WCA 2020 Programme will underline the necessity to use the benefits of the recent digital/mobile/geo information technology and data revolution: Computer Assisted Personal Interview (CAPI), using laptops, tablets, smart phones or Personal Data Assistant (PDAs); remote sensing data collection methods and geo-referencing technologies. It will provide guidelines to countries on items such as development of data tabulation and dissemination strategy, data analysis and data archiving.

**d. Details of Proposed Changes to the WCA 2020 Programme**

The WCA 2020 Programme will focus first on the methodology more than on practical guidance for conducting the census. Non-essential changes will be avoided in order not to lose the benefit of historical comparisons.

- New data requirements identified through the consultation process have been assessed as to their appropriateness for the WCA 2020 Programme Guide and will be accommodated to the possible extent by reflecting them either in core data module or in theme data items. These are namely:

- **Core items / theme items**

Core items to be reviewed are: the concept of “Sub-holding” and “Sub-holder” and how best to operationalize it in the lights of improving methods for collection of gender disaggregated data and role of women in agriculture; how to capture the cultivated forestry in the holding and the use by holders of agricultural service activities. Another important methodological issue is how to include the land not managed as part of the holdings (community land, land under water, etc.) and different approaches used by countries.

New data requirements identified through the consultation process have been assessed as to their appropriateness for the WCA 2020 Programme and the following will be considered to be added to the existing themes, such as:

- Data on agricultural practices
- Agricultural labour force
- How to identify relevant items on the environment
- Expanded data items on aquaculture
- Data on subsistence producers
- Better coverage of the rural areas (related to rural poverty and food security).

The subject-matter experts from these areas will be consulted on the key items that should be included, together with a clear identification of the use that will be made of the requested data items. For certain other items the census can provide the frame for specialized surveys on these topics.

- **Proposed changes in the classifications**

In order to enhance international comparability and meet reporting needs it is important to provide clear guidance on norms and standards for international classifications and definitions which apply to the agricultural census. The Programme will also address how national level definitions and classifications can be harmonized with international norms and standards. As such, during the period of the WCA 2020 Programme, pertinent issues that should be addressed include:

- The need to meet new standards, particularly the Common Product Classification (CPC) 2.0 and the System of Environmental and Economic Accounts (SEEA).
- Aligning with the International Standard Industrial Classification 4.0

- **Other planned guidelines**

The main document for WCA 2020 Programme will focus on the conceptual and methodological recommendations. During the period of the WCA 2020 Programme, further guidelines relevant to the census are planned by the FAO Statistics Division. The research work undertaken in the framework of the implementation of the Global strategy contains several topics relevant to the agricultural census, and statistical offices will also benefit from these when conducting the census.

Guidelines planned by the FAO Statistics Division are:

- Guidelines with practical details on operationalizing the modular approach as well as how to conduct agricultural surveys. Several users have requested guidance on these subjects.
- Guidelines on data collection using new technologies, gender disaggregated statistics and analysis, enhancing data analysis and use of census data in conjunction with other data sets; etc.
- Use of administrative records, where suitable quality data exists, such as community data, farmers' registers, and data from crop associations and cooperatives, as a way of assisting or supplementing the census.



- Archiving and dissemination of census results. This will encourage greater availability of data for bona fide users while respecting the UN Principle of Official Statistics 6 on data confidentiality; and respecting countries statistical laws, frameworks and principles on data access and dissemination.
- Development of a master sampling frame. The agricultural census is often the starting point for countries' sampling frames.
- The Framework of the System of integrated agricultural censuses and surveys will be further developed to assist users understand what is the modular approach and how agriculture surveys should be implemented as part of the integrated system.
- Use of new technologies (PDA, GPS, CAPI) for collecting census data
- Analysis and use of census data in conjunction with other data sets

**e. Providing Census Data to the User**

The WCA 2020 Programme will remain focused on providing guidance on data collection, processing and dissemination. However, there will be a greater focus on user needs and the place of the census in an integrated statistical system. This can be achieved by linking the agricultural census through the Sector Strategic Plans to Agricultural Statistics (SSPARS) to the National Strategies for Development of Statistics (NSDS). Separate guidance is being produced under the Global Strategy for conducting SSPARS and their integration. However, the WCA 2020 Programme will provide recommendations on the role of the census in the integrated statistical system, the importance of addressing user needs, and the place of the census in the SSPARS and the NSDS, such as its role in providing the frames for ongoing surveys. The WCA 2020 Programme will, therefore, address the new international context by addressing the role of the user and the importance of addressing user needs.

In addition, the 2020 Programme will place greater emphasis on archiving and dissemination of census results. This will encourage greater availability of data for bona fide users while respecting the UN Principle of Official Statistics 6 on data confidentiality; and respecting countries statistical laws, frameworks and principles on data access and dissemination. The issue of micro-data access is too complex for adequate provision under the 2020 Programme. This topic is being addressed through a dedicated guideline on micro-data access under the Global Strategy.

**f. Process**

To facilitate the WCA 2010 review, the process will cover a number of activities and consultations with agricultural statisticians, both from at country level and from regional statistical organizations. Several external consultations have already taken place at regional and international meetings, including African Commission for Agricultural Statistics (AFCAS) 2011 and 2013, Asia and Pacific Commission for Agricultural Statistics (APCAS) 2012, IICA 2013 and International Conference on Agricultural Statistics (ICAS VI), and through the discussion of technical papers at international meetings. A series of internal consultations has been held with subject matter experts at FAO. Needs expressed during consultations will be prioritized, including

new data needs. A methodological review is being conducted of the WCA 2010 Programme. The draft programme will be produced and this will be subject to a broad review and validation by countries, regional and international institutions and subject matter experts.

The planned review process for the WCA 2020 Programme is:

- The different themes, core items and classifications will be reviewed and updated with the help of experts in each subject-matter
- The needs expressed during consultations will be prioritized
- New data needs (including those from Global Strategy) will be covered to the extent possible
- Non-essential changes should be avoided as countries that have collected some of these data elements in WCA 2010 will not want to lose the benefit of historical comparisons.

#### **g. Next Steps**

The following are ongoing and next steps:

- Internal and external ongoing consultations; together with a methodological review of agriculture censuses in Asia-Pacific, Africa, Americas and Europe to prioritize recommendations and lessons learnt.
- Discussion of the planned approach for the WCA 2020 Programme in regional and international meetings, including AFCAS, IICA, ICAS-VI, IAGFS, APCAS, UNSC.
- Drafting of the Programme and validation by peer review of experts from countries, technical experts, international organizations, regional and international meetings during 2014 and 2015.
- Presentation at governing bodies of FAO as mandated, and possibly presentation at the United Nations Statistical Commission (UNSC).
- Final publication and dissemination in 2015 and 2016

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