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Item 3(j) of the provisional agenda  
**Agricultural and rural statistics**

Background document  
Available in English only

**World Programme for the Census of Agriculture 2020 (WCA 2020)**  
**Volume 2 “Operational Guidelines”**  
**Results of the global consultation**

Prepared by the Statistics Division, FAO  
(January 2018)

## I. Introduction

1. The World Programme for Census of Agriculture 2020 (WCA 2020) provides methodological guidelines aimed at assisting countries that plan to conduct their agricultural census during the period 2016-2025. The WCA 2020 consists of two volumes: Volume 1 “Programme, concepts and definitions”, published in 2015<sup>1</sup>, which deals with the methodological and conceptual aspects of the census of agriculture; and Volume 2 “Operational Guidelines”, which deals with all the practical steps involved in the agricultural census process, from its design, to the dissemination of its results. These steps and associated activities are described in twenty-five chapters organised in three parts:

- Part 1 covers census planning, including the necessary legal, institutional and quality assurance frameworks.
- Part 2 describes the operational aspects of the different methodological modalities for the census of agriculture introduced in Volume 1, their main issues and suggested solutions.
- Part 3 focuses on census fieldwork and the implementation of the collection, processing, analysis and dissemination of census data.

2. The WCA 2020 is designed as a living document with hyperlinks to relevant publications, country practices and web-based resources that are regularly updated in order to provide detailed information on how to deal with practical issues.

3. FAO already submitted a first draft of Volume 2 to the 48th session of the Statistical Commission in 2017. The Commission encouraged FAO to finalize these guidelines and invited all countries to participate in the Global Consultation on Volume 2. The Global Consultation, which involved the national statistical offices of all FAO member countries and several relevant international organizations (e.g. Eurostat, ILO, UNECE, UNFPA, UNSD, World Bank), was conducted from 25 October to 24 November 2017.

## II. Main results of the Global Consultation

**Table 1. Distribution of comments by region and type of feedback**

Respondent	No	No comments	General comments	Specific comments
Africa	3	2	1	0
Asia	6	6	1	0
Europe	11	7	0	4
Latin America	4	0	1	3
North America	1	0	1	0
Oceania	1	1	0	0
<b>Total countries</b>	<b>26</b>	<b>16</b>	<b>4</b>	<b>7</b>
Organizations*	2	0	1	2
<b>TOTAL</b>	<b>28</b>	<b>16</b>	<b>5</b>	<b>9</b>

\*Canada and Eurostat provided both general and specific comments

4. Comments were received from 26 countries and organizations. **Table 1** shows the breakdown of respondents by region and type of comment. More than half of the respondents made no substantive comments, just acknowledging the importance and quality of the document.

<sup>1</sup> Available in all official languages of the United Nations at <http://www.fao.org/world-census-agriculture/methodology/en/>

Five respondents provided only general observations, while nine commented on specific chapters of the document. Tables 2 and 3 of **Annex 1** show in details the comments received from all respondents.

5. The general comments mainly requested to update the hyperlinks and suggested some editorial changes. A useful feedback recommended developing a follow-up guide on data collection and validation. Specific comments, in turn, mainly requested the provision of additional country experiences and further explanations for certain topics. All these comments were incorporated in the new version of Volume 2 that is now submitted as background document to this Commission session (available also at <http://www.fao.org/index.php?id=85769>). Table 2 of **Annex 1** shows how specific comments were addressed in the document.

6. FAO is grateful for the valuable feedback provided by countries and international organizations during the global consultation. Thanks to this input, the quality of the document significantly improved. In the next few weeks, the English edition of the document (together with the web-based resources) will be published and subsequently the translations in all the UN official languages. FAO hopes that national census practitioners will find these guidelines easy to consult and useful in supporting every stage of the agricultural census process.

## Annex I. Detailed comments

**Table 2. Countries that provided no substantive comments**

Region	Respondent	Remark
Africa (2)	Egypt	There is no comment on the content of the volume as it is applied with the guidance of the stages of the census designing, planning of fieldwork, data processing and analysis, statistical development through using information technology, remote sensing techniques. In addition to reviewing country experiences in agriculture census, which enhance benefits from volume outputs.
	Mauritius	Kindly note that we do not have any comments on the draft document.
Asia (5)	Armenia	We are pleased to inform you that the National Statistical Service of the Republic of Armenia (NSS RA) have no any comments on Volume 2 of the WCA 2020.
	Georgia	We would like to inform you that we have reviewed the operational guidelines and do not have comments about its content.
	Japan	We have no comments about the guidelines.
	Mongolia	I would like to inform you that we have no comment on Volume 2 of the WCA 2020.
	Palestine	We are pleased to inform you that PCBS has no comments on the report.
Europe (7)	Belarus	The National Statistical Committee of the Republic of Belarus has no comments. The described in the publication main steps, methods and tools for preparation and conducting of the census of agriculture and practices of other countries are of a practical interest for Belarusian statistics as the agricultural census questions are included in the national population census programme 2019.
	Croatia	We have no comments to this document. This document will be useful in the planning and implementation of the Agriculture Census 2020.
	Lithuania	Statistics Lithuania appreciates the work done by FAO in preparation of the Volume 2. We would like to point out that the document is very comprehensive and therefore very useful for all countries which are in the planning phase for the Agricultural Census. Presented country examples provide better understanding of the statements and make this document easy to use.
	Poland	I would like to inform you that the Central Statistical Office of Poland has no comments on Volume 2.
	Portugal	We generally consider it is a very useful document with important practical guidelines for the conduction of a census operation directed to agriculture. We have no particular comments on the substance.
	Romania	Please take note of the fact that neither the Romanian National Institute of Statistics nor the Ministry of Agriculture has any comments on the document, finding it to be very useful and comprehensive for the future carrying on of the Census of Agriculture 2020.
	Spain	EUROSTAT has participated in meetings on Volume 2 with FAO and this institution in the meetings organized by EUROSTAT on 'Integrated Farm Statistics'. We therefore believe that the future Regulation on the Census of

		Agriculture and surveys of the Integrated Farm Statistics (currently under discussion in the European Parliament and the Council) are fully in line with the recommendations of FAO.
<b>Oceania (1)</b>	Australia	The guidelines have been reviewed by staff within the Environment and Agricultural Statistics Branch of the Australian Bureau of Statistics, this is the group responsible for conduct of the Agricultural Census for Australia. The guidelines are very comprehensive and well-presented and should provide a valuable resource going forwards. No issues or concerns were identified in the review.
<b>Latin America (1)</b>	Ecuador	The document is very complete due to it contains in detail the main issues to consider for the operationalization of an agricultural census.
<b>Total Countries</b>	<b>16</b>	

**Table 3. Countries and organizations that provided general and specific comments**

Respondent	Comments*
<b>Africa</b>	
South Sudan	<p><b>General comments:</b> No distinction between the agriculture Censuses in developed world and the agriculture censuses in developing countries in document, we think that there is need to have special focus for developing countries due to their agriculture characteristics and the nature of agriculture in these countries. Secondly, there is a need to have reasonable budget for developing countries because it is one of the issue, which undermine most of the censuses to be conducted, and these are some of the points we would like to share with you.</p> <p><b>Action:</b> Illustration of countries experiences from all regions and discussion of advantages and limitations of the various topics address this concern.</p>
<b>Asia</b>	
Sri Lanka	<p><b>General comments:</b> The comments provided were on WCA 2020, Volume 1 (published in 2015) and thus not relevant. The country was informed.</p>
<b>Europe</b>	
Austria	<p><b>Chapter 12:</b> The main disadvantage of pre-filled questionnaires is the risk of bias introduced (example: Austria, AC 2010, use of administrative data to pre-fill the questionnaires). In case of Austria the possible disadvantage is not applicable for the following reasons:</p> <ul style="list-style-type: none"> <li>• The data status of the administrative data used (September of the survey year) is already highly consistent after passing the control mechanisms in the IACS system. The quality of the data would be good enough to be used directly by merging them to surveyed data without further checking by the respondent.</li> <li>• In our case the main purpose of pre-filling is not the need for checking itself but the integration of administrative data in the questionnaire to benefit from a higher consistency, if the data (IACS areas and other areas) are harmonised by the respondent directly.</li> <li>• The offered option to amend these data is just for very rare cases where real changes happened.</li> </ul> <p><b>Action:</b> Addressed in paragraph 12.33</p>
Bosnia Herzegovina	<p><b>Chapter 23:</b> Post Enumeration Survey (PES) is one of the methods for quality assessment, and we consider it necessary to propose alternatives adequate for quality assessment of the Agricultural Census that can be implemented in other ways, in addition to fieldwork (based on administrative records).</p> <p><b>Action:</b> Addressed in paragraphs 8.42, 12.10 and 23.3; References added in Chapter 12</p>
Finland	<p><b>Chapter 21:</b> In relation to the table on the page 274, Finland should be deleted from the list of countries using "CAPI". Computer aided personal interviewing was not used as a data collection method in the Agricultural Census 2010. Instead, Finland used CAWI – computer aided self-interviewing through web (60% of farmers responded through web) and CATI computer aided telephone interviewing (remaining 40% were interviewed by telephone).</p> <p><b>Action:</b> Addressed in Table 21.1</p>
Malta	<p><b>Chapter 7:</b> We think that it would not feasible to prepare in advance the list all cross-tabulations, which would be required by users (at least with regard to the structure).</p> <p><b>Action:</b> Addressed in paragraphs 7.12 and 7.13</p> <p><b>Chapter 12:</b> It is hard to ever arrive at a situation whereby all census items are based on administrative sources we would stress that a priori an analysis needs to be done on the number of items that could be potentially obtained from the administrative sources.</p> <p><b>Action:</b> Addressed in paragraph 12.36</p> <p><b>Chapter 22:</b> Delete extra "and" from the paragraph 22.6, the first sentence.</p> <p><b>Action:</b> Addressed in paragraph 22.6</p>

	<p><b>Chapter 23:</b> Paragraph 23.3: we are not sure on how feasible a complete r-numeration would be. Why not use a selection of the questions?  <b>Action:</b> Addressed in paragraph 23.3, 23.18</p>
<b>Latin America</b>	
Chile	<p><b>Chapter 5:</b> Country examples on "Planning and budget", (tables that show the breakdowns of costs by country) could be added from Latin American countries for the Spanish version.  <b>Action:</b> Examples to be added to the web resources</p> <p><b>Chapter 7:</b> Tabulation plan, indicate different types of tabulations depending on the approach used (classic, modular). There is no reference to AGRIS in classic censuses, as if it's done in modular censuses.  <b>Action:</b> Web-resources (country examples) added under Box 7.1. AGRIS does not relate to the classical census, it belongs under another census modality.</p> <p><b>Chapter 8:</b> Mention the quality issues in all the phases of a census and the main problems in terms of quality that the countries have faced, exemplifying such situations.  <b>Action:</b> Addressed in paragraphs 8.43 and 8.50</p> <p><b>Chapter 9:</b> In 9.32 (statistical unit), some examples of Latin American countries could be included, detailing what happens with the incorporation of socio-political or administrative strata (commune).  <b>Action:</b> Addressed in paragraph 9.32 and Box 9.1</p> <p><b>Chapter 12:</b> The difficulty of using administrative records becomes visible, since a very advanced level of government; development is needed, which is demonstrated in the type of countries mentioned in the examples.  <b>Action:</b> Example from developing countries added in chapter 12</p> <p><b>Chapter 13:</b> In point 13.3 (list, area frames), to mention examples of countries that have used these types of frames in their statistical surveys.  <b>Action:</b> Reference to multiple sample frame (MSF) country experiences is listed among the references at the end of Chapter 13.</p> <p><b>Chapter 16:</b> In point 16.23 the main problems detected in the use of CAPI in the census should be incorporated, giving examples of countries, including Latin American cases. You could include links to CAPI manuals from different countries.  <b>Action:</b> Addressed in paragraph 16.23</p> <p><b>Chapter 19:</b> In 19.45 (supervisor : numerator ratio) it should include exemplifying situations, showing the efficiency of the countries and contrast the reality of conducting the census through CAPI versus PAPI, and all its implications in relation to the staff used.  In 19.51 (supervisors), some country examples could be mentioned;  In 19.54 (enumerators), it could mention the reality of some countries. It should include both examples of efficient and inefficient management and details for the reasons for that management.  In 19.61 (enumerator kit), the description of the KIT seems very relevant to me, since the form census is conducted has modernized and the document makes emphasis on this, which is highly noteworthy.  <b>Action:</b> Examples to be added in the web resources</p> <p><b>Chapter 21:</b> Provide country examples of use of CAPI and CASI/CAWI, CATI, CAPI combined;</p>

	<b>Action:</b> Addressed in Table 21.1
Costa Rica	<p><b>Chapter 6:</b> On page 70, the logo of the 2011 General Census of Agriculture, Uruguay is named as the logo of the 2011 Census of Agriculture, Costa Rica. In case the census logo used by Costa Rica in the Census 2014 may be referenced as an example of census logos used by countries;  <b>Action:</b> Country name corrected in Figure 6.2</p> <p><b>Chapter 19:</b> In the case of Peru and Costa Rica, a person was designated to revise the consistency of the information included in the questionnaire, which contributes to reduce the errors. This reviser may work directly on the field (when PAPI is used) or can be located at an office (when CASI is used).  <b>Action:</b> Addressed in paragraph 19.51</p> <p><b>Chapter 24:</b> Costa Rica example of providing mobile phone applications was suggested:<a href="https://play.google.com/store/apps/details?id=com.inec.censoagropecuario&amp;hl=es">https://play.google.com/store/apps/details?id=com.inec.censoagropecuario&amp;hl=es</a>. Other activities such as symposium, presentations, expositions might be organized by the census agency according to the user-producer interests on a wide variety of topics based on the census macro and microfata, for example, results related to crop (coffee, sugar cane, rice, pineapple, etc.) or livestock production.  <b>Action:</b> Addressed in paragraphs 24.97 and 24.103</p>
Dominican Rep.	<p><b>Chapter 3:</b>  The legal framework of the census must clearly specify the responsibilities of all the institutions involved. The legal framework should ensure transparency and objectivity of the census results. This aspect could be developed in more detail so different countries, mainly in Latin America, adopt this practice.  <b>Action:</b> Addressed in paragraphs 3.29 and 3.53</p> <p><b>Chapter 17:</b> Correct "census authority" by "census agency"  <b>Action:</b> Addressed in Table 17.1</p> <p><b>Chapter 21:</b> More details in Box 21.3 regarding the case of Canada on the certification and validation of census results through a certification committee.  <b>Action:</b> Addressed in Box 21.3</p>
<b>North America</b>	
Canada	<b>General comments:</b> Several minor typos (missing coma for thousands, extra or missing parenthesis, etc) were provided throughout the entire document.
<b>Organizations</b>	



EUROSTAT	<p><b>General comments:</b> The national methodological reports refers to the reports of 2010 (which is OK as it was the last census); all national methodological reports for the farm structure survey (and census) years 2007-2010-2013 and now also for 2016 are available on a dedicated page of Eurostat website: <a href="http://ec.europa.eu/eurostat/web/agriculture/national-methodology-reports">http://ec.europa.eu/eurostat/web/agriculture/national-methodology-reports</a>  Formatting issues in: pg. 17 – Figure 1.1; p. 26 – Figure 2.2; p. 27 - Box 2.1; p. 28.  <b>Action</b> The links were changed in the respective chapters as suggested.</p> <p><b>Chapter 3:</b> The footnote 10 at p. 31 – request for rephrasing: "..... A new <del>census</del> legislation was under preparation at the time <u>of this publication</u> <del>was published</del>". In page 39 – correct links to EUROSTAT and countries methodologies (Ireland, 2012; EUROSTAT 2010, 2012, ISTAT 2010, Lithuania 2010, Netherland 2010,)  <b>Action:</b> Addressed in page 32, footnote 10 and pages 40 and 41.</p> <p><b>Chapter 7:</b> '-Pg. 90 Correct links in "Reference.." to EUROSTAT methodology (Eurostat 2012)  <b>Action:</b> Addressed in page 93</p> <p><b>Chapter 8:</b> '-Pg. 101 Correct link in "Reference.." to EUROSTAT methodology (Eurostat 2013)  <b>Action:</b> Addressed in page 104</p> <p><b>Chapter 9:</b> '- The footnote 33 in paragraph 9.27 to refer to EU census legislation.  <b>Action:</b> Addressed in paragraph 9.27</p> <p><b>Chapter 12:</b> Pg. 143 – The acronym IACS stands for Integrated Administration and Control System  <b>Action:</b> Addressed in paragraph 12.43 and Box 12.2</p> <p><b>Chapter 13:</b> Pg. 156 [optional] – In case you want to add an example of land cover area frame survey to item 13.45, the link for LUCAS : <a href="http://ec.europa.eu/eurostat/web/lucas">http://ec.europa.eu/eurostat/web/lucas</a>  <b>Action:</b> Addressed in paragraph 13.45</p> <p><b>Chapter 15:</b> Pg. 180 Correct link in "Reference.." to EUROSTAT methodology (Eurostat 2008) and Pg. 181 Correct link in "Reference.." to EUROSTAT methodology (Hungary 2010)  <b>Action:</b> Addressed in pages 183 and 184</p> <p><b>Chapter 24:</b> Pg 306 add the link to Eurostat 2007, 2013 and 2016; Pg 306 add the link to Eurostat, Portugal; and Pg. 310 correct link in "Reference.." to EUROSTAT methodology (Eurostat 2010 and 2014)  <b>Action:</b> Addressed in Pages 306 and 313</p>
ILO	<p><b>Chapter 16:</b> In Box 16.1 "Employment" replace with "Work on the holding"  <b>Action:</b> Addressed in paragraph 16.9 and Box 16.1</p>

\* Please see the description of chapters 1-25 in Table 3 below

**Table 3. Table of contents of the WCA 2020, Volume 2**

<b>Chapters</b>	<b>Titles</b>
<b>Part 1. Planning the census of agriculture</b>	
Chapter 1	Introduction
Chapter 2	Relevance of and advocacy for the census of agriculture
Chapter 3	Legal framework
Chapter 4	Institutional framework
Chapter 5	Planning and budgeting
Chapter 6	Communication and publicity
Chapter 7	Tabulation plan
Chapter 8	Quality assurance framework
<b>Part 2. Methodological modalities</b>	
Chapter 9	Classical census
Chapter 10	Overview of census modalities
Chapter 11	Modular census and integrated census and survey modalities
Chapter 12	Use of registers as a source of census data
<b>Part 3. Census preparation and implementation</b>	
Chapter 13	Preparation of frames
Chapter 14	Cartography and use of maps
Chapter 15	Use of sampling in the census
Chapter 16	Questionnaires and instruction manuals
Chapter 17	Staffing
Chapter 18	Training
Chapter 19	Organization of field work
Chapter 20	Data collection methods and use of technology
Chapter 21	Data processing and archiving
Chapter 22	Safe access to microdata
Chapter 23	Post enumeration survey
Chapter 24	Data analysis, reporting and dissemination
Chapter 25	Reconciliation of current statistics with census results
<b>Annexes</b>	
Annex 1	Example of census of agriculture questionnaire testing at Statistics Canada
Annex 2	Example of quiz for enumeration after the training course (St Lucia Agricultural Census 2007)
Annex 3	Standards for data archiving
Annex 4	Safe access to microdata
Annex 5	Conducting a post enumeration survey
<b>References and suggested readings</b>	