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Strengthening the collection and analysis of sex disaggregated data on land ownership in agricultural censuses

FAO Statistics Division

Introduction

In a recent review of the global state of food and agriculture, the Food and Agriculture Organization of the United Nations (FAO) observed that despite the diversity in their roles in and importance to agriculture, women face a surprisingly consistent “gender gap” with respect to men in terms of access to productive assets, inputs and services.

This unequal access hinders women’s productivity and reduces their contributions to the agriculture sector and to the achievement of broader economic and social development goals. Closing the gender gap in agriculture would therefore produce significant gains for society by increasing agricultural productivity, reducing poverty and hunger and promoting economic growth¹.

In partnership with UNSD and UNWOMEN, the FAO Statistics Division (ESS) is conducting methodological work on sex-disaggregated data (SDD) on land ownership. The objectives of this work are as follows.

- a) To take stock of the methodologies adopted in the World Census of Agriculture (WCA) 2010 round, conducted between 2006 and 2015, to collect SDD on land ownership and to operationalize the sub-holder/sub-holding concept.
- b) To review the approaches adopted by other survey programmes, such as national household surveys and the Living Standards Measurement Studies (LSMS) *and*

¹ SOFA 2011, pp 3-4

- c) To propose guidelines and/or data collection tools for gathering sex disaggregated data on land ownership and management, with particular focus on agricultural censuses and surveys.

The result of this work will contribute to the *Evidence and Data for Gender Equality* (EDGE) project² and will inform the preparation of the methodological guidelines for the next round of the World Census of Agriculture (WCA 2020).

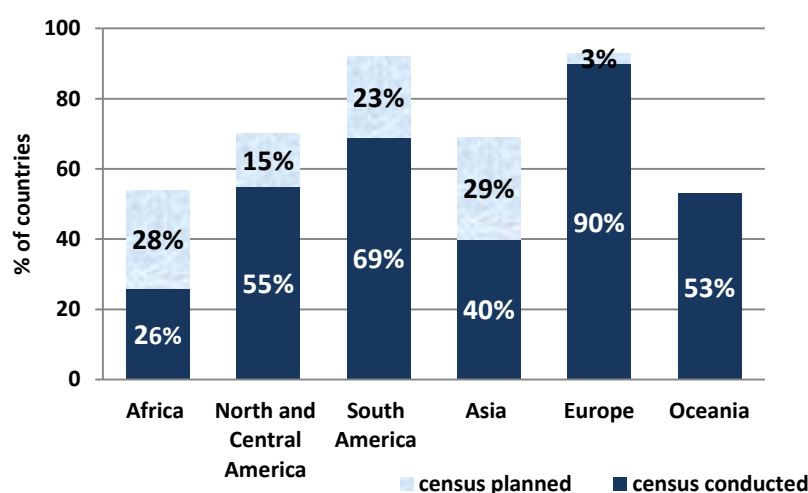
This paper provides a summary of the FAO review of the agricultural censuses conducted in the 2010 round of the WCA and presents preliminary recommendations. ***The recommendations presented in this paper are still under discussion and should not be treated as conclusive.***

FAO Review of WCA 2010 round³

One hundred-two countries have conducted an agricultural census under the WCA 2010 round between 2006 and 2012, and forty-two are planning to carry out such a census during the next three years. This total of 144 countries is expected to result in an unprecedented rate of participation in a WCA round.

Europe has the highest proportion of countries with completed WCA 2010 censuses (90%), followed by South America (69%), North and Central America (55%), Oceania (53%), Asia (40%) and Africa (26%). By the end of the round, Europe and South America are expected to have the most complete coverage (93% and 92% respectively) among all regions, while Africa (54%) and Oceania (about 53%) will be expected to have the least coverage.

Figure 1: Countries with WCA 2010 round Census conducted or planned, by geographic region⁴



Source: FAO 2013c

² Joint project led by UNSD and UNWOMEN

³ The paragraph is based on the findings reported in FAO 2013c.

⁴ The grouping by regions follows the standard recommended by UNSD. However, for the purpose of the review, the Americas have been classified into two groups "America, North and Central" and "America, South".

Not every country that conducted its agricultural census during the WCA 2010 round has released the full array of census reports, data and metadata. The table below shows the types of information from agricultural censuses currently available for review.⁵

Table 1: Agricultural census material currently available by region (WCA 2010 round)

Region	Agricultural census conducted	Questionnaire(s)	Reports	Methodological reports	Some definitions, etc.
World	102	86 (84%)	60 (59%)	48 (47%)	28 (27%)
Africa	14	11 (79%)	9 (64%)	7 (50%)	2 (14%)
America, North and Central	15	13 (87%)	11 (73%)	6 (40%)	4 (27%)
America, South	9	8 (89%)	5 (56%)	4 (44%)	3 (33%)
Asia	19	12 (63%)	6 (32%)	2 (11%)	7 (36%)
Europe	35	31 (89%)	20 (57%)	29 (83%)	3 (9%)
Oceania	10	10 (100%)	9 (90%)	0	9 (90%)

Source: *FAO 2013c*

Since the review focused on data collection methodologies, questionnaires were the key source of information consulted, supplemented by census reports, methodological reports and definitional notes, where available.

For the purpose of the review, land tenure (item 0009) was used as a proxy for land ownership. The review registered a considerable variation in the **land tenure categories** used by the censuses, which reflects the complexity and heterogeneity in land tenure regimes and local arrangements across countries. FAO recommends using four broad categories of land tenure: a) *Legal ownership or legal owner-like possession*; b) *Non-legal ownership or non-legal owner-like possession*; c) *Rented from someone else*; d) *Other types of land tenure*. A wide range of national arrangements fit into these categories.

Table 2 summarises the availability of sex-disaggregated data on land ownership, using the land tenure proxy, at both the holding and parcel/plot levels in the censuses studied for the review.

- **At the holding level**, sex disaggregated data on land tenure are available for nearly all the agricultural censuses studied, regardless of geographical region (see table 2, line 3). This is not surprising since the underlying items - sex of the holder and land tenure - were recommended by WCA and adopted by almost all countries.
- **At the parcel/plot level**, however, the frequency with which data on land tenure and the sex of the manager/operator are collected drops sharply. Data on land tenure were reported at varying degrees at the parcel/plot level, ranging from 31% in America, North and Central, to 73% in Africa. Sex-disaggregated data on land ownership were collected at the parcel/plot level only in Africa, with 55% (6 of 11) censuses having done so (see table 2, line 7).

The scarce presence of sex-disaggregated data on land ownership at plot/parcel level is the result of the rare inclusion of sex of the parcel/plot manager in the supplementary modules in the agricultural censuses, due to the complexity and cost

⁵ Census materials available for review include: the census questionnaires (both core and supplementary modules); reports on the main findings of the census and/or special topics; methodological reports, and miscellaneous notes on definitions. Most of these materials can be found on the FAO WCA 2010 Country Information website: <http://www.fao.org/economic/ess/ess-wca/wca-2010/countryinfo/en/>.

of collecting information on parcels⁶. Furthermore, the emphasis of the agricultural census on **management** rather than ownership, *per se*, means that parcel/plot level modules tend to operationalize ‘ownership’ as ‘*a bundle of rights over the land implemented through management*’.

⁶ Complexity and cost related issues also explain why plot/parcel level modules were not proposed as core item in the 2010 WCA guidelines.

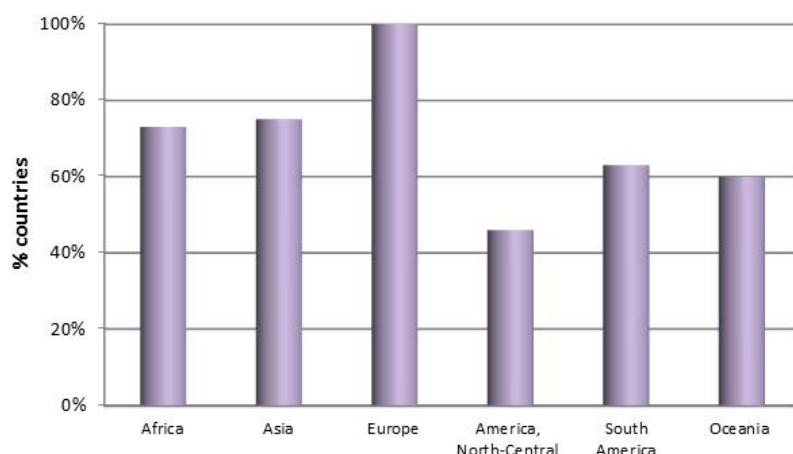
Table 2: Availability of SDD on tenure, ownership and operation of land at holding and parcel/plot levels in studied agricultural censuses

Type of data that were collected (or can be derived)		Africa (11 countries studied)		Asia (12 countries studied)		Oceania (10 countries studied)		Europe (22 countries studied)		America, North and Central (13 countries studied)		America, South (8 countries studied)	
		<i>number</i>	<i>%</i>	<i>number</i>	<i>%</i>	<i>number</i>	<i>%</i>	<i>number</i>	<i>%</i>	<i>number</i>	<i>%</i>	<i>number</i>	<i>%</i>
Holding level data													
1	Data on sex of the holder	10	91%	12	100%	8	80	22	100%	12	92%	8	100%
2	Data on land tenure/ownership/mode of acquisition	11	100%	11	92%	10	100%	22	100%	13	100%	8	100%
3	SDD on land ownership available at holding level	10	91%	11	92%	8	80%	22	100%	12	92%	8	100%
Parcel/Plot level data													
4	Parcel/plot level module included	8	73%	5	42%	5	50%	0	0%	4	31%	4	50%
5	Data on land tenure/ownership	8	73%	5	42%	5	50%	0	0%	4	31%	3	38%
6	Sex of the plot/parcel manager	6	75%	0	0%	0	0	0	0%	0	0%	0	0
7	SDD on land ownership available at plot/parcel level	6	55%	0	0%	0	0	0	0%	0	0%	0	0

Source: FAO 2013c

Among other things, the review showed that the sex disaggregated information most commonly collected in the agricultural censuses is the sex of the household members, usually gathered in the household members' rosters, as recommended by the *Demographic and Social Characteristics* theme (Theme 07), see figure 2 below. This evidence is particularly important for the methodological work as it suggests that this module can be a feasible vehicle for inclusion of questions regarding plot/parcel ownership.

Figure 2: Percentage of countries with data on sex of household members⁷



Preliminary recommendations for WCA 2020⁸

The review, which is summarized above, served to identify preliminary recommendations for those countries interested in collecting sex-disaggregated data on land ownership through their agricultural censuses.

The gender dimension of land ownership/management can be best explored at the **parcel/plot level**, using the data items contained in the supplementary module on *Land* (Theme 01). The plot can also serve as an operational definition of the sub-holding for land, as was done during its experimental use in some censuses in the WCA 2000 and WCA 2010 rounds.

The **identification of the parcel/plot manager** (i.e., person responsible for the parcel/plot's management) and the **sex of the parcel/plot manager** should be added to the list of suggested data items for WCA 2020 round. If the *Demographic and Social Characteristics* theme (Theme 07) is also administered, the identification codes of the household members can be used to link the parcel/plot level information with the sex of the household member, thus avoiding duplication.

The identification and sex of the parcel/plot manager can provide information on a certain sense of ownership (i.e., 'ownership' due to rights of access/control through management). To collect ownership in a stronger sense, however, the **identification** and **sex of the parcel/plot owner** are needed and the land tenure status of the parcel/plot should also be collected.

⁷ The percentage of censuses that collect information on sex of each of the household members is very high in Africa (73%), Asia (75%), and Europe (100%) and high in South America (63%) and Oceania (60%).

⁸ This paragraph is based on FAO, 2013d.

The parcel/plot owner (Fr. '*propriétaire de la parcelle* ') and the parcel/plot manager/operator (Fr. '*responsable*' ou '*gestionnaire de la parcelle*') have been used experimentally in previous censuses during the WCA 2000 and WCA 2010, to identify sub-holdings and sub-holders for gender analysis. However, these items were not in the list of data items recommended for the WCA 2010. Adding these data items to the list for the WCA 2020 round would strengthen gender analysis and formalize the practice adopted by some national statistical offices during the WCA 2000 and WCA 2010 to operationally define the sub-holder for land.

Parcel/plot level modules are rarely adopted by countries. It is therefore necessary to propose recommendations for those censuses that do not include a parcel/plot supplementary module. For these countries, **it is recommended to add a data item on individual ownership and/or management of a parcel/plot** to the questions on demographic and social characteristics of household members (Theme 07).⁹

As shown in the table 3 below and figure 2 above, basic information on household members, including sex, as recommended in Theme 07, is often found in agricultural censuses. The inclusion of a data item on individual ownership and/or management of a parcel/plot will greatly facilitate the analysis of the gender dimension of land ownership/management and help identify potential sub-holdings at an early stage in the census questionnaire. The frequent inclusion of the *Demographic and Social Characteristics* theme (Theme 07) collecting the sex of household members suggests that this type of module can be a feasible vehicle for inclusion of questions regarding ownership of plots.

Table 3: Availability of information on household members in the censuses under review *

Region	Number censuses reviewed	Number of countries collecting data on household members by type of information			
		Any information	Age	Sex	Whether the member manages/ is responsible for a parcel/plot
Africa	11	11	8	8	4
America, North and Central	13	6	6	6	0
America, South	8	6	5	5	0
Asia	12	9	9	9	0
Europe	22	22	17	22	0
Oceania	10	6	6	6	0

(*) WCA 2010 recommends collecting information on household members through the *Demographic and Social Characteristics* theme (Theme 07)

The experience of WCA 2010 round shows that *Management of the Holding* (Theme 12) – which includes identification of sub-holdings, sub-holders and their sex – was difficult to implement due to ambiguous definition of concepts. For the next round it is recommended to retain these concepts as analytical tools, but to collect the relevant data through the *Demographic and Social Characteristics* and / or *Land* themes (Theme 07 and 01 respectively). More specifically, the presence of sub-holders should be identified through the inclusion of sex and management questions in those modules, as indicated above.

⁹ This could result into a 'one person-to-many plots' relationship. To avoid this issue, the questionnaire could allow to list up to a certain number of parcels/plots.

Table 4 below lists some data items required from the census of agriculture for the analysis of the gender dimension of land ownership. Not all the items required for the analysis exist in the WCA 2010 recommendations, especially those at parcel/plot level. Those items that are recommended to be introduced into future guidelines are indicated by a cross (+) in the table and are written in red.

Table 4: WCA data items recommended for the analysis of gender and land ownership

No	Description	Remarks
At Holding Level:		
0001	Identification and location of agricultural holding	
0002	Legal status of agricultural holder	<ul style="list-style-type: none"> ▪ Helps assign the holding to the household sector ▪ Helps distinguish between single or joint holders
0003	Sex of agricultural holder	<ul style="list-style-type: none"> ▪ Basic requirement for gender analysis at holding level
0008	Total area of holding's land	<ul style="list-style-type: none"> ▪ Useful for cross-tabulations between land size categories (or mean size) and sex of the holder. ▪ If land prices are available at community level, useful to estimate the value of the holding's land.
0009	Land tenure types on holding	<ul style="list-style-type: none"> ▪ Provides a proxy for ownership. ▪ Useful for cross-tabulations between the type of ownership and the sex of the holder. ▪ Land tenure categories shall distinguish between legal/legal type of ownership versus illegal/illegal type of ownership.
At the household member level:		
0711	Sex	<ul style="list-style-type: none"> ▪ If sex and age are not collected with the household register, it is crucial to collect the number of male and female adults in the household. This can be used as denominator to compute the incidence of female landowners out of total women.
0712	Age	
0713	Relationship to HH head	
+	Whether the individual manages a parcel/plot	<ul style="list-style-type: none"> ▪ Greatly facilitates the analysis of the gender dimension of land ownership/management ▪ Help identify potential sub-holdings at an early stage in the questionnaire
+	Whether the individual owns a parcel/plot	<ul style="list-style-type: none"> ▪ Required for estimation of ownership of parcel/plot in the stronger sense of ownership. ▪ Helps identify potential sub-holdings at an early stage in the questionnaire
+	Whether the individual has control over the disposal of the agricultural products of parcel/plot.	<ul style="list-style-type: none"> ▪ Required to capture the third dimension of ownership (ie., control over the assets). ▪ Such question could not be suitable for an agricultural census

No	Description	Remarks
At Parcel/Plot Level		
0101	Location (of parcel/plot)	▪ Places the parcel/plot within a particular holding
0102	Area (of parcel/plot)	▪ As with item 0008, but at parcel/plot level
+	Value of parcel/plot	<ul style="list-style-type: none"> ▪ Required for wealth gap analysis ▪ Inclusion of a question on value of the parcel/plot could not be suitable for an agricultural census. Alternatively, value can be estimated based on area and land value from community level data.
0103	Land tenure (of parcel/plot)	▪ As with item 0009, but at parcel/plot level
+	Identification of parcel/plot manager	<ul style="list-style-type: none"> ▪ Required for analysis of access/control ▪ Offers approximation of 'ownership' in the weaker sense of the ownership definition (rights through management) ▪ Introduced on experimental basis in some censuses in Africa during WCA 2000 and 2010 ▪ Issue of joint management of parcel/plot may be problematic
+	Sex of parcel/plot manager(s)	▪ As with item 0003, but at parcel/plot level
+	Identification of parcel/plot owner and forms of ownership	<ul style="list-style-type: none"> ▪ Required for estimation of ownership of parcel/plot in the stronger sense of ownership ▪ Required to check whether the manager also 'owns' the parcel/plot.
+	Sex of parcel/plot owner(s)	▪ As with item 0003, but at parcel/plot level

Note: (+) and red font used to denote items that are suggested to be added to the WCA 2020 recommendations

The data needed for analysing gender-based disparities in land ownership require the inclusion of a quite detailed set of questions which are more suitable to sampling than complete enumeration. From this point of view, the modular approach adopted in the current round and further promoted in the future round is very promising, because it could more easily incorporate most of the data needed for the gender analysis in the supplementary modules carried out on samples.

Practical examples of data collection tools for these items will be displayed during the presentation delivered at the XXIII AFCAS session. Countries will have the opportunity to provide feedback on the proposed items and discuss the relevancy and feasibility of the recommendations described above.

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