

## 1. HISTORICAL OUTLINE

The first Agricultural Census (AC) was conducted in 1950 and the second in 1984. The 2013 AC, to which the present metadata review and data refer, was the third census to be conducted in the Plurinational State of Bolivia.

## 2. LEGAL BASIS AND ORGANIZATION

### **Legal framework**

The legal basis of the AC 2013 was provided by the following:

- Constitution of 2009, Article 298, paragraph I, number 16;
- Decree Law No. 14100, of 5 November 1976, which established that the National Institute of Statistics (INE) is the technical executive body of the National Statistical Information System (SNIE) and has the responsibility for directing, planning and conducting all activities related to the implementation of the national agricultural censuses;
- Supreme Decrees No. 13659 (of 14 June 1976), No. 16156 (of 1 February 1979), No. 17358 (of 25 April 1980), No. 19417 (of 21 February 1980) and No. 20345 (of 20 June 1984), which entrust the INE with the planning and realization of national agricultural censuses; and
- Supreme Decree 29560, of 14 May 2008, issued by the Minister Council of Government, authorizing INE to carry out the AC 2013.

### **Institutional framework and international collaboration**

In 2013, the AC was under the responsibility of the INE, with support from the Ministry of Development Planning (MPD) and the Ministry of Rural Development and Lands (MDRT).<sup>1</sup> A Committee for the AC 2013 was established, comprising relevant stakeholders. The Committee was involved in activities related to the elaboration of the census instruments, planning of census operations, etc.

### **Census staff**

The census staff involved in the data collection operation consisted of 8 849 people, including 5 500 enumerators, 1 833 supervisors and 1 516 other personnel.

## 3. REFERENCE DATE AND PERIOD

**Reference day:** the day of the interview, for livestock, machinery and equipment, etc.

**Reference period:** the agricultural year (July 2012–June 2013), for land use, labour, etc.

## 4. ENUMERATION PERIOD

The enumeration was carried out from 15 September to 15 November 2013.

## 5. SCOPE OF THE CENSUS AND DEFINITION OF STATISTICAL UNIT

The **census scope** covered agricultural (crop and livestock production) activities, as well as forestry activities, the collection or extraction of non-timber species (chestnut, rubber, cocoa, etc.), hunting and fishing. A community survey was carried out together with the AC 2013.

The **statistical unit** was the agricultural production unit (UPA), which “comprises the land or parcel, set of land or parcels, used wholly or partially for agricultural activities, and that is conducted as an economic unit by a producer, regardless of size, tenure or legal status”.

## 6. GEOGRAPHIC COVERAGE

The AC covered all rural areas and certain urban areas.

## 7. CUT-OFF THRESHOLD AND OTHER EXCLUSIONS

No exclusions were applied in the AC 2013.

## 8. METHODOLOGY

### **Methodological modality for conducting the census**

The classical approach was used in the AC 2013.

### **Frame**

The census frame was established using the list of producers at the community level, based on which UPAs and plots with agricultural activity were identified. The cartography and the list of producers facilitated the location of UPAs in the field.

<sup>1</sup> On 16 February 2011, by means of Supreme Decree No. 0796, the Minister of Development Planning is authorized to sign the Financing Agreement to finance the project titled *Fortalecimiento de la Capacidad Estadística y de la Base de Información para la Planificación Basada en Evidencias (FCEBIPBE)*, with the International Development Association (IDA) of the World Bank. On 28 June 2011, the Financing Agreement 4845 - BO was approved through Law No. 146. On 15 July 2011, through a Bi-Ministerial Resolution between the Ministry of Development Planning and the Ministry of Economy and Public Finance, they decided to appoint the National Institute of Statistics (INE), the executing entity of the Financing Agreement 4845 - BO.

**Complete and/or sample enumeration methods**

The AC 2013 was conducted by complete enumeration.

**Sample design (if sampling was used).**

No sampling was used.

**Data collection method(s)**

The data collection was carried out using face-to-face interview and paper questionnaires, that is, the PAPI method.

**Questionnaire(s)**

Two questionnaires were used for data collection: (i) a census questionnaire, to collect information from the UPAs; and (ii) a community questionnaire, to collect community-level data. The AC 2013 census questionnaire covered all 16 core items recommended for the WCA 2010 round.

**9. USE OF TECHNOLOGY**

Global Positioning System (GPS) was used to locate the UPAs. The census results were disseminated and are accessible online.

**10. DATA PROCESSING AND ARCHIVING**

Once the fieldwork was completed, the information was processed. The latter stage of work comprised: coding, data entry, processing, and building the database. Data entry and coding involved more than 700 persons. This activity was carried out from December 2013 to July 2014. At the same time, consistency criteria and data imputation rules were formulated, in cooperation with the Brazilian Institute of Geography and Statistics (IBGE). For the CA, it was decided to use open-source Free Software technology. The SPSS programme was used to tabulate the results.

**11. CENSUS DATA QUALITY**

Validation of the census data was automated. Automatic criteria of consistency and imputation were established for each question, through the relationship of variables and the grouping of atypical cases or inconsistencies; in these cases, the PostgreSQL software was used.

**12. DATA DISSEMINATION**

The dissemination of census results was performed using printed publications and through the INE website. Likewise, the database was available to users in Retrieval of Data for small Areas by Microcomputer (REDATAM), along with summary data sheets at municipal and community level. The publications included census results at national and departmental level. Several events with the participation of authorities, agricultural organizations and other stakeholders were organized to disseminate the census results.

**13. DATA SOURCES**

**FAO.** 2016. Regional Roundtable on the World Programme for the Census of Agriculture 2020 (WCA 2020). 12–16 December 2016, Montevideo, Uruguay. In: *World Programme for the Census of Agriculture* [online]. Rome, Italy. [Cited 10 September 2019]. <http://www.fao.org/world-census-agriculture/events/wca2020montevideo/en/>

**Instituto Nacional de Estadística.** 2015a. *Censo Agropecuario 2013, Bolivia*. La Paz, Bolivia. (also available at [https://www.sudamericarural.org/images/en\\_papel/archivos/CENSO-AGROPECUARIO-BOLIVIA\\_final.pdf](https://www.sudamericarural.org/images/en_papel/archivos/CENSO-AGROPECUARIO-BOLIVIA_final.pdf)).

**Instituto Nacional de Estadística.** 2015b. *Manual De Jefe(A) de Brigada y Empadronadores* [online]. La Paz, Bolivia. [Cited 16 September 2019]. <https://slideplayer.es/slide/1114704/>

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# BOLIVIA (PLURINATIONAL STATE OF) – AGRICULTURAL CENSUS 2013 – MAIN RESULTS

NUMBER OF HOLDINGS AND AREA, BY LEGAL STATUS		
	Holdings	Area (ha)
<b>Total agricultural production units</b>	<b>871 927</b>	<b>34 654 984</b>
Individual producer	855 356	28 744 711
Society	13 166	2 792 652
Government	1 573	105 453
Community	683	1 297 749
Others	1 149	1 714 420

LAND TENURE		
	Holdings	Area (ha)
<b>Total</b>	<b>871 927</b>	<b>34 654 984</b>
Holdings without land	10 319	
Holdings with land	861 608	34 654 984
Legal ownership	767 108	29 140 111
Rented from others	22 860	483 000
Other form of tenure	71 640	5 031 873

DISTRIBUTION OF HOLDINGS BY LAND SIZE CLASSES		
	Holdings	Area (ha)
<b>Total</b>	<b>871 927</b>	<b>34 654 984</b>
Holdings without land	10 319	
Holdings with land	861 608	34 654 984
Less than 0.1 ha	52 224	2 525
0,10–0,19 ha	35 070	4 941
0,20–0,49 ha	66 829	21 066
0,50–0,99 ha	76 299	51 195
1–1,99 ha	110 819	147 508
2–2,99 ha	74 162	170 970
3–3,99 ha	52 793	173 497
4–4,99 ha	39 047	166 953
5–9,99 ha	115 909	781 659
10–19,99 ha	95 167	1 243 908
20–49,99 ha	69 401	2 048 769
50–99,99 ha	39 890	2 370 734
100–199,99 ha	12 887	1 635 679
200–499,99 ha	9 833	3 017 517
500–999,99 ha	5 503	3 306 785
1 000–2 499,99 ha	3 111	4 914 112
2 500–4 999,99 ha	1 872	6 579 127
5 000 ha and over	792	8 018 039

LAND USE		
	Holdings	Area (ha)
<b>Total</b>	<b>871 927</b>	<b>34 654 984</b>
Agricultural land	n.a.	18 656 538
Arable land	n.a.	5 265 251
Land under temporary crops	n.a.	2 539 689
Land under temporary meadows	n.a.	1 635 898
Land temporarily fallow	n.a.	1 089 665
Land under permanent crops	n.a.	220 550
Permanent meadows and pastures	n.a.	13 170 736
Forest and other wooded land	n.a.	13 844 735
Other land	n.a.	2 153 712

HOLDERS IN THE HOUSEHOLD SECTOR, BY SEX	
	Number
<b>Total</b>	<b>868 522</b>
Male	649 198
Female	219 205
Not specified	119

LABOUR FORCE OF THE HOLDING	
	Number
<b>Total</b>	<b>4 689 264</b>
Male	2 882 291
Female	1 806 973

LIVESTOCK		
	Holdings	Head
<b>Total holdings with livestock</b>	<b>n.a.</b>	
Cattle	322 388	8 315 504
Buffaloes	167	16 785
Sheep	260 039	6 267 743
Goats	73 372	1 868 512
Pigs/swine	211 759	1 415 274
Equines	n.a.	665 683
Horses	n.a.	324 756
Asses	n.a.	307 684
Mules and hinnies	n.a.	33 243
Camels and camelids	n.a.	2 506 435
Alpacas	10 047	444 273
Llamas	70 820	2 062 162
Poultry (1 000 head)	n.a.	5 833
Chickens	n.a.	5 159
Ducks	n.a.	605
Turkeys	n.a.	47
Other	n.a.	22
Other animals	n.a.	n.a.
Rabbits and hares	n.a.	759 850
Insects		
Bees (hives)	21 220	89 421

IRRIGATION	
	Area irrigated (ha)
<b>Total holdings with irrigated land</b>	<b>251 042</b>

MACHINERY AND EQUIPMENT USED ON THE HOLDING	
	Units
Total tractors of all kinds	36 562
Other (machine-powered)	
Powered threshers	1 847
Harvesters with motor	6 175
Balers with motor	801
Motocultors	4 725
Mowers or cutters	259 062
Harrows	29 018
Fertilizer hoppers	3 106
Seeders	154 849