

## 1. HISTORICAL OUTLINE

Lesotho has been conducting decennial Agriculture Censuses (ACs) since 1949. The AC 1949/1950 and the AC 1959/1960 were both organized by the Ministry of Agriculture, while the ACs for 1969/1970, 1979/1980, 1989/1990, 1999/2000, and the latest, AC 2009/2010, to which the metadata review and data presented here refer, was organized by the Bureau of Statistics (BOS).

## 2. LEGAL BASIS AND ORGANIZATION

### **Legal framework**

The legal basis of the AC 2009/2010 included:

- the Lesotho Bureau of Statistics Act, Act No. 8 of 2001; Article 15 stipulates the mandate of the Minister of Development Planning which, on the recommendation of the Council, establishes the timing and data content of the AC; and
- the Proclamation of the Minister of Development Planning, which specified the AC reference period (the agricultural year that covered the period from 1 August 2009 to 31 July 2010).

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

The responsibility for conducting the AC is vested on the Minister of Development Planning. The Director of the Bureau of Statistics (BoS) is the census commissioner. The former provides policy guidelines, mobilizes all necessary resources, and is responsible for the proper execution of the AC plan with the assistance of the census committees and teams.<sup>1</sup> Funds for the AC 2009/2010 were mainly provided by the Government of Lesotho. FAO provided technical support for the analysis of census data.

### **Census staff**

The number of staff involved in the census operation was 177, including 45 supervisors, 120 enumerators and 12 data processing personnel.

## 3. REFERENCE DATE AND PERIOD

**Reference day:** the day of the interview, for inventory items such as livestock numbers.

### **Reference periods:**

- the past six months (preceding the day of interview), for milk production, stock changes for livestock, etc.
- the past twelve months (preceding the day of interview), for the economic activity of household members, etc.

## 4. ENUMERATION PERIOD

Field data collection was conducted in several phases: (i) households listing: from 15 April to 3 June 2009; (ii) crop items: winter production – from August 2009 to February 2010; summer production – from February to July 2010; (iii) livestock items: number of livestock – in August 2009; stock change – February 2010; closing stock – July 2010; (iv) a community survey, conducted from 1 June to 28 June 2009.

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

The **census scope** covered agricultural activities (crop and livestock production). A community survey was conducted in conjunction with the AC 2009/2010. A community survey was conducted to collect community-level data.

The **statistical unit** was the agricultural holding, defined as “an economic unit of agricultural production under single management comprising all livestock kept and all land used wholly or partly for own account agricultural production purposes, without regard to title, legal form, or size”. The AC covered the holdings in the household sector (“agricultural households”) only.

## 6. GEOGRAPHIC COVERAGE

The AC 2010 covered the entire country (rural and urban areas).

## 7. CUT-OFF THRESHOLD AND OTHER EXCLUSIONS

The holdings in the non-household sector were not covered in the AC 2009/2010.<sup>2</sup>

## 8. METHODOLOGY

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

The AC 2009/2010 was a sample-based census. A community survey was conducted along with the census.

### **Frame**

The main source of frame for the EAs was the Population Census (PC) 2006. The listing of households at EA level provided an updated sampling frame.

<sup>1</sup> The census committees and teams included a technical committee, a logistics team, a data processing team, an analysis team and others.

<sup>2</sup> The data on holdings in the non-household sector were collected in the AC (in the sampled EAs); however, they were neither analysed nor included in the census results.

### **Complete and/or sample enumeration methods**

The AC 2009/2010 was conducted using sample enumeration.

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

The AC used a stratified two-stage sample design. In the first stage, for rural areas, the 120 EAs were selected as the PSUs, and for urban areas, 40 PSUs were selected with probability proportional to size (PPS) from the EAs of the PC 2006. The measure of size was the number of agricultural households. A total sample size of 2 292 agricultural households<sup>3</sup> were selected as SSUs in rural areas and 600 agricultural households were selected in urban areas.

### **Data collection method(s)**

Face-to-face interviewing was applied to collect information from holders, using the traditional PAPI method.

### **Questionnaire(s)**

Two types of questionnaire were used for the AC 2009/2010, for holdings in the household sector in (i) rural areas and (ii) urban areas. The questionnaires for rural areas included eleven forms,<sup>4</sup> and those for urban areas contained six forms. These included one form for listing the agricultural holders in the selected PSUs. In addition, a community questionnaire was designed for the community survey.

The AC questionnaires covered 13 of the 16 core items<sup>5</sup> recommended for the WCA 2010.

## **9. USE OF TECHNOLOGY**

Census results were disseminated and are accessible online.

## **10. DATA PROCESSING AND ARCHIVING**

Manual data entry was used for the AC data on the Access screen. Tabulation and analysis were done with SPSS and Microsoft Excel. Editing (such as range and consistency edits) was done manually. The estimation of standard errors (SE), the coefficient of variation (CV), the confidence interval (CI) and the design effect (DEFF) was performed using WesVar.

## **11. CENSUS DATA QUALITY**

To minimize non-sampling errors, intensive training of enumerators and sensitization of respondents was undertaken.

## **12. DATA DISSEMINATION**

The data were disseminated through printed reports, electronic means (CD-ROMs), workshops and institutional websites. The census results were presented in five volumes: (i): Rural households and crops statistics; (ii) Rural livestock statistics; (iii) Urban crops and livestock statistics; (iv) Community profile; and (v) Technical report.

## **13. DATA SOURCES**

**FAO.** 2017. Regional Roundtable on the World Programme for the Census of Agriculture 2020 (WCA 2020). 18-22 September 2017, Nairobi, Kenya. In: *World Programme for the Census of Agriculture*: [online]. Rome, Italy. [Cited 30 August 2019]. <http://www.fao.org/world-census-agriculture/events/wca2020kenya/en/>

**Ministry of Finance and Development Planning, Bureau of Statistics.** Publications. In: *Ministry of Finance and Development Planning, Bureau of Statistics* [online]. Maseru, Lesotho. [Cited 10 September]. <http://www.bos.gov.ls/Publications.htm>

## **14. CONTACT**

Ministry of Finance and Development Planning  
Bureau of Statistics  
Address: P.O. Box 455, Maseru 100, Lesotho  
Telephone: (+266) 22323852 / 22326393  
E-mail: [agric@bos.gov.ls](mailto:agric@bos.gov.ls)  
Website: <http://www.bos.gov.ls>

<sup>3</sup> Prior to the selection of the ultimate units (agricultural holdings), a list frame consisting of all holdings in the selected PSUs were stratified as follows: (i) those with land and livestock; (ii) those with land only; (iii) those with livestock only; and (iv) those without land and livestock.

<sup>4</sup> The AC 2009/2010 questionnaires used for rural households were: Form AC-1 "Rural household listing", Form AC-2 "Rural household members", Form AC-3 "Area measurement", Form AC-4 "Field listing by crop", Form AC-5 "Operation and costs", Form AC-6 "Crop failure and pre-harvest losses", Form AC-7 "Crop cutting"; Form AC-8 "Farmer's yield estimate", Form AC-9 Availability and utilization of cereals in the household", Form AC-10 "Livestock inventory" and Form AC-11 "Structural information".

<sup>5</sup> The following core items were not covered by the AC: (i) "Land tenure types on the holding"; (ii) "Presence of aquaculture on the holding"; and (iii) "Other economic production activities of the holding's enterprise".

# LESOTHO – AGRICULTURAL CENSUS 2009/2010 – MAIN RESULTS

NUMBER OF HOLDINGS AND AREA		
	Holdings	Area (ha)
<b>Total agricultural production households</b>	<b>381 731</b>	<b>520 423</b>
Rural households	225 435	514 606
Urban households	156 296	5 817

LAND FRAGMENTATION		
	Holdings	Area (ha)
<b>Holdings with agricultural land</b>	<b>217 748</b>	<b>514 606</b>
1 parcel	45 608	107 786
2–3 parcels	106 634	252 009
4–5 parcels	41 927	99 086
6–7 parcels	8 379	19 802
8–9 parcels	5 719	13 516
10 parcels and over	9 481	22 407

DISTRIBUTION OF HOLDINGS BY LAND SIZE CLASSES		
	Holdings	Area (ha)
<b>Holdings with agricultural land</b>	<b>217 748</b>	<b>514 606</b>
Less than 0.49 ha	47 361	330 083
0.50–0.99 ha	51 358	124 159
1.00–1.49 ha	42 128	43 716
1.50–1.99 ha	27 193	10 382
2.00–2.49 ha	16 888	4 289
2.50–2.99 ha	10 245	1 685
3.00 ha and over	22 575	292

HOLDERS BY SEX AND AGE <sup>1</sup>		
	Number	
<b>Total</b>	<b>225 435</b>	
Male	146 821	
Female	78 614	
Under 18 years	484	
18–29 years	13 247	
30–39 years	29 772	
40–49 years	46 084	
50–59 years	54 325	
60–69 years	36 716	
70 years and over	44 808	

HOLDINGS, BY HOUSEHOLD SIZE <sup>1</sup>		
	Number	
<b>Total</b>	<b>225 436</b>	
1 person	14 732	
2–3 persons	42 917	
4–5 persons	83 498	
6–7 persons	45 877	
8–9 persons	24 041	
10 persons and over	14 371	

MEMBERS OF HOLDER'S HOUSEHOLD, BY SEX <sup>1</sup>		
	Number	
<b>Total</b>	<b>1 168 378</b>	
Male	592 615	
Female	575 763	

EMPLOYEES WORKING ON THE HOLDING <sup>1</sup>		
	Number	
<b>Total employees</b>	<b>24 952</b>	
Male	21 373	
Female	3 579	

SOURCES OF IRRIGATION WATER		
	Holdings	
<b>Total</b>	<b>76 765</b>	
Dam	2 189	
Pond	1 768	
River	5 656	
Plastic tank	795	
Stone tank	10 979	
Groundwater	2 923	
Private pipe	7 915	
Community pipe	44 540	

LIVESTOCK		
	Holdings	Head
<b>Total holdings with livestock</b>	<b>n.a.</b>	
Cattle	126 599	626 343
Sheep	62 797	1 228 558
Goats	58 511	875 184
Pigs/swine	75 758	83 976
Horses	40 992	69 843
Mules	92 076	2 398
Asses (donkeys)	1 874	136 355
Poultry (1 000 head)	53 294	502

MACHINERY AND EQUIPMENT USED ON THE HOLDING		
	Units	
<b>Total tractors of all kinds</b>	<b>16 724</b>	
Ploughs (machine-powered)	146 442	
Other (machine-powered)		
Disks	42 611	
Planters	70 734	
Cultivators	51 577	
Sprayers	7 035	
Harvesting Machines	2 353	
Truck/Van	7 981	

TEMPORARY CROPS HARVESTED		
	Area (ha)	
<b>Total</b>	<b>n.a.</b>	
Cereals	n.a.	
Maize	141 340	
Wheat	13 693	
Sorghum	33 146	
Barley	2 094	
Oats	304	
Vegetables and melons	239	
Potatoes	808	
Leguminous crops	n.a.	
Beans	26 887	
Peas	2 107	

PERMANENT CROPS		
	Number of trees/plants	
<b>Total</b>	<b>n.a.</b>	
Peach	1 601 256	
Apples	52 640	
Plums	15 689	
Apricots	3 786	
Pears	3 471	
Quince	421	
Raspberry	99	
Grapes	30 403	
Other	21 611	

<sup>1</sup> Data are provided only for holdings in rural areas.