

1. HISTORICAL OUTLINE

The first Census of Agriculture in the Cook Islands was conducted in 1988 and the second in 2000. The 2011 Census of Agriculture and Fisheries (CAF 2011) is the third agricultural census to be conducted in the country.

2. LEGAL BASIS AND ORGANIZATION

Legal framework

The Statistics Act 1966, stipulates that a Census of Population and Dwellings (CPD) is to be conducted every five years in the Cook Islands. Traditionally, the CPD included questions on agricultural activity at the household level, types of crops grown, livestock numbers, farm machinery and involvement in fishing and pearl farming activities.

The need to integrate the CA and the CPD was recognized and a decision was taken to conduct the two censuses in 2011. The approach adopted for data collection was to have two separate teams of supervisors and enumerators, one for the CPD and another for the CAF.

Institutional framework and international collaboration

The agencies responsible for conducting the CAF 2011 were the Ministry of Agriculture (MoA) and the Statistics Office (CISO),¹ which jointly undertook the agricultural census activities. The MoA was responsible for the CAF team, while the CISO was responsible for the CPD team.

Technical assistance for the CAF was provided by FAO.

Census staff

Fieldwork was carried out by 19 supervisors and 83 enumerators. Most of the field staff were recruited from government ministries and were required to conduct the census after regular hours.

3. REFERENCE DATE AND PERIOD

Reference day: the day of enumeration, for inventory items, such as household composition and livestock numbers.

Reference periods:

- the last 12 months, for data on vegetable and root crops planted and harvested, engagement in fishing and pearl farming activities, boats and other equipment used, etc.;
- the last month (the month prior to enumeration), for data on labour inputs.

4. ENUMERATION PERIOD

The enumeration period for the CAF 2011 was from 1 December 2011 to January 2012.

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

The **census scope** covered agricultural activities (crop and livestock production), capture fisheries and pearl farming activities.

In the CAF 2011, four categories of agricultural activity were defined: *non-agricultural*, *minor agricultural*, *subsistence* and *commercial*. The *non-agricultural* category was determined in terms of crops only. *Minor agricultural* was a category of households growing very small quantities of crops, defined as less than 64 m² of garden crops and/or less than 20 fruit trees. *Subsistence* households were those growing more than the minimum quantities grown by minor agricultural households but that did not sell any produce. *Commercial* households were the households growing more than the minimum quantities and that sold their agricultural produce.

The **statistical unit**, the holding, was defined as recommended in the WCA 2010.

An “agriculturally active household” was defined as a household with a level of agricultural activity that was neither subsistence only, subsistence with cash cropping nor commercial-producer. Along with the holdings in the household sector, commercial agricultural enterprises were also covered in the CAF.

6. GEOGRAPHIC COVERAGE

The CAF 2011 covered the entire country.

7. CUT-OFF THRESHOLD AND OTHER EXCLUSIONS

No exclusions were applied.

8. METHODOLOGY

Methodological modality for conducting the census

The classical approach was used for the CAF 2011.

Agriculture-related data were collected through both the CAF and the CPD 2011. There were two separate teams of supervisors and enumerators, one for the CPD and another for the CAF. In each Enumeration Area (EA), the CPD was first conducted and the households engaged in agriculture and fishing activities were identified. The list of households engaged in agriculture and fishing, identified during the CPD, was passed to the CAF team, which then visited these households to complete the CAF.

¹ Cook Islands Statistics Office.

The northern group of islands presented a particular challenge for data collection, because they are sparsely populated and are only accessible by boat. For this reason, the CAF enumeration was conducted simultaneously with the CPD, with the two censuses sharing transport costs.

Frame

The CPD and the CAF used the EAs for the allocation of households and work areas. The list of households engaged in agriculture and fishing activities identified during the CPD served as a frame for the CAF 2011.

Complete and/or sample enumeration methods

The complete enumeration method was used to conduct the CAF 2011.

Sample design (if sampling was used)

No sampling was employed.

Data collection method(s)

PAPI was used to collect the census data.

Questionnaire(s)

Five questionnaires were used in the CAF 2011 to capture the information pertaining to agricultural, fishing, and pearl farming activities of the household: (i) a household form; (ii) a parcel form (for agriculturally active households with a holding area of at least 64 m²); (iii) a livestock form; (iv) a fishing form; and (v) a pearl farming form.

The questionnaires covered 14 of the 16 core items² recommended by FAO.

9. USE OF TECHNOLOGY

Scanning technology for data capture was used. Census results were disseminated through the website.

10. DATA PROCESSING AND ARCHIVING

Following the data collection exercise, the census questionnaires were checked, edited, coded and prepared for scanning. Scanning technology for data capture was used in the CISO for the first time for the CPD 2011 and the CAF 2011. The tabulation was done using Microsoft Excel and Access.

11. CENSUS DATA QUALITY

A Post-enumeration Survey (PES) was carried out in selected EAs on Rarotonga and Aitutaki to evaluate some of the key data items. Data from the PES were compared with the data from the CAF and CPD. However, the results of the CAF 2011 and the CPD 2011, insofar as they relate to agricultural activity, are not comparable due to definitional differences.

12. DATA DISSEMINATION

The census reports were made available to the public through the websites of the MoA and the CISO.

13. DATA SOURCES

FAO. Regional Roundtable on the World Programme for the Census of Agriculture 2020 (WCA 2020), 6-10 November 2017, Nadi, Fiji. In: *World Programme for the Census of Agriculture* [online]. Rome, Italy. [Cited 16 September 2019]. <http://www.fao.org/index.php?id=85857>

Ministry of Agriculture. 2014. *Cook Islands 2011 Census of Agriculture and Fisheries*. Rarotonga. (also available at http://www.fao.org/fileadmin/templates/ess/ess_test_folder/World_Census_Agriculture/Country_info_2010/Reports/Reports_5/COK_EN_REP_2011.pdf).

14. CONTACTS

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² The following core items were not covered by the CA: (i) "Legal status of the holding"; (ii) "Presence of forest and other wood land on the holding".

COOK ISLANDS – CENSUS OF AGRICULTURE AND FISHERIES 2011 – MAIN RESULTS

NUMBER OF HOLDINGS AND AREA		
	Holdings	Area (ha)
Total	1 275	602

LAND TENURE		
	Holdings	Area (ha)
Total	1 275	602
Legal ownership and owner-like possession	n.a.	321
Rented from others	n.a.	120
Other form of tenure	n.a.	160

DISTRIBUTION OF HOLDINGS BY LAND SIZE CLASSES		
	Holdings	Area (ha)
Total	1 275	602
Holdings without land	6	
Holdings with land	1 269	602
Less than 1 ha	792	117
1–1.99 ha	257	133
2–4.99 ha	180	166
5.00 ha and over	40	187

LAND USE		
	Holdings	Area (ha)
Total	1 275	602
Agricultural land	n.a.	417
Arable land	n.a.	301
Land temporary fallow	n.a.	38
Land under permanent crops	n.a.	76
Permanent meadows and pastures	n.a.	2
Other land	n.a.	178
Not stated	n.a.	7

HOLDERS IN THE HOUSEHOLD SECTOR, BY SEX	
	Number
Total	1 030
Male	954
Female	76

LABOUR FORCE OF THE HOLDING	
	Number
Total	1 691
Male	1 310
Female	381
Members of holder's household engaged in agricultural activities	1 578
Male	1 213
Female	365
Hired managers working on the holdings	30
Male	25
Female	5
Employees working on the holdings	83
Male	72
Female	11

LIVESTOCK		
	Holdings	Heads
Holdings with livestock	1 595	
Cattle	118	370
Goats	1 028	6 174
Pigs/swine	2 513	16 835
Horses	10	19
Poultry (1 000 head)	n.a.	n.a.
Chickens	1 159	34
Ducks	16	0.3
Bees (hives)	4	n.a.

HOLDINGS BY MAIN PURPOSE OF PRODUCTION	
	Holdings reporting
Total producing mainly for	1 269
Home consumption	856
Sale	413

MACHINERY AND EQUIPMENT OWNED BY THE HOUSEHOLD	
	Units
Total tractors of all kind	224
Ploughs (machine-powered)	126
Other (machine-powered)	
Rotary hoe	212
Mist blower	167
Grass cutter	2 852
Motor mower	2 365
Disc harrow	92
Rotovator	32
Slasher	151
Tyne	32
Ripper	68
Chain saw	1 559
Knapsack	1 379
Water pump	762