

# Samoa - Agricultural Census 2009

**Samoa Bureau of Statistics - Government of Samoa**  
**Ministry of Agriculture and Fisheries - Government of Samoa**

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# Overview

## Identification

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ID NUMBER  
WSM\_2009\_AgC\_v01\_M

## Overview

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### ABSTRACT

The 2009 Agricultural Census was undertaken by the Samoa Bureau of Statistics in collaboration with the Ministry of Agriculture and Fisheries. The Census collected a large volume of information pertaining to the agricultural activities of households. Enumeration was carried out for 5 weeks in November/December 2009 by enumerators selected from the villages through interview and a basic test. The test included basic mathematical skills, knowledge of agricultural practices and map reading. This was to ensure that the enumerators are of high quality. The officers of the Samoa Bureau of Statistics and the Ministry of Agriculture and Fisheries were allocated to specified areas as supervisors.

### KIND OF DATA

Census/enumeration data [cen]

### UNITS OF ANALYSIS

Households (Agricultural and non-Agricultural)

Agricultural Holdings

## Scope

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### NOTES

The Scope of the Agricultural Census 2009 includes the following:

- Level of Agriculture Activity of the Households
- Number of Holdings and Method of Operation
- Total Area of the Holding
- Crops Grown
- Sale of Major Crops
- Consumption of Major Crops
- Livestock (additional data on number of pet animals)
- Amenities at the Principal Homestead
- Household Composition
- Labour Inputs
- Household Income and Credit
- Use of Agricultural Chemicals
- Fisheries

- Agriculture Equipment where included
- Forestry
- Plot details
- Crops Planted and Harvested

The 2009 census covered a similar range of information as with the 1999 census with the following major changes:

- Collecting information on 6 additional crops grown
- Collecting information on consumption of 19 crops compared to 8 in 1999
- Deletion of sales information because of data quality problems
- Collecting information on pet animals.

See detailed scope of 1999 and 2009 censuses in Section 4 of the 2009 Agriculture Census Revised Tabulation Report - provided as external resources.

## Coverage

### GEOGRAPHIC COVERAGE

National

## Producers and Sponsors

### PRIMARY INVESTIGATOR(S)

Name	Affiliation
Samoa Bureau of Statistics	Government of Samoa
Ministry of Agriculture and Fisheries	Government of Samoa

### FUNDING

Name	Abbreviation	Role
Government of Samoa		Funding
Government of Australia	AUSAID	Funding

## Metadata Production

### METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Development Data Group	DECDG	The World Bank	Documentation of the DDI

### DATE OF METADATA PRODUCTION

2014-01-30

### DDI DOCUMENT VERSION

Version 1.0 (January 2014)

### DDI DOCUMENT ID

DDI\_WSM\_2009\_AgC\_v01\_M

# Sampling

## **Sampling Procedure**

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For any census to be successfully carried out, good household lists and enumeration area maps are pre-requisites. A list of households in respect of each enumeration block in the country was prepared in 2005 for the 2006 Population Census. The updated household list from the 2006 Population Census was used as a frame for the Agricultural Census.

# Questionnaires

## Overview

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The methodology for carrying out the census of Agriculture in Samoa was a combination of complete count and sample survey. Thus the census was basically two part operation. The first part involved all households who were required to complete the Household Form. The households identified as agriculturally active from the Household Forms (Subsistence, Subsistence and Cash and Commercial) were required to complete the Holding Form for every holding operated.

The second part of the questionnaire was designed to cover 25 percent of all agricultural holdings as identified in the first part, with selection made on systematic sample basis (every fourth holding selected). Thus while the Household Form was canvassed in respect of all households, the Holding Form was to be completed by agriculturally active Households only and the Parcel Form was completed in respect of 25 percent of the agricultural holdings.

### Printing of Questionnaires and Instruction Manuals

In all there were three questionnaires and two instruction manuals one in Samoan and one in English. The three questionnaires were printed on different coloured paper for ease of identification. All census documents were printed and distributed well in advance of the start of the field work.

## Data Collection

### Data Collection Dates

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Start	End	Cycle
2009-11	2009-12	N/A

### Data Collection Mode

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Face-to-face [f2f]

### Data Collection Notes

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Data collection focuses on the private households only. Institutional households such as hotels and boarding schools were not included. This with other factors accounts for the low household and population count. Furthermore, data collected to estimate single crop equivalent area were collected on a 25% sample of agricultural active households. Because only a sample on the agricultural households were included, this includes sampling errors.

A pretest of the tentative questionnaires was done by the staff of the Department of Statistics on 4th and 5th August 2009. Thereafter a Pilot Census was carried out in two villages, namely Solosolo and Tuanai in Upolu. The results of the pretest and pilot census were used in finalizing the questionnaires. The pilot census assisted the census staff to work out proper time schedule for the field work, helped them to clearly understand the concepts and definitions and also exposed them to some of the field problems. The pilot survey also proved very useful in preparing the training materials and in finalizing the tabulation programme of the Census.

#### Data Users/Producers Workshop

A two day workshop of data users and producers was held on 29-30 July 2009, where the scope of the Census and the questionnaires were discussed. It was a most interesting workshop and provided an opportunity for the interaction of data users and producers.

#### Organization of Census Field Work and Recruitment of Enumerators

The preparation of updated household list very much facilitated the demarcation of enumeration areas. Full time enumerators were recruited from the open market for field work. The job of recruitment of enumerators was left to the Agriculture Extension officers who acted as supervisors for the Census field work. In all 300 enumerators were recruited. The Agricultural officers and senior officers of the Bureau of Statistics acted as supervisors.

#### Publicity

The main purpose of the census publicity is to ensure cooperation of the holders to provide requisite data Samoa being a small country word spreads through quickly. During the training period and field enumeration there were spot advertisements on the T.V and Radio twice daily and these became very popular. In view of this, when the enumerators approached the households, they did not encounter any problems as the households were fully aware the census programme.

#### Training

One of the objectives of the project was to train the national staff on all aspects of agriculture census procedures including data collection, processing analysis, retrieval and dissemination. Extensive training programmes were organized at various levels to achieve this objective. It was a three stage training programme.

The first stage was for the Supervisors from the Bureau of Statistics. About 20 officials participated in this three day training programme held on 18-20 August 2009. Training materials prepared included questionnaires and manuals and slides on the objectives of the census, scope, coverage, concepts and definitions. The Trainees in the programme were utilized as enumerators in the pretest. The second stage training was for Bureau of Statistics and Agriculture Officers who acted as supervisors. This was done separately for Upolu and Savaii on 1-2 October 2009 respectively. The training of supervisors was entirely handled by the National Project Coordinator. The third stage training was enumerators. Two 2-day Training were conducted for the Apia Urban Area and Rest of Upolu regions. Three and four 2-day training were conducted for the North West and Savaii regions respectively. This was done by three training teams lead by senior officers of the Bureau. One officer of the Bureau attended a two week attachment at the Secretariat of the Pacific Community, Noumea to familiarize herself with the data processing aspect of the census.

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# Data Processing

## Data Editing

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The Secretariat of Pacific community (SPC) provided technical assistance for data processing. The TA was delivered in two separate missions, first to implement data entry, and the second mission was to perform data editing and generate final tabulation for final report. Prior to the start of data entry, Siaumau Misela of Samoa Bureau of Statistics was invited to SPC in December 2009 for a two weeks attachment. Misela worked closely with the SPC data processing specialist in developing the data entry system using CPro (Census and Survey Processing System). The first mission of the data processing specialist in January 2010 was to finalize and implement data entry. The second mission in October 2010 concentrated mainly on data editing, data recode and generating final tables. The data processing (manual and computer) was done in the Data Processing Section of the Samoa Bureau of Statistics. To facilitate the manual and machine processing of the forms, questionnaires from the same enumeration area were bound together in a batch / folio and assigned a batch id. This id consists of the District, Village and the enumeration area codes. These forms were subjected to manual data scrutiny and corrections. The data entry was implemented using ENTRY of CPro, and BATCH EDIT for the validation of encoded data items. Data entry was run through a network, which link all data entry work station to a server. A team of 6 staff (1 permanent and 5 temporary) were assigned to do the data processing.

## Data Appraisal

### **Other forms of Data Appraisal**

Fifty percent key verification was done on all the batches, and questionnaires with key verification error rate higher than the tolerance limit was subjected to 100 percent key verification. Additional checks were added in the validation program. Detected errors and inconsistencies were corrected in the batch files.