



## MAIN REPORT

# FEDERATED STATES OF MICRONESIA INTEGRATED AGRICULTURE CENSUS 2016



Food and Agriculture  
Organization of the  
United Nations



Pacific  
Community  
Communauté  
du Pacifique



सत्यमेव जयते  
Government Of India







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Government Of India**

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# FOREWORD

It is with great pleasure to present the results of the Federated States of Micronesia (FSM) 2016 Integrated Agriculture Census (IAC). This nation-wide census of agriculture was a large-scale undertaking jointly facilitated by the FSM Department of Resources and Development along with the Chuuk, Kosrae, Pohnpei and Yap State Agriculture, Forestry and Fisheries Agencies. This major accomplishment is the first of its kind after FSM became a sovereign nation.

The adoption of the nation's Agriculture Sector Policy (2012–2016) recognizes the critical importance of the agriculture sector to the FSM economy and the central role it can play in achieving sustained economic growth, trade development and poverty reduction, hence the emphasis for an agriculture census output.

The 2016 IAC Report therefore provides a wealth of information that can be used in formulating sound policies and strategic actions in the development of this key sector. I am confident that the comprehensive data on various aspects of agriculture provided in this report will be of great value to those concerned in developing this recognized priority sector of the economy. This report complements findings of the 2013/14 Household Income and Expenditure Survey, allowing for trend analysis.

The project was made feasible through funding and technical assistance from the FSM National Government and its Development Partners. We especially extend our sincere thanks to Government of India, the United Nations Food and Agriculture Organization (FAO), and The Pacific Community (SPC).

Special appreciation is also extended to the FSM households who responded to the Agriculture Census; the successful completion of the census would not have been possible without their cooperation. Furthermore, I would like to recognize the state governments and community representatives for their support and guidance, as well as the project team at this Department.

I urge all users to fully utilize the survey results to guide your planning of relevant projects and programs.



**Hubert K. Yamada**

Acting Secretary, Department of Resources & Development  
Federated States of Micronesia National Government





# ACKNOWLEDGEMENTS

The FSM Department of Resources and Development is indebted to the efforts of all those who contributed to the development of the nation's first ever Integrated Agriculture Census.

Special thanks and sincere gratitude is extended to the Executive, Legislative and Judiciary branches of the FSM National and State Governments, as well as the India Government for providing the funds for moving this national endeavor forward. Special recognition is extended to the United Nations Food and Agriculture Organization (FAO) and The Pacific Community for their unwavering funding and technical support throughout this major undertaking.

Special recognition is also extended to all the community leaders, representatives, as well as farmers and fisher folks who had taken their time to help our staff and respond to the enumerators during the life span of the agriculture census data collection exercises.

We would like to also commend all the dedicated statistics staff of the Department as well as the overseas technical staff without which the development of this report would have been possible. Last but not the least, we would also like to acknowledge FAO for reviewing of the report.

## **Marlyter Silbanuz**

Acting Assistant Secretary, Division of Agriculture  
Department of Resources and Development

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#### Symbols used in tables

- Zero or rounded up value less than 0.01

\* Suppressed to protect confidentiality as  
actual number is less than 10

% Percent



# KEY FACTS

**KEY FACTS TABLE 1**

**Population**

	TOTAL	MALES	FEMALES	TOTAL	HAS LAND USED FOR AGRICULTURE	DOES NOT HAVE LAND FOR AGRICULTURE
	NUMBER OF PEOPLE			NUMBER OF HOUSEHOLDS		
<b>FSM total</b>	<b>87 357</b>	<b>44 085</b>	<b>43 272</b>	<b>15 545</b>	<b>14 031</b>	<b>1 514</b>
Yap	11 037	5 338	5 699	2 279	2 138	141
Chuuk	39 350	20 284	19 066	6 223	5 743	480
Pohnpei	31 159	15 470	15 689	6 006	5 260	746
Kosrae	5 811	2 993	2 818	1 037	890	147

Source: FSM Integrated Agriculture Census 2016

**KEY FACTS TABLE 2**

**Agriculture**

	NUMBER	PERCENT OF HOUSEHOLDS WITH LAND AVAILABLE FOR AGRICULTURE
Number of households with access to land for agriculture	14 031	100.0
Number <i>parcels</i> of land operated only by single household:	12 019	
Own free-hold land	7 293	
Leases free-hold land	419	
Customary land	3 818	
Leased customary land	223	
Leased government land	192	
Other	74	
Number of households with unshared land parcels	9 850	70.2
Number of households with shared land parcels	9 626	68.6
Median size of total land holding	0.2 acres <sup>1</sup>	
Household with land available for agriculture – <i>Main purpose</i>	14 031	100.0
Only for home consumption	10 444	74.4
Mainly for home consumption but occasionally sell	3 365	24.0
Mainly for sale but occasionally consume	211	1.5
Only for sale	11	0.1
Number of people involved in agricultural activities		
Total (aged 15 and over)	21 818	
Males	14 100	
Females	7 718	

<sup>1</sup> Just over 800 square metres

**KEY FACTS TABLE 2**  
**Agriculture (continued)**

	NUMBER	PERCENT OF HOUSEHOLDS WITH LAND AVAILABLE FOR AGRICULTURE
Top crops by number of households reporting growing:		
Coconut	13 301	94.8
Banana	13 118	93.5
Breadfruit	12 906	92.0
Lime/lemon	8 250	58.8
Swamp taro	7 561	53.9
Papaya	7 535	53.7
Mango	7 486	53.4
Betelnut	6 816	48.6
Land taro	6 666	47.5
Pineapple	5 623	40.1
Yam	5 073	36.2
Tapioca	4 989	35.6
Sakau (Kava)	3 382	24.1
Number of households with livestock	9 434	60.7
Numbers of pigs	29 916	
Number of chickens	70 828	
		PERCENTAGE OF ALL HOUSEHOLDS
Barriers to agriculture		
Lack of production inputs	9 700	62
Lack of source of finance	6 262	40
No land available	5 192	33
Lack of management skills	4 612	30
Difficulty getting to the land	3 996	26
Lack of market to see produce	2 763	18
Lack of new tech & infrastructure	1 675	11
No barrier	4 727	30
Number of households with 1 visit from an extension agent	1 298	9.3
Number of households with 2 or more visits	1 327	9.5
Main source of cash income		
Growing crops	2 160	15.4
Raising livestock	276	2.0
Fishing	935	6.7
Own non-agricultural business	483	3.4
Paid work in agricultural occupation	311	2.2
Paid work in non-agricultural occupation	5 098	36.3
Pension	1 282	9.1
Remittances	2 826	20.1
Other	659	4.7
Number of households with 50% or more income from agriculture	1 954	13.9

Source: FSM Integrated Agriculture Census 2016

**KEY FACTS TABLE 3****Fishing and other activities**

	NUMBER	PERCENTAGE OF ALL HOUSEHOLDS
Number of households involved in fishing	8 508	54.7
Number of households catching:		
Coastal fish (reef fish)	6 799	
Octopus / squid	4 348	
Oceanic fish (tuna and oceanic pelagic fish)	3 059	
Crab	3 008	
Lobster	2 850	
Turtle	2 210	
Estimated average number of fishing trips per month by fishing households	19	
Number of households involved in aquaculture	499	3.2
Number of households using forest	9 208	59.2
Number of households involved in hunting	2 190	14.1
Number of households involved in handicrafts	1 691	10.9

Source: FSM Integrated Agriculture Census 2016







SECTION

1

# INTRODUCTION

## **This report is the first output from the Federated States of Micronesia (FSM) 2016 Integrated Agriculture Census (IAC).**

There has been no national census of agriculture carried out in FSM<sup>3</sup>. Prior to this census limited accurate, consistent and timely agricultural data has been available. This has meant the Government has had difficulty in designing appropriate policies and making meaningful plans for the sector.

This report aims to provide information for public, private and international sector decision makers and planners on the basic structure of the primary production sectors and to provide some benchmarks for sustainable planning and development programs.

The census collected a wide range of data, not all of which has been able to be analyzed for this report. Some additional tables are available on request, and it is hoped that the data will be able to be made available to researchers on request to FSM.



<sup>3</sup> The FSM states were included in a 1969 Agriculture census carried out by the United State department of Agriculture when FSM was part of the Trust Territory of the Pacific Islands, a United Nations Trust Territory under U.S. administration.

## 1.1 The Federated States of Micronesia

The Federated States of Micronesia (FSM) is an independent sovereign island nation consisting of four states – from west to east, Yap, Chuuk, Pohnpei and Kosrae – that are spread across the western Pacific Ocean. Together, the states comprise around 607 islands (a combined land area of approximately 702 km<sup>2</sup>) that cover a longitudinal distance of almost 2,700 km just north of the equator. They lie northeast of New Guinea, south of Guam and the Marianas, west of Nauru and the Marshall Islands, east of Palau and the Philippines.

While FSM's total land area is quite small, it has an exclusive economic zone (EEZ) of more than 2 600 000 km<sup>2</sup>. The capital is Palikir, located on Pohnpei State, while the largest city is Weno, located in Chuuk State.

For administrative purposes, the four states are divided into municipalities (Yap – 20; Chuuk – 40; Pohnpei – 11; Kosrae – 4). Each state has different cultures, languages and agricultural and fishing practices.

### 1.1.1 Climate

Micronesia has a tropical climate with little seasonal variation in monthly mean maximum and minimum air temperatures. As a small island developing nation, FSM is one of the countries most directly threatened by long-term global warming. Climate projections for FSM suggest:

- El Niño and La Niña events will continue to occur in the future, but there is little consensus on whether these events will change in intensity or frequency.
- Annual mean temperatures and extremely high daily temperatures will continue to rise.
- Average annual rainfall is projected to increase, with more extreme rain events.
- Drought frequency is projected to decrease.
- Sea level will continue to rise.
- Ocean acidification is expected to continue.
- The risk of coral bleaching is expected to increase.
- Wave height is projected to decrease in December–March, and waves may be more directed from the south in June–September.
- Typhoons are projected to be less frequent but more intense.

These changes are already affecting the quality and yield of local crops, as well as FSM's marine food resources<sup>4</sup>.

Cyclone Maysak in May 2015 had a significant impact on FSM, particularly in Chuuk and Yap and recovery was still underway at the time of the 2016 Integrated Agriculture Census.

### 1.1.2 Economy

The Federated States of Micronesia (FSM) gained independence in 1986 under a Compact of Free Association with the US, which was amended in 2004. Under the terms of the original Compact, the US provided \$1.3 billion in grants and aid from 1986 to 2001. The US and the Federated States of Micronesia negotiated a second (amended) Compact agreement in 2002–2003 that took effect in 2004. The amended Compact runs for a 20-year period to 2023, during which the US is providing roughly \$2.1 billion to FSM. The amended Compact also develops a trust fund for FSM that is intended to provide a comparable income stream beyond 2024 when Compact grants end.



<sup>4</sup> Current and future climate of the Federated States of Micronesia: [https://www.pacificclimatechangescience.org/wp-content/uploads/2013/06/7\\_PACCSAP-FSM-11pp\\_WEB.pdf](https://www.pacificclimatechangescience.org/wp-content/uploads/2013/06/7_PACCSAP-FSM-11pp_WEB.pdf) accessed July 2019

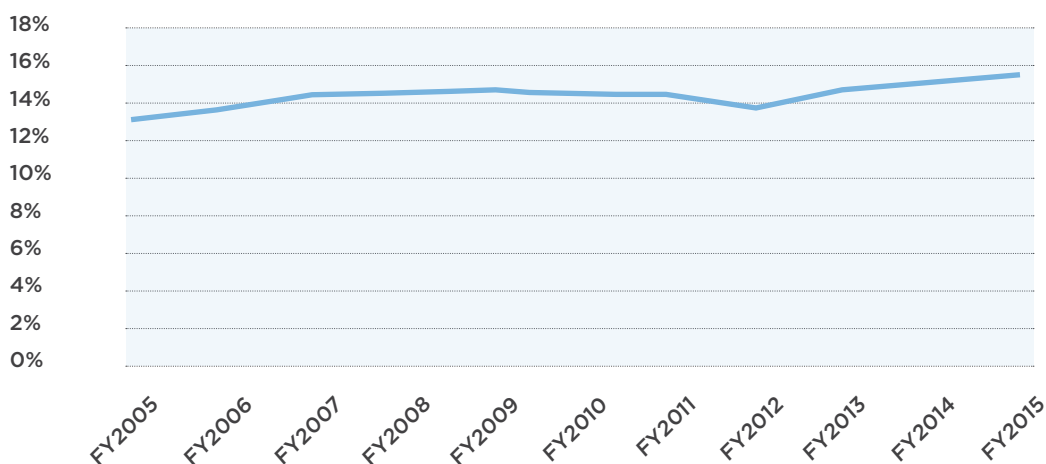
<sup>5</sup> See ECONOMIC REVIEW FSM Fiscal Year 2017 for details of FSM's economy.

Economic activity<sup>5</sup> in FSM consists largely of subsistence farming and fishing, and government, which employs two-thirds of the adult working population and receives funding largely from Compact of Free Association assistance provided by the US.

Although FSM generated fiscal surpluses after FY14 with rising fishing fee revenues, and overall economic growth has been positive recently, the agriculture sector and domestic fishing continues to provide food and livelihood for a significant proportion of FSM population.

## GRAPH 1

### Contribution of agriculture to GDP: 2017



Source: ECONOMIC REVIEW FSM Fiscal Year 2017 statistical tables

Estimates for agriculture in the Gross Domestic Product (GDP) (largely for home consumption) indicate a long-run upward trend of 1.2 percent per annum, suggesting that in the absence of other economic opportunities or emigration, households have returned to subsistence production to support themselves.

The agriculture sector was earmarked in National Strategic Development Plan 2003–2023 as one of the three prioritized areas for development to propel the nation towards self-sufficiency. This led to the adoption of FSM Agriculture Policy 2012–2016<sup>6</sup>.

## 1.2 The Integrated Agriculture Census 2016

### 1.2.1 The Objectives of the Integrated Agriculture Census

As the first agriculture census for FSM, the Integrated Agriculture Census aims to provide baseline data and a framework for other surveys of agricultural holdings.

Some specific objectives of the census were:

1. To provide baseline data on the structure of agriculture, especially for smaller farmers/fishers. The last agriculture census was in 1969.
2. To provide policy makers with a minimum set of core data, for evidence-based policy development and project monitoring and evaluation purposes.
3. To provide benchmarks to improve current crop and livestock statistics and to provide sampling frames for follow-up agricultural sample surveys.
4. To establish a sustainable plan for ensuring regular updating of agriculture, forestry, fishery and livestock data (at least every two years) through integration with other national survey tools.

<sup>6</sup> Federated States of Micronesia Agriculture Policy 2012–2016

The census of agriculture provides a snapshot of agriculture and will help identify possible areas of intervention. Some uses are:

- In promoting agricultural production and investments, to stimulate economic growth.
- For the preparation of rural development activities, for supporting the market orientation of agricultural producers and programs for infrastructure development.
- To analyzed agriculture sustainability and productivity. The use of land can have environmental consequences that range from pollution of waterways to global warming and the census of agriculture is the main source of data on the actual land use in a country.
- Developing policies and programs addressing the needs of specific target groups - young farmers, subsistence producers, land consolidation measures, etc.

The IAC results provide the baseline and start of an integrated program of data collection and compilation aimed at providing an ongoing picture of agriculture's contribution to FSM's economy and sustainability.

### 1.2.2 Background

The integrated Agriculture Census was carried out by the Department of Resource and Development (jointly by the Resource Management and Development Division and the Statistics Division). It was carried out under the Statistics and Census Act of 1988 (also referred to as Public Law 5-77).

A full census was agreed as there had been no census of agriculture conducted in the Federated States of Micronesia. This included full coverage of all private households, including town residents, as most people have access to land and carry out agricultural activities. Non-private households were excluded from the IAC. In 2010 about 0.5 percent of occupied households were non-private households, containing about 1.2 percent of the total population (1 220 people).

### 1.2.3 Questionnaire

As this was the first national agriculture census and very little agricultural data of any type was available for FSM, there was a desire to cover as many topics as possible. The sections of the agriculture census questionnaire were:

- S.1 Demographic profile and Labor Force status
- S.2 Land - characteristics of land operated alone and shared with other households
- S.3 Crops - planted, harvested, sold
- S.4 Livestock & Pets
- S.5 Fisheries and Aquaculture
- S.6 Forestry, Hunting and Handicraft
- S.7 Equipment
- S.8 Services, Barriers, Income and Credit

See Appendix 3. The census questionnaire coverage was quite extensive, and hence, very lengthy. Its length may have compromised the quality in some areas. There were a number of problems encountered in carrying out the 2016 IAC.

The collection of land area data was difficult - people often do not know or have information to estimate land areas, land can be shared among a number of households and operated jointly, boundaries are unclear and in some places there are limited official records and land ownership may be disputed. Up to three parcels each of shared and unshared land were recorded for crop planting and harvesting, but analysis of the total area operated by households is not considered to be very reliable.

The area of crops was not specifically asked, as most agriculture in FSM is mixed planting or agroforestry. The questionnaire put emphasis on the number of planting and amount harvested by the household. Crop harvest data quantities were collected in a range of units that were not able to be fully analyzed for this report.



### 1.2.4 Census enumeration

Over 700 enumerators and supervisors were deployed in the field from June 30, 2016. The census was intended to be completed in July 2016, with a recall period of one year.

Logistical constraints meant that some islands were not covered until late in 2016, and there were some areas that were not well covered. In particular, there were difficulties in Chuuk and some households were imputed from neighbouring households, and an adjustment factor was applied to account for under-coverage.

By the end of enumeration, 14 989 useable questionnaires were completed, estimated to represent 15 545 households after adjusting for under-coverage.

### 1.2.5 Processing, tabulation and analysis

Delays and funding difficulties meant that developing the systems, the data entry, editing, tabulation and analysis were all carried out by different people at different times.

The data entry system was developed in CSPro, a data entry system supplied by the United States Bureau of the Census, based on the questionnaire format. Data entry was delayed due to resourcing issues and was not completed until 2018.

A full set of tables by municipality was developed based around the questionnaire content. For this report additional analytical tables were produced, but not all derivations needed were available.

In some cases, there are inconsistencies in the numbers presented in this report. These occur for two reasons: in some cases the numbers of non-respondents for questions have been left out of the tables, and in other cases it reflects that the respondents may have misunderstood the questions.

See Appendix 2 for a full list of tables available on request from the FSM Department of Resources and Development Statistical Division.

Full details of the methodology and issues are given in a separate report.









SECTION

2

PEOPLE

## 2.1 The population covered by the Agriculture Census

The FSM Integrated Agriculture Census (IAC) 2016 reports on 87 357 people in 15 545 households. This compares to the 2013/14 HIES<sup>8</sup> (estimated 103 382 people) and the Census 2010 (102 839 people).

Overall the population age and sex distribution in the 2016 IAC shows the impact of migration and birth rate changes, as well as possible undercount.

Agriculture activities remains crucial to livelihood of FSM households. The occupation and industry data shows 36 percent of the work force were skilled agricultural forestry and fisheries workers.

The extent of subsistence activity in agriculture is clear, with 92 percent of those working in agricultural occupations being unpaid, compared to just under 60 percent of all those participating in the labor force.



<sup>8</sup> HIES Household Income and Expenditure Survey

**TABLE 2.1**  
**Total population by age and sex: 2010, 2013 and 2016**

AGE	CENSUS 2010			HIES 2013			IAC 2016		
	TOTAL	MALES	FEMALES	TOTAL	MALES	FEMALES	TOTAL	MALES	FEMALES
<b>Total</b>	<b>102 839</b>	<b>52 192</b>	<b>50 647</b>	<b>103 382</b>	<b>51 441</b>	<b>51 941</b>	<b>87 357</b>	<b>44 085</b>	<b>43 272</b>
0-14 years	36 697	18 797	17 900	34 753	17 522	17 230	28 308	14 551	13 756
15-29 years	28 997	14 987	14 010	28 982	14 671	14 312	24 073	12 366	11 707
30-45 years	18 121	9 044	9 077	18 576	9 148	9 429	16 338	8 154	8 184
45-59 years	13 427	6 819	6 608	14 168	6 908	7 261	12 065	5 932	6 131
60-74 years	4 410	2 093	2 317	5 464	2 633	2 832	5 519	2 703	2 815
75 years and over	1 187	452	735	1 437	560	878	1 054	377	677

Source: FSM 2010 Census, FSM 2013 HIES, FSM 2016 Integrated Agriculture Census

**TABLE 2.2**  
**Paid and unpaid labor force and skilled agricultural, forestry and fishery worker: 2016**

	TOTAL	PAID	UNPAID	% UNPAID
<b>Total labor force</b>	33 353	13 534	19 819	59.4
• Skilled agricultural, forestry and fishery workers	12 153	955	11 198	92.1
• Percent skilled agricultural, forestry and fishery workers	36.4	7.1	56.5	
<b>Males in the labor force</b>	19 488	8 396	11 092	56.9
• Skilled agricultural, forestry and fishery workers	9 577	689	8 888	92.8
• Percent skilled agricultural, forestry and fishery workers	49.1	8.2	80.1	
<b>Females in the labor force</b>	13 865	5 138	8 728	62.9
• Skilled agricultural, forestry and fishery workers	2 576	267	2 310	89.7
• Percent skilled agricultural, forestry and fishery workers	18.6	5.2	26.5	

Source: FSM 2016 Integrated Agriculture Census



## 2.2 Characteristics of the households with land used for agriculture

Just over 90 percent of households recorded in the Agriculture census had access to land they used for agriculture. These are also referred to as farm households in this report.

Although the age and sex distributions are very similar for those households that have land for agriculture and those that do not, there are some differences. There was a higher proportion of children and a lower proportion of older people in the farm households.

The households that have land for agriculture have more people in them while those without land used for agriculture have a high proportion of one-, two- and three-person households.

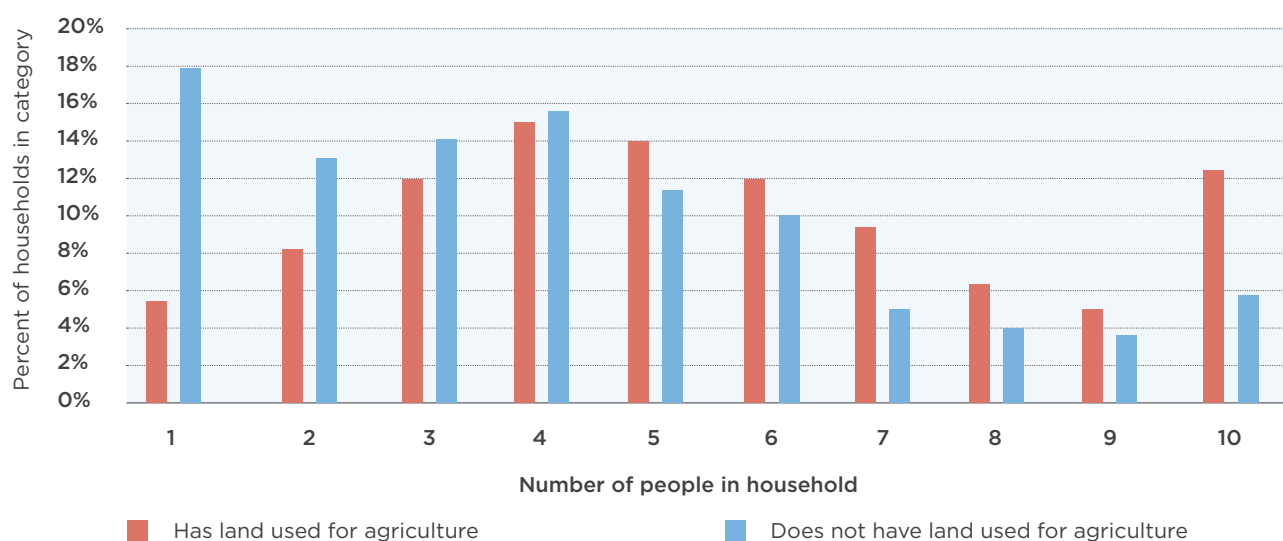
The householder in 80 percent of households was male across FSM. Yap had the highest proportion of female householders, 26 percent, compared to 18 percent in Chuuk, 21 percent in Pohnpei and 17 percent in Kosrae. This reflects the pattern in households with land used for agriculture.

**TABLE 2.3**  
**Number of households with land used for agriculture by state: 2016**

	NUMBER OF HOUSEHOLDS			PERCENT	
	TOTAL	HAS LAND USED FOR AGRICULTURAL PURPOSES	DOES NOT HAVE LAND	HAS LAND USED FOR AGRICULTURAL PURPOSES	DOES NOT HAVE LAND
<b>Total</b>	<b>15 545</b>	<b>14 031</b>	<b>1 514</b>	<b>90.3</b>	<b>9.7</b>
Yap	2 279	2 138	141	93.8	6.2
Chuuk	6 223	5 743	480	92.3	7.7
Pohnpei	6 006	5 260	746	87.6	12.4
Kosrae	1 037	890	147	85.8	14.2

Source: FSM 2016 Integrated Agriculture Census

**GRAPH 2.1**  
**Number of people in households by whether they have land used for agriculture: 2016**



Source: FSM 2016 Integrated Agriculture Census



### 2.2.1 Main activities of people 15 and over

In households with land used for agriculture, 30 percent of males and 19 percent of females aged 15 and over reported they were in paid employment. This varied across states with paid employment reported for 44 percent of males and 28 percent of females in Yap compared to 18 percent of males and 12 percent of females in Chuuk, 39 percent of males and 23 percent of females in Pohnpei and 41 percent of males and 24 percent of females in Kosrae.

Across FSM, more people aged 15 and over reported being in unpaid work (around 19 866 people) than in paid work (14 552 people). However, this is driven by the situation in Chuuk, where 11 260 people reported being in unpaid work compared to 3 899 in paid work. In all other states there were more people reported in paid than unpaid work.

Males reporting unpaid work were mostly (75 percent) producing goods for own and/or family consumption. For females, the largest proportion (58 percent) of unpaid workers were unpaid family workers helping with home duties home duties.

More than half of females aged 15 and over (15 167 people, or 51 percent) reported not being in the labor force, and most of these reported their main activities as home duties. However, in Yap, 60 percent of females reported being in the labor force with close 28 percent in paid work and another 28 percent producing goods for own and/or family consumption.

Students made up 11 percent of the people aged 15 and over in households with land used for agriculture, for both males and females.

### 2.2.2 Education

Most of the people aged 15 and over in households with land used for agriculture had not graduated from high school – 58 percent of males and 59 percent of females. Twenty percent of males and 21 percent of females reported that they had graduated from high school, and 12 percent of males and 11 percent of females reported some college but no degree.

### 2.2.3 Characteristics of the main operator

The main operators of the farming activity in 2016 were reported to be mostly male – 77 percent. When the main operator was reported to be female, nearly half (48 percent) were aged over 55, compared to 32 percent of male main operators. A significantly higher proportion of main operators were in paid employment – (36 percent) than in the farm household population (25 percent). This is not just because of the high proportion of male main operators, as the proportion of all males in farm households in paid employment was 30 percent.









SECTION

# 3

## THE LAND

**As noted in Section 1, there are many issues with the collection of land area. However, there is little pre-existing information available about land use, and the information presented here is a starting point.**

### **3.1 Area of agriculture**

The shared operation of some land means that it is not possible to be sure about the area of land in agriculture as some parcels are likely to be counted by two or more households. An estimate of the area of land used for agriculture derived from the information collected showed that just under half of the area of FSM may be used for agriculture. The table below is based on summing the area of household operated (not shared) and shared parcels of land, so will overestimate the total area used for agriculture.

**TABLE 3.1****Estimated proportion of total area used for agriculture: 2016**

	TOTAL	YAP	CHUUK	POHNPEI	KOSRAE
Area of state <sup>10</sup> in acres	172 974	25 432	23 256	94 200	30 085
Estimated area of land used for agriculture	69 038	11 828	16 277	37 954	2 979
Land used for agriculture as % of total land	40	47	70	40	10

Source: FSM 2016 Integrated Agriculture Census

Estimates from 2005/06 reported in the FAO Global Forest Resources Assessment 2015 estimated that 43 340 acres across FSM was used for agroforestry, palm crops and other crops.

Over FSM, 62 percent of households with land for agriculture had an average of 1.4 parcels of land that were only operated by their household. The proportion of households with land for agriculture that shared land with other households was 54 percent, who had an average of 1.6 shared parcels of land. In Pohnpei 41 percent of households reported using shared land parcels, the lowest incidence of shared land across the states.

### 3.2 Tenure

Security of tenure can affect the amount of investment in agriculture. FSM has a complex system of traditional ownership that dates back centuries. Many parcels of land are held by families or clans that may have different factions, all of whom assert interest in the land. This complicates both the use of the land and the recording of tenure and use of the land<sup>11</sup>.

Most land used for agriculture was reported to be freehold land or held with customary titles. About eight percent of the land parcels used for agriculture were leased or had other tenure.

**TABLE 3.2****Tenure of shared and not shared land parcels: 2016**

	NOT SHARED LAND PARCELS		SHARED LAND PARCELS	
	NUMBER	PERCENT	NUMBER	PERCENT
<b>Total</b>	<b>12 019</b>	<b>100</b>	<b>11 928</b>	<b>100</b>
Own free-hold land	7 293	61	5 626	47
Leases free-hold land	419	3	453	4
Customary land	3 818	32	5 416	45
Leased customary land	223	2	235	2
Leased government land	192	2	129	1
Other	74	1	69	1

Source: FSM 2016 Integrated Agriculture Census

<sup>10</sup> FAO Global Forest Resources Assessment 2015, Based on 2005/06 figures calibrated to 700 square kilometres.

<sup>11</sup> ADB 2015 Understanding Land Issues and Their Impact on Tourism Development, quoting FSM government website unable to be accessed at September 2019



Yap had the greatest reported reliance on customary land, with 79 percent of single household operated parcels and 84 percent of shared parcels in customary tenure. In Yap only 15 percent of single household operated parcels were freehold land, while all other states reported over 70 percent freehold for single household operated parcels.

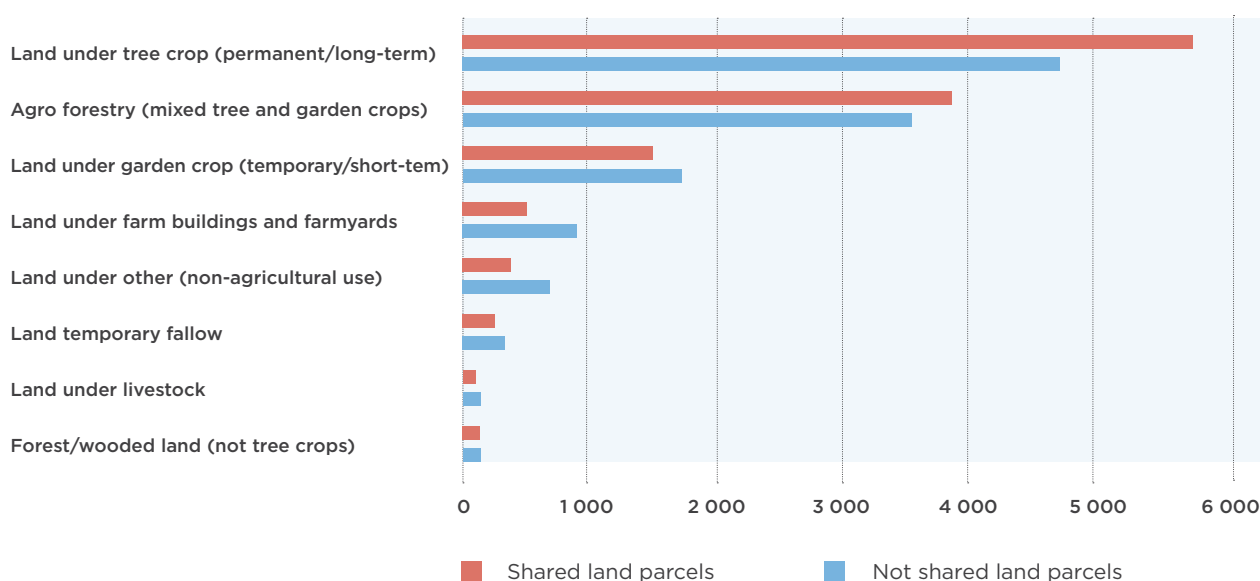
Shared land parcels are more likely to be in customary tenure in other states, with 49 percent of shared parcels in customary ownership in Kosrae, 37 percent of shared parcels in customary ownership in Chuuk and 20 percent of shared parcels in customary ownership in Pohnpei.

### 3.3 Land use and purpose

Much of the land is used for agroforestry and tree crops, with 70 percent of household operated (not shared) parcels and 80 percent of shared parcels of land mainly under tree crops or agroforestry.

**GRAPH 3.1**

#### Number parcels of shared and not shared land by main use: 2016



Source: FSM 2016 Integrated Agriculture Census

Land that is not shared is more often used for garden crops, farm buildings and non-agricultural purposes, while shared land is more likely to be agroforestry or tree crops.

The main purpose of the land is to provide produce for home consumption.

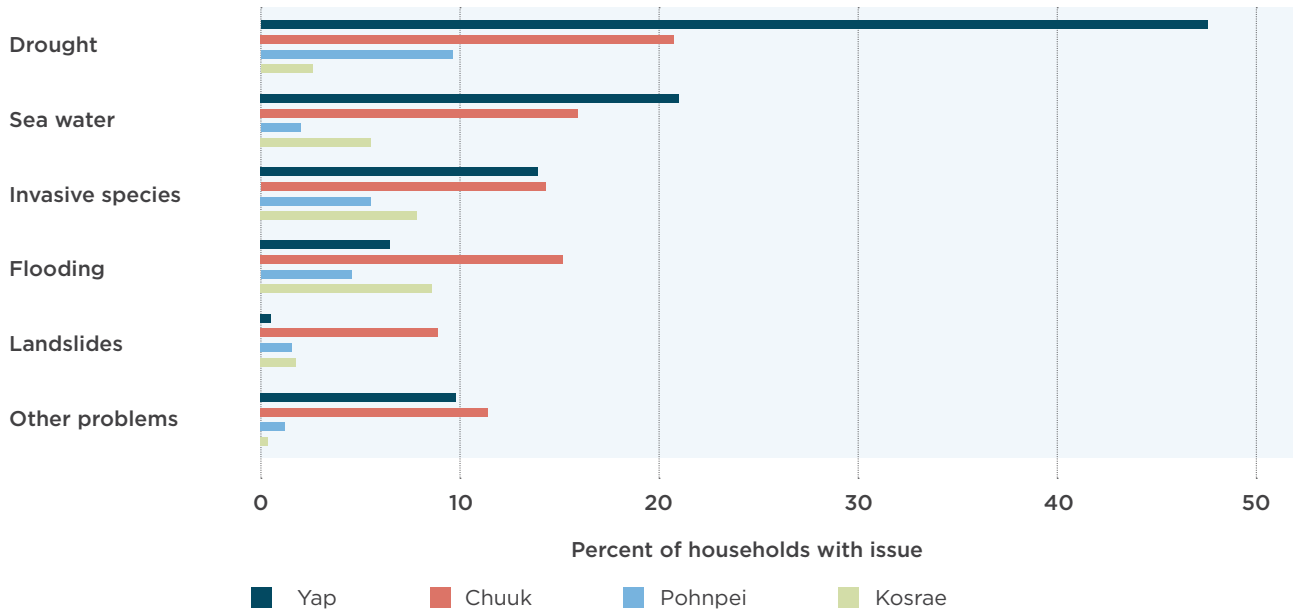
- Over 74 percent of households reported that the main purpose of the use of the land was only for home consumption.
- For 24 percent of households the main purpose was for home consumption with occasional sales.
- Less than two percent of households reported that they used the land mainly or only for sales.

Although only 26 percent reported that the main purpose of land use included sales, analysis of crop data shows that nearly 40 percent of households had sold some of the main crops.

### 3.4 Land issues and management

As noted above, climate change is affecting FSM and many households with land used for agriculture reported problems that affected their use of the land. Yap and Chuuk reported higher rates of issues, with drought affecting 45 percent of those households in Yap, compared to 21 percent in Chuuk, 9 percent in Pohnpei and 3 percent in Kosrae. Seawater incursion and invasive species also affected more land in Yap and Chuuk, and Chuuk also reported the highest rates of flooding, landslides and other problems.

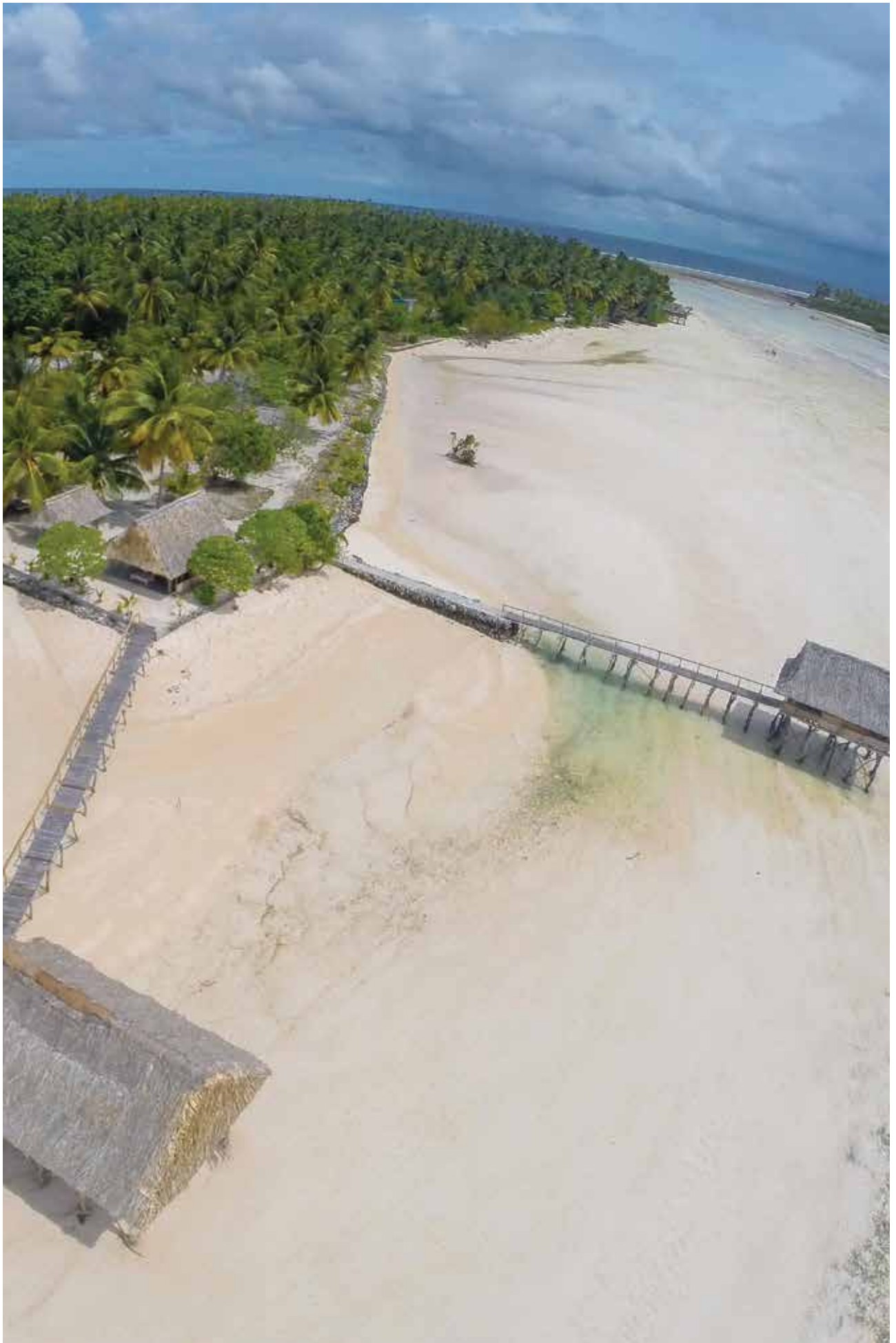
**GRAPH 3.2**  
**Damage to land: 2016**



Source: FSM 2016 Integrated Agriculture Census

Little irrigation or drainage has been implemented, with less than two percent of farm households in FSM reporting irrigation, and just over three percent reporting drainage or other water management.

In some areas land is also burnt off for planting. The highest rate is in Yap where eight percent of households with land for agriculture reported this.







SECTION

# 4

## CROPS

**Crops in FSM reflect the tropical, Pacific agricultural conditions and are mostly based around supplying household needs. There is little access to international markets and limited tourism, reducing the market opportunities for farmers.**

The area of crops was not specifically asked in the questionnaire, as most agriculture in FSM is mixed planting or agroforestry. The analysis focuses on the numbers of households undertaking activities with crops.

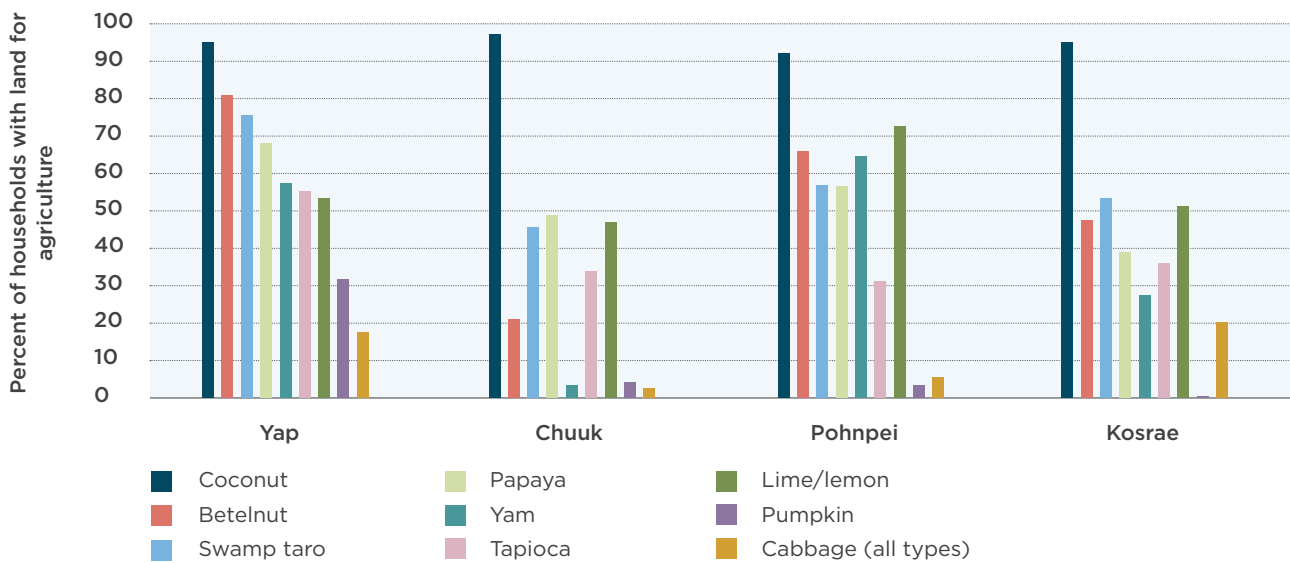
### 4.1 Crops grown

Over 90 percent of households with land for agriculture grew the staple crops of coconut, breadfruit and banana across all states. No other crops were grown by more than 60 percent of households with land for agriculture, and the popular crops vary across states, as illustrated the graph below.



GRAPH 4.1

Percent of households with land for agriculture growing selected crops, by state: 2016



Source: FSM 2016 Integrated Agriculture Census

Coconut, breadfruit and banana are grown on the land of over 90 percent of households in all states. The next most common tree crop was lime/lemon, grown by 8 250 households or 59 percent. These were more popular in Pohnpei and Kosrae where lime/lemon was reported by over 70 percent of households.

Vegetables were only reported grown by a small proportion of households. The most commonly grown vegetable crop was pepper (chili and bell) grown by 2 411 households, or 17 percent across FSM. This was most common in Yap where 980 households or 46 percent reported growing peppers.

A variety of root crops were reported grown. Yam was reported grown by 5 073 households or 36 percent. It was most commonly reported in Pohnpei, where 64 percent of households reported it, and Yap with 57 percent reporting. In Kosrae 27 percent and Chuuk 5 percent of households reported growing yam. Swamp taro was reported grown by 54 percent of households, land taro by 48 percent of households and tapioca by 36 percent of households. Sweet potato was reported by 13 percent of households over FSM but was more commonly grown in Yap where 48 percent of households reported it.

Other crops reported grown included sakau (kava) reported by 3 382 households, almost all of whom were in Pohnpei. Betelnut was more widely reported grown, by 6 816 households or 49 percent across FSM. In Yap 81 percent of households reported growing Betelnut.

Piper leaves and ornamental plants were reported by just under 20 percent of households.

Black pepper, which has had a high value in the past – “Pohnpei black peppercorns were highly praised by gourmets for their distinctive spicy yet somewhat sweet taste”<sup>12</sup>– was reported grown in Pohnpei by 72 households.



<sup>12</sup> The Kaselehlie Press, November 6, 2018 [http://www.kpress.info/index.php?option=com\\_content&view=article&id=1138:scientist-on-a-mission-to-help-farmers-make-pohnpei-black-pepper-great-again&catid=8:news&Itemid=103](http://www.kpress.info/index.php?option=com_content&view=article&id=1138:scientist-on-a-mission-to-help-farmers-make-pohnpei-black-pepper-great-again&catid=8:news&Itemid=103)

## 4.2 Planting methods

Planting methods for all crops were analyzed using data only for the first plot of land reported. This indicated that in 2016 most tree crops are grown in scattered plantings, mixed with other crops. Vegetables are more likely to be cultivated separately, with single cropping reported for more than 50 percent of cabbage, cucumber, beans and green onions. Pumpkin, squash and peppers (chilli and bell) were more often mixed crops and scattered plants.

Root crops such as swamp taro, tapioca, sweet potato and land taro all had relatively higher levels of single cropping.

Few plants were planted under any form of cover, apart from natural tree cover. Natural tree cover was most reported for sakau (45 percent of the crop), yam (42 percent) piper leaves (41 percent) and black pepper (40 percent under natural tree cover). Cover made from local materials was also reported for 14 percent of yam plantings and 11 percent of cucumber plantings.

Some of the tree crops grow almost wild, but nearly 30 percent of households reported planting bananas in the past 12 months, and around 20 percent of households planted coconut and breadfruit.

Looking at the households already growing the crop around 50 percent of households in Yap reported planting each of coconut, banana and breadfruit in the previous 12 months, but only 31 percent in Pohnpei.

Planting material was mostly sourced from the farmer's own material. For breadfruit, coconut and banana, agriculture extension supplied a small percentage of the planting material. The highest numbers were in Chuuk, where 139 farmers were supplied with breadfruit (10 percent of the households reporting their planting materials).

However, for vegetable crops there was more reported sourcing planting materials from agriculture extension offices or purchasing. In Chuuk, it was reported that the extension offices supplied 48 percent of the planting material for cabbage, 34 percent for cucumber and 40 percent for beans. For all crops other than vegetables 90 percent or more of the planting material was the farmer's own.

## 4.3 Crops harvested

The most common crops - breadfruit, coconut and banana - were also the most harvested, with over 90 percent of households reporting harvesting some of their crop in the previous year. With the agriculture in FSM being less formal and some crops growing semi-wild, not all crops are harvested each year. On average across FSM for most other crops, between 70 and 90 percent of households that grew a crop report that they had harvested it.

However Kosrae reported lower levels of crops being harvested. For example, of the households that had yam or sweet potato on the land in Kosrae, only 41 percent had harvested the product.

The total amount harvested was not able to be analyzed, as harvest could be reported in pounds, each, bunch or other units and conversion factors were not available.

## 4.4 Crop sales

Although the purpose of growing is mostly for home consumption, there were reported sales in the past year of all crops grown. The most commercial crop is sakau, with sales by 57 percent of households growing the crop. Pohnpei is the driver of this – 98 percent of the households selling sakau were in Pohnpei.

Other crops reported sold by more than 40 percent of the households that grew the crop were:

- Cucumber (45 percent of growers sold)
- Betelnut (45 percent of growers sold)
- Swamp taro (43 percent of growers sold)
- Coconut (42 percent of growers sold)
- Breadfruit (41 percent of growers sold).

In the previous 12 months around 50 percent of households in Yap reported selling each of coconut, banana and breadfruit, but only 31 percent of households in Pohnpei.

Mostly households that reported selling crops sold only a proportion of the crops. The crops that had higher proportions sold were cabbage and sakau; two thirds of the households that sold these crops sold more than half of their harvest.

**TABLE 4.1**  
**Ten crops with the most sellers selling more than half the harvest: 2016**

	NUMBER OF HOUSEHOLDS GROWING	NUMBER OF HOUSEHOLDS SELLING	PERCENT SELLING MORE THAN 50% OF HARVEST
Sakau	3 382	1 942	66.7
Cabbage (all types)	1 000	278	66.2
Cucumber	930	423	58.6
Beans	833	238	58.0
Pandanus	3 069	700	56.2
Other crops	1 080	374	55.9
Betelnut	6 816	3 092	54.1
Piper leaves	2 491	993	53.2
Green onion	243	41	52.4
Pumpkin	1 182	283	49.3

Source: FSM 2016 Integrated Agriculture Census

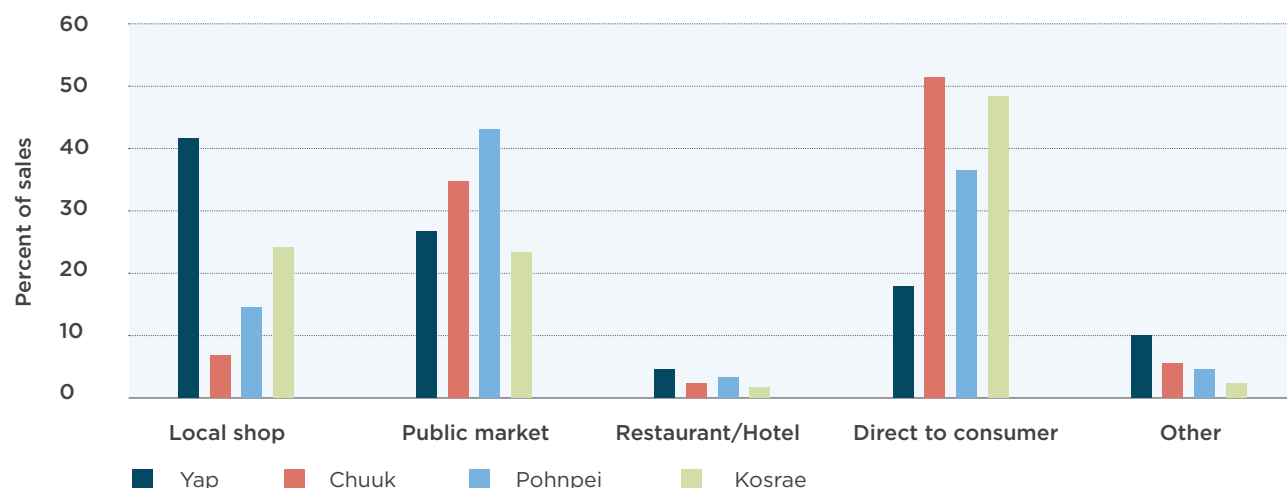
On the other hand, breadfruit had the lowest proportion sold. Less than 30 percent of the households sold more than half of the crop, indicating its importance for home consumption.

Across all crops and states the largest number of sales reported were directly to the consumer (38 percent) closely followed by sales to a public market (35 percent). Sales to a local shop were also significant at 19 percent, but sales to a restaurant or hotel were low at 2 percent, less than sales reported to others at 6 percent.

The markets for the crops vary depending on the product and state.

GRAPH 4.2

## Markets sold to by state: 2016



Source: FSM 2016 Integrated Agriculture Census

Restaurant and hotel sales are low, with limited tourism across all states in FSM. However they provide an additional market for vegetables and some tree crops.

The public market was most important for vegetables and some fruit crops, and for root crops in Pohnpei. Although sakau (in Pohnpei) and betelnut were more often sold direct to the consumer, sellers also sold both public markets and local stores.

## 4.5 Crop losses

Traditional crops were the most robust (resistant to losses) but at least 60 percent of households with land for agriculture experienced some loss from weather, diseases, pests, theft or other reasons for any crop.

The crops with the highest rates of no loss reported in the 2016 IAC were:

- sakau with 39 percent of growers reporting no loss,
- betelnut (28 percent),
- yam (28 percent),
- coconut (26 percent),
- swamp taro (26 percent) and
- cucumber (25 percent).

However, even for these crops there were significant numbers of growers that reported loss.

Weather damage was the most reported, with many crops having ten percent or more land parcels with losses of the crop in 2016. The highest reported rates of damage were to betelnut, breadfruit, piper leaves, banana, coconut, swamp taro, tapioca and sakau all of which had reported weather damage to between 20 and 30 percent of parcels of land with the crop.

Theft was another significant issue for some crops with growers reporting losses on more than 20 percent of land parcels for sakau, betelnut, coconut and other root crops.

Vegetables and fruits were susceptible to pests, with loss for more than ten percent of growers for many of these. The highest losses were for cucumber, cabbages, banana and other fruits.

The crops with the highest reported rates of losses from diseases, with more than ten percent of growers reporting losses, were piper leaves, sakau, cucumber, breadfruit, yam and swamp taro.



## 4.6 Crop workers

Across FSM, 37 percent of people aged 15 and over worked on crop activities. A total of 22 659 people were recorded as working on crop activities, of whom 841 were children under the age of 15. Males made up 64.3 percent of the crop workers, while females made up 35.7 percent. Around 60 percent of males aged 35–64 did crop work, but only 30 percent of males aged 15–24.

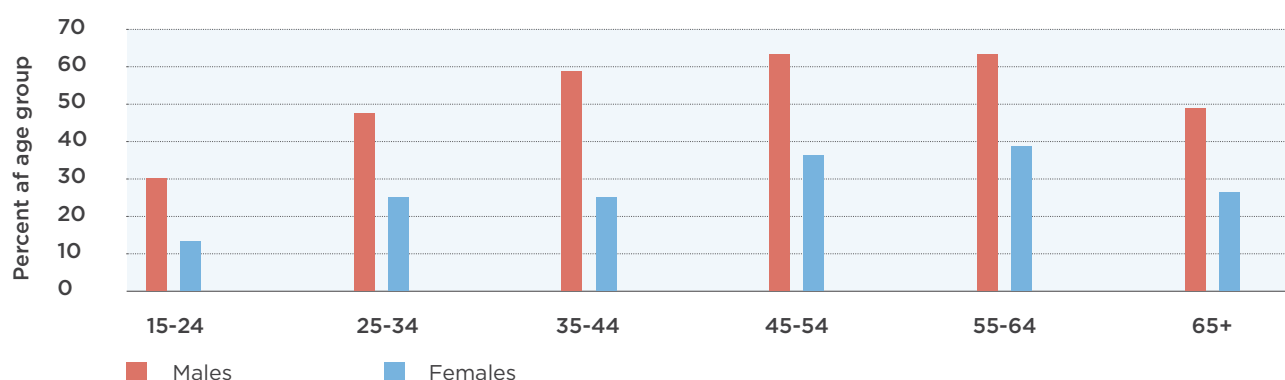
However, the make-up of crop work varies across the states. In Yap, females take more responsibility for crop work and made up 62.4 percent of the crop workers, while males made up 37.6 percent of the workers.

Work on crops is spread across household members. Households with land for agriculture in Yap had on average 2.0 members of the household involved in livestock activities, while in Chuuk the average was 1.5, Pohnpei 1.6 and in Kosrae 1.3.

In Pohnpei, 30 percent of those who worked on crop farming worked 20 or more hours in the week, and in Chuuk 28 percent of those who worked on crop farming worked 20 or more hours in the week compared to 17 percent of the workers in both Yap and Kosrae.





**GRAPH 4.3****Percent of population involved in crop activities by age and sex: 2016**

Source: FSM Integrated Agriculture Census 2016

Few workers had any formal education in agriculture, with 473 people (2.1 percent of the crop workers) having secondary or post-secondary education in agriculture. A small number, 798 people or 3.5 percent had participated in short courses, but most had no formal education (11 446 people or 50.4 percent) or informal practical education (9 974 people or 44.0 percent). Informal practical education was described as “For example, an extension officer coming to your farm or village and showing you something. Training provided by family is not included”. Informal practical education was reported by 44.0 percent in Yap, 51.3 percent in Chuuk, 38.7 percent in Pohnpei and 29.2 in Kosrae.

Some households had hired workers for crop activities – over FSM 1 224 households (8.7 percent of those with land for agriculture) had hired workers in the last 12 months. The largest number of households hired workers in Chuuk (698 households or 12.2 percent of those with land for agriculture) and in Pohnpei (415 households or 7.97 percent). The workers may have been hired for short periods to help with specific tasks, or for longer periods.





SECTION

5

LIVESTOCK

Livestock production (pigs and poultry) is important throughout FSM, particularly for subsistence and cultural use<sup>14</sup>. Livestock production numbers and use of services and sustainable practices are important indicators of the investment in livestock. Across FSM, 9,434 households (61 percent) had livestock.

5.1 Livestock numbers

**TABLE 5.1**  
Numbers of households with any livestock: 2016

	FSM TOTAL		YAP		CHUUK		POHNPEI		KOSRAE	
	NO HHLDS	%	NO HHLDS	%	NO HHLDS	%	NO HHLDS	%	NO HHLDS	%
<b>Total with land used for agriculture</b>	<b>14 031</b>	<b>-</b>	<b>2 138</b>	<b>-</b>	<b>5 742</b>	<b>-</b>	<b>5 259</b>	<b>-</b>	<b>890</b>	<b>-</b>
Has livestock	9 434	67	1 629	76	3 702	64	3 597	68	506	57
No livestock	4 595	33	509	24	2 040	36	1 662	32	384	43

Source: FSM 2016 Integrated Agriculture Census



<sup>14</sup> Federated States of Micronesia Agriculture Policy 2012-2016

SECTION 5 LIVESTOCK

Traditionally, pigs were raised by nearly every family for ceremonial and cultural purposes, such as weddings, funerals and feasts of celebration<sup>15</sup>. However, in the 2016 IAC less than 50 percent of households reported that they kept any pigs.

Dogs were reported kept by 42 percent of households and chickens (local breeds) by 32 percent of households. In total:

- There were 70 800 chickens reported (compared to 79 900 reported in the 2013/14 HIES)
- 29 900 pigs (compared to 25 000 reported in the 2013/14 HIES)
- 16 600 dogs, (compared to 14 000 reported in the 2013/14 HIES)

Yap and Pohnpei reported higher rates of keeping animals.

**TABLE 5.2**  
**Percent of households keeping livestock by type: 2016**

	FSM	YAP	CHUUK	POHNPEI	KOSRAE
<b>Pigs</b>					
Adult pigs (older than 6 months)	45	48	44	46	41
Piglets (younger than 6 months)	17	18	12	22	14
<b>Chickens</b>					
Adult chickens: Broiler	1	2	1	2	0
Adult chickens: Layer	1	2	0	1	0
Adult chickens: Dual	1	1	1	1	0
Adult chickens: Local	32	38	29	36	18
Chicks	9	15	6	11	2
<b>Ducks</b>	1	1	0	2	0
<b>Dogs</b>	42	46	39	45	28
<b>Other</b>	1	3	1	1	0

Source: FSM 2016 Integrated Agriculture Census



<sup>15</sup> <http://www.visit-micronesia.fm/culture/index.html>



**TABLE 5.3**  
Average (mean) number of animals in households keeping them: 2016

	FSM TOTAL	YAP	CHUUK	POHNPEI	KOSRAE
<b>Pigs</b>					
Adult pigs (older than 6 months)	3.0	2.0	2.5	3.9	3.4
Piglets (younger than 6 months)	4.6	2.0	3.3	6.2	5.6
<b>Chickens</b>					
Adult chickens: Broiler	11.9	9.8	9.1	14.6	3.0
Adult chickens: Layer	12.4	14.5	7.5	12.0	21.8
Adult chickens: Dual	10.2	9.7	9.7	10.6	17.0
Adult chickens: Local	14.6	13.5	11.7	17.8	12.4
Chicks	13.9	11.7	10.6	17.2	9.8
<b>Ducks</b>	4.3	5.0	4.6	3.9	9.8
<b>Dogs</b>	2.8	2.4	2.7	3.2	2.9
<b>Other</b>	2.5	2.2	2.5	3.1	4.0

Source: FSM 2016 Integrated Agriculture Census

## 5.2 Consumption and sales

Most livestock were kept for home consumption, but a significant proportion was gifted or sold.

In terms of numbers, 78 percent of chickens were reported to be consumed at home, with 91 percent reported consumed at home in Yap.

Pigs were often consumed at home (42 percent of animals reported disposed of) but they were also widely used for social and customary obligations, particularly in Pohnpei for 49 percent of animals reported disposed of. While many piglets were consumed at home, they were more often sold than used for customary purposes. In Yap, 87 percent of the piglets disposed of were sold.

The reported value of livestock sold was \$902 702. Based on this and the reported numbers of animals sold, consumed at home and gifted, the overall value of the livestock production in FSM was estimated to be \$4.821 million. This compared to an estimate of \$3.909 million in 2013/14 HIES. Of this value:

- 48 percent was consumed at home (compared to 43 percent in 2013/14 HIES)
- 34 percent was gifted (compared to 27 percent in 2013/14 HIES)
- 19 percent was sold (compared to 30 percent in 2013/14 HIES).

## 5.3 Livestock practices

Most pigs were kept in fenced enclosures or cages, except in Chuuk, where most were free ranging. Most other animals/poultry were free ranging. This meant that waste disposal was in the open in most cases. Some use of recycling or bio-gas generation from pig waste was reported, with 2.4 percent of households with pigs reporting this across FSM. The highest rate was in Chuuk.

Feed was purchased for some animals, particularly pigs, and most often in Pohnpei and Kosrae.

**TABLE 5.4**  
**Rates of feed purchase for animals by state 2016**

	FSM TOTAL	YAP	CHUUK	POHNPEI	KOSRAE
Adult pigs	27.0	2.9	4.4	59.3	37.1
Piglets	31.1	2.3	5.2	55.4	41.1
Adult chickens: Local	7.6	2.6	4.2	12.3	13.4
Dogs	8.5	3.3	5.5	13.3	10.0

Source: FSM 2016 Integrated Agriculture Census

Few households had used any services for animals. A total of 779 instances of vaccination were reported, mostly for pigs. A low rate of use of castration services was reported (six percent of pigs) but most male pigs are castrated at home without assistance.

In Kosrae, higher rates of services were reported with more than half of the households with chickens reporting use of some services. Vaccination/dosing rates in Kosrae were 21 percent of pigs, 18 percent of piglets and 16 percent of chickens reported vaccinated.

## 5.4 Livestock workers

Across FSM, 24 percent of people aged 15 and over worked on livestock activities. A total of 14 688 people were recorded as working on crop activities, or about two-thirds of the number involved in crop activities. Of these, 781 were children under the age of 15. Males made up 63 percent of the livestock workers, while females made up 37 percent. Livestock work was spread across all age groups, with a higher proportion of older age groups.

As with crop work, the gender balance of livestock work varies across the states. In Yap, females made up 55 percent of the crop workers, in Chuuk 36 percent, in Pohnpei 31 percent, and in Kosrae 14 percent.

Work on livestock is also spread across household members in the same way as crop work. On average, households with livestock in Yap had 2.0 members of the household involved in livestock activities, while in Chuuk and Pohnpei the average was 1.5, and in Kosrae 1.3. This difference is reflected in the hours worked. In Yap the median hours worked was less than five hours, whereas in other states it was between five and ten hours.

As the population involved in livestock work is very similar to that involved in crop work, the education pattern is also similar, with 47 percent reporting informal practical education about livestock. Again, this varied across the states, with 49 percent of people who were normally engaged in livestock activities in Yap reporting that they had received informal practical education about livestock, compared to 59 percent in Chuuk, 37 percent in Pohnpei and 29 percent in Kosrae.











SECTION

6

## FISHERIES AND AQUACULTURE

Coastal fishing in the Federated States of Micronesia is carried out for subsistence purposes and for sale in local markets. The 2016 Integrated Agriculture Census asked all households interviewed about their fishing activities to help monitor the trends and practices in coastal fishing.

In 2016 8,508 households (55 percent of households in FSM) stated that they had fished in the past 12 months. Fishing was most reported in Chuuk, where 68 percent of household had fished. Yap reported 61 percent of households fished, Kosrae reported 46 percent and Pohnpei reported the lowest proportion of households at 41 percent. This rate of fishing is mostly consistent with the 2013/14 HIES for FSM, except for Chuuk, where the rate of fishing reported was significantly higher than the 49 percent estimated in 2013.

On average, fishing households in FSM reported making 8.5 fishing trips a month. Households were asked how many fishing trips they made for each method of fishing, and also how many fishing trips they made for each area/habitat they fished in. Where a trip covered more than one method of fishing or more than one area the trip would be reported in each category, meaning some trips were counted multiple times.

### 6.1 Species caught and fishing methods

Many different species are caught, with the most common being reef fish species, caught by 80 percent of the households that engaged in fishing activity.

**TABLE 6.1**  
**Fishing activity and species caught: 2016**

	FSM TOTAL	YAP	CHUUK	POHNPEI	KOSRAE
Number of fishing households	8 508	1 378	4 222	2 434	474
Percent of households	54.7	60.5	67.8	40.5	45.7
<b>SPECIES CAUGHT</b>	<b>Percent of fishing households that caught</b>				
Coastal fish (reef fish)	80	91	76	82	74
Octopus / squid	51	47	75	21	6
Oceanic fish (tuna and pelagic fish)	36	46	37	29	30
Crab	35	32	43	27	18
Lobster	33	44	42	18	11
Turtle	26	30	32	17	7
Shellfish (clams, oysters, etc.)	25	25	32	15	3
Ornamental fish	22	24	29	12	10
Sea cucumber	15	2	22	11	5

Source: FSM 2016 Integrated Agriculture Census

Some species are more frequently caught in some states than others. After reef fish, octopus was the most caught, but mainly reported caught in Chuuk. In Chuuk, 74 percent of households reported catching octopus compared to 47 percent of households in Yap, 21 percent of households in Pohnpei and 6 percent of households in Kosrae. Tuna and other pelagic fish were the next most commonly caught, with Yap having the highest catch rate.

Note that fish classified as ornamental can be caught for consumption.

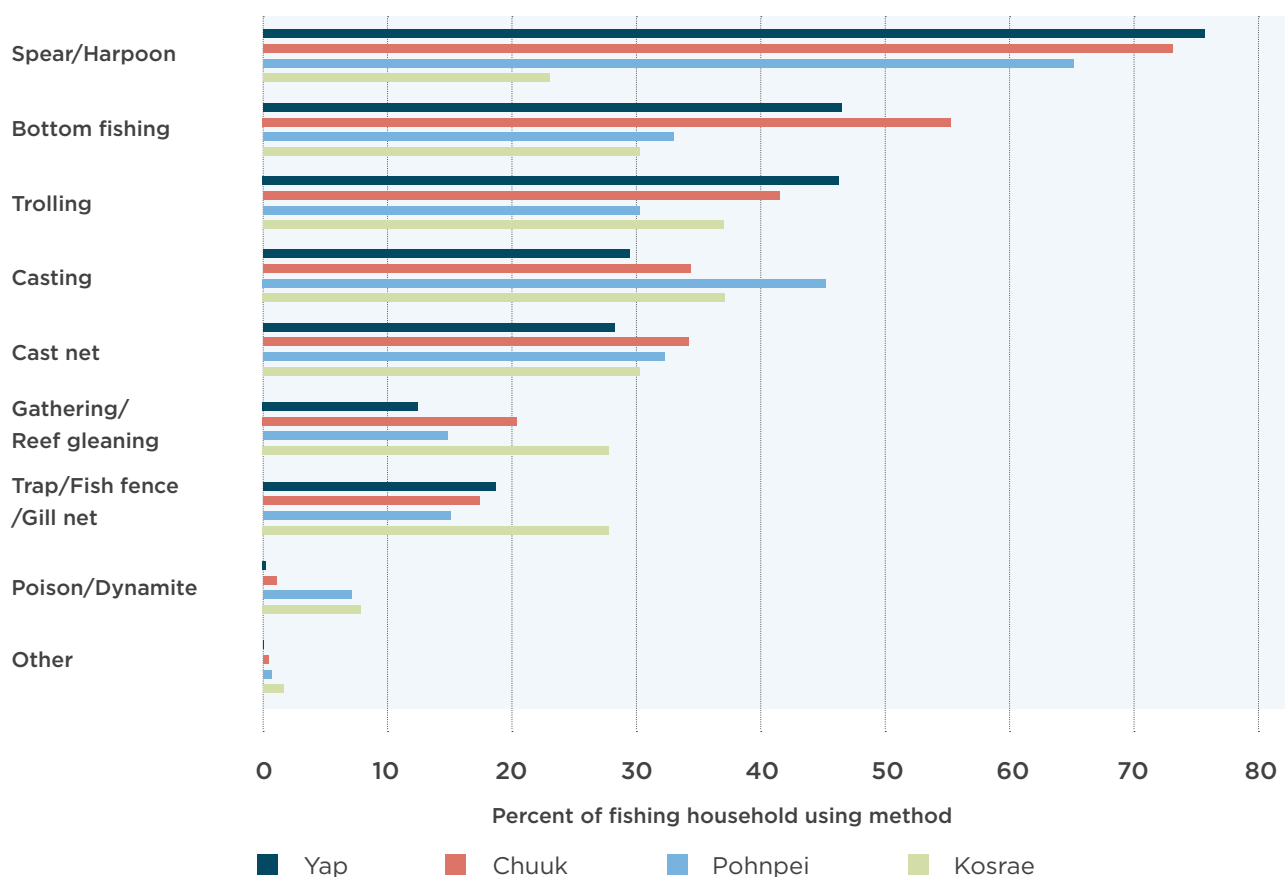
## 6.2 Fishing Methods

Spear or harpoon fishing is still the most used method of fishing in all states except Kosrae where trolling, casting and other methods were more used. Over FSM:

- spear/harpoon was reported by 68 percent of fishing households,
- bottom fishing (include drop stone) by 46 percent,
- trolling by 39 percent, casting (handline/pole) by 39 percent,
- cast net by 33 percent,
- gathering or reef gleaning by 18 percent, and
- trap/fish fence/gill net fishing by 18.2 percent of fishing households.
- A small proportion of households used poisoning methods, dynamiting or other methods.

Many fishing households reported using more than one fishing method.

**GRAPH 6.1**  
Fishing activities by state: 2016



Source: FSM 2016 Integrated Agriculture Census

### 6.3 Areas fished in and frequency

Fishing was most often reported in the coastal reefs, where 75 percent of fishing households reported that they had fished.

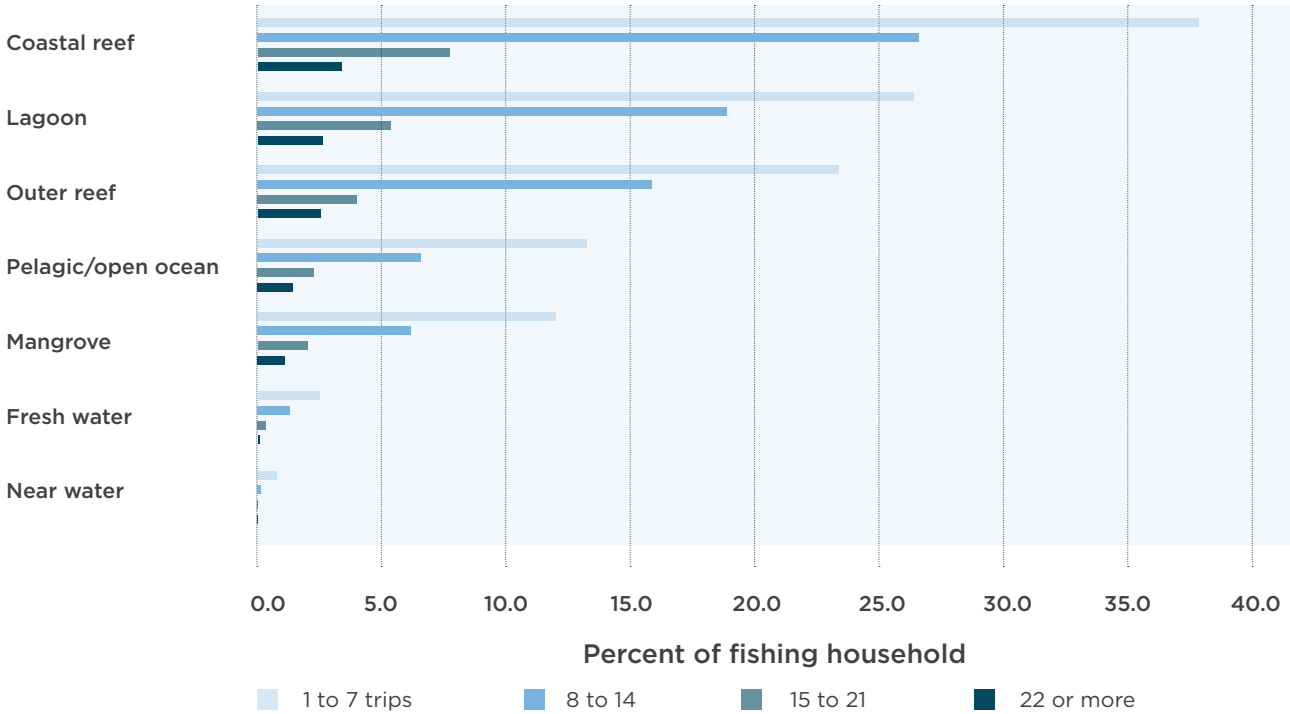
**TABLE 6.2**  
Rates of feed purchase for animals by state, 2016

	FSM TOTAL	YAP	CHUUK	POHNPEI	KOSRAE
AREA/HABITAT	Percent of fishing households fishing in area				
Coastal reef	75	87	75	71	61
Lagoon	53	43	65	46	20
Outer reef	45	49	54	31	25
Pelagic / open ocean	24	36	23	18	24
Mangrove	21	19	20	25	19
Fresh water	4	1	3	6	11
Near a FAD	1	3	1	1	4
Other	0	0	0	0	0

Source: FSM 2016 Integrated Agriculture Census

Fishing trips can combine fishing in several areas or using more than one method in one outing. Overall, it is estimated from the FSM IAC 2016 that households visited an average of 20 different habitats a month, in an average of 8.5 fishing trips in a month.

**GRAPH 6.2**  
**Number of fishing trips per month to different habitats: 2016**



Source: FSM 2016 Integrated Agriculture Census

While the most common number of trips per month was between one and seven – once or twice a week – 11 percent of fishing households said they went fishing in the coastal reef area 15 or more times a month, or four or more times a week.

### 6.4 Purpose of fishing and sales

Most of the reported fishing was for home consumption. Few households reported catching any species mainly or only for home consumption. The species that were caught mainly or only for sales varied by state.

- In Yap and Kosrae less than ten households reported catching any species mainly or only for sale,
- In Chuuk seven percent of the households that caught oceanic fish (tuna and pelagic) reported that it was mainly or only for sale,
- In Pohnpei six percent of households that caught oceanic fish (tuna and pelagic) and five percent of households that caught lobster and crab reported that it was mainly or only for sale,

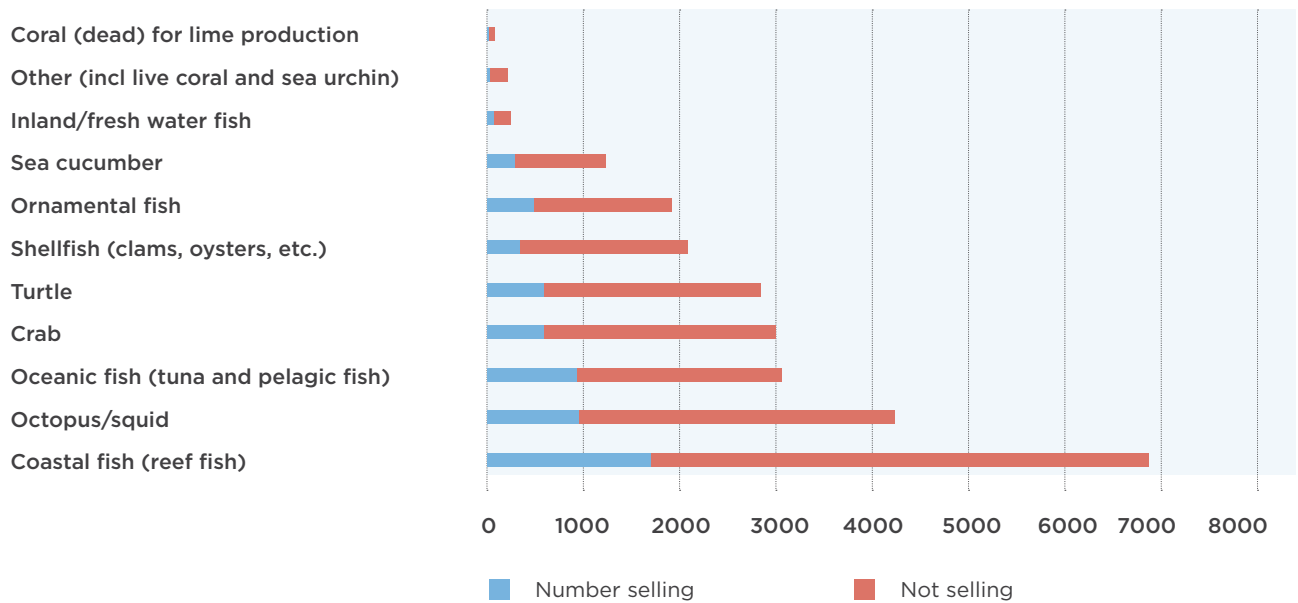


Despite this, a much larger number of households sold some part of their fish catch. Coastal reef fish and oceanic fish were the most sold, with 1 648 households reporting selling reef fish (24 percent of those that reported catching these fish) and 952 households reporting selling oceanic fish (31 percent of those that reported catching these fish). For all species, more than 15 percent of households reported selling some part of their catch. And for many households more than half of the catch was sold. For example, 65 percent of those reporting selling oceanic fish said they had sold more than half of their catch.

This suggests that although households consider their fishing activity as primarily for home consumption, the income received from selling parts of the catch makes some contribution to the household as well, particularly in Chuuk.

### GRAPH 6.3

**Fishing: Number of households catching and selling fish and seafood by species: 2016**



Source: FSM 2016 Integrated Agriculture Census

## 6.5 Fishing workers

Across FSM, 18 percent of people aged 15 and over worked on fishing activities. Males made up 84.4 percent of the fishers, while females made up 15.6 percent.

In Yap, 5.5 percent of those involved in fishing were females, compared to 16.5 in Chuuk, 20.2 percent in Pohnpei and 20.4 of those involved in Kosrae. In Yap, more than 60 percent of males aged between 35 and 54 were engaged in fishing activities.

Note however that in Kosrae, there were fewer people reported involved in fishing than the number of households, indicating some under-reporting.

## 6.6 Aquaculture

Over FSM, 499 households (3.2 percent of all households) reported that they were involved in aquaculture.

**TABLE 6.3****Aquaculture activity and species cultivated: 2016**

	TOTAL	YAP	CHUUK	POHNPEI	KOSRAE
Number of fishing households	499	69	186	222	22
Percent of all households	3.2	3.0	3.0	3.7	2.1
<b>Products</b>	Percent of aquaculture households cultivating product				
Clams	63	90	68	53	27
Sea cucumber	27	6	39	22	32
Trochus	17	52	16	7	18
Sponges / soft coral	12	1	16	12	18
Seaweed	12	3	26	4	0
Hard coral	12	1	18	11	0
Finfish	10	3	17	4	27
Black pearl	9	1	17	5	5
Ornamental coral	9	1	18	5	0
Crustacean	7	1	12	4	9
Freshwater species	7	0	8	9	5
Other	3	0	5	2	9

Source: FSM 2016 Integrated Agriculture Census

Clams were the most common species farmed. Across FSM 63 percent of the aquaculture households cultivated clams. In Yap, 90 percent of the aquaculture households cultivated clams. Other common species were sea cucumber (27 percent of the aquaculture households in FSM cultivated) and Trochus (17 percent). Sponges/soft corals, seaweed and hard corals were each cultivated by 12 percent of the aquaculture households in FSM.

Of the people who worked on the aquaculture farms, 77 percent of the main operators and 70 percent of those that usually worked were males. Aquaculture is not a full-time activity for most of these people and 69 percent of male workers and 66 percent of female workers worked less than ten hours in the week of interview.









SECTION

7

FORESTRY,  
HUNTING AND  
HANDICRAFTS

7.1 Forestry and handicrafts

The forest is widely used across FSM for production, most frequently for firewood gathering and for wood for building forestry. Trees are also used for carving and handicrafts, and for making canoes

Social and cultural values were also important reasons for purposes for forests.

**TABLE 7.1**  
Households using forest and main purpose by state: 2016

	FSM	YAP	CHUUK	POHNPEI	KOSRAE
Number of households using forest	9 208	1 400	4 522	2 977	309
Percent of all households	59.2	61.4	72.7	49.6	29.8
Main reason for using forest:	Percent of aquaculture households cultivating product				
Production	61	60	55	71	61
Social or cultural values	24	25	28	18	17
Soil and water protection	6	8	8	3	7
Recreation and eco-tourism	1	1	1	0	0
Improving agriculture	4	4	4	4	2
Others	4	3	4	4	13

Source: FSM 2016 Integrated Agriculture Census

The main uses of trees or forest products reported varied across states, although firewood was most reported in all states. Gathering medicines was a minor use in most states, but Yap reported 12 percent of households using forest for this, compared to four percent of households in Chuuk, two percent of households in Pohnpei and one percent of households in Kosrae.

**TABLE 7.2**  
**Forest outputs by state: 2016**

	FSM	YAP	CHUUK	POHNPEI	KOSRAE
Products	Percent of households using forests				
Trees for building or furniture	59	67	62	53	49
Trees/products for handicraft	17	29	20	8	3
Trees/products for carving	13	23	17	4	5
Trees/products for transportation (canoe)	15	25	18	7	4
Firewood	91	87	92	92	86
Gathering wild food	2	2	3	1	1
Gathering medicines	4	12	4	2	1
Other use	1	1	1	1	0

Source: FSM 2016 Integrated Agriculture Census



The tree species reported to be used varied by state for different uses. In Yap,

- Calophyllum inophyllum was reported to be the most used species, for building or furniture and firewood.
- Breadfruit was also used for firewood and for making canoes.
- Coconut was used for handicrafts, and also for building or furniture.

In Chuuk,

- Breadfruit was reported to be the most used, for firewood and for making canoes.
- Mangrove was widely used for firewood, and also for building or furniture.
- Coconut was used for building or furniture, and also handicrafts.

In Pohnpei,

- Other species were reported to be most used for firewood, and also for building or furniture.
- Mangrove was also used for building or furniture and for firewood.
- Ivory nut tree was next most reported used, mainly for building and furniture.

In Kosrae, with the lowest reported level of use of forests, mangrove was the most used species, for firewood and for building or furniture.

Firewood was most frequently gathered, with over half of those using forests for firewood reporting 20 or more trips in the past year.

Across FSM, 29 percent of males and 13 percent of females aged 20 and over were reported to be involved in forestry activities.

Handicrafts were not widely carried out and although ten percent of all households reported using forest products for handicrafts, only four percent of the population aged 20 and over were reported to be involved in handicraft activities.

## 7.2 Hunting

Hunting was reported by 14 percent of households in FSM, but at higher rates in Yap (40 percent of households) and Chuuk (16 percent of households), where nearly all of the hunting households reported catching land/coconut crabs. The mean number of crabs reported caught by hunting households in the past year in Yap was 153, and in Chuuk 89, with a reported total of nearly 234 000 crabs caught over FSM. Most of this catch was for only home use (84 percent) or mainly for home use (14 percent) with a small proportion (1.4 percent) reported for sale.

**TABLE 7.3**  
**Hunting by state: 2016**

	TOTAL	YAP	CHUUK	POHNPEI	KOSRAE
Number of households hunting	2 190	912	1 010	217	51
Percent of all households	14	40	16	4	5
Animals caught	Percent of hunting households catching				
Deer	3	0	0	30	2
Wild pig	4	0	4	6	69
Fruit bat	5	7	2	7	0
Wild pigeon	4	3	0	27	4
Land/coconut crab	91	98	96	54	20
Other wild animal/bird	4	3	4	10	2

Source: FSM 2016 Integrated Agriculture Census

Hunting was reported by fewer households in Pohnpei (five percent) and Kosrae (four percent) and the purpose varied depending on what was caught. Wild pigeons were caught more for sale than for other purposes, and wild pig, fruit bat and deer were also more frequently caught for sale.

In Yap 44 percent of the people reported engaging in hunting activities were female, compared to 21 percent female in Chuuk, 19 percent female in Pohnpei and 24 percent female in Kosrae.







SECTION

8

EQUIPMENT,  
SERVICES AND  
BARRIERS

### 8.1 Equipment

In the 2016 Integrated Census of Agriculture households were asked about equipment used for fishing and farming.

Most households reported using the most basic tools. Machetes were reported used by 97 percent of households with land for agriculture, and shovels were reported by 91 percent. Nearly all of those using these tools owned their own tools.

The next most commonly used equipment were wheelbarrows, weed eaters (line trimmers) and chainsaws, but the rates of use of these tools varied across states. Wheelbarrows, weed eaters and chainsaws were reported to be borrowed by between 20 and 30 percent of users.

**TABLE 8.1**  
**Equipment used by state: 2016**

	FSM	YAP	CHUUK	POHNPEI	KOSRAE
Top agricultural equipment used	Percent of households with land for agriculture reporting using				
Machete	97	100	99	97	83
Shovel	91	92	94	90	77
Wheelbarrow	35	52	36	28	36
Weed eaters	28	33	10	41	49
Chainsaw	25	33	18	28	38
	Percent of households with land for agriculture reporting using				
Cars	31	38	11	46	50
Trucks/Pickups	8	10	5	10	17

Source: FSM 2016 Integrated Agriculture Census

Farming equipment was analyzed to see if farms with access to larger areas of land or farms with a higher proportion of income from agriculture were more likely to have used a wider range of equipment, but no relationship was found.

Fishing equipment was reported used by 74 percent of the households that reported carrying out fishing activities. Fishing boats with outboard engines were reported used by 48 percent of fishing households, canoes by 37 percent and fishing boats with inboard engines by 16 percent of fishing households.

Cars were reported used by 31 percent of all households for agricultural or fishing activities, but only by 11 percent in Chuuk, where transport by boat between islands is common. Trucks and pickups were used by eight percent of households. Both cars and trucks/pickups were used by a higher proportion of households in Kosrae than in other households.

Solar panels were reported used by 21 percent of all households in Yap and 28 percent of all households in Chuuk, where there is less municipal electricity available. Around eight percent of the panels were reported to have been supplied by the Government.

## 8.2 Market access and services

The access to markets and services is an indicator of the strength of the agricultural infrastructure to support the farmers.

Under half (48 percent) of the households with land for agriculture reported engagement in markets for their produce. Thirty percent of farm households lived less than an hour from a market, but for 2.5 percent of households there was no market accessible or available.

Around nine percent of households with land for agriculture reported participating in product organizations in the past year. This was consistent across the states with participation by 10 percent of farm households in Yap, 8 percent in Chuuk, 9 percent in Pohnpei and 11 percent in Kosrae.

Agriculture extension services had visited 19 percent of households in the census year, half of them twice. Chuuk had the highest proportion of households reporting visits from an extension officer with 14 percent reporting one visit and 11 percent reporting two or more visits.

However, the main sources of information about agriculture were the radio (31 percent), other farmers (24 percent), or agriculture extension services (13 percent).

## 8.3 Barriers to further development

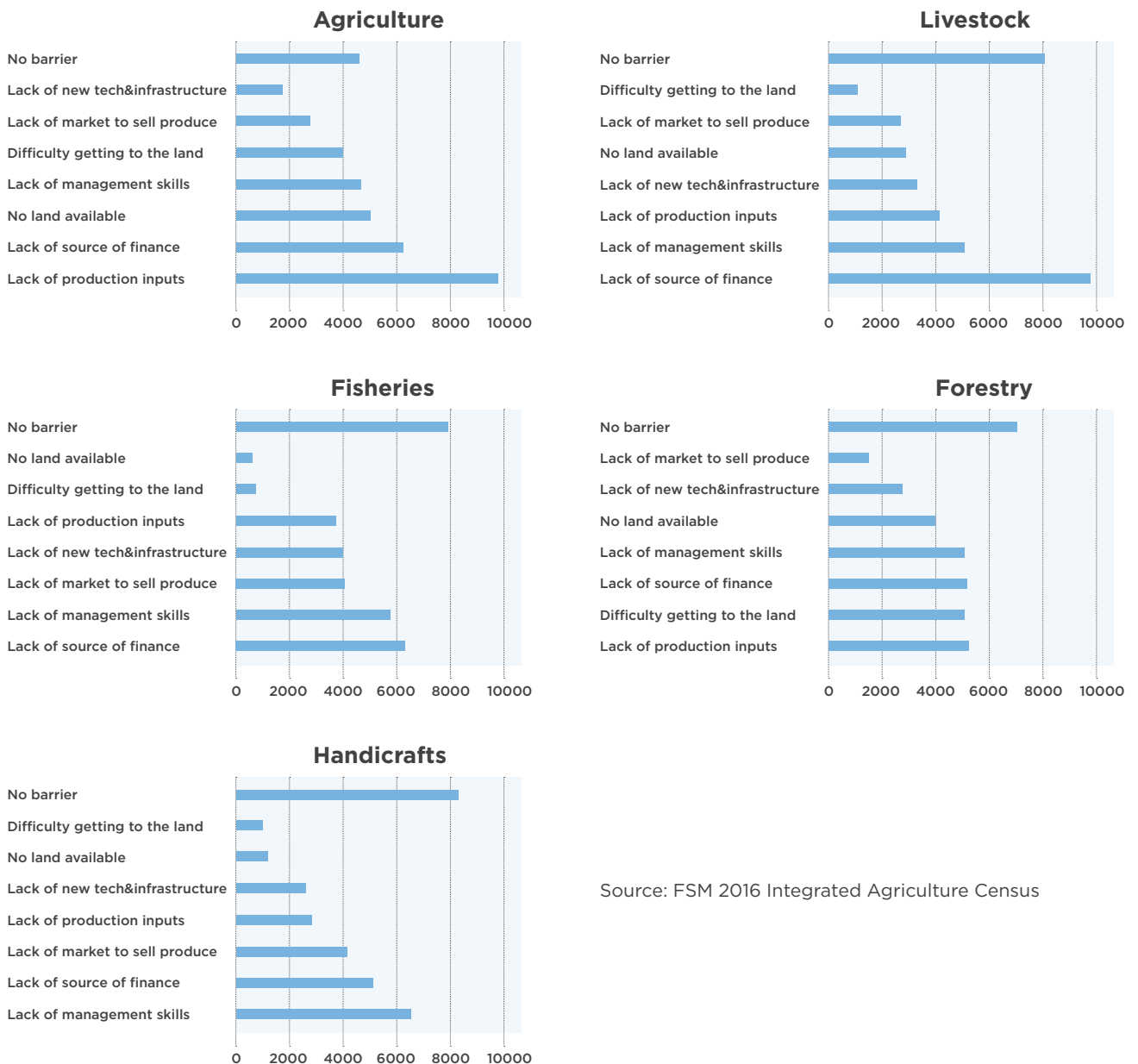
Reported barriers indicate where the farmers see a need for investment for development. The most commonly reported barriers to any further activity were:

- Lack of production inputs (particularly for agriculture)
- Lack of source of finance
- Lack of management skills (particularly for handicrafts and livestock)
- Lack of market to sell produce
- Lack of new tech & infrastructure was a barrier particularly for fishing and livestock.

However, 30 percent of households reported no barriers to further agricultural activities, 52 percent of households reported no barriers to more livestock, 51 percent reported no barrier to more fishing, 45 percent reported no barrier to more forestry activities and 53 percent reported no barrier to more handicrafts.

**GRAPH 8.1**

**Number of households with barriers to activities: 2016**



Source: FSM 2016 Integrated Agriculture Census







SECTION

# 9

## INCOME AND CREDIT

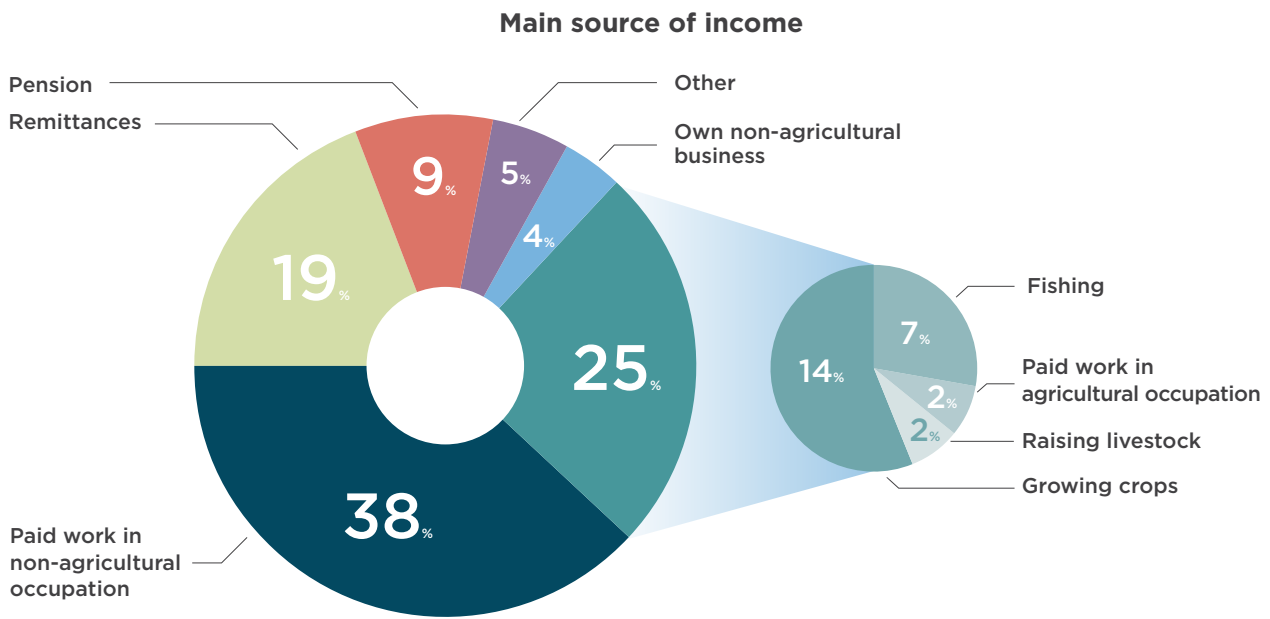
### 9.1 Income sources

The largest source of cash income for all households reporting in the 2016 IAC was paid work in a non-agricultural occupation, with 38 percent of households reporting that across FSM.

However, for 25 percent of households, the main source of cash income was agriculture or fishing. Mostly this came from their own business, with a small number in paid agricultural or fishing work.



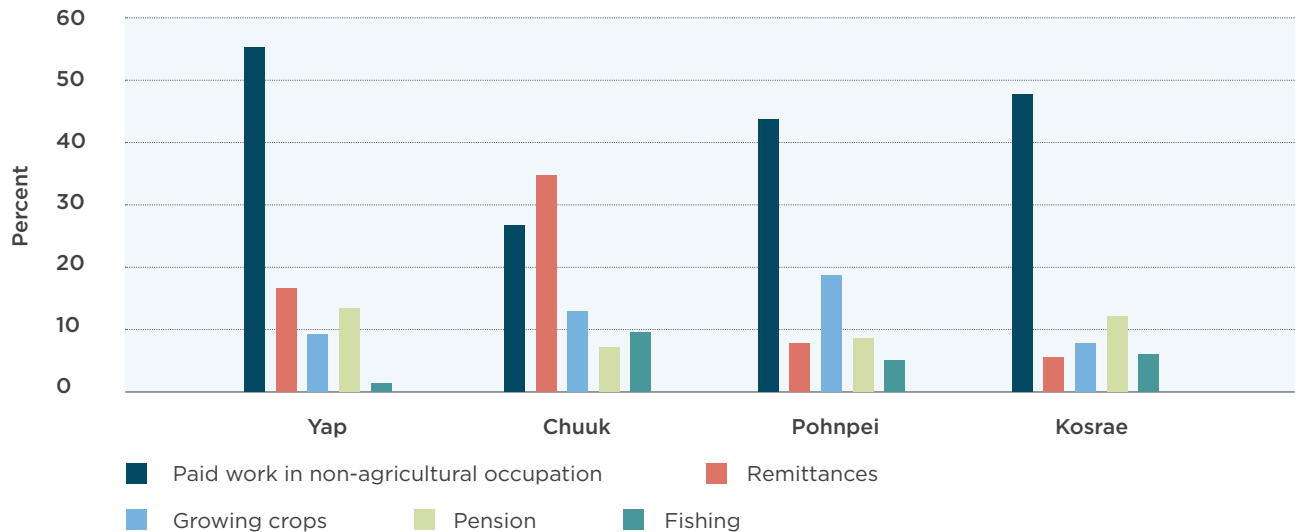
**GRAPH 9.1**  
**Main sources of cash income for all households: 2016**



Source: FSM 2016 Integrated Agriculture Census

The top sources of cash income reported varied over the states. In Chuuk, paid work of any sort was less reported than remittances as the main source of cash income. Remittances were the second most reported main source of income in Pohnpei, and pensions being the second most important in Kosrae.

**GRAPH 9.2**  
**Main sources of cash income for households with land for agriculture by state: 2016**



Source: FSM 2016 Integrated Agriculture Census

Growing crops provided the main source of cash income for 14 percent of households across FSM, with over 20 percent of farm households reporting this in Pohnpei.

Fishing was reported as the main source of cash income for 7 percent of households. Despite over 60 percent of households in Yap undertaking fishing it was rarely the main source of cash income.

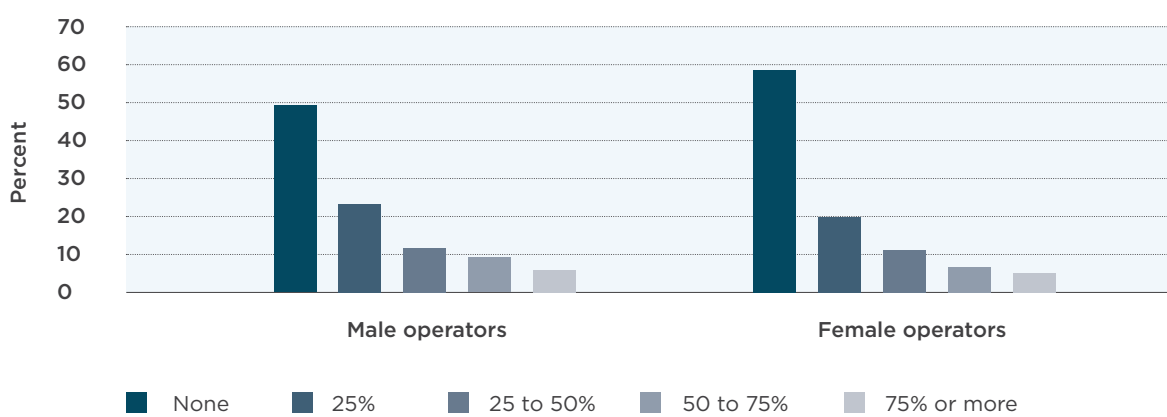
In Chuuk however, fishing was the main source of cash income for 10 percent of households.

## 9.2 Proportion of Income from agriculture

Across FSM, over 50 percent of households with land for agriculture reported that they received no income from agriculture. In Yap, nearly 70 percent reported no income from agriculture while in Pohnpei less than 40 percent reported receiving no income from agriculture.

**GRAPH 9.3**

### Proportion of income from agriculture by gender: 2016



Source: FSM 2016 Integrated Agriculture Census

Where the main operator was female, nearly 60 percent received no income from agriculture, compared to 48 percent of households where the main operator was male. In Yap, where the proportion of female operators was highest at 40 percent of operators, 75 percent of households with female operators received no income from agriculture, compared to 65 percent of households where the main operator was male. This suggests a high reliance on agriculture for subsistence, particularly for female operated farms, and less market opportunity in Yap.

The proportion of income from agriculture question asked for an assessment of cash and in-kind income. There is some agreement between the numbers reporting that their main source of cash income was growing crops or livestock, and the number with more than 50 percent of their income from agriculture, suggesting that this question was usually interpreted as cash income, but the numbers for Chuuk suggest a problem with the data there.



**TABLE 9.1****Main source of cash income and proportion of income from agriculture by state: 2016**

	FSM	YAP	CHUUK	POHNPEI	KOSRAE
	Number of households				
Main source of cash income is growing crops or livestock	2 487	213	908	1 233	133
More than 50% of income from agriculture	1 954	190	499	1 115	110



### 9.3 Loans for development of agriculture, fishing or forestry

Households were asked if they had used any loans to develop their agriculture (crops or livestock), forestry or fishing activities in the past year. A total of 672 households, or 4 percent of all households reported using a loan, and 73 percent of these households had borrowed from a bank. The next most common source of finance was a private person, except in Yap where other loan agencies were used by 18 percent of borrowers.

Use of a loan or credit was most common in Kosrae, where 14 percent of households reported that they had borrowed, and least common in Yap where only 1.5 percent of households reported that they had borrowed.



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# APPENDIX 1 TABLES

**TABLE 1**  
**Total population by age and sex and state: 2016**

MAJOR OCCUPATION	TOTAL FSM			YAP			CHUUK			POHNPEI			KOSRAE		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>Total</b>	<b>87 357</b>	<b>44 085</b>	<b>43 272</b>	<b>11 037</b>	<b>5 338</b>	<b>5 699</b>	<b>39 350</b>	<b>20 284</b>	<b>19 066</b>	<b>31 159</b>	<b>15 470</b>	<b>15 689</b>	<b>5 811</b>	<b>2 993</b>	<b>2 818</b>
0-4	8 775	4 525	4 250	1 039	520	519	4 280	2 130	2 150	2 861	1 544	1 317	595	331	264
5-9	9 921	5 180	4 740	1 125	606	519	4 723	2 478	2 245	3 393	1 740	1 653	680	356	323
10-14	9 612	4 846	4 766	1 108	547	561	4 367	2 227	2 140	3 444	1 708	1 736	693	364	329
15-19	9 708	5 036	4 672	1 128	575	553	4 381	2 328	2 053	3 540	1 803	1 737	659	330	329
20-24	7 766	3 989	3 777	851	407	444	3 619	1 944	1 675	2 908	1 437	1 471	388	201	187
25-29	6 599	3 341	3 258	698	313	385	3 203	1 747	1 456	2 309	1 092	1 217	389	189	200
30-34	6 031	3 042	2 990	726	339	387	2 788	1 449	1 339	2 161	1 060	1 101	356	194	163
35-39	5 403	2 710	2 692	744	370	374	2 336	1 241	1 095	1 953	910	1 043	370	189	180
40-44	4 904	2 402	2 502	664	302	362	2 134	1 077	1 057	1 805	869	936	301	154	147
45-49	4 445	2 139	2 306	649	275	374	1 844	925	919	1 654	792	862	298	147	151
50-54	4 016	1 982	2 033	613	288	325	1 577	773	804	1 544	776	768	282	145	136
55-59	3 604	1 811	1 792	589	280	309	1 417	706	711	1 315	679	636	283	146	136
60-64	2 882	1 420	1 462	493	247	246	1 156	562	594	1 009	501	508	224	110	114
65-69	1 797	904	892	287	156	131	786	394	392	608	295	313	116	59	56
70-74	840	379	461	131	60	71	329	149	180	294	128	166	86	42	44
75+	1 054	377	677	192	53	139	410	154	256	361	136	225	91	34	57
Median	23.6	23.1	24.2	26.9	25.2	28.3	22.7	22.5	22.8	24.0	23.3	24.8	23.6	22.9	24.4

Source: FSM 2016 Integrated Agriculture Census

**TABLE 2**  
**Major occupation and sex by labor force participation and state: 2016**

MAJOR OCCUPATION	TOTAL FSM			YAP			CHUUK			POHNPEI			KOSRAE		
	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID
<b>Total</b>	<b>33 353</b>	<b>13 534</b>	<b>19 819</b>	<b>4 920</b>	<b>2 745</b>	<b>2 175</b>	<b>14 704</b>	<b>3 460</b>	<b>11 244</b>	<b>12 020</b>	<b>6 075</b>	<b>5 945</b>	<b>1 709</b>	<b>1 254</b>	<b>455</b>
Managers	1 283	1 207	76	202	201	1	322	301	21	586	555	31	173	150	23
Professionals	2 329	2 249	80	469	451	18	684	653	31	931	903	28	245	242	3
Technicians and associate professionals	1 379	1 285	94	359	331	28	385	342	43	516	501	15	119	111	8
Clerical support workers	1 401	1 376	25	309	305	4	388	382	6	592	579	13	112	110	2
Service and sales workers	6 239	3 704	2 535	545	536	9	3 117	1 197	1 920	2 221	1 663	558	356	308	48
Skilled agricultural forestry and fisheries workers	12 153	955	11 198	2 350	401	1 949	6 349	56	6 293	3 287	443	2 844	167	55	112
Craft and related workers	1 316	1 127	189	232	232	0	341	226	115	603	550	53	140	119	21
Plant an machine operators and assemblers	709	665	43	107	107	0	152	137	15	399	373	26	51	48	2
Elementary occupations	6 545	966	5 578	347	181	166	2 966	166	2 800	2 885	508	2 377	347	111	235
<b>Males</b>	<b>19 488</b>	<b>8 396</b>	<b>11 092</b>	<b>2 469</b>	<b>1 598</b>	<b>871</b>	<b>8 792</b>	<b>2 205</b>	<b>6 587</b>	<b>7 159</b>	<b>3 799</b>	<b>3 360</b>	<b>1 068</b>	<b>794</b>	<b>274</b>
Managers	905	859	46	147	146	1	254	242	12	395	380	15	109	91	18
Professionals	1 195	1 141	54	251	238	13	334	312	22	474	457	17	136	134	2
Technicians and associate professionals	859	798	60	221	208	13	220	189	31	333	321	12	85	80	5
Clerical support workers	832	816	16	178	174	4	262	260	2	329	321	8	63	61	2
Service and sales workers	2 175	1 839	336	200	198	2	950	697	253	868	797	71	157	147	10

Source: 2016 FSM Integrated Agriculture Census



**TABLE 2**  
**Major occupation and sex by labor force participation and state: 2016 (continued)**

MAJOR OCCUPATION	TOTAL FSM			YAP			CHUUK			POHNPEI			KOSRAE		
	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID
Skilled agricultural forestry and fisheries workers	9 577	689	8 888	940	199	741	5 693	54	5 639	2 793	386	2 407	151	50	101
Craft and related workers	1 080	1 011	69	222	222	0	242	203	39	503	487	16	113	99	14
Plant an machine operators and assemblers	624	601	23	95	95	0	144	131	13	339	329	10	46	46	0
Elementary occupations	2 241	642	1 599	215	118	97	693	117	576	1 125	321	804	208	86	122
<b>Females</b>	<b>13 865</b>	<b>5 138</b>	<b>8 728</b>	<b>2 451</b>	<b>1 147</b>	<b>1 304</b>	<b>5 912</b>	<b>1 255</b>	<b>4 657</b>	<b>4 861</b>	<b>2 276</b>	<b>2 585</b>	<b>641</b>	<b>460</b>	<b>181</b>
Managers	378	347	31	55	55	0	68	59	9	191	175	16	64	58	6
Professionals	1 134	1 108	26	218	213	5	350	341	9	457	446	11	109	108	1
Technicians and associate professionals	520	487	33	138	123	15	165	153	12	183	180	3	34	31	3
Clerical support workers	570	561	9	131	131	0	126	122	4	263	258	5	50	50	0
Service and sales workers	4 064	1 865	2 199	345	338	7	2 167	500	1 667	1 353	866	487	199	161	38
Skilled agricultural forestry and fisheries workers	2 576	267	2 310	1 410	202	1 208	656	2	654	494	57	437	16	6	11
Craft and related workers	235	116	120	10	10	0	99	23	76	100	63	37	26	20	7
Plant an machine operators and assemblers	84	64	20	12	12	0	8	6	2	60	44	16	4	2	2
Elementary occupations	4 304	324	3 979	132	63	69	2 273	49	2 224	1 760	187	1 573	139	25	113

Source: 2016 FSM Integrated Agriculture Census

**TABLE 2A**  
**Percentages in major occupations by sex and labor force participation and state: 2016**

MAJOR OCCUPATION	TOTAL FSM			YAP			CHUUK			POHNPEI			KOSRAE		
	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.1</b>	<b>100.0</b>	<b>99.8</b>
Managers	3.8	8.9	0.4	4.1	7.3	0.0	2.2	8.7	0.2	4.9	9.1	0.5	10.1	12.0	5.1
Professionals	7.0	16.6	0.4	9.5	16.4	0.8	4.7	18.9	0.3	7.7	14.9	0.5	14.3	19.3	0.7
Technicians and associate professionals	4.1	9.5	0.5	7.3	12.1	1.3	2.6	9.9	0.4	4.3	8.2	0.3	7.0	8.9	1.8
Clerical support workers	4.2	10.2	0.1	6.3	11.1	0.2	2.6	11.0	0.1	4.9	9.5	0.2	6.6	8.8	0.4
Service and sales workers	18.7	27.4	12.8	11.1	19.5	0.4	21.2	34.6	17.1	18.5	27.4	9.4	20.8	24.6	10.5
Skilled agricultural forestry and fisheries workers	36.4	7.1	56.5	47.8	14.6	89.6	43.2	1.6	56.0	27.3	7.3	47.8	9.8	4.4	24.6
Craft and related workers	3.9	8.3	1.0	4.7	8.5	0.0	2.3	6.5	1.0	5.0	9.1	0.9	8.2	9.5	4.6
Plant an machine operators and assemblers	2.1	4.9	0.2	2.2	3.9	0.0	1.0	4.0	0.1	3.3	6.1	0.4	3.0	3.8	0.4
Elementary occupations	19.6	7.1	28.1	7.1	6.6	7.6	20.2	4.8	24.9	24.0	8.4	40.0	20.3	8.9	51.6
<b>Males</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Managers	4.6	10.2	0.4	6.0	9.1	0.1	2.9	11.0	0.2	5.5	10.0	0.4	10.2	11.5	6.6
Professionals	6.1	13.6	0.5	10.2	14.9	1.5	3.8	14.1	0.3	6.6	12.0	0.5	12.7	16.9	0.7
Technicians and associate professionals	4.4	9.5	0.5	9.0	13.0	1.5	2.5	8.6	0.5	4.7	8.4	0.4	8.0	10.1	1.8
Clerical support workers	4.3	9.7	0.1	7.2	10.9	0.5	3.0	11.8	0.0	4.6	8.4	0.2	5.9	7.7	0.7
Service and sales workers	11.2	21.9	3.0	8.1	12.4	0.2	10.8	31.6	3.8	12.1	21.0	2.1	14.7	18.5	3.6

Source: 2016 FSM Integrated Agriculture Census

**TABLE 2A**  
**Percentages in major occupations by sex and labor force participation and state: 2016 (continued)**

MAJOR OCCUPATION	TOTAL FSM			YAP			CHUUK			POHNPEI			KOSRAE		
	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID
Skilled agricultural forestry and fisheries workers	49.1	8.2	80.1	38.1	12.5	85.1	64.8	2.4	85.6	39.0	10.2	71.6	14.1	6.3	36.9
Craft and related workers	5.5	12.0	0.6	9.0	13.9	0.0	2.8	9.2	0.6	7.0	12.8	0.5	10.6	12.5	5.1
Plant an machine operators and assemblers	3.2	7.2	0.2	3.8	5.9	0.0	1.6	5.9	0.2	4.7	8.7	0.3	4.3	5.8	0.0
Elementary occupations	11.5	7.6	14.4	8.7	7.4	11.1	7.9	5.3	8.7	15.7	8.4	23.9	19.5	10.8	44.5
<b>Females</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.2</b>	<b>100.0</b>
Managers	2.7	6.8	0.4	2.2	4.8	0.0	1.2	4.7	0.2	3.9	7.7	0.6	10.0	12.6	3.3
Professionals	8.2	21.6	0.3	8.9	18.6	0.4	5.9	27.2	0.2	9.4	19.6	0.4	17.0	23.5	0.6
Technicians and associate professionals	3.8	9.5	0.4	5.6	10.7	1.2	2.8	12.2	0.3	3.8	7.9	0.1	5.3	6.7	1.7
Clerical support workers	4.1	10.9	0.1	5.3	11.4	0.0	2.1	9.7	0.1	5.4	11.3	0.2	7.8	10.9	0.0
Service and sales workers	29.3	36.3	25.2	14.1	29.5	0.5	36.7	39.8	35.8	27.8	38.0	18.8	31.0	35.0	21.0
Skilled agricultural forestry and fisheries workers	18.6	5.2	26.5	57.5	17.6	92.6	11.1	0.2	14.0	10.2	2.5	16.9	2.5	1.3	6.1
Craft and related workers	1.7	2.3	1.4	0.4	0.9	0.0	1.7	1.8	1.6	2.1	2.8	1.4	4.1	4.3	3.9
Plant an machine operators and assemblers	0.6	1.2	0.2	0.5	1.0	0.0	0.1	0.5	0.0	1.2	1.9	0.6	0.6	0.4	1.1
Elementary occupations	31.0	6.3	45.6	5.4	5.5	5.3	38.4	3.9	47.8	36.2	8.2	60.9	21.7	5.4	62.4

Source: 2016 FSM Integrated Agriculture Census

**TABLE 3**  
**Major industry and sex by labor force participation and state: 2016**

MAJOR INDUSTRY	TOTAL FSM			YAP			CHUUK			POHNPEI			KOSRAE		
	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID
<b>Total</b>	<b>34 418</b>	<b>14 552</b>	<b>19 866</b>	<b>4 924</b>	<b>2 749</b>	<b>2 175</b>	<b>15 159</b>	<b>3 899</b>	<b>11 260</b>	<b>12 626</b>	<b>6 650</b>	<b>5 976</b>	<b>1 709</b>	<b>1 254</b>	<b>455</b>
Agriculture forestry and fishing	13 225	1 379	11 847	2 472	426	2 046	6 514	94	6 420	3 939	785	3 154	300	74	227
Manufacturing and utilities	532	513	19	123	123	0	80	73	7	282	274	8	47	43	4
Construction	651	638	13	137	135	2	116	114	2	345	338	7	53	51	2
Wholesale and retail	2 418	2 161	257	423	420	3	738	583	155	1 056	978	78	201	180	21
Transportation and storage	539	513	26	106	106	0	142	135	7	207	197	10	84	75	9
Accommodation and food service	420	413	7	106	106	0	162	161	1	140	134	6	12	12	0
Information and communication	103	97	6	36	36	0	17	15	2	39	35	4	11	11	0
Financial insurance and real estate	208	205	3	48	48	0	35	34	1	107	105	2	18	18	0
Professional scientific and technical	138	132	6	26	26	0	5	5	0	40	38	2	67	63	4
Administrative and support	231	223	8	69	69	0	24	23	1	115	109	6	23	22	1
Public administration	606	392	213	132	79	53	245	137	108	187	139	48	42	37	4
Education	4 030	3 957	73	746	739	7	985	968	17	1 973	1 933	40	326	317	9
Human health and social work	1 845	1 793	52	249	248	1	862	844	18	545	542	3	189	159	30
Other service activities	158	129	30	42	42	0	14	13	1	64	56	8	39	18	21

Source: 2016 FSM Integrated Agriculture Census



**TABLE 3**  
**Major industry and sex by labor force participation and state: 2016 (continued)**

MAJOR INDUSTRY	TOTAL FSM			YAP			CHUUK			POHNPEI			KOSRAE		
	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID
Household employment	7 382	180	7 202	62	1	61	4 539	49	4 490	2 672	126	2 546	109	4	104
Others	1 932	1 827	105	147	145	2	681	651	30	915	861	54	189	170	19
<b>Males</b>	<b>20 069</b>	<b>8 954</b>	<b>11 115</b>	<b>2 471</b>	<b>1 600</b>	<b>871</b>	<b>9 045</b>	<b>2 451</b>	<b>6 594</b>	<b>7 485</b>	<b>4 109</b>	<b>3 376</b>	<b>1 068</b>	<b>794</b>	<b>274</b>
Agriculture forestry and fishing	9 800	915	8 886	1 020	217	803	5 572	61	5 511	3 019	574	2 445	189	63	126
Manufacturing and utilities	411	400	10	106	106	0	66	64	2	209	205	4	30	25	4
Construction	596	586	10	123	122	1	113	112	1	317	311	6	43	41	2
Wholesale and retail	1 202	1 101	101	206	206	0	363	290	73	537	519	18	96	86	10
Transportation and storage	440	426	14	84	84	0	131	124	7	169	164	5	56	54	2
Accommodation and food service	220	220	0	56	56	0	101	101	0	58	58	0	6	6	0
Information and communication	70	66	4	27	27	0	15	14	1	24	21	3	4	4	0
Financial insurance and real estate	74	73	1	11	11	0	10	10	0	45	44	1	8	8	0
Professional scientific and technical	85	83	2	14	14	0	2	2	0	27	26	1	42	41	1
Administrative and support	148	143	5	38	38	0	19	18	1	75	72	3	16	15	1
Public administration	466	318	148	95	65	30	198	115	83	139	108	31	34	30	4
Education	2 596	2 539	57	425	421	4	704	688	16	1 248	1 219	29	219	211	8

Source: 2016 FSM Integrated Agriculture Census

**TABLE 3**  
**Major industry and sex by labor force participation and state: 2016 (continued)**

MAJOR INDUSTRY	TOTAL FSM			YAP			CHUUK			POHNPEI			KOSRAE		
	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID
Human health and social work	836	819	17	99	98	1	417	412	5	225	224	1	95	85	10
Other service activities	95	83	12	30	30	0	11	10	1	32	30	2	22	13	9
Household employment	1 873	87	1 786	32	1	31	898	19	879	862	65	797	81	2	79
Others	1 157	1 095	62	105	104	1	425	411	14	499	469	30	128	111	16
<b>Females</b>	<b>14 349</b>	<b>5 598</b>	<b>8 752</b>	<b>2 453</b>	<b>1 149</b>	<b>1 304</b>	<b>6 114</b>	<b>1 448</b>	<b>4 666</b>	<b>5 141</b>	<b>2 541</b>	<b>2 600</b>	<b>641</b>	<b>460</b>	<b>181</b>
Agriculture forestry and fishing	3 425	464	2 961	1 452	209	1 243	942	33	909	920	211	709	111	11	100
Manufacturing and utilities	122	113	9	17	17	0	14	9	5	73	69	4	18	18	0
Construction	55	52	3	14	13	1	3	2	1	28	27	1	10	10	0
Wholesale and retail	1 217	1 061	156	217	214	3	375	293	82	519	459	60	106	95	11
Transportation and storage	98	87	12	22	22	0	11	11	0	38	33	5	28	21	7
Accommodation and food service	200	193	7	50	50	0	61	60	1	82	76	6	7	7	0
Information and communication	33	31	2	9	9	0	2	1	1	15	14	1	7	7	0
Financial insurance and real estate	134	132	2	37	37	0	25	24	1	62	61	1	10	10	0
Professional scientific and technical	53	49	4	12	12	0	3	3	0	13	12	1	25	22	3
Administrative and support	83	80	3	31	31	0	5	5	0	40	37	3	7	7	0

Source: 2016 FSM Integrated Agriculture Census

**TABLE 3**  
**Major industry and sex by labor force participation and state: 2016 (continued)**

MAJOR INDUSTRY	TOTAL FSM			YAP			CHUUK			POHNPEI			KOSRAE		
	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID	TOTAL	PAID	UNPAID
Public administration	140	75	65	37	14	23	47	22	25	48	31	17	8	8	0
Education	1 434	1 418	16	321	318	3	281	280	1	725	714	11	107	106	1
Human health and social work	1 010	975	35	150	150	0	445	432	13	320	318	2	95	75	20
Other service activities	64	45	18	12	12	0	3	3	0	32	26	6	16	4	12
Household employment	5 509	93	5 415	30	0	30	3 641	30	3 611	1 810	61	1 749	28	2	25
Others	776	732	43	42	41	1	256	240	16	416	392	24	62	59	2

Source: 2016 FSM Integrated Agriculture Census

**TABLE 4**  
**Members of households with land used for agriculture by age, sex and state: 2016**

AGE AND SEX	TOTAL FSM	YAP	CHUUK	POHNPEI	KOSRAE
<b>Total</b>	<b>80 793</b>	<b>10 612</b>	<b>36 775</b>	<b>28 261</b>	<b>5 145</b>
0-4	8 188	1 013	4 039	2 606	530
5-9	9 276	1 091	4 466	3 117	602
10-14	8 944	1 070	4 093	3 152	629
15-19	9 034	1 089	4 113	3 243	589
20-24	7 224	826	3 390	2 654	354
25-29	6 047	669	2 951	2 077	350
30-34	5 552	694	2 617	1 936	305
35-39	4 960	709	2 180	1 743	328
40-44	4 524	632	2 002	1 631	258
45-49	4 023	609	1 672	1 475	267
50-54	3 639	578	1 452	1 371	238
55-59	3 339	568	1 332	1 186	253
60-64	2 669	472	1 094	909	194
65-69	1 643	279	710	559	95
70-74	764	125	286	280	73
75+	969	188	378	322	81
<b>Males</b>	<b>40 806</b>	<b>5 124</b>	<b>19 018</b>	<b>14 015</b>	<b>2 649</b>
0-4	4 221	509	2 006	1 412	294
5-9	4 853	588	2 356	1 598	311
10-14	4 511	529	2 089	1 559	334
15-19	4 715	560	2 195	1 663	297
20-24	3 720	396	1 834	1 306	184
25-29	3 068	300	1 618	981	169
30-34	2 798	321	1 365	948	164
35-39	2 507	352	1 166	821	168
40-44	2 206	282	1 013	778	133
45-49	1 917	253	842	692	130
50-54	1 787	272	712	679	124
55-59	1 663	270	655	609	129
60-64	1 319	234	536	452	97
65-69	834	151	363	273	47
70-74	337	56	126	121	34
75+	349	51	142	123	33
<b>Females</b>	<b>39 987</b>	<b>5 488</b>	<b>17 757</b>	<b>14 246</b>	<b>2 496</b>
0-4	3 967	504	2 033	1 194	236
5-9	4 422	503	2 110	1 519	290
10-14	4 433	541	2 004	1 593	295
15-19	4 319	529	1 918	1 580	291

Source: FSM 2016 Integrated Agricultural Census



**TABLE 4**  
**Members of households with land used for agriculture by age, sex and state: 2016 (continued)**

AGE AND SEX	TOTAL FSM	YAP	CHUUK	POHNPEI	KOSRAE
20-24	3 504	430	1 556	1 348	170
25-29	2 978	369	1 333	1 096	180
30-34	2 754	373	1 252	988	141
35-39	2 452	357	1 014	922	159
40-44	2 317	350	989	853	125
45-49	2 106	356	830	783	137
50-54	1 851	306	740	692	113
55-59	1 676	298	677	577	124
60-64	1 350	238	558	457	97
65-69	808	128	347	286	47
70-74	427	69	160	159	39
75+	620	137	236	199	48

Source: FSM 2016 Integrated Agricultural Census

**TABLE 5**  
**Number of households by household size and land used for agriculture by state: 2016**

HOUSEHOLD SIZE	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>ALL HOUSEHOLDS</b>										
<b>Total</b>	<b>15 545</b>	<b>100.0</b>	<b>2 279</b>	<b>100.0</b>	<b>6 223</b>	<b>100.0</b>	<b>6 006</b>	<b>100.0</b>	<b>1 037</b>	<b>100.0</b>
1 person	1 049	6.7	256	11.2	285	4.6	423	7.0	85	8.2
2 people	1 385	8.9	287	12.6	451	7.2	569	9.5	78	7.5
3 people	1 892	12.2	301	13.2	653	10.5	828	13.8	110	10.6
4 people	2 342	15.1	363	15.9	821	13.2	1 016	16.9	142	13.7
5 people	2 142	13.8	318	14.0	785	12.6	891	14.8	148	14.3
6 people	1 847	11.9	227	10.0	753	12.1	727	12.1	140	13.5
7 people	1 381	8.9	157	6.9	605	9.7	520	8.7	99	9.5
8 people	964	6.2	114	5.0	452	7.3	325	5.4	73	7.0
9 people	743	4.8	84	3.7	411	6.6	204	3.4	44	4.2
10 or more	1 801	11.6	172	7.5	1 007	16.2	503	8.4	119	11.5
Mean	5.6		4.8		6.3		5.2		5.6	
<b>HAVE LAND USED FOR AGRICULTURE</b>										
<b>Total</b>	<b>14 031</b>	<b>100.0</b>	<b>2 138</b>	<b>100.0</b>	<b>5 743</b>	<b>100.0</b>	<b>5 260</b>	<b>100.0</b>	<b>890</b>	<b>100.0</b>
1 person	778	5.5	210	9.8	248	4.3	262	5.0	58	6.6
2 people	1 187	8.5	259	12.1	402	7.0	470	8.9	56	6.3
3 people	1 678	12.0	281	13.1	593	10.3	713	13.6	91	10.3
4 people	2 104	15.0	345	16.1	745	13.0	895	17.0	119	13.3
5 people	1 974	14.1	310	14.5	716	12.5	809	15.4	139	15.6
6 people	1 696	12.1	215	10.1	695	12.1	657	12.5	129	14.5
7 people	1 307	9.3	153	7.2	572	10.0	494	9.4	88	9.9
8 people	904	6.4	113	5.3	426	7.4	298	5.7	67	7.5
9 people	688	4.9	82	3.8	386	6.7	187	3.6	33	3.7
10 or more	1 715	12.2	170	8.0	960	16.7	475	9.0	110	12.4
Mean	5.8		5.0		6.4		5.4		5.8	
<b>NO LAND USED FOR AGRICULTURE</b>										
<b>Total</b>	<b>1 514</b>	<b>100.0</b>	<b>141</b>	<b>100.0</b>	<b>480</b>	<b>100.0</b>	<b>746</b>	<b>100.0</b>	<b>147</b>	<b>100.0</b>
1 person	270	17.9	46	32.6	37	7.7	161	21.6	26	17.9
2 people	198	13.1	28	19.9	49	10.2	99	13.3	22	14.9
3 people	214	14.1	20	14.2	60	12.5	115	15.4	19	12.7
4 people	238	15.7	18	12.8	76	15.8	121	16.2	23	15.7
5 people	169	11.2	8	5.7	69	14.4	82	11.0	10	6.7
6 people	151	10.0	12	8.5	58	12.1	70	9.4	11	7.5
7 people	74	4.9	4	2.8	33	6.9	26	3.5	11	7.5
8 people	60	3.9	1	0.7	26	5.4	27	3.6	6	3.7
9 people	55	3.6	2	1.4	25	5.2	17	2.3	11	7.5
10 or more	86	5.7	2	1.4	47	9.8	28	3.8	9	6.0
Mean	4.3		3.0		5.4		3.9		4.5	

Source: FSM 2016 Integrated Agriculture Census

**TABLE 6**  
**Age and sex of householder by whether land used for agriculture by state: 2016**

ACTIVITY SEX AND AGE	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>ALL HOUSEHOLDS</b>										
<b>Total</b>	<b>15 541</b>	<b>100.0</b>	<b>2 279</b>	<b>100.0</b>	<b>6 223</b>	<b>100.0</b>	<b>6 002</b>	<b>100.0</b>	<b>1 037</b>	<b>100.0</b>
15-24	305	2.0	26	1.1	143	2.3	122	2.0	14	1.4
25-34	1 892	12.2	238	10.4	827	13.3	730	12.2	97	9.3
35-44	3 381	21.8	472	20.7	1 414	22.7	1 299	21.6	196	18.9
45-54	3 896	25.1	550	24.1	1 528	24.6	1 575	26.2	243	23.4
55-64	3 709	23.9	626	27.5	1 417	22.8	1 365	22.7	301	29.1
65+	2 358	15.2	367	16.1	894	14.4	911	15.2	186	17.9
<b>Male</b>	<b>12 360</b>	<b>79.5</b>	<b>1 692</b>	<b>74.2</b>	<b>5 092</b>	<b>81.8</b>	<b>4 727</b>	<b>78.8</b>	<b>849</b>	<b>81.9</b>
15-24	265	1.7	20	0.9	124	2.0	109	1.8	12	1.2
25-34	1 713	11.0	196	8.6	762	12.2	666	11.1	89	8.6
35-44	2 919	18.8	389	17.1	1 246	20.0	1 101	18.3	183	17.6
45-54	3 233	20.8	433	19.0	1 282	20.6	1 300	21.7	218	21.0
55-64	2 779	17.9	439	19.3	1 083	17.4	1 037	17.3	220	21.2
65+	1 452	9.3	215	9.4	595	9.6	514	8.6	128	12.3
<b>Female</b>	<b>3 181</b>	<b>20.5</b>	<b>587</b>	<b>25.8</b>	<b>1 131</b>	<b>18.2</b>	<b>1 275</b>	<b>21.2</b>	<b>188</b>	<b>18.1</b>
15-24	40	0.3	6	0.3	19	0.3	13	0.2	2	0.2
25-34	179	1.1	42	1.8	65	1.0	64	1.1	8	0.7
35-44	462	3.0	83	3.6	168	2.7	198	3.3	13	1.3
45-54	663	4.3	117	5.1	246	4.0	275	4.6	25	2.4
55-64	930	6.0	187	8.2	334	5.4	328	5.5	81	7.8
65+	906	5.8	152	6.7	299	4.8	397	6.6	58	5.6
<b>WITH LAND USED FOR AGRICULTURE</b>										
<b>Total</b>	<b>14 028</b>	<b>100.0</b>	<b>2 138</b>	<b>100.0</b>	<b>5 743</b>	<b>100.0</b>	<b>5 257</b>	<b>100.0</b>	<b>890</b>	<b>100.0</b>
15-24	269	1.9	23	1.1	135	2.4	99	1.9	12	1.4
25-34	1 675	11.9	219	10.2	772	13.4	607	11.5	77	8.7
35-44	3 058	21.8	436	20.4	1 320	23.0	1 135	21.6	167	18.8
45-54	3 480	24.8	510	23.9	1 389	24.2	1 365	26.0	216	24.2
55-64	3 407	24.3	597	27.9	1 331	23.2	1 216	23.1	263	29.5
65+	2 139	15.2	353	16.5	796	13.9	835	15.9	155	17.4
<b>Male</b>	<b>11 204</b>	<b>79.9</b>	<b>1 583</b>	<b>74.0</b>	<b>4 725</b>	<b>82.3</b>	<b>4 158</b>	<b>79.1</b>	<b>738</b>	<b>82.9</b>
15-24	235	1.7	18	0.8	116	2.0	90	1.7	11	1.2
25-34	1 523	10.9	180	8.4	714	12.4	556	10.6	73	8.2
35-44	2 661	19.0	361	16.9	1 167	20.3	975	18.5	158	17.8
45-54	2 899	20.7	400	18.7	1 173	20.4	1 132	21.5	194	21.8
55-64	2 565	18.3	419	19.6	1 020	17.8	931	17.7	195	21.9
65+	1 322	9.4	205	9.6	535	9.3	474	9.0	108	12.1

Source: 2016 FSM Integrated Agriculture Census

**TABLE 6**  
**Age and sex of householder by whether land used for agriculture by state: 2016 (continued)**

ACTIVITY SEX AND AGE	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Female</b>	<b>2 824</b>	<b>20.1</b>	<b>555</b>	<b>26.0</b>	<b>1 018</b>	<b>17.7</b>	<b>1 099</b>	<b>20.9</b>	<b>152</b>	<b>17.1</b>
15-24	34	0.2	5	0.2	19	0.3	9	0.2	1	0.1
25-34	152	1.1	39	1.8	58	1.0	51	1.0	4	0.5
35-44	397	2.8	75	3.5	153	2.7	160	3.0	9	1.0
45-54	581	4.1	110	5.1	216	3.8	233	4.4	22	2.5
55-64	842	6.0	178	8.3	311	5.4	285	5.4	68	7.7
65+	817	5.8	148	6.9	261	4.5	361	6.9	47	5.3
<b>NO LAND USED FOR AGRICULTURE</b>										
<b>Total</b>	<b>1 513</b>	<b>100.0</b>	<b>141</b>	<b>100.0</b>	<b>480</b>	<b>100.0</b>	<b>745</b>	<b>100.0</b>	<b>147</b>	<b>100.0</b>
15-24	36	2.4	3	2.1	8	1.7	23	3.1	2	1.4
25-34	217	14.3	19	13.5	55	11.5	123	16.5	20	13.6
35-44	323	21.3	36	25.5	94	19.6	164	22.0	29	19.7
45-54	416	27.5	40	28.4	139	29.0	210	28.2	27	18.4
55-64	302	20.0	29	20.6	86	17.9	149	20.0	38	25.9
65+	219	14.5	14	9.9	98	20.4	76	10.2	31	21.1
<b>Male</b>	<b>1 156</b>	<b>76.4</b>	<b>109</b>	<b>77.3</b>	<b>367</b>	<b>76.5</b>	<b>569</b>	<b>76.4</b>	<b>111</b>	<b>75.5</b>
15-24	30	2.0	2	1.4	8	1.7	19	2.6	1	0.7
25-34	190	12.6	16	11.3	48	10.0	110	14.8	16	10.9
35-44	258	17.1	28	19.9	79	16.5	126	16.9	25	17.0
45-54	334	22.1	33	23.4	109	22.7	168	22.6	24	16.3
55-64	214	14.1	20	14.2	63	13.1	106	14.2	25	17.0
65+	130	8.6	10	7.1	60	12.5	40	5.4	20	13.6
<b>Female</b>	<b>357</b>	<b>23.6</b>	<b>32</b>	<b>22.7</b>	<b>113</b>	<b>23.5</b>	<b>176</b>	<b>23.6</b>	<b>36</b>	<b>24.5</b>
15-24	6	0.4	1	0.7	0	0.0	4	0.5	1	0.7
25-34	27	1.8	3	2.1	7	1.5	13	1.7	4	2.7
35-44	65	4.3	8	5.7	15	3.1	38	5.1	4	2.7
45-54	82	5.4	7	5.0	30	6.3	42	5.6	3	2.0
55-64	88	5.8	9	6.4	23	4.8	43	5.8	13	8.8
65+	89	5.9	4	2.8	38	7.9	36	4.8	11	7.5

Source: 2016 FSM Integrated Agriculture Census

**TABLE 7**  
**Population aged 15 years and over in households with land used for agriculture by main activity by sex and state: 2016**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Total</b>	<b>59 049</b>	<b>100.0</b>	<b>7 765</b>	<b>100.0</b>	<b>25 980</b>	<b>100.0</b>	<b>21 461</b>	<b>100.0</b>	<b>3 843</b>	<b>100.0</b>
In labor force	34 418	58.3	4 924	63.4	15 159	58.3	12 626	58.8	1 709	44.5
Paid	14 552	24.6	2 749	35.4	3 899	15.0	6 650	31.0	1 254	32.6
Employer	1 859	3.1	94	1.2	561	2.2	1 024	4.8	180	4.7
Employee working for wages/salary in public sector	6 384	10.8	1 200	15.5	1 784	6.9	2 797	13.0	603	15.7
Employee working for wages/salary in private sector	5 097	8.6	1 036	13.3	1 435	5.5	2 223	10.4	403	10.5
Producing goods and services for sale running business (self-employed)	1 212	2.1	419	5.4	119	0.5	606	2.8	68	1.8
Unpaid	19 866	33.6	2 175	28.0	11 260	43.3	5 976	27.8	455	11.8
Producing goods for own and/or family consumption (self-employed)	10 957	18.6	1 933	24.9	5 759	22.2	3 107	14.5	158	4.1
Unpaid family worker (family business/plantation)	1 979	3.4	29	0.4	1 067	4.1	738	3.4	145	3.8
Unpaid family worker help with home duties	6 557	11.1	142	1.8	4 284	16.5	2 018	9.4	113	2.9
Volunteer work (community church etc.)	373	0.6	71	0.9	150	0.6	113	0.5	39	1.0
Not in the labor force	24 631	41.7	2 841	36.6	10 821	41.7	8 835	41.2	2 134	55.5
Student - full time	6 378	10.8	1 168	15.0	2 745	10.6	1 986	9.3	479	12.5
Student - part time	249	0.4	16	0.2	99	0.4	100	0.5	34	0.9
Home duties	12 415	21.0	841	10.8	5 604	21.6	4 834	22.5	1 136	29.6
Retired/too old	2 724	4.6	474	6.1	991	3.8	1 019	4.7	240	6.2
None - did not pursue any activity (no work)	2 865	4.9	342	4.4	1 382	5.3	896	4.2	245	6.4

Note: "Unpaid family worker help with home duties" is the category "Unpaid family worker help with duties inside (washing cooking cleaning etc.) and outside (gardening maintaining lawn etc.)" from the questionnaire

Source: FSM 2016 Integrated Agriculture Census



**TABLE 7**  
**Population aged 15 years and over in households with land used for agriculture by main activity by sex and state: 2016 (continued)**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Males</b>	<b>29 533</b>	<b>100.0</b>	<b>3 665</b>	<b>100.0</b>	<b>13 449</b>	<b>100.0</b>	<b>10 478</b>	<b>100.0</b>	<b>1 942</b>	<b>100.0</b>
In labor force	20 069	68.0	2 471	67.4	9 045	67.3	7 485	71.4	1 068	55.0
Paid	8 954	30.3	1 600	43.7	2 451	18.2	4 109	39.2	794	40.9
Employer	1 141	3.9	64	1.7	337	2.5	622	5.9	118	6.1
Employee working for wages/salary in public sector	3 888	13.2	702	19.2	1 122	8.3	1 682	16.1	382	19.7
Employee working for wages/salary in private sector	3 235	11.0	623	17.0	932	6.9	1 417	13.5	263	13.5
Producing goods and services for sale running business (self-employed)	691	2.3	211	5.8	60	0.4	388	3.7	32	1.6
Unpaid	11 115	37.6	871	23.8	6 594	49.0	3 376	32.2	274	14.1
Producing goods for own and/or family consumption (self-employed)	8 282	28.0	779	21.3	4 977	37.0	2 393	22.8	133	6.8
Unpaid family worker (family business/plantation)	1 162	3.9	10	0.3	696	5.2	378	3.6	78	4.0
Unpaid family worker help with home duties	1 415	4.8	40	1.1	809	6.0	533	5.1	33	1.7
Volunteer work (community church etc.)	256	0.9	42	1.1	112	0.8	72	0.7	30	1.5
Not in the labor force	9 464	32.0	1 194	32.6	4 404	32.7	2 993	28.6	873	45.0
Student - full time	3 160	10.7	624	17.0	1 341	10.0	960	9.2	235	12.1
Student - part time	118	0.4	7	0.2	52	0.4	44	0.4	15	0.8
Home duties	3 282	11.1	171	4.7	1 719	12.8	1 027	9.8	365	18.8
Retired/too old	1 293	4.4	224	6.1	467	3.5	485	4.6	117	6.0
None - did not pursue any activity (no work)	1 611	5.5	168	4.6	825	6.1	477	4.6	141	7.3

Note: "Unpaid family worker help with home duties" is the category "Unpaid family worker help with duties inside (washing cooking cleaning etc.) and outside (gardening maintaining lawn etc.)" from the questionnaire

Source: FSM 2016 Integrated Agriculture Census

**TABLE 7**  
**Population aged 15 years and over in households with land used for agriculture by main activity by sex and state: 2016 (continued)**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Females</b>	<b>29 516</b>	<b>100.0</b>	<b>4 100</b>	<b>100.0</b>	<b>12 531</b>	<b>100.0</b>	<b>10 983</b>	<b>100.0</b>	<b>1 902</b>	<b>100.0</b>
In labor force	14 349	48.6	2 453	59.8	6 114	48.8	5 141	46.8	641	33.7
Paid	5 598	19.0	1 149	28.0	1 448	11.6	2 541	23.1	460	24.2
Employer	719	2.4	30	0.7	224	1.8	402	3.7	63	3.3
Employee working for wages/salary in public sector	2 496	8.5	498	12.1	662	5.3	1 115	10.2	221	11.6
Employee working for wages/salary in private sector	1 862	6.3	413	10.1	503	4.0	806	7.3	140	7.4
Producing goods and services for sale running business (self-employed)	521	1.8	208	5.1	59	0.5	218	2.0	36	1.9
Unpaid	8 752	29.7	1 304	31.8	4 666	37.2	2 600	23.7	182	9.6
Producing goods for own and/or family consumption (self-employed)	2 675	9.1	1 154	28.1	782	6.2	714	6.5	25	1.3
Unpaid family worker (family business/plantation)	817	2.8	19	0.5	371	3.0	360	3.3	67	3.5
Unpaid family worker help with home duties	5 142	17.4	102	2.5	3 475	27.7	1 485	13.5	80	4.2
Volunteer work (community church etc.)	117	0.4	29	0.7	38	0.3	41	0.4	9	0.5
Not in the labor force	15 167	51.4	1 647	40.2	6 417	51.2	5 842	53.2	1 261	66.3
Student - full time	3 217	10.9	544	13.3	1 404	11.2	1 026	9.3	243	12.8
Student - part time	131	0.4	9	0.2	47	0.4	56	0.5	19	1.0
Home duties	9 133	30.9	670	16.3	3 885	31.0	3 807	34.7	771	40.5
Retired/too old	1 431	4.8	250	6.1	524	4.2	534	4.9	123	6.5
None - did not pursue any activity (no work)	1 255	4.3	174	4.2	557	4.4	419	3.8	105	5.5

Note: "Unpaid family worker help with home duties" is the category "Unpaid family worker help with duties inside (washing cooking cleaning etc.) and outside (gardening maintaining lawn etc.)" from the questionnaire

Source: FSM 2016 Integrated Agriculture Census

**TABLE 8**  
**Population 15 years and over in households with land used for agriculture by highest grade completed sex and state: 2016**

HIGHEST GRADE	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Total</b>	<b>54 385</b>	<b>100.0</b>	<b>7 438</b>	<b>100.0</b>	<b>24 177</b>	<b>100.0</b>	<b>19 386</b>	<b>100.0</b>	<b>3 384</b>	<b>100.0</b>
Pre-school	4 951	9.1	467	6.3	3 131	13.0	1 138	5.9	214	6.3
Primary (Grades 1-8)	14 750	27.1	1 361	18.3	7 257	30.0	5 662	29.2	470	13.9
Secondary (Grades 9-12)	12 256	22.5	1 348	18.1	6 027	24.9	4 240	21.9	641	19.0
<b>High School Graduate</b>	<b>11 316</b>	<b>20.8</b>	<b>2 441</b>	<b>32.8</b>	<b>4 836</b>	<b>20.0</b>	<b>3 224</b>	<b>16.6</b>	<b>815</b>	<b>24.1</b>
Some college no degree	6 467	11.9	971	13.1	1 759	7.3	3 052	15.7	685	20.3
Associate's Degree	3 152	5.8	584	7.9	845	3.5	1 333	6.9	391	11.5
<b>Bachelor's Degree</b>	<b>958</b>	<b>1.8</b>	<b>190</b>	<b>2.6</b>	<b>200</b>	<b>0.8</b>	<b>446</b>	<b>2.3</b>	<b>122</b>	<b>3.6</b>
Master's Degree or Higher	397	0.7	60	0.8	87	0.4	226	1.2	24	0.7
Other	137	0.3	16	0.2	35	0.1	65	0.3	21	0.6
<b>Males</b>	<b>27 220</b>	<b>100.0</b>	<b>3 498</b>	<b>100.0</b>	<b>12 567</b>	<b>100.0</b>	<b>9 446</b>	<b>100.0</b>	<b>1 709</b>	<b>100.0</b>
Pre-school	2 343	8.6	121	3.5	1 600	12.7	553	5.9	69	4.0
Primary (Grades 1-8)	7 340	27.0	445	12.7	3 976	31.6	2 732	28.9	187	10.9
Secondary (Grades 9-12)	6 180	22.7	678	19.4	3 090	24.6	2 084	22.1	328	19.2
<b>High School Graduate</b>	<b>5 544</b>	<b>20.4</b>	<b>1 204</b>	<b>34.4</b>	<b>2 417</b>	<b>19.2</b>	<b>1 531</b>	<b>16.2</b>	<b>392</b>	<b>22.9</b>
Some college no degree	3 356	12.3	571	16.3	905	7.2	1 485	15.7	395	23.1
Associate's Degree	1 620	6.0	325	9.3	414	3.3	649	6.9	232	13.6
<b>Bachelor's Degree</b>	<b>549</b>	<b>2.0</b>	<b>110</b>	<b>3.1</b>	<b>106</b>	<b>0.8</b>	<b>246</b>	<b>2.6</b>	<b>87</b>	<b>5.1</b>
Master's Degree or Higher	237	0.9	41	1.2	45	0.4	139	1.5	12	0.7
Other	52	0.2	3	0.1	14	0.1	27	0.3	8	0.5
<b>Females</b>	<b>27 164</b>	<b>100.0</b>	<b>3 940</b>	<b>100.0</b>	<b>11 610</b>	<b>100.0</b>	<b>9 940</b>	<b>100.0</b>	<b>1 674</b>	<b>100.0</b>
Pre-school	2 607	9.6	346	8.8	1 531	13.2	585	5.9	145	8.7
Primary (Grades 1-8)	7 410	27.3	916	23.2	3 281	28.3	2 930	29.5	283	16.9
Secondary (Grades 9-12)	6 077	22.4	670	17.0	2 937	25.3	2 156	21.7	314	18.8
<b>High School Graduate</b>	<b>5 773</b>	<b>21.3</b>	<b>1 237</b>	<b>31.4</b>	<b>2 419</b>	<b>20.8</b>	<b>1 693</b>	<b>17.0</b>	<b>424</b>	<b>25.3</b>
Some college no degree	3 111	11.5	400	10.2	854	7.4	1 567	15.8	290	17.3
Associate's Degree	1 532	5.6	259	6.6	431	3.7	684	6.9	158	9.4

Source: FSM 2016 Integrated Agriculture Census

**TABLE 8**  
**Population 15 years and over in households with land used for agriculture by highest grade completed sex and state: 2016 (continued)**

HIGHEST GRADE	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
Bachelor's Degree	409	1.5	80	2.0	94	0.8	200	2.0	35	2.1
Master's Degree or Higher	160	0.6	19	0.5	42	0.4	87	0.9	12	0.7
Other	85	0.3	13	0.3	21	0.2	38	0.4	13	0.8

Source: FSM 2016 Integrated Agriculture Census

**TABLE 9**  
**Characteristics of main operator in households with land used for agriculture by state: 2016**

CHARACTERISTICS	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Total</b>	<b>14 031</b>	<b>100.0</b>	<b>2 138</b>	<b>100.0</b>	<b>5 743</b>	<b>100.0</b>	<b>5 260</b>	<b>100.0</b>	<b>890</b>	<b>100.0</b>
<b>Head of household</b>	<b>12 456</b>	<b>88.8</b>	<b>1 762</b>	<b>82.4</b>	<b>5 107</b>	<b>88.9</b>	<b>4 753</b>	<b>90.4</b>	<b>834</b>	<b>93.7</b>
<b>Not head</b>	<b>1 575</b>	<b>11.2</b>	<b>376</b>	<b>17.6</b>	<b>636</b>	<b>11.1</b>	<b>507</b>	<b>9.6</b>	<b>56</b>	<b>6.3</b>
<b>Age and sex</b>	<b>14 031</b>	<b>100.0</b>	<b>2 138</b>	<b>100.0</b>	<b>5 743</b>	<b>100.0</b>	<b>5 260</b>	<b>100.0</b>	<b>890</b>	<b>100.0</b>
under 15	35	0.3	3	0.1	18	0.3	12	0.2	2	0.2
15-24	438	3.1	26	1.2	220	3.8	175	3.3	16	1.9
25-34	1 928	13.7	235	11	897	15.6	707	13.4	89	10
35-44	3 191	22.7	475	22.2	1 353	23.6	1 189	22.6	174	19.5
45-54	3 439	24.5	526	24.6	1 350	23.5	1 344	25.6	219	24.6
55-64	3 203	22.8	572	26.8	1 240	21.6	1 136	21.6	255	28.7
65+	1 795	12.8	301	14.1	665	11.6	695	13.2	134	15.1
% over 55	35.6		40.8		33.2		34.8		43.7	
<b>Males</b>	<b>10 797</b>	<b>77.0</b>	<b>1 287</b>	<b>60.2</b>	<b>4 639</b>	<b>80.8</b>	<b>4 120</b>	<b>78.4</b>	<b>751</b>	<b>84.4</b>
under 15	18	0.1	2	0.1	8	0.1	8	0.2	0	0
15-24	363	2.6	16	0.7	184	3.2	148	2.8	15	1.7
25-34	1 650	11.8	165	7.7	791	13.8	610	11.6	84	9.4
35-44	2 595	18.5	302	14.1	1 152	20.1	982	18.7	159	17.9
45-54	2 717	19.4	321	15	1 108	19.3	1 091	20.7	197	22.1
55-64	2 333	16.6	327	15.3	944	16.4	866	16.5	196	22
65+	1 121	8.00	154	7.2	452	7.9	415	7.9	100	11.2
% over 55	32.0		37.4		30.1		31.1		39.4	
<b>Females</b>	<b>3 232</b>	<b>23.0</b>	<b>851</b>	<b>39.8</b>	<b>1 104</b>	<b>19.2</b>	<b>1 138</b>	<b>21.6</b>	<b>139</b>	<b>15.6</b>
under 15	17	0.1	1	*	10	0.2	4	0.1	2	0.2
15-24	74	0.5	10	0.5	36	0.6	27	0.5	1	0.1
25-34	279	2	70	3.3	106	1.8	97	1.8	6	0.6
35-44	595	4.2	173	8.1	201	3.5	207	3.9	14	1.6
45-54	722	5.1	205	9.6	242	4.2	253	4.8	22	2.5
55-64	870	6.2	245	11.5	296	5.2	270	5.1	59	6.7
65+	674	4.8	147	6.9	213	3.7	280	5.3	34	3.8
% over 55	47.8		46.1		46.1		48.3		66.9	
<b>Main activity</b>	<b>14 031</b>	<b>100.0</b>	<b>2 138</b>	<b>100.0</b>	<b>5 743</b>	<b>100.0</b>	<b>5 260</b>	<b>100.0</b>	<b>890</b>	<b>100.0</b>
In labor force	10 642	76.1	1 710	80.1	4 301	75.1	4 004	76.3	627	70.7
Paid employment	5 008	35.8	1 087	50.9	1 168	20.4	2 276	43.4	477	53.8
Employer	508	3.6	52	2.4	88	1.5	279	5.3	89	10.0
Employee, working for wages/salary in public sector	2 464	17.6	478	22.4	675	11.8	1 050	20.0	261	29.4

Source: FSM 2016 Integrated Agriculture Census



**TABLE 9**  
**Characteristics of main operator in households with land used for agriculture by state: 2016**  
*(continued)*

CHARACTERISTICS	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
Employee, working for wages/salary in private sector	1 518	10.8	350	16.4	371	6.5	691	13.2	106	11.9
Producing goods for sale, business, self employed	519	3.7	207	9.7	34	0.6	256	4.9	22	2.5
Unpaid employment	5 634	40.3	623	29.2	3 133	54.7	1 728	32.9	150	16.9
Producing good for own/family consumption	4 266	30.5	577	27.0	2 280	39.8	1 331	25.4	78	8.8
Unpaid family worker (business/plantation)	609	4.3	9	0.4	409	7.1	161	3.1	30	3.3
Unpaid family worker, help with home duties	620	4.4	19	0.9	374	6.5	205	3.9	22	2.5
Volunteer work (community, church)	139	1.0	18	0.8	70	1.2	31	0.6	20	2.2
Not in the labor force	3 354	24.0	425	19.9	1 424	24.9	1 244	23.7	261	29.4
Full-time student	59	0.4	2	0.1	22	0.4	31	0.6	4	0.5
Part-time student	9	0.1	0	0.0	5	0.1	4	0.1	0	0.0
Home duties	1 589	11.4	160	7.5	770	13.4	534	10.2	125	14.1
Retired/too old	1 246	8.9	209	9.8	408	7.1	526	10.0	103	11.6
None	450	3.2	54	2.5	219	3.8	149	2.8	28	3.1
Not stated	35		3		18		12		2	
<b>Education level</b>	<b>14 031</b>	<b>100.0</b>	<b>2 138</b>	<b>100.0</b>	<b>5 743</b>	<b>100.0</b>	<b>5 260</b>	<b>100.0</b>	<b>890</b>	<b>100.0</b>
Pre-school	1 379	9.8	122	5.7	824	14.3	375	7.1	58	6.6
Primary (Grades 1-8)	4 190	29.9	363	17	1 769	30.8	1 960	37.3	98	11
Secondary (Grades 9-12)	2 073	14.8	198	9.3	1 087	18.9	728	13.8	61	6.8
<b>High School Graduate</b>	<b>2 902</b>	<b>20.7</b>	<b>792</b>	<b>37</b>	<b>1 215</b>	<b>21.2</b>	<b>712</b>	<b>13.5</b>	<b>183</b>	<b>20.5</b>
Some college, no degree	1 713	12.2	312	14.6	464	8.1	712	13.5	225	25.3
Associate's Degree	1 082	7.7	212	9.9	273	4.8	423	8	174	19.5
<b>Bachelor's Degree</b>	<b>446</b>	<b>3.2</b>	<b>94</b>	<b>4.4</b>	<b>76</b>	<b>1.3</b>	<b>201</b>	<b>3.8</b>	<b>75</b>	<b>8.4</b>

Source: FSM 2016 Integrated Agriculture Census

**TABLE 9**  
**Characteristics of main operator in households with land used for agriculture by state: 2016**  
*(continued)*

CHARACTERISTICS	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
Master's Degree or Higher	197	1.4	39	1.8	28	0.5	118	2.2	12	1.4
Other	48	0.3	6	0.3	7	0.1	31	0.6	4	0.5

Source: FSM 2016 Integrated Agriculture Census

**TABLE 10**  
**Tenure of land parcels by state: 2016**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Parcels operated by one household only</b>	<b>12 019</b>	<b>100.0</b>	<b>2 806</b>	<b>100.0</b>	<b>4 337</b>	<b>100.0</b>	<b>4 000</b>	<b>100.0</b>	<b>876</b>	<b>100.0</b>
Own free-hold land	7 293	60.7	419	14.9	3 275	75.5	2 985	74.6	614	70.1
Leases free-hold land	419	3.5	76	2.7	93	2.1	224	5.6	26	3.0
Customary land	3 818	31.8	2 211	78.8	897	20.7	494	12.4	216	24.7
Leased customary land	223	1.9	67	2.4	61	1.4	87	2.2	8	0.9
Leased government land	192	1.6	33	1.2	3	0.1	154	3.9	2	0.2
Other	74	0.6	0	0.0	8	0.2	56	1.4	10	1.1
<b>Shared parcels</b>	<b>11 928</b>	<b>100.0</b>	<b>2 933</b>	<b>100.0</b>	<b>5 783</b>	<b>100.0</b>	<b>2 517</b>	<b>100.0</b>	<b>695</b>	<b>100.0</b>
Own free-hold land	5 626	47.2	250	8.5	3 438	59.5	1 656	65.8	282	40.6
Leases free-hold land	453	3.8	83	2.8	153	2.6	180	7.2	37	5.3
Customary land	5 416	45.4	2 452	83.6	2 125	36.7	497	19.7	342	49.2
Leased customary land	235	2.0	93	3.2	47	0.8	73	2.9	22	3.2
Leased government land	129	1.1	52	1.8	1	0.0	76	3.0	0	0.0
Other	69	0.6	3	0.1	19	0.3	35	1.4	12	1.7

Source: FSM 2016 Integrated Agriculture Census

**TABLE 11**  
**Total area of land operated by main purpose and state: 2016**

	TOTAL FSM			YAP			CHUUK			POHNPEI			KOSRAE						
	PURPOSE OF LAND USE			PURPOSE OF LAND USE			PURPOSE OF LAND USE			PURPOSE OF LAND USE			PURPOSE OF LAND USE						
	ONLY HOME CONSUMPTION	OCCASIONALLY SELL	MAINLY OR ONLY SELL	ONLY HOME CONSUMPTION	OCCASIONALLY SELL	MAINLY OR ONLY SELL	ONLY HOME CONSUMPTION	OCCASIONALLY SELL	MAINLY OR ONLY SELL	ONLY HOME CONSUMPTION	OCCASIONALLY SELL	MAINLY OR ONLY SELL	ONLY HOME CONSUMPTION	OCCASIONALLY SELL	MAINLY OR ONLY SELL				
TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL					
<b>Total</b>	<b>14 031</b>	<b>10 444</b>	<b>3 365</b>	<b>2 138</b>	<b>1 497</b>	<b>573</b>	<b>68</b>	<b>5 743</b>	<b>4 401</b>	<b>1 279</b>	<b>63</b>	<b>5 260</b>	<b>3 762</b>	<b>1 418</b>	<b>80</b>	<b>890</b>	<b>784</b>	<b>95</b>	<b>11</b>
Less than 0.2 acres	7 014	5 446	1 490	818	615	175	28	3 972	2 971	975	26	1 950	1 609	319	22	274	251	21	2
0.20 to 0.49	1 117	894	201	188	130	52	6	542	445	90	7	256	198	50	8	131	121	9	1
0.50 to 0.99	621	489	112	160	109	44	7	256	202	44	10	97	79	16	2	108	99	8	1
1.00 to 2.49	1 861	1 333	486	376	258	110	8	448	356	74	17	859	567	280	12	178	152	22	4
2.50 to 4.99	1 081	713	349	164	86	73	5	123	90	31	2	709	471	226	12	85	66	19	0
5.00 to 9.99	880	533	336	177	121	52	4	42	35	6	1	619	344	269	6	42	33	9	0
10.00 to 14.99	271	152	110	67	45	20	2	25	15	10	0	161	78	77	6	18	14	3	0
15.00 to 19.99	125	81	40	42	35	6	1	8	6	2	0	67	33	32	2	8	7	0	1
20.00 to 29.99	158	109	47	46	32	13	1	10	10	0	0	92	58	34	0	10	9	0	1
30.00 to 39.99	49	33	13	31	21	8	2	2	2	0	0	15	9	5	1	1	1	0	0
40.00 to 49.99	39	31	7	19	16	2	1	9	7	2	0	10	7	3	0	1	1	0	0
50.00 to 99.99	93	70	20	17	9	6	2	32	26	6	0	42	35	6	1	2	0	2	0
100.00 acres or more	298	236	57	26	18	6	1	92	73	19	0	171	136	32	3	9	9	0	0
Not reported	424	324	97	7	2	6	0	182	163	20	0	212	138	69	5	23	21	2	1

Note: This table is based on the sum of the area of parcels operated by one household and of shared parcels. Areas of shared parcels may be double counted  
Source: FSM 2016 Integrated Agriculture Census

**TABLE 12**  
**Households with land for agriculture by composition of holding by state: 2016**

	HOUSEHOLDS WITH LAND USED FOR AGRICULTURE	NOT-SHARED (SINGLE-HOUSEHOLD OPERATED) PARCELS				
		NO PARCELS	1 PARCEL	2 PARCELS	3 PARCELS	4 OR MORE
<b>Total</b>	<b>14 031</b>	<b>5 307</b>	<b>6 899</b>	<b>954</b>	<b>517</b>	<b>355</b>
No shared parcels	6 412	2	5 276	612	349	174
1 shared parcel	5 293	3 880	1 126	200	44	43
2 shared parcels	1 206	727	333	80	30	35
3 shared parcels	606	413	70	35	60	27
4 or more shared parcels	514	284	93	27	34	76
<b>Yap</b>	<b>2 138</b>	<b>702</b>	<b>784</b>	<b>251</b>	<b>215</b>	<b>186</b>
No shared parcels	837	0	470	144	120	103
1 shared parcel	513	282	139	55	19	18
2 shared parcels	339	181	96	30	16	16
3 shared parcels	217	117	27	15	43	15
4 or more shared parcels	232	122	52	7	17	34
<b>Chuuk</b>	<b>5 743</b>	<b>2 612</b>	<b>2 497</b>	<b>310</b>	<b>177</b>	<b>147</b>
No shared parcels	2 043	1	1 727	141	118	56
1 shared parcel	2 570	1 916	533	84	16	21
2 shared parcels	596	341	178	46	12	19
3 shared parcels	285	215	24	19	16	11
4 or more shared parcels	249	139	35	20	15	40
<b>Pohnpei</b>	<b>5 260</b>	<b>1 722</b>	<b>3 172</b>	<b>282</b>	<b>74</b>	<b>10</b>
No shared parcels	3 084	1	2 775	232	69	7
1 shared parcel	1 928	1 519	357	48	2	2
2 shared parcels	182	146	33	2	1	0
3 shared parcels	48	45	3	0	0	0
4 or more shared parcels	18	11	4	0	2	1
<b>Kosrae</b>	<b>890</b>	<b>271</b>	<b>446</b>	<b>111</b>	<b>51</b>	<b>12</b>
No shared parcels	448	0	304	95	42	8
1 shared parcel	282	163	97	13	7	2
2 shared parcels	89	59	26	2	1	0
3 shared parcels	56	36	16	1	1	1
4 or more shared parcels	15	12	2	0	0	1

Source: FSM 2016 Integrated Agriculture Census

**TABLE 13**  
**Main use of land parcels by state: 2016**

MAIN LAND USES	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Parcels operated by one household only</b>	<b>12 019</b>	<b>100</b>	<b>2 806</b>	<b>100</b>	<b>4 337</b>	<b>100</b>	<b>4 000</b>	<b>100</b>	<b>876</b>	<b>100</b>
Land under garden crop (temporary/short-term)	1 598	13	286	10	624	14	542	14	146	17
Land under tree crop (permanent/long-term)	4 821	40	711	25	2 430	56	1 408	35	272	31
Agro forestry (mixed tree and garden crops)	3 553	30	972	35	992	23	1 329	33	260	30
Land temporary fallow	239	2	69	2	38	1	109	3	23	3
Land under livestock	100	1	11	0	14	0	62	2	13	1
Forest/wooded land (not tree crops)	97	1	16	1	31	1	43	1	7	1
Land under farm buildings and farmyards	898	7	695	25	57	1	98	2	48	5
Land under other (non-agricultural use)	713	6	46	2	151	3	409	10	107	12
<b>Shared parcels</b>	<b>11 928</b>	<b>100</b>	<b>2 933</b>	<b>100</b>	<b>5 783</b>	<b>100</b>	<b>2 517</b>	<b>100</b>	<b>695</b>	<b>100</b>
Land under garden crop (temporary/short-term)	1 381	12	448	15	546	9	286	11	101	15
Land under tree crop (permanent/long-term)	5 547	47	898	31	3 489	60	941	37	219	32
Agro forestry (mixed tree and garden crops)	3 884	33	1 185	40	1 521	26	889	35	289	42
Land temporary fallow	212	2	60	2	44	1	82	3	26	4
Land under livestock	69	1	7	0	20	0	38	2	4	1
Forest/wooded land (not tree crops)	89	1	14	0	46	1	26	1	3	0
Land under farm buildings and farmyards	406	3	296	10	37	1	42	2	31	4
Land under other (non-agricultural use)	339	3	25	1	80	1	213	8	21	3

Source: FSM 2016 Integrated Agriculture Census



**TABLE 14**  
**Households with land used for agriculture–land damage and land management by State: 2016**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Total households with land used for agriculture</b>	<b>14 031</b>	<b>100.0</b>	<b>2 138</b>	<b>100.0</b>	<b>5 743</b>	<b>100.0</b>	<b>5 260</b>	<b>100.0</b>	<b>890</b>	<b>100.0</b>
<b>SOURCE OF DAMAGE</b>										
Damaged by landslides	607	4.3	16	0.7	463	8.1	108	2.1	20	2.2
Damaged by flooding	1 234	8.8	116	5.4	837	14.6	205	3.9	76	8.5
Damaged by sea water	1 526	10.9	460	21.5	911	15.9	108	2.1	47	5.3
Damaged by drought	2 677	19.1	968	45.3	1 194	20.8	491	9.3	24	2.7
Damaged in other ways	928	6.6	208	9.7	643	11.2	74	1.4	3	0.3
Land has Invasive species problem	1 411	10.1	290	13.6	786	13.7	274	5.2	61	6.9
<b>LAND MANAGEMENT</b>										
Land has been irrigated	259	1.8	36	1.7	141	2.5	75	1.4	7	0.8
Land has been burnt off to clear it	454	3.2	171	8.0	223	3.9	51	1.0	9	1.0
Land has drainage or other water management	430	3.1	109	5.1	173	3.0	116	2.2	32	3.6

Source: FSM 2016 Integrated Agriculture Census

**TABLE 15**  
**Households with crops by crop and state: 2016**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Households with land used for agriculture</b>	<b>14 031</b>	<b>100.0</b>	<b>2 138</b>	<b>100.0</b>	<b>5 743</b>	<b>100.0</b>	<b>5 260</b>	<b>100.0</b>	<b>890</b>	<b>100.0</b>
<b>FRUIT/TREE CROPS</b>										
Breadfruit	12 906	92.0	1 785	83.5	5 464	95.1	4 825	91.7	832	93.5
Coconut	13 301	94.8	2 044	95.6	5 561	96.8	4 854	92.3	842	94.6
Banana	13 118	93.5	2 000	93.5	5 366	93.4	4 908	93.3	844	94.8
Lime/lemon	8 250	58.8	1 139	53.3	2 651	46.2	3 827	72.8	633	71.1
Tangerine/orange	3 164	22.6	954	44.6	903	15.7	753	14.3	554	62.2
Pineapple	5 623	40.1	1 252	58.6	1 643	28.6	2 444	46.5	284	31.9
Papaya	7 535	53.7	1 455	68.1	2 753	47.9	2 991	56.9	336	37.8
Pandanus	3 069	21.9	470	22.0	1 073	18.7	1 203	22.9	323	36.3
Mango	7 486	53.4	1 086	50.8	2 698	47.0	3 171	60.3	531	59.7
Other	515	3.7	168	7.9	226	3.9	98	1.9	23	2.6
<b>VEGETABLE CROPS</b>										
Cabbage (all types)	1 000	7.1	356	16.7	200	3.5	267	5.1	177	19.9
Cucumber	930	6.6	200	9.4	233	4.1	414	7.9	83	9.3
Beans	833	5.9	273	12.8	244	4.2	277	5.3	39	4.4
Pumpkin	1 182	8.4	670	31.3	339	5.9	168	3.2	5	0.6
Pepper (chili and bell)	2 411	17.2	980	45.8	679	11.8	618	11.7	134	15.1
Eggplant	1 094	7.8	271	12.7	590	10.3	160	3.0	73	8.2
Squash	1 099	7.8	508	23.8	383	6.7	162	3.1	46	5.2
Green onion	243	1.7	148	6.9	15	0.3	49	0.9	31	3.5
Other	279	2.0	132	6.2	80	1.4	51	1.0	16	1.8
<b>ROOT CROPS</b>										
Yam	5 073	36.2	1 211	56.6	278	4.8	3 341	63.5	243	27.3
Swamp taro	7 561	53.9	1 604	75.0	2 507	43.7	2 976	56.6	474	53.3
Land taro	6 666	47.5	1 450	67.8	2 236	38.9	2 630	50.0	350	39.3
Tapioca	4 989	35.6	1 184	55.4	1 870	32.6	1 625	30.9	310	34.8
Sweet potato	1 880	13.4	1 006	47.1	612	10.7	228	4.3	34	3.8
Other	85	0.6	37	1.7	32	0.6	14	0.3	2	0.2
<b>OTHER CROPS</b>										
Sakau	3 382	24.1	1	0.0	27	0.5	3 256	61.9	98	11.0
Betelnut	6 816	48.6	1 725	80.7	1 210	21.1	3 457	65.7	424	47.6
Piper leaves	2 491	17.8	1 051	49.2	65	1.1	1 345	25.6	30	3.4
Black pepper	115	0.8	31	1.4	11	0.2	72	1.4	1	0.1
Ornamental plants	2 759	19.7	737	34.5	571	9.9	1 399	26.6	52	5.8
Others	1 080	7.7	189	8.8	112	2.0	748	14.2	31	3.5

Source: 2016 FSM Integrated Census

**TABLE 16**  
**Households with new plantings of crops by type and state: 2016**

MAJOR	FSM	YAP	CHUUK	POHNPEI	KOSRAE	FSM	YAP	CHUUK	POHNPEI	KOSRAE	FSM	YAP	CHUUK	POHNPEI	KOSRAE
<b>Households with land used for agriculture</b>	<b>14,031</b>	<b>2,138</b>	<b>5,743</b>	<b>5,260</b>	<b>890</b>										
						<b>Number of Households with New Plantings of Crop</b>					<b>Percent of households with crop already on land with new planting of crop</b>				
<b>TREE CROPS</b>															
Breadfruit	2 556	288	1 138	1 057	73	18.2	13.5	19.8	20.1	8.2	19.8	16.1	20.8	21.9	8.8
Coconut	2 890	494	1 186	1 108	102	20.6	23.1	20.7	21.1	11.5	21.7	24.2	21.3	22.8	12.1
Banana	4 083	686	1 561	1 635	201	29.1	32.1	27.2	31.1	22.6	31.1	34.3	29.1	33.3	23.8
Lime/lemon	1 396	127	458	718	93	9.9	5.9	8.0	13.7	10.4	16.9	11.2	17.3	18.8	14.7
Tangerine/orange	509	90	239	128	52	3.6	4.2	4.2	2.4	5.8	16.1	9.4	26.5	17.0	9.4
Pineapple	1 767	462	535	728	42	12.6	21.6	9.3	13.8	4.7	31.4	36.9	32.6	29.8	14.8
Papaya	1 637	335	720	537	45	11.7	15.7	12.5	10.2	5.1	21.7	23.0	26.2	18.0	13.4
Pandanus	444	46	202	176	20	3.2	2.2	3.5	3.3	2.2	14.5	9.8	18.8	14.6	6.2
Mango	1 004	142	442	383	37	7.2	6.6	7.7	7.3	4.2	13.4	13.1	16.4	12.1	7.0
Other	42	8	29	5	0	0.3	0.4	0.5	0.1	0.0	8.2	4.8	12.8	5.1	0.0
<b>VEGETABLE CROPS</b>															
Cabbage (all types)	334	123	53	122	36	2.4	5.8	0.9	2.3	4.0	33.4	34.6	26.5	45.7	20.3
Cucumber	391	85	106	180	20	2.8	4.0	1.8	3.4	2.2	42.0	42.5	45.5	43.5	24.1
Beans	278	92	82	102	2	2.0	4.3	1.4	1.9	0.2	33.4	33.7	33.6	36.8	5.1
Pumpkin	363	224	84	55	0	2.6	10.5	1.5	1.0	0.0	30.7	33.4	24.8	32.7	0.0
Pepper (chili and bell)	493	245	100	130	18	3.5	11.5	1.7	2.5	2.0	20.4	25.0	14.7	21.0	13.4
Eggplant	353	89	196	55	13	2.5	4.2	3.4	1.0	1.5	32.3	32.8	33.2	34.4	17.8
Squash	381	202	123	49	7	2.7	9.4	2.1	0.9	0.8	34.7	39.8	32.1	30.2	15.2
Green onion	67	36	2	22	7	0.5	1.7	0.0	0.4	0.8	27.6	24.3	13.3	44.9	22.6
Other	89	45	24	18	2	0.6	2.1	0.4	0.3	0.2	31.9	34.1	30.0	35.3	12.5

Source: 2016 FSM Integrated Census

**TABLE 16**  
Households with new plantings of crops by type and state: 2016 (continued)

MAJOR	FSM	YAP	CHUUK	POHNPEI	KOSRAE	FSM	YAP	CHUUK	POHNPEI	KOSRAE	FSM	YAP	CHUUK	POHNPEI	KOSRAE	
<b>ROOT CROPS</b>																
Yam	1 950	496	79	1 350	25	13.9	23.2	1.4	25.7	2.8	38.4	41.0	28.4	40.4	10.3	
Swamp taro	2 658	740	963	828	127	18.9	34.6	16.8	15.7	14.3	35.2	46.1	38.4	27.8	26.8	
Land taro	2 345	599	746	922	78	16.7	28.0	13.0	17.5	8.8	35.2	41.3	33.4	35.1	22.3	
Tapioca	1 930	568	725	568	69	13.8	26.6	12.6	10.8	7.8	38.7	48.0	38.8	35.0	22.3	
Sweet potato	765	419	286	55	5	5.5	19.6	5.0	1.0	0.6	40.7	41.7	46.7	24.1	14.7	
Other	24	4	14	5	1	0.2	0.2	0.2	0.1	0.1	28.2	10.8	43.8	35.7	50.0	
<b>OTHER CROPS</b>																
Sakau	1 705	0	15	1 672	18	12.2	0.0	0.3	31.8	2.0	50.4	0.0	55.6	51.4	18.4	
Betelnut	1 431	513	301	539	78	10.2	24.0	5.2	10.2	8.8	21.0	29.7	24.9	15.6	18.4	
Piper leaves	662	404	13	240	5	4.7	18.9	0.2	4.6	0.6	26.6	38.4	20.0	17.8	16.7	
Black pepper	34	6	1	27	0	0.2	0.3	0.0	0.5	0.0	29.6	19.4	9.1	37.5	0.0	
Ornamental plants	725	208	131	371	15	5.2	9.7	2.3	7.1	1.7	26.3	28.2	22.9	26.5	28.8	
Others	224	58	15	141	10	1.6	2.7	0.3	2.7	1.1	20.7	30.7	13.4	18.9	32.3	

Source: 2016 FSM Integrated Census

**TABLE 17**  
**Crops and planting methods: 2016**

	TOTAL	PLANTING METHOD			PLANTING TYPE			PROTECTIVE COVER			
		COMPACT	LINE	SCATTER	SINGLE CROP	MIXED CROP	SCATTERED PATTERN	UNDER COVER FROM LOCAL MATERIAL	UNDER OTHER COVER	NATURAL TREE COVER	NO COVER
<b>TREE CROPS</b>											
Breadfruit	12 349	1 073	927	10 350	2 550	5 813	3 986	286	209	1 632	10 222
Coconut	12 893	864	1 596	10 433	2 492	6 291	4 110	277	265	1 829	10 522
Banana	12 723	1 648	1 189	9 886	2 076	6 388	4 259	534	486	3 578	8 126
Lime/lemon	7 748	1 003	1 001	5 745	2 354	3 419	1 976	289	304	2 387	4 768
Tangerine/orange	2 800	400	361	2 040	784	1 438	579	56	54	655	2 036
Pineapple	5 220	593	1 396	3 231	1 721	2 373	1 126	210	200	1 554	3 256
Papaya	7 018	605	939	5 474	1 721	3 256	2 041	332	303	2 019	4 364
Pandanus	2 633	408	329	1 896	736	1 151	747	88	123	558	1 865
Mango	7 034	874	653	5 507	2 006	2 944	2 084	160	142	1 161	5 572
Other	423	48	19	355	108	175	140	15	9	98	300
<b>VEGETABLE CROPS</b>											
Cabbage (all types)	920	260	411	248	531	291	97	35	41	186	658
Cucumber	810	176	404	230	486	225	100	93	40	152	524
Beans	731	155	290	286	391	241	100	52	39	170	470
Pumpkin	1 048	184	128	736	319	488	241	20	37	263	728
Pepper (chili and bell)	2 239	214	374	1 651	684	1 010	545	65	84	670	1 421
Eggplant	972	135	416	421	468	367	136	31	43	199	698
Squash	963	197	164	602	355	424	185	37	39	276	612
Green onion	226	76	79	71	131	71	23	7	19	51	148
Other	239	40	58	141	101	97	41	6	6	61	166
<b>ROOT CROPS</b>											
Yam	4 714	741	596	3 377	1 543	2 111	1 059	674	299	1 973	1 768
Swamp taro	6 379	2 765	1 169	2 445	2 961	1 907	1 511	234	216	1 736	4 193
Land taro	6 011	1 211	1 504	3 296	2 102	2 416	1 492	282	209	1 592	3 928
Tapioca	4 351	576	1 854	1 921	2 021	1 485	845	133	113	990	3 115
Sweet potato	1 592	268	490	834	597	691	304	19	29	344	1 201
Other	67	11	9	47	18	18	31	4	2	12	49
<b>OTHER CROPS</b>											
Sakau	3 215	469	423	2 323	1 067	1 170	978	266	230	1 437	1 282
Betelnut	6 577	559	1 712	4 306	2 220	2 631	1 726	205	208	1 508	4 657
Piper leaves	2 284	238	218	1 828	654	1 080	550	105	112	934	1 133
Black pepper	92	11	22	59	34	37	21	4	7	37	44
Ornamental plants	2 623	140	604	1 879	554	1 374	696	93	114	646	1 770
Others	1 000	154	106	741	332	417	251	24	14	408	554

Note: First plot of land reported only. Count is number of plots, so total is the total count of all crops recorded on the plot (maybe multiple crops per plot)

Source: 2016 FSM Integrated Census



**TABLE 18**  
**Source for crop planting materials by state: 2016**

SOURCE OF PLANTING MATERIAL	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Total</b>	<b>39 087</b>	<b>100.0</b>	<b>10 277</b>	<b>100.0</b>	<b>12 205</b>	<b>100.0</b>	<b>15 184</b>	<b>100.0</b>	<b>1 421</b>	<b>100.0</b>
Agriculture extension	1 770	4.5	266	2.6	924	7.6	501	3.3	79	5.6
Bought seeds/plants	1 622	4.1	250	2.4	390	3.2	852	5.6	130	9.1
Own seeds/plants	35 316	90.4	9 648	93.9	10 781	88.3	13 695	90.2	1 192	83.9
Other	379	1.0	113	1.1	110	0.9	136	0.9	20	1.4
<b>FRUIT/TREE CROPS</b>										
<b>Breadfruit</b>	<b>3 031</b>	<b>100.0</b>	<b>379</b>	<b>100.0</b>	<b>1 386</b>	<b>100.0</b>	<b>1 172</b>	<b>100.0</b>	<b>94</b>	<b>100.0</b>
Agriculture extension	217	7.2	26	6.9	139	10.0	46	3.9	6	6.4
Bought seeds/plants	96	3.2	8	2.1	34	2.5	50	4.3	4	4.3
Own seeds/plants	2 682	88.5	337	88.9	1 199	86.5	1 065	90.9	81	86.2
Other	34	1.1	8	2.1	14	1.0	11	0.9	1	1.1
<b>Coconut</b>	<b>3 575</b>	<b>100.0</b>	<b>720</b>	<b>100.0</b>	<b>1 476</b>	<b>100.0</b>	<b>1 256</b>	<b>100.0</b>	<b>123</b>	<b>100.0</b>
Agriculture extension	134	3.7	5	0.7	85	5.8	37	2.9	7	5.7
Bought seeds/plants	83	2.3	6	0.8	27	1.8	46	3.7	4	3.3
Own seeds/plants	3 317	92.8	698	96.9	1 344	91.1	1 167	92.9	108	87.8
Other	40	1.1	11	1.5	20	1.4	6	0.5	3	2.4
<b>Banana</b>	<b>5 038</b>	<b>100.0</b>	<b>1 014</b>	<b>100.0</b>	<b>1 914</b>	<b>100.0</b>	<b>1 842</b>	<b>100.0</b>	<b>268</b>	<b>100.0</b>
Agriculture extension	226	4.5	16	1.6	144	7.5	61	3.3	5	1.9
Bought seeds/plants	134	2.7	9	0.9	49	2.6	66	3.6	10	3.7
Own seeds/plants	4 632	91.9	975	96.2	1 708	89.2	1 699	92.2	250	93.3
Other	46	0.9	14	1.4	13	0.7	16	0.9	3	1.1
<b>Lime/lemon</b>	<b>1 487</b>	<b>100.0</b>	<b>136</b>	<b>100.0</b>	<b>472</b>	<b>100.0</b>	<b>774</b>	<b>100.0</b>	<b>105</b>	<b>100.0</b>
Agriculture extension	36	2.4	0	0.0	4	0.8	22	2.8	10	9.5
Bought seeds/plants	64	4.3	4	2.9	11	2.3	37	4.8	12	11.4
Own seeds/plants	1 377	92.6	131	96.3	455	96.4	708	91.5	83	79.0
Other	11	0.7	1	0.7	2	0.4	7	0.9	1	1.0
<b>Tangerine/orange</b>	<b>540</b>	<b>100.0</b>	<b>103</b>	<b>100.0</b>	<b>242</b>	<b>100.0</b>	<b>133</b>	<b>100.0</b>	<b>62</b>	<b>100.0</b>
Agriculture extension	15	2.8	0	0.0	1	0.4	4	3.0	10	16.1
Bought seeds/plants	24	4.4	3	2.9	5	2.1	11	8.3	5	8.1
Own seeds/plants	493	91.3	98	95.1	235	97.1	114	85.7	46	74.2
Other	8	1.5	2	1.9	1	0.4	4	3.0	1	1.6

Source: 2016 FSM Integrated Census

**TABLE 18**  
**Source for crop planting materials by state: 2016 (continued)**

SOURCE OF PLANTING MATERIAL	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Pineapple</b>	<b>1 919</b>	<b>100.0</b>	<b>551</b>	<b>100.0</b>	<b>561</b>	<b>100.0</b>	<b>759</b>	<b>100.0</b>	<b>48</b>	<b>100.0</b>
Agriculture extension	28	1.5	0	0.0	9	1.6	16	2.1	3	6.3
Bought seeds/plants	67	3.5	8	1.5	24	4.3	32	4.2	3	6.3
Own seeds/plants	1 808	94.2	539	97.8	525	93.6	703	92.6	41	85.4
Other	16	0.8	4	0.7	3	0.5	8	1.1	1	2.1
<b>Papaya</b>	<b>1 841</b>	<b>100.0</b>	<b>430</b>	<b>100.0</b>	<b>789</b>	<b>100.0</b>	<b>574</b>	<b>100.0</b>	<b>48</b>	<b>100.0</b>
Agriculture extension	46	2.5	6	1.4	21	2.7	16	2.8	3	6.3
Bought seeds/plants	70	3.8	4	0.9	39	4.9	20	3.5	7	14.6
Own seeds/plants	1 704	92.6	417	97.0	718	91.0	531	92.5	38	79.2
Other	21	1.1	3	0.7	11	1.4	7	1.2	0	0.0
<b>Pandanus</b>	<b>490</b>	<b>100.0</b>	<b>59</b>	<b>100.0</b>	<b>216</b>	<b>100.0</b>	<b>194</b>	<b>100.0</b>	<b>21</b>	<b>100.0</b>
Agriculture extension	22	4.5	1	1.7	6	2.8	14	7.2	1	4.8
Bought seeds/plants	10	2.0	1	1.7	0	0.0	8	4.1	1	4.8
Own seeds/plants	454	92.7	57	96.6	210	97.2	169	87.1	18	85.7
Other	4	0.8	0	0.0	0	0.0	3	1.5	1	4.8
<b>Mango</b>	<b>1 073</b>	<b>100.0</b>	<b>156</b>	<b>100.0</b>	<b>467</b>	<b>100.0</b>	<b>407</b>	<b>100.0</b>	<b>43</b>	<b>100.0</b>
Agriculture extension	20	1.9	1	0.6	6	1.3	8	2.0	5	11.6
Bought seeds/plants	44	4.1	4	2.6	23	4.9	12	2.9	5	11.6
Own seeds/plants	992	92.5	148	94.9	431	92.3	381	93.6	32	74.4
Other	16	1.5	3	1.9	7	1.5	6	1.5	0	0.0
<b>Other fruits</b>	<b>46</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>	<b>30</b>	<b>100.0</b>	<b>5</b>	<b>100.0</b>	<b>0</b>	<b>-</b>
Agriculture extension	0	0.0	0	0.0	0	0.0	0	0.0	0	-
Bought seeds/plants	2	4.3	0	0.0	2	6.7	0	0.0	0	-
Own seeds/plants	44	95.7	11	100.0	28	93.3	5	100.0	0	-
Other	0	0.0	0	0.0	0	0.0	0	0.0	0	-
<b>VEGETABLES</b>										
<b>Cabbage (all types)</b>	<b>346</b>	<b>100.0</b>	<b>126</b>	<b>100.0</b>	<b>56</b>	<b>100.0</b>	<b>128</b>	<b>100.0</b>	<b>36</b>	<b>100.0</b>
Agriculture extension	94	27.2	39	31.0	27	48.2	23	18.0	5	13.9
Bought seeds/plants	94	27.2	32	25.4	2	3.6	42	32.8	18	50.0
Own seeds/plants	150	43.4	50	39.7	25	44.6	63	49.2	12	33.3
Other	7	2.0	5	4.0	2	3.6	0	0.0	0	0.0

Source: 2016 FSM Integrated Census

**TABLE 18**  
**Source for crop planting materials by state: 2016 (continued)**

SOURCE OF PLANTING MATERIAL	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Cucumber</b>	<b>409</b>	<b>100.0</b>	<b>95</b>	<b>100.0</b>	<b>110</b>	<b>100.0</b>	<b>182</b>	<b>100.0</b>	<b>22</b>	<b>100.0</b>
Agriculture extension	78	19.1	7	7.4	37	33.6	30	16.5	4	18.2
Bought seeds/plants	109	26.7	27	28.4	7	6.4	69	37.9	6	27.3
Own seeds/plants	219	53.5	61	64.2	66	60.0	81	44.5	11	50.0
Other	2	0.5	0	0.0	0	0.0	2	1.1	0	0.0
<b>Beans</b>	<b>285</b>	<b>100.0</b>	<b>96</b>	<b>100.0</b>	<b>84</b>	<b>100.0</b>	<b>103</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>
Agriculture extension	66	23.2	10	10.4	34	40.5	22	21.4	0	0.0
Bought seeds/plants	44	15.4	13	13.5	2	2.4	29	28.2	0	0.0
Own seeds/plants	173	60.7	71	74.0	48	57.1	52	50.5	2	100.0
Other	2	0.7	2	2.1	0	0.0	0	0.0	0	0.0
<b>Pumpkin</b>	<b>403</b>	<b>100.0</b>	<b>259</b>	<b>100.0</b>	<b>88</b>	<b>100.0</b>	<b>56</b>	<b>100.0</b>	<b>0</b>	<b>-</b>
Agriculture extension	45	11.2	15	5.8	16	18.2	14	25.0	0	-
Bought seeds/plants	41	10.2	20	7.7	1	1.1	20	35.7	0	-
Own seeds/plants	313	77.7	221	85.3	70	79.5	22	39.3	0	-
Other	4	1.0	3	1.2	1	1.1	0	0.0	0	-
<b>Pepper (all types)</b>	<b>523</b>	<b>100.0</b>	<b>270</b>	<b>100.0</b>	<b>102</b>	<b>100.0</b>	<b>131</b>	<b>100.0</b>	<b>20</b>	<b>100.0</b>
Agriculture extension	57	10.9	30	11.1	9	8.8	16	12.2	2	10.0
Bought seeds/plants	53	10.1	13	4.8	2	2.0	28	21.4	10	50.0
Own seeds/plants	405	77.4	221	81.9	91	89.2	85	64.9	8	40.0
Other	8	1.5	6	2.2	0	0.0	2	1.5	0	0.0
<b>Eggplant</b>	<b>360</b>	<b>100.0</b>	<b>92</b>	<b>100.0</b>	<b>199</b>	<b>100.0</b>	<b>55</b>	<b>100.0</b>	<b>14</b>	<b>100.0</b>
Agriculture extension	75	20.8	27	29.3	36	18.1	10	18.2	2	14.3
Bought seeds/plants	51	14.2	18	19.6	3	1.5	24	43.6	6	42.9
Own seeds/plants	227	63.1	44	47.8	157	78.9	20	36.4	6	42.9
Other	7	1.9	3	3.3	3	1.5	1	1.8	0	0.0
<b>Squash (all types)</b>	<b>428</b>	<b>100.0</b>	<b>240</b>	<b>100.0</b>	<b>129</b>	<b>100.0</b>	<b>51</b>	<b>100.0</b>	<b>8</b>	<b>100.0</b>
Agriculture extension	32	7.5	16	6.7	9	7.0	6	11.8	1	12.5
Bought seeds/plants	27	6.3	14	5.8	3	2.3	9	17.6	1	12.5
Own seeds/plants	364	85.0	209	87.1	115	89.1	34	66.7	6	75.0
Other	5	1.2	1	0.4	2	1.6	2	3.9	0	0.0

Source: 2016 FSM Integrated Census

**TABLE 18**  
**Source for crop planting materials by state: 2016 (continued)**

SOURCE OF PLANTING MATERIAL	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Green onion</b>	<b>69</b>	<b>100.0</b>	<b>37</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>	<b>22</b>	<b>100.0</b>	<b>8</b>	<b>100.0</b>
Agriculture extension	12	17.4	7	18.9	1	50.0	3	13.6	1	12.5
Bought seeds/plants	25	36.2	9	24.3	0	0.0	13	59.1	3	37.5
Own seeds/plants	31	44.9	21	56.8	1	50.0	6	27.3	3	37.5
Other	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>Other vegetables</b>	<b>98</b>	<b>100.0</b>	<b>52</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>
Agriculture extension	5	5.1	3	5.8	1	3.8	1	5.6	0	0.0
Bought seeds/plants	13	13.3	1	1.9	1	3.8	10	55.6	1	50.0
Own seeds/plants	79	80.6	48	92.3	24	92.3	6	33.3	1	50.0
Other	1	1.0	0	0.0	0	0.0	1	5.6	0	0.0
<b>ROOT CROPS</b>										
<b>Yam</b>	<b>2 255</b>	<b>100.0</b>	<b>654</b>	<b>100.0</b>	<b>79</b>	<b>100.0</b>	<b>1 496</b>	<b>100.0</b>	<b>26</b>	<b>100.0</b>
Agriculture extension	51	2.3	5	0.8	3	3.8	42	2.8	1	3.8
Bought seeds/plants	78	3.5	3	0.5	0	0.0	73	4.9	2	7.7
Own seeds/plants	2 108	93.5	643	98.3	76	96.2	1 367	91.4	22	84.6
Other	17	0.8	3	0.5	0	0.0	14	0.9	0	0.0
<b>Swamp taro</b>	<b>3 384</b>	<b>100.0</b>	<b>1 115</b>	<b>100.0</b>	<b>1 236</b>	<b>100.0</b>	<b>887</b>	<b>100.0</b>	<b>146</b>	<b>100.0</b>
Agriculture extension	187	5.5	13	1.2	161	13.0	10	1.1	3	2.1
Bought seeds/plants	77	2.3	12	1.1	34	2.8	27	3.0	4	2.7
Own seeds/plants	3 106	91.8	1 084	97.2	1 037	83.9	847	95.5	138	94.5
Other	14	0.4	6	0.5	4	0.3	3	0.3	1	0.7
<b>Land taro</b>	<b>2 795</b>	<b>100.0</b>	<b>788</b>	<b>100.0</b>	<b>913</b>	<b>100.0</b>	<b>1 001</b>	<b>100.0</b>	<b>93</b>	<b>100.0</b>
Agriculture extension	158	5.7	8	1.0	123	13.5	26	2.6	1	1.1
Bought seeds/plants	91	3.3	11	1.4	34	3.7	41	4.1	5	5.4
Own seeds/plants	2 533	90.6	766	97.2	752	82.4	929	92.8	86	92.5
Other	12	0.4	3	0.4	4	0.4	5	0.5	0	0.0
<b>Tapioca</b>	<b>2 187</b>	<b>100.0</b>	<b>706</b>	<b>100.0</b>	<b>808</b>	<b>100.0</b>	<b>594</b>	<b>100.0</b>	<b>79</b>	<b>100.0</b>
Agriculture extension	53	2.4	17	2.4	23	2.8	11	1.9	2	2.5
Bought seeds/plants	77	3.5	6	0.8	45	5.6	23	3.9	3	3.8
Own seeds/plants	2 039	93.2	680	96.3	729	90.2	557	93.8	73	92.4
Other	17	0.8	3	0.4	11	1.4	3	0.5	0	0.0

Source: 2016 FSM Integrated Census

**TABLE 18**  
**Source for crop planting materials by state: 2016 (continued)**

SOURCE OF PLANTING MATERIAL	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Sweet potato</b>	<b>903</b>	<b>100.0</b>	<b>528</b>	<b>100.0</b>	<b>315</b>	<b>100.0</b>	<b>55</b>	<b>100.0</b>	<b>5</b>	<b>100.0</b>
Agriculture extension	29	3.2	7	1.3	20	6.3	2	3.6	0	0.0
Bought seeds/plants	20	2.2	5	0.9	15	4.8	0	0.0	0	0.0
Own seeds/plants	846	93.7	511	96.8	277	87.9	53	96.4	5	100.0
Other	8	0.9	5	0.9	3	1.0	0	0.0	0	0.0
<b>Other root crops</b>	<b>25</b>	<b>100.0</b>	<b>4</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>	<b>5</b>	<b>100.0</b>	<b>1</b>	<b>100.0</b>
Agriculture extension	1	4.0	0	0.0	0	0.0	1	20.0	0	0.0
Bought seeds/plants	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Own seeds/plants	24	96.0	4	100.0	15	100.0	4	80.0	1	100.0
Other	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>OTHER CROPS</b>										
<b>Sakau</b>	<b>1 943</b>	<b>100.0</b>	<b>0</b>	<b>-</b>	<b>16</b>	<b>100.0</b>	<b>1 908</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>
Agriculture extension	45	2.3	0	-	0	0.0	45	2.4	0	0.0
Bought seeds/plants	89	4.6	0	-	0	0.0	89	4.7	0	0.0
Own seeds/plants	1 788	92.0	0	-	16	100.0	1 753	91.9	19	100.0
Other	21	1.1	0	-	0	0.0	21	1.1	0	0.0
<b>Betelnut</b>	<b>1 770</b>	<b>100.0</b>	<b>803</b>	<b>100.0</b>	<b>308</b>	<b>100.0</b>	<b>568</b>	<b>100.0</b>	<b>91</b>	<b>100.0</b>
Agriculture extension	20	1.1	3	0.4	7	2.3	9	1.6	1	1.1
Bought seeds/plants	60	3.4	7	0.9	24	7.8	19	3.3	10	11.0
Own seeds/plants	1 658	93.7	783	97.5	269	87.3	532	93.7	74	81.3
Other	32	1.8	10	1.2	8	2.6	8	1.4	6	6.6
<b>Piper leaves</b>	<b>797</b>	<b>100.0</b>	<b>532</b>	<b>100.0</b>	<b>14</b>	<b>100.0</b>	<b>246</b>	<b>100.0</b>	<b>5</b>	<b>100.0</b>
Agriculture extension	2	0.3	0	0.0	0	0.0	2	0.8	0	0.0
Bought seeds/plants	16	2.0	7	1.3	0	0.0	8	3.3	1	20.0
Own seeds/plants	770	96.6	518	97.4	14	100.0	234	95.1	4	80.0
Other	9	1.1	7	1.3	0	0.0	2	0.8	0	0.0
<b>Black pepper</b>	<b>34</b>	<b>100.0</b>	<b>6</b>	<b>100.0</b>	<b>1</b>	<b>100.0</b>	<b>27</b>	<b>100.0</b>	<b>0</b>	<b>-</b>
Agriculture extension	1	2.9	1	16.7	0	0.0	0	0.0	0	-
Bought seeds/plants	3	8.8	0	0.0	0	0.0	3	11.1	0	-
Own seeds/plants	30	88.2	5	83.3	1	100.0	24	88.9	0	-
Other	0	0.0	0	0.0	0	0.0	0	0.0	0	-

Source: 2016 FSM Integrated Census



**TABLE 18**  
**Source for crop planting materials by state: 2016 (continued)**

SOURCE OF PLANTING MATERIAL	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Ornamental plants</b>	<b>781</b>	<b>100.0</b>	<b>243</b>	<b>100.0</b>	<b>136</b>	<b>100.0</b>	<b>386</b>	<b>100.0</b>	<b>16</b>	<b>100.0</b>
Agriculture extension	8	1.0	3	1.2	2	1.5	3	0.8	0	0.0
Bought seeds/plants	46	5.9	5	2.1	3	2.2	37	9.6	1	6.3
Own seeds/plants	715	91.5	226	93.0	131	96.3	343	88.9	15	93.8
Other	12	1.5	9	3.7	0	0.0	3	0.8	0	0.0
<b>Other crops</b>	<b>247</b>	<b>100.0</b>	<b>72</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>	<b>149</b>	<b>100.0</b>	<b>11</b>	<b>100.0</b>
Agriculture extension	2	0.8	0	0.0	0	0.0	1	0.7	1	9.1
Bought seeds/plants	9	3.6	0	0.0	0	0.0	6	4.0	3	27.3
Own seeds/plants	233	94.3	71	98.6	14	93.3	141	94.6	7	63.6
Other	3	1.2	1	1.4	1	6.7	1	0.7	0	0.0

Source: 2016 FSM Integrated Census

**TABLE 19**  
**Households harvesting crops by crop and state: 2016**

	FSM	YAP	CHUUK	POHNPEI	KOSRAE	FSM	YAP	CHUUK	POHNPEI	KOSRAE
<b>Households with land used for agriculture</b>	<b>14 031</b>	<b>2 138</b>	<b>5 743</b>	<b>5 260</b>	<b>890</b>					
	Number of households that harvested					Percent of all households growing the crop that harvested the crop				
<b>TREE CROPS</b>										
Breadfruit	12 148	1 485	5 391	4 539	733	94.1	83.2	98.7	94.1	88.1
Coconut	12 482	1 831	5 454	4 491	706	93.8	89.6	98.1	92.5	83.8
Banana	12 461	1 855	5 248	4 608	750	95.0	92.8	97.8	93.9	88.9
Lime/lemon	6 783	810	2 332	3 223	418	82.2	71.1	88.0	84.2	66.0
Tangerine/orange	2 292	662	795	448	387	72.4	69.4	88.0	59.5	69.9
Pineapple	4 472	955	1 430	1 939	148	79.5	76.3	87.0	79.3	52.1
Papaya	5 871	1 052	2 349	2 293	177	77.9	72.3	85.3	76.7	52.7
Pandanus	1 858	134	799	732	193	60.5	28.5	74.5	60.8	59.8
Mango	6 088	723	2 431	2 576	358	81.3	66.6	90.1	81.2	67.4
Other	369	99	184	72	14	71.7	58.9	81.4	73.5	60.9
<b>VEGETABLE CROPS</b>										
Cabbage (all types)	853	306	181	231	135	85.3	86.0	90.5	86.5	76.3
Cucumber	777	154	216	343	64	83.5	77.0	92.7	82.9	77.1
Beans	625	171	214	217	23	75.0	62.6	87.7	78.3	59.0
Pumpkin	820	427	260	130	3	69.4	63.7	76.7	77.4	60.0
Pepper (chili and bell)	1 879	730	561	499	89	77.9	74.5	82.6	80.7	66.4
Eggplant	849	172	502	126	49	77.6	63.5	85.1	78.8	67.1
Squash	757	320	299	118	20	68.9	63.0	78.1	72.8	43.5
Green onion	183	112	10	42	19	75.3	75.7	66.7	85.7	61.3
Other	192	94	61	28	9	68.8	71.2	76.3	54.9	56.3
<b>ROOT CROPS</b>										
Yam	3 921	904	190	2 727	100	77.3	74.6	68.3	81.6	41.2
Swamp taro	6 485	1 417	2 311	2 401	356	85.8	88.3	92.2	80.7	75.1
Land taro	5 328	1 127	1 918	2 044	239	79.9	77.7	85.8	77.7	68.3
Tapioca	3 861	878	1 664	1 156	163	77.4	74.2	89.0	71.1	52.6
Sweet potato	1 361	687	507	153	14	72.4	68.3	82.8	67.1	41.2
Other	51	20	22	8	1	60.0	54.1	68.8	57.1	50.0
<b>OTHER CROPS</b>										
Sakau	2 788	*	16	2 727	38	82.4	*	59.3	83.8	38.8
Betelnut	5 552	1 540	956	2 789	267	81.5	89.3	79.0	80.7	63.0
Piper leaves	1 846	808	58	965	15	74.1	76.9	89.2	71.7	50.0
Black pepper	60	14	6	40	0	52.2	45.2	54.5	55.6	*
Ornamental plants	1 151	334	250	562	5	41.7	45.3	43.8	40.2	9.6
Others	645	70	75	488	12	59.7	37.0	67.0	65.2	38.7

Source: 2016 FSM Integrated Census

**TABLE 20**  
**Households selling harvested crops by crop and state: 2016**

	FSM	YAP	CHUUK	POHNPEI	KOSRAE	FSM	YAP	CHUUK	POHNPEI	KOSRAE
<b>Households with land used for agriculture</b>	<b>14 031</b>	<b>2 138</b>	<b>5 743</b>	<b>5 260</b>	<b>890</b>					
	Number of households that sold					Households selling as a Percent of Households that grew the crop				
<b>TREE CROPS</b>										
Breadfruit	5 345	897	2 503	1 541	404	41.4	50.3	45.8	31.9	48.6
Coconut	5 538	1 063	2 574	1 514	387	41.6	52.0	46.3	31.2	46.0
Banana	5 129	1 004	2 209	1 525	391	39.1	50.2	41.2	31.1	46.3
Lime/lemon	2 325	301	821	996	207	28.2	26.4	31.0	26.0	32.7
Tangerine/orange	845	265	248	129	203	26.7	27.8	27.5	17.1	36.6
Pineapple	1 535	353	585	533	64	27.3	28.2	35.6	21.8	22.5
Papaya	1 955	430	842	610	73	25.9	29.6	30.6	20.4	21.7
Pandanus	700	64	345	208	83	22.8	13.6	32.2	17.3	25.7
Mango	2 101	260	836	845	160	28.1	23.9	31.0	26.6	30.1
Other	137	50	70	11	6	26.6	29.8	31.0	11.2	26.1
<b>VEGETABLE CROPS</b>										
Cabbage (all types)	278	78	43	108	49	27.8	21.9	21.5	40.4	27.7
Cucumber	423	70	117	200	36	45.5	35.0	50.2	48.3	43.4
Beans	238	51	83	94	10	28.6	18.7	34.0	33.9	25.6
Pumpkin	283	141	72	69	1	23.9	21.0	21.2	41.1	20.0
Pepper (chili and bell)	541	217	163	130	31	22.4	22.1	24.0	21.0	23.1
Eggplant	336	47	209	61	19	30.7	17.3	35.4	38.1	26.0
Squash	281	123	87	60	10	25.6	24.2	22.7	37.0	21.7
Green onion	41	15	0	20	6	16.9	10.1	0.0	40.8	19.4
Other	92	41	35	10	6	33.0	31.1	43.8	19.6	37.5
<b>ROOT CROPS</b>										
Yam	1 974	451	57	1 417	49	38.9	37.2	20.5	42.4	20.2
Swamp taro	3 233	877	1 238	905	213	42.8	54.7	49.4	30.4	44.9
Land taro	2 315	541	920	737	117	34.7	37.3	41.1	28.0	33.4
Tapioca	1 841	396	867	491	87	36.9	33.4	46.4	30.2	28.1
Sweet potato	591	274	269	43	5	31.4	27.2	44.0	18.9	14.7
Other	21	7	11	2	1	24.7	18.9	34.4	14.3	50.0
<b>OTHER CROPS</b>										
Sakau	1,942	*	14	1,901	25	57.4	*	51.9	58.4	25.5
Betelnut	3,092	938	520	1,473	161	45.4	54.4	43.0	42.6	38.0
Piper leaves	993	440	24	524	5	39.9	41.9	36.9	39.0	16.7
Black pepper	27	7	1	19	0	23.5	22.6	9.1	26.4	0.0
Ornamental plants	457	158	108	190	1	16.6	21.4	18.9	13.6	1.9
Others	374	33	31	302	8	34.6	17.5	27.7	40.4	25.8

Source: 2016 FSM Integrated Census

**TABLE 21**  
**Proportion sold from parcels of land by crop and state: 2016**

	TOTAL FSM				
	TOTAL NUMBER OF PARCELS SOLD FROM	PROPORTION OF HARVEST SOLD			
		LESS THAN 1/4	1/4 BUT LESS THAN 1/2	1/2 BUT LESS THAN 3/4	AT LEAST 3/4 TO ALL
<b>TREE CROPS</b>					
Breadfruit	6 914	3 038	1 876	967	1 033
Coconut	7 383	2 921	1 830	1 328	1 304
Banana	6 683	2 587	1 786	1 141	1 169
Lime/lemon	2 608	703	788	670	449
Tangerine/orange	974	306	348	172	148
Pineapple	1717	494	570	389	261
Papaya	2 213	601	620	404	586
Pandanus	821	253	106	349	112
Mango	2 347	577	872	497	401
Other	161	34	53	43	31
<b>VEGETABLE CROPS</b>					
Cabbage (all types)	296	58	45	94	102
Cucumber	454	85	103	132	134
Beans	255	48	59	76	72
Pumpkin	302	104	49	38	111
Pepper (chili and bell)	625	206	189	121	108
Eggplant	356	82	139	73	61
Squash	314	134	70	68	41
Green onion	42	9	11	6	16
Other	108	10	58	27	13
<b>ROOT CROPS</b>					
Yam	2 269	765	751	373	379
Swamp taro	3 966	1 291	1 341	743	593
Land taro	2 751	999	651	496	605
Tapioca	2 068	672	531	438	428
Sweet potato	659	250	173	90	145
Other	24	1	1	0	22
<b>OTHER CROPS</b>					
Sakau	2 230	235	507	678	810
Betelnut	3 998	757	1 080	982	1 179
Piper leaves	1 239	246	334	270	389
Black pepper	27	2	14	1	10
Ornamental plants	502	170	153	68	111
Others	442	89	105	126	121

Note: this table is based on the parcels of land sold from. Households may report selling produce from more than one plot of land.  
Source: 2016 FSM Integrated Census

**TABLE 21**  
**Proportion sold from parcels of land by crop and state: 2016 (continued)**

	YAP				
	TOTAL NUMBER OF PARCELS SOLD FROM	PROPORTION OF HARVEST SOLD			
		LESS THAN 1/4	1/4 BUT LESS THAN 1/2	1/2 BUT LESS THAN 3/4	AT LEAST 3/4 TO ALL
<b>TREE CROPS</b>					
Breadfruit	1 198	518	297	57	326
Coconut	1 570	695	308	102	465
Banana	1 447	549	423	67	408
Lime/lemon	350	161	83	46	60
Tangerine/orange	339	109	129	21	80
Pineapple	442	166	145	38	93
Papaya	519	226	111	28	154
Pandanus	74	3	0	22	49
Mango	307	83	111	28	85
Other	60	31	28	1	0
<b>VEGETABLE CROPS</b>					
Cabbage (all types)	81	22	17	13	29
Cucumber	76	28	21	6	21
Beans	52	12	7	22	11
Pumpkin	152	53	17	21	61
Pepper (chili and bell)	269	112	101	26	30
Eggplant	48	17	14	4	13
Squash	141	91	25	17	8
Green onion	15	3	7	2	3
Other	51	0	46	5	0
<b>ROOT CROPS</b>					
Yam	574	233	212	23	106
Swamp taro	1 208	472	346	215	175
Land taro	654	261	129	107	157
Tapioca	471	156	130	34	151
Sweet potato	305	103	87	29	86
Other	7	0	0	0	7
<b>OTHER CROPS</b>					
Sakau	2	0	0	0	2
Betelnut	1 690	428	518	353	391
Piper leaves	646	178	184	139	145
Black pepper	7	0	7	0	0
Ornamental plants	193	89	62	16	26
Others	39	0	22	4	13

Note: this table is based on the parcels of land sold from. Households may report selling produce from more than one plot of land.  
Source: 2016 FSM Integrated Census



**TABLE 21**  
**Proportion sold from parcels of land by crop and state: 2016 (continued)**

	CHUUK				
	TOTAL NUMBER OF PARCELS SOLD FROM	PROPORTION OF HARVEST SOLD			
		LESS THAN 1/4	1/4 BUT LESS THAN 1/2	1/2 BUT LESS THAN 3/4	AT LEAST 3/4 TO ALL
<b>TREE CROPS</b>					
Breadfruit	3 369	1 710	795	373	491
Coconut	3 517	1 710	802	560	445
Banana	2 914	1 388	730	449	347
Lime/lemon	900	346	319	165	70
Tangerine/orange	266	87	118	52	9
Pineapple	643	178	246	177	42
Papaya	937	256	299	158	224
Pandanus	403	180	51	146	26
Mango	938	268	397	179	94
Other	84	0	19	41	24
<b>VEGETABLE CROPS</b>					
Cabbage (all types)	51	11	10	20	10
Cucumber	133	37	41	39	16
Beans	93	31	34	21	7
Pumpkin	74	43	18	3	10
Pepper (chili and bell)	180	55	63	42	20
Eggplant	225	57	114	42	12
Squash	97	36	30	22	9
Green onion	0	0	0	0	0
Other	40	9	9	16	6
<b>ROOT CROPS</b>					
Yam	60	41	17	2	0
Swamp taro	1 534	489	643	188	214
Land taro	1 133	579	276	90	188
Tapioca	967	428	238	184	117
Sweet potato	303	140	67	55	41
Other	14	1	1	0	12
<b>OTHER CROPS</b>					
Sakau	16	2	11	2	1
Betelnut	540	144	168	128	100
Piper leaves	25	9	10	4	2
Black pepper	1	0	0	0	1
Ornamental plants	112	15	42	4	51
Others	40	11	10	4	15

Note: this table is based on the parcels of land sold from. Households may report selling produce from more than one plot of land.  
Source: 2016 FSM Integrated Census

**TABLE 21**  
**Proportion sold from parcels of land by crop and state: 2016 (continued)**

	POHNPEI				
	TOTAL NUMBER OF PARCELS SOLD FROM	PROPORTION OF HARVEST SOLD			
		LESS THAN 1/4	1/4 BUT LESS THAN 1/2	1/2 BUT LESS THAN 3/4	AT LEAST 3/4 TO ALL
<b>TREE CROPS</b>					
Breadfruit	1 783	590	596	415	182
Coconut	1 769	300	527	588	354
Banana	1 765	437	446	546	336
Lime/lemon	1 095	141	312	386	256
Tangerine/orange	135	47	40	30	18
Pineapple	564	127	166	150	121
Papaya	678	104	163	208	203
Pandanus	246	36	35	144	31
Mango	920	174	297	260	189
Other	11	3	6	1	1
<b>VEGETABLE CROPS</b>					
Cabbage (all types)	112	5	11	46	50
Cucumber	205	14	39	74	78
Beans	99	5	17	28	49
Pumpkin	75	8	13	14	40
Pepper (chili and bell)	140	28	18	47	47
Eggplant	62	5	7	23	27
Squash	63	6	15	22	20
Green onion	21	4	4	2	11
Other	10	1	1	6	2
<b>ROOT CROPS</b>					
Yam	1 579	474	513	328	264
Swamp taro	974	245	272	296	161
Land taro	825	125	197	280	223
Tapioca	528	52	125	194	157
Sweet potato	45	6	16	6	17
Other	2	0	0	0	2
<b>OTHER CROPS</b>					
Sakau	2 184	231	494	669	790
Betelnut	1 588	156	350	446	636
Piper leaves	563	59	140	125	239
Black pepper	19	2	7	1	9
Ornamental plants	196	65	49	48	34
Others	354	77	72	115	90

Note: this table is based on the parcels of land sold from. Households may report selling produce from more than one plot of land.  
Source: 2016 FSM Integrated Census

**TABLE 21**  
**Proportion sold from parcels of land by crop and state: 2016 (continued)**

	KOSRAE				
	TOTAL NUMBER OF PARCELS SOLD FROM	PROPORTION OF HARVEST SOLD			
		LESS THAN 1/4	1/4 BUT LESS THAN 1/2	1/2 BUT LESS THAN 3/4	AT LEAST 3/4 TO ALL
<b>TREE CROPS</b>					
Breadfruit	564	220	188	122	34
Coconut	527	216	193	78	39
Banana	557	213	187	79	78
Lime/lemon	263	55	74	73	61
Tangerine/orange	234	63	61	69	41
Pineapple	68	23	13	25	5
Papaya	79	15	47	12	5
Pandanus	98	34	20	37	6
Mango	182	51	67	30	34
Other	6	0	0	0	6
<b>VEGETABLE CROPS</b>					
Cabbage (all types)	53	20	7	15	13
Cucumber	40	6	2	13	19
Beans	12	0	1	5	5
Pumpkin	1	0	1	0	0
Pepper (chili and bell)	36	11	8	6	11
Eggplant	21	3	4	4	9
Squash	14	1	0	7	4
Green onion	6	2	0	2	2
Other	7	0	2	0	5
<b>ROOT CROPS</b>					
Yam	56	17	9	20	9
Swamp taro	250	84	80	44	43
Land taro	139	35	50	19	37
Tapioca	102	36	38	26	3
Sweet potato	6	1	3	0	1
Other	1	0	0	0	1
<b>OTHER CROPS</b>					
Sakau	28	2	2	7	17
Betelnut	180	29	43	56	52
Piper leaves	5	0	0	2	3
Black pepper	0	0	0	0	0
Ornamental plants	1	1	0	0	0
Others	8	1	1	3	3

Note: this table is based on the parcels of land sold from. Households may report selling produce from more than one plot of land.  
Source: 2016 FSM Integrated Census

**TABLE 22**  
**Households selling crops by who sold to by state: 2016**

CROPS	TOTAL FSM					
	Who Sold to From the Parcel					
	TOTAL	LOCAL SHOP	PUBLIC MARKET	RESTAURANT/ HOTEL	DIRECT TO CONSUMER	OTHER
<b>Total</b>	<b>54 747</b>	<b>10 229</b>	<b>18 932</b>	<b>1 365</b>	<b>20 863</b>	<b>3 348</b>
<b>TREE CROPS</b>						
Breadfruit	6 914	1 021	2 255	231	2 899	507
Coconut	7 383	1 074	2 161	298	3 199	652
Banana	6 683	1 106	2 719	223	2 202	435
Lime/lemon	2 608	391	1 273	93	775	75
Tangerine/orange	974	277	319	23	316	38
Pineapple	1 717	359	786	101	441	28
Papaya	2 213	540	885	50	621	117
Pandanus	821	201	210	2	381	26
Mango	2 347	352	879	18	958	141
Other	161	34	64	0	56	7
<b>VEGETABLE CROPS</b>						
Cabbage (all types)	296	88	125	11	65	7
Cucumber	454	87	242	26	91	7
Beans	255	58	128	11	56	2
Pumpkin	302	134	96	20	50	2
Pepper (chili and bell)	625	171	247	18	181	9
Eggplant	356	51	147	10	137	9
Squash	314	78	117	6	109	3
Green onion	42	12	14	4	10	2
Other	108	52	33	2	20	1
<b>ROOT CROPS</b>						
Yam	2 269	510	912	44	687	114
Swamp taro	3 966	672	1 429	26	1 509	330
Land taro	2 751	466	1 084	25	938	237
Tapioca	2 068	410	699	21	887	52
Sweet potato	659	185	262	6	191	14
Other	24	0	23	0	0	1
<b>OTHER CROPS</b>						
Sakau	2 229	338	400	23	1 341	127
Betelnut	3 998	1 037	908	27	1 828	197
Piper leaves	1 239	388	248	13	515	75
Black pepper	27	0	14	4	9	0
Ornamental plants	502	96	137	24	166	79
Others	442	41	116	5	225	54

Note: this table is based on the parcels of land sold from. Households may sell produce from more than one plot of land.

Source: FSM 2016 Integrated Agriculture Census

**TABLE 22**  
**Households selling crops by who sold to by state: 2016 (continued)**

CROPS	YAP					
	Who Sold to From the Parcel					
	TOTAL	LOCAL SHOP	PUBLIC MARKET	RESTAURANT/ HOTEL	DIRECT TO CONSUMER	OTHER
<b>Total</b>	<b>12 987</b>	<b>5 416</b>	<b>3 398</b>	<b>512</b>	<b>2 343</b>	<b>1 318</b>
<b>TREE CROPS</b>						
Breadfruit	1 198	457	257	110	119	255
Coconut	1 570	615	289	161	250	255
Banana	1 447	642	405	114	135	151
Lime/lemon	350	131	136	17	43	23
Tangerine/orange	339	201	82	13	30	13
Pineapple	442	226	152	8	55	1
Papaya	519	273	91	2	78	75
Pandanus	74	53	7	0	14	0
Mango	307	129	130	1	47	0
Other	60	13	16	0	31	0
<b>VEGETABLE CROPS</b>						
Cabbage (all types)	81	52	11	1	12	5
Cucumber	76	44	15	9	7	1
Beans	52	33	2	2	15	0
Pumpkin	152	98	26	15	13	0
Pepper (chili and bell)	269	121	108	1	31	8
Eggplant	48	25	1	2	12	8
Squash	141	62	23	2	54	0
Green onion	15	6	3	0	6	0
Other	51	47	0	0	4	0
<b>ROOT CROPS</b>						
Yam	574	296	206	5	67	0
Swamp taro	1 208	383	394	10	253	168
Land taro	654	221	221	2	76	134
Tapioca	471	294	111	1	65	0
Sweet potato	305	169	123	0	13	0
Other	7	0	7	0	0	0
<b>OTHER CROPS</b>						
Sakau	2	0	0	0	2	0
Betelnut	1 690	496	418	13	647	116
Piper leaves	646	222	118	5	241	60
Black pepper	7	0	0	2	5	0
Ornamental plants	193	72	42	16	18	45
Others	39	35	4	0	0	0

Note: this table is based on the parcels of land sold from. Households may sell produce from more than one plot of land.

Source: FSM 2016 Integrated Agriculture Census



**TABLE 22**  
**Households selling crops by who sold to by state: 2016 (continued)**

CROPS	CHUUK					
	Who Sold to From the Parcel					
	TOTAL	LOCAL SHOP	PUBLIC MARKET	RESTAURANT/ HOTEL	DIRECT TO CONSUMER	OTHER
<b>Total</b>	<b>19 609</b>	<b>1 347</b>	<b>6 747</b>	<b>339</b>	<b>10 085</b>	<b>1 091</b>
<b>TREE CROPS</b>						
Breadfruit	3 369	234	1 032	56	1 905	142
Coconut	3 517	181	1 061	75	1 900	300
Banana	2 914	147	1 034	52	1 449	232
Lime/lemon	900	45	325	54	449	27
Tangerine/orange	266	9	121	7	116	13
Pineapple	643	28	267	63	264	21
Papaya	937	106	421	8	378	24
Pandanus	403	18	91	1	270	23
Mango	938	33	319	2	480	104
Other	84	21	43	0	19	1
<b>VEGETABLE CROPS</b>						
Cabbage (all types)	51	5	28	0	17	1
Cucumber	133	5	85	3	39	1
Beans	93	7	61	0	23	2
Pumpkin	74	23	22	0	28	1
Pepper (chili and bell)	180	7	71	0	101	1
Eggplant	225	14	104	1	105	1
Squash	97	2	57	2	36	0
Green onion	0	0	0	0	0	0
Other	40	0	28	0	11	1
<b>ROOT CROPS</b>						
Yam	60	0	24	0	28	8
Swamp taro	1 534	183	509	5	773	64
Land taro	1 133	159	367	0	583	24
Tapioca	967	41	303	4	575	44
Sweet potato	303	9	105	6	169	14
Other	14	0	13	0	0	1
<b>OTHER CROPS</b>						
Sakau	16	4	6	0	6	0
Betelnut	540	64	177	0	279	20
Piper leaves	25	1	10	0	12	2
Black pepper	1	0	0	0	1	0
Ornamental plants	112	1	39	0	61	11
Others	40	0	24	0	8	8

Note: this table is based on the parcels of land sold from. Households may sell produce from more than one plot of land.

Source: FSM 2016 Integrated Agriculture Census

**TABLE 22**  
**Households selling crops by who sold to by state: 2016 (continued)**

CROPS	POHNPEI					
	Who Sold to From the Parcel					
	TOTAL	LOCAL SHOP	PUBLIC MARKET	RESTAURANT/ HOTEL	DIRECT TO CONSUMER	OTHER
<b>Total</b>	<b>18 609</b>	<b>2 626</b>	<b>7 946</b>	<b>461</b>	<b>6 725</b>	<b>851</b>
<b>TREE CROPS</b>						
Breadfruit	1 783	203	834	61	591	94
Coconut	1 769	151	699	56	786	77
Banana	1 765	158	1113	37	409	48
Lime/lemon	1 095	145	719	20	197	14
Tangerine/orange	135	10	63	1	52	9
Pineapple	564	80	346	30	103	5
Papaya	678	146	359	40	116	17
Pandanus	246	108	94	1	40	3
Mango	920	147	377	14	351	31
Other	11	0	5	0	0	6
<b>VEGETABLE CROPS</b>						
Cabbage (all types)	112	15	70	6	20	1
Cucumber	205	25	129	11	36	4
Beans	99	14	64	6	15	0
Pumpkin	75	13	47	5	9	1
Pepper (chili and bell)	140	26	65	14	35	0
Eggplant	62	7	39	5	11	0
Squash	63	8	36	2	14	3
Green onion	21	4	11	4	2	0
Other	10	1	5	2	2	0
<b>ROOT CROPS</b>						
Yam	1 579	190	678	39	567	105
Swamp taro	974	76	482	11	317	88
Land taro	825	57	476	23	191	78
Tapioca	528	58	257	16	190	7
Sweet potato	45	6	31	0	8	0
Other	2	0	2	0	0	0
<b>OTHER CROPS</b>						
Sakau	2 183	331	393	23	1 310	126
Betelnut	1 588	458	274	11	791	54
Piper leaves	563	160	120	8	262	13
Black pepper	19	0	14	2	3	0
Ornamental plants	196	23	56	8	87	22
Others	354	6	88	5	210	45

Note: this table is based on the parcels of land sold from. Households may sell produce from more than one plot of land.

Source: FSM 2016 Integrated Agriculture Census

**TABLE 22**  
**Households selling crops by who sold to by state: 2016 (continued)**

CROPS	KOSRAE					
	Who Sold to From the Parcel					
	TOTAL	LOCAL SHOP	PUBLIC MARKET	RESTAURANT/ HOTEL	DIRECT TO CONSUMER	OTHER
<b>Total</b>	<b>3 545</b>	<b>844</b>	<b>840</b>	<b>53</b>	<b>1 712</b>	<b>90</b>
<b>TREE CROPS</b>						
Breadfruit	564	127	131	4	284	17
Coconut	527	127	111	6	263	20
Banana	557	159	166	20	209	4
Lime/lemon	263	70	93	2	86	11
Tangerine/orange	234	58	53	2	118	3
Pineapple	68	25	21	0	19	1
Papaya	79	15	14	0	49	1
Pandanus	98	22	18	0	57	0
Mango	182	43	53	1	80	6
Other	6	0	0	0	6	0
<b>VEGETABLE CROPS</b>						
Cabbage (all types)	53	16	17	4	17	0
Cucumber	40	13	14	3	10	1
Beans	12	4	1	3	3	0
Pumpkin	1	0	1	0	0	0
Pepper (chili and bell)	36	17	3	3	14	0
Eggplant	21	5	3	2	10	0
Squash	14	6	1	0	5	0
Green onion	6	2	0	0	2	2
Other	7	4	0	0	3	0
<b>ROOT CROPS</b>						
Yam	56	25	4	0	25	1
Swamp taro	250	30	44	0	166	11
Land taro	139	30	20	0	88	1
Tapioca	102	18	28	0	56	1
Sweet potato	6	1	3	0	1	0
Other	1	0	1	0	0	0
<b>OTHER CROPS</b>						
Sakau	28	3	1	0	23	1
Betelnut	180	19	39	3	111	7
Piper leaves	5	5	0	0	0	0
Black pepper	0	0	0	0	0	0
Ornamental plants	1	0	0	0	0	1
Others	9	0	0	0	7	1

Note: this table is based on the parcels of land sold from. Households may sell produce from more than one plot of land.  
Source: FSM 2016 Integrated Agriculture Census

**TABLE 23**  
**Reasons for crop loss: 2016**

CROPS	NUMBER OF PLOTS OF LAND WITH LOSSES FROM					NUMBER OF HOUSEHOLDS WITH NO LOSSES	PERCENT OF PRODUCT GROWERS WITH NO LOSSES
	DISEASES	PESTS	WEATHER DAMAGE	STOLEN	OTHER ISSUES		
<b>TREE CROPS</b>							
Breadfruit	1 749	1 403	3 442	2 141	290	2 823	21.9
Coconut	1 090	1 027	3 093	2 864	236	3 506	26.4
Banana	984	1 761	3 274	2 382	226	2 806	21.4
Lime/lemon	637	592	929	827	114	1 403	17.0
Tangerine/orange	241	278	375	254	27	482	15.2
Pineapple	310	504	524	547	90	944	16.8
Papaya	422	669	1 025	798	46	958	12.7
Pandanus	101	100	359	316	36	434	14.1
Mango	374	678	1 015	934	94	1 118	14.9
Other	24	89	94	55	6	49	9.5
<b>VEGETABLE CROPS</b>							
Cabbage (all types)	45	140	116	52	4	185	18.5
Cucumber	132	142	155	154	5	231	24.8
Beans	53	89	66	89	1	142	17.0
Pumpkin	44	114	148	82	1	170	14.4
Pepper (chili and bell)	167	243	357	122	11	265	11.0
Eggplant	100	93	96	191	1	170	15.5
Squash	63	106	175	68	10	145	13.2
Green onion	7	7	22	0	1	31	12.8
Other	17	34	80	43	1	34	12.2
<b>ROOT CROPS</b>							
Yam	668	352	935	265	41	1 421	28.0
Swamp taro	808	999	1 675	1 137	82	1 980	26.2
Land taro	334	512	1 204	774	84	1 541	23.1
Tapioca	299	408	1 049	931	47	961	19.3
Sweet potato	106	223	373	209	67	257	13.7
Other	5	9	1	21	1	8	9.4
<b>OTHER CROPS</b>							
Sakau	486	316	689	882	93	1 317	38.9
Betelnut	647	373	1 843	1 718	91	1 917	28.1
Piper leaves	401	193	652	270	39	582	23.4
Black pepper	3	4	8	1	0	23	20.0
Ornamental plants	100	91	340	39	20	351	12.7
Others	32	49	91	38	2	321	29.7

Source: 2016 FSM Integrated Census

**TABLE 24**  
**Age and sex of those engaged in crop activities by state: 2016**

SEX AND AGE	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Total</b>	<b>22 659</b>	<b>100.0</b>	<b>4 366</b>	<b>100.0</b>	<b>8 555</b>	<b>100.0</b>	<b>8 559</b>	<b>100.0</b>	<b>1 179</b>	<b>100.0</b>
Less than 15	841	3.7	310	7.1	258	3.0	247	2.9	26	2.2
15-24	3 828	16.9	574	13.1	1 529	17.9	1 574	18.4	151	12.8
25-34	4 573	20.2	717	16.4	1 981	23.2	1 676	19.6	199	16.9
35-44	4 709	20.8	885	20.3	1 821	21.3	1 770	20.7	233	19.8
45-54	4 126	18.2	848	19.4	1 435	16.8	1 605	18.8	238	20.1
55-64	3 248	14.3	727	16.7	1 103	12.9	1 177	13.8	241	20.4
65+	1 334	5.9	305	7.0	428	5.0	510	6.0	91	7.7
<b>Male</b>	<b>14 573</b>	<b>64.3</b>	<b>1 642</b>	<b>37.6</b>	<b>6 462</b>	<b>75.5</b>	<b>5 515</b>	<b>64.4</b>	<b>954</b>	<b>80.9</b>
Less than 15	474	2.1	136	3.1	164	1.9	154	1.8	20	1.7
15-24	2 680	11.8	225	5.2	1 239	14.5	1 087	12.7	129	10.9
25-34	3 024	13.3	241	5.5	1 511	17.7	1 100	12.9	172	14.6
35-44	2 994	13.2	321	7.4	1 359	15.9	1 119	13.1	195	16.5
45-54	2 588	11.4	301	6.9	1 088	12.7	1 002	11.7	197	16.7
55-64	2 008	8.9	298	6.8	787	9.2	747	8.7	176	14.9
65+	806	3.6	120	2.7	314	3.7	306	3.6	66	5.6
<b>Female</b>	<b>8 087</b>	<b>35.7</b>	<b>2 724</b>	<b>62.4</b>	<b>2 093</b>	<b>24.5</b>	<b>3 044</b>	<b>35.6</b>	<b>225</b>	<b>19.1</b>
Less than 15	368	1.6	174	4.0	94	1.1	93	1.1	7	0.6
15-24	1 148	5.1	349	8.0	290	3.4	487	5.7	22	1.9
25-34	1 549	6.8	476	10.9	470	5.5	576	6.7	28	2.3
35-44	1 715	7.6	564	12.9	462	5.4	651	7.6	39	3.3
45-54	1 538	6.8	547	12.5	347	4.1	603	7.0	41	3.5
55-64	1 240	5.5	429	9.8	316	3.7	430	5.0	65	5.5
65+	528	2.3	185	4.2	114	1.3	204	2.4	25	2.1

Source: 2016 FSM Integrated Agriculture Census

**TABLE 25**  
**Hours worked on crops agricultural education and hired workers by state: 2016**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>HOURS WORKED ON CROP ACTIVITIES</b>										
<b>Total</b>	<b>22 695</b>	<b>100.0</b>	<b>4 368</b>	<b>100.0</b>	<b>8 574</b>	<b>100.0</b>	<b>8 573</b>	<b>100.0</b>	<b>1 180</b>	<b>100.0</b>
None	8	0.0	0	0.0	8	0.1	0	0.0	0	0.0
1 to 4 hours	5 318	23.4	1 620	37.1	1 490	17.4	1 808	21.1	400	33.9
5 to 9 hours	5 222	23.0	1 100	25.2	1 903	22.2	1 949	22.7	270	22.9
10 to 14 hours	4 613	20.3	717	16.4	2 014	23.5	1 643	19.2	239	20.3
15 to 19 hours	1 691	7.5	199	4.6	781	9.1	638	7.4	73	6.2
20 to 24 hours	2 837	12.5	269	6.2	1 300	15.2	1 171	13.7	97	8.2
25 to 29 hours	522	2.3	76	1.7	244	2.8	184	2.1	18	1.5
30 hours or more	2 486	11.0	387	8.9	834	9.7	1 180	13.8	85	7.2
Median hours worked	11		8		12		12		9	
<b>AGRICULTURAL EDUCATION OF THOSE ENGAGED IN CROP ACTIVITIES</b>										
<b>Total</b>	<b>22 691</b>	<b>100.0</b>	<b>4 368</b>	<b>100.0</b>	<b>8 569</b>	<b>100.0</b>	<b>8 574</b>	<b>100.0</b>	<b>1 180</b>	<b>100.0</b>
Informal practical education	9 974	44.0	1 921	44.0	4 395	51.3	3 314	38.7	344	29.2
Short courses	798	3.5	157	3.6	307	3.6	288	3.4	46	3.9
Secondary school	386	1.7	38	0.9	83	1.0	218	2.5	47	4.0
Post-secondary school	87	0.4	19	0.4	13	0.2	44	0.5	11	0.9
None	11 446	50.4	2 233	51.1	3 771	44.0	4 710	54.9	732	62.0
<b>HIRED WORKERS FOR CROP ACTIVITIES</b>										
Households	14 029	100.0	2 138	100.0	5 742	100.0	5 259	100.0	890	100.0
Hired workers	1 224	8.7	71	3.3	698	12.2	415	7.9	40	4.5
Did not hire workers	12 805	91.3	2 067	96.7	5 044	87.8	4 844	92.1	850	95.5

Source: 2016 FSM Integrated Census



**TABLE 26**  
**Households with and without livestock by main purpose of land by state: 2016**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Households with Land used for Agriculture</b>	<b>14 029</b>	<b>100.0</b>	<b>2 138</b>	<b>100.0</b>	<b>5 742</b>	<b>100.0</b>	<b>5 259</b>	<b>100.0</b>	<b>890</b>	<b>100.0</b>
With Livestock	9 434	67.2	1 629	76.2	3 702	64.5	3 597	68.4	506	56.9
Without Livestock	4 595	32.8	509	23.8	2 040	35.5	1 662	31.6	384	43.1
<b>MAIN PURPOSE OF LAND USED FOR AGRICULTURE</b>										
Only for home consumption	10 443	74.4	1 497	70.0	4 400	76.6	3 762	71.5	784	88.1
With Livestock	6 834	48.7	1 108	51.8	2 842	49.5	2 451	46.6	433	48.7
Without Livestock	3 609	25.7	389	18.2	1 558	27.1	1 311	24.9	351	39.4
Mainly home consumption but occasional sell	3 364	24.0	573	26.8	1 279	22.3	1 417	26.9	95	10.6
With Livestock	2 435	17.4	469	21.9	812	14.1	1 089	20.7	65	7.3
Without Livestock	929	6.6	104	4.9	467	8.1	328	6.2	30	3.3
Mainly for sale but occasionally consume	211	1.5	68	3.2	59	1.0	74	1.4	10	1.1
With Livestock	157	1.1	52	2.4	44	0.8	54	1.0	7	0.7
Without Livestock	54	0.4	16	0.7	15	0.3	20	0.4	3	0.4
Only for sale	11	0.1	0	0	4	0.1	6	0.1	1	0.1
With Livestock	8	0.1	0	0	4	0.1	3	0.1	1	0.1
Without Livestock	3	*	0	0	0	0	3	0.1	0	0

Source: 2016 FSM Integrated Agriculture Census

**TABLE 27**  
**Households having livestock by type and sex of animals by state: 2016**

ANIMALS	TOTAL FSM																
	HHL'D'S			YAP			CHUUK			POHNPEI			KOSRAE				
	ANIMALS	AVE/HH	HHL'D'S	ANIMALS	AVE/HH	HHL'D'S	ANIMALS	AVE/HH	HHL'D'S	ANIMALS	AVE/HH	HHL'D'S	ANIMALS	AVE/HH	HHL'D'S	ANIMALS	AVE/HH
Adult Pigs	6 322	18 827	3.0	1 019	2 068	2.0	2 524	6 184	2.5	2 415	9 338	3.9	364	1 237	3.4		
Male		8 586	1.4		994	1.0		2 915	1.2		4 178	1.7		499	1.4		
Female		10 241	1.6		1 074	1.1		3 269	1.3		5 160	2.1		738	2.0		
Piglets	2 391	11 089	4.6	390	781	2.0	709	2 355	3.3	1 163	7 228	6.2	129	725	5.6		
Male		5 532	2.3		410	1.1		1 168	1.6		3 643	3.1		311	2.4		
Female		5 557	2.3		371	1.0		1 187	1.7		3 585	3.1		414	3.2		
Adult Broiler Chickens	201	2 391	11.9	45	442	9.8	54	492	9.1	99	1 448	14.6	3	9	3.0		
Male		1 174	5.8		212	4.7		231	4.3		728	7.4		3	1.0		
Female		1 217	6.1		230	5.1		261	4.8		720	7.3		6	2.0		
Adult Layer Chickens	146	1 810	12.4	49	709	14.5	23	172	7.5	70	842	12.0	4	87	21.8		
Male		466	3.2		74	1.5		78	3.4		256	3.7		58	14.5		
Female		1 344	9.2		635	13.0		94	4.1		586	8.4		29	7.3		
Adult Dual Chickens	100	1 018	10.2	23	223	9.7	30	291	9.7	46	487	10.6	1	17	17.0		
Male		548	5.5		115	5.0		143	4.8		279	6.1		11	11.0		
Female		470	4.7		108	4.7		148	4.9		208	4.5		6	6.0		
Adult local chickens	4 488	65 609	14.6	805	10 830	13.5	1 637	19 138	11.7	1 889	33 696	17.8	157	1 945	12.4		
Male		29 051	6.5		4 652	5.8		8 679	5.3		14 834	7.9		886	5.6		
Female		36 558	8.1		6 178	7.7		10 459	6.4		18 862	10.0		1 059	6.7		
Chicks	1 287	NA	NA	320	NA	NA	354	NA	NA	598	NA	NA	15	NA	NA		

Note: Number and sex of chicks was not available.  
Source: FSM 2016 Integrated Agriculture Census

**TABLE 27**  
**Households having livestock by type and sex of animals by state: 2016 (continued)**

ANIMALS	TOTAL FSM			YAP			CHUUK			POHNPEI			KOSRAE		
	HHL'D'S	ANIMALS	AVE/HH	HHL'D'S	ANIMALS	AVE/HH	HHL'D'S	ANIMALS	AVE/HH	HHL'D'S	ANIMALS	AVE/HH	HHL'D'S	ANIMALS	AVE/HH
Ducks	119	508	4.3	13	65	5.0	19	88	4.6	83	327	3.9	4	28	7.0
Male		239	2.0		38	2.9		54	2.8		138	1.7		9	2.3
Female		269	2.3		27	2.1		34	1.8		189	2.3		19	4.8
Dogs	5 847	16 636	2.8	987	2 322	2.4	2 220	5 940	2.7	2 391	7 641	3.2	249	733	2.9
Male		8 924	1.5		1 435	1.5		2 986	1.3		4 144	1.7		359	1.4
Female		7 712	1.3		887	0.9		2 954	1.3		3 497	1.5		374	1.5
Other	178	453	2.5	73	164	2.2	62	154	2.5	42	131	3.1	1	4	4.0
Male		231	1.3		83	1.1		76	1.2		69	1.6		3	3.0
Female		222	1.2		81	1.1		78	1.3		62	1.5		1	1.0

Note: Number and sex of chicks was not available.

Source: FSM 2016 Integrated Agriculture Census

**TABLE 28**  
**How animals kept by state: 2016**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Adult pigs</b>	<b>6 322</b>	<b>100.0</b>	<b>1 019</b>	<b>100.0</b>	<b>2 524</b>	<b>100.0</b>	<b>2 415</b>	<b>100.0</b>	<b>364</b>	<b>100.0</b>
Free ranging	2 237	35.4	228	35.4	1 580	35.4	408	35.4	21	35.4
In fenced closure	3 331	52.7	669	52.7	824	52.7	1 634	52.7	204	52.7
In building/cages	755	11.9	122	11.9	120	11.9	373	11.9	140	11.9
<b>Piglets</b>	<b>2 391</b>	<b>100.0</b>	<b>390</b>	<b>100.0</b>	<b>709</b>	<b>100.0</b>	<b>1 163</b>	<b>100.0</b>	<b>129</b>	<b>100.0</b>
Free ranging	835	34.9	113	34.9	497	34.9	222	34.9	3	34.9
In fenced closure	1 276	53.4	242	53.4	188	53.4	762	53.4	84	53.4
In building/cages	280	11.7	35	11.7	24	11.7	179	11.7	42	11.7
<b>Adult chickens: Broiler</b>	<b>201</b>	<b>100.0</b>	<b>45</b>	<b>100.0</b>	<b>54</b>	<b>100.0</b>	<b>99</b>	<b>100.0</b>	<b>3</b>	<b>100.0</b>
Free ranging	143	71.1	37	71.1	45	71.1	60	71.1	1	71.1
In fenced closure	49	24.4	5	24.4	9	24.4	33	24.4	2	24.4
In building/cages	9	4.5	3	4.5	0	4.5	6	4.5	0	4.5
<b>Adult chickens: Layer</b>	<b>146</b>	<b>100.0</b>	<b>49</b>	<b>100.0</b>	<b>23</b>	<b>100.0</b>	<b>70</b>	<b>100.0</b>	<b>4</b>	<b>100.0</b>
Free ranging	76	52.1	18	52.1	20	52.1	37	52.1	1	52.1
In fenced closure	52	35.6	22	35.6	3	35.6	25	35.6	2	35.6
In building/cages	18	12.3	9	12.3	0	12.3	8	12.3	1	12.3
<b>Adult chickens: Dual</b>	<b>100</b>	<b>100.0</b>	<b>23</b>	<b>100.0</b>	<b>30</b>	<b>100.0</b>	<b>46</b>	<b>100.0</b>	<b>1</b>	<b>100.0</b>
Free ranging	66	66.0	16	66.0	26	66.0	23	66.0	1	66.0
In fenced closure	29	29.0	4	29.0	4	29.0	21	29.0	0	29.0
In building/cages	5	5.0	3	5.0	0	5.0	2	5.0	0	5.0
<b>Adult chickens: Local</b>	<b>4 488</b>	<b>100.0</b>	<b>805</b>	<b>100.0</b>	<b>1 637</b>	<b>100.0</b>	<b>1 889</b>	<b>100.0</b>	<b>157</b>	<b>100.0</b>
Free ranging	3 960	88.2	748	88.2	1 510	88.2	1 567	88.2	135	88.2
In fenced closure	476	10.6	47	10.6	117	10.6	295	10.6	17	10.6
In building/cages	53	1.2	10	1.2	10	1.2	27	1.2	6	1.2
<b>Chicks</b>	<b>1 287</b>	<b>100.0</b>	<b>320</b>	<b>100.0</b>	<b>354</b>	<b>100.0</b>	<b>598</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>
Free ranging	1 075	83.5	297	83.5	324	83.5	439	83.5	15	83.5
In fenced closure	201	15.6	20	15.6	27	15.6	154	15.6	0	15.6
In building/cages	11	0.9	3	0.9	3	0.9	5	0.9	0	0.9
<b>Ducks</b>	<b>119</b>	<b>100.0</b>	<b>13</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>	<b>83</b>	<b>100.0</b>	<b>4</b>	<b>100.0</b>
Free ranging	100	84.0	9	84.0	16	84.0	72	84.0	3	84.0
In fenced closure	17	14.3	4	14.3	3	14.3	10	14.3	0	14.3
In building/cages	2	1.7	0	1.7	0	1.7	1	1.7	1	1.7
<b>Dogs</b>	<b>5 847</b>	<b>100.0</b>	<b>987</b>	<b>100.0</b>	<b>2 220</b>	<b>100.0</b>	<b>2 391</b>	<b>100.0</b>	<b>249</b>	<b>100.0</b>
Free ranging	5 291	90.5	942	90.5	2 084	90.5	2 027	90.5	238	90.5
In fenced closure	517	8.8	37	8.8	125	8.8	346	8.8	9	8.8
In building/cages	39	0.7	8	0.7	11	0.7	18	0.7	2	0.7

Source: 2016 FSM Integrated Census

**TABLE 28**  
**How animals kept by state: 2016 (continued)**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Other</b>	<b>178</b>	<b>100.0</b>	<b>73</b>	<b>100.0</b>	<b>62</b>	<b>100.0</b>	<b>42</b>	<b>100.0</b>	<b>1</b>	<b>100.0</b>
Free ranging	144	80.9	68	80.9	52	80.9	23	80.9	1	80.9
In fenced closure	29	16.3	4	16.3	7	16.3	18	16.3	0	16.3
In building/cages	5	2.8	1	2.8	3	2.8	1	2.8	0	2.8

Source: 2016 FSM Integrated Census

**TABLE 29**  
**Livestock reported disposed lost and gained in the last 12 months by state: 2016**

	NUMBER OF ANIMALS/BIRDS						
	ADULT PIGS	PIGLETS	ADULT CHICKENS	CHICKS	DUCKS	DOGS	OTHER
<b>TOTAL FSM ANIMALS DISPOSED OF</b>							
<b>Total</b>	<b>14 445</b>	<b>2 662</b>	<b>20 180</b>	<b>2 146</b>	<b>254</b>	<b>5 849</b>	<b>34</b>
Consumed at home	6 047	1 101	15 713	1 613	162	3 981	31
Customary/social Obligations	5 520	590	2 962	306	61	1 207	2
Sold	2 878	971	1 505	227	31	661	1
<b>Animals Lost</b>							
<b>Total</b>	<b>2 101</b>	<b>930</b>	<b>4 184</b>	<b>1 921</b>	<b>76</b>	<b>1 608</b>	<b>11</b>
Died from disease	631	358	1 606	826	43	690	3
Died from storm	308	145	485	175	5	219	2
Died natural cause	656	252	955	362	26	418	3
Other losses	506	175	1 138	558	2	281	3
<b>Animals Gained</b>							
<b>Total</b>	<b>5 462</b>	<b>2 801</b>	<b>6 805</b>	<b>3 849</b>	<b>479</b>	<b>4 189</b>	<b>23</b>
Births	3 014	1 927	4 884	3 200	262	2 604	6
Gifts	1 225	443	935	354	132	991	15
Bought	1 223	431	986	295	85	594	2
<b>YAP ANIMALS DISPOSED OF</b>							
<b>Total</b>	<b>338</b>	<b>123</b>	<b>1 016</b>	<b>57</b>	<b>0</b>	<b>51</b>	<b>20</b>
Consumed at home	151	8	931	57	0	46	20
Customary/social Obligations	33	8	58	0	0	5	0
Sold	154	107	27	0	0	0	0
<b>Animals Lost</b>							
<b>Total</b>	<b>60</b>	<b>32</b>	<b>438</b>	<b>343</b>	<b>1</b>	<b>35</b>	<b>1</b>
Died from disease	12	9	134	121	0	17	0
Died from storm	9	0	32	1	0	0	0
Died natural cause	20	12	104	95	1	5	1
Other losses	19	11	168	126	0	13	0
<b>Animals Gained</b>							
<b>Total</b>	<b>221</b>	<b>194</b>	<b>516</b>	<b>558</b>	<b>0</b>	<b>162</b>	<b>1</b>
Births	88	109	452	533	0	95	0
Gifts	56	17	59	16	0	67	1
Bought	77	68	5	9	0	0	0
<b>CHUUK ANIMALS DISPOSED OF</b>							
<b>Total</b>	<b>4 384</b>	<b>730</b>	<b>7 773</b>	<b>455</b>	<b>6</b>	<b>2 392</b>	<b>8</b>
Consumed at home	2 411	271	5 978	345	5	1 805	6
Customary/social Obligations	844	96	1 006	37	1	370	2
Sold	1 129	363	789	73	0	217	0

Source: FSM 2016 Integrated Agriculture Census



**TABLE 29**  
**Livestock reported disposed lost and gained in the last 12 months by state: 2016 (continued)**

	NUMBER OF ANIMALS/BIRDS						
	ADULT PIGS	PIGLETS	ADULT CHICKENS	CHICKS	DUCKS	DOGS	OTHER
<b>Animals Lost</b>							
<b>Total</b>	<b>792</b>	<b>400</b>	<b>1 897</b>	<b>618</b>	<b>15</b>	<b>957</b>	<b>10</b>
Died from disease	206	138	698	195	1	420	3
Died from storm	149	102	377	119	5	148	2
Died natural cause	294	95	374	112	9	245	2
Other losses	143	65	448	192	0	144	3
<b>Animals Gained</b>							
<b>Total</b>	<b>1 881</b>	<b>1 048</b>	<b>2 948</b>	<b>1 816</b>	<b>29</b>	<b>2 113</b>	<b>17</b>
Births	971	722	2 075	1 421	21	1 371	6
Gifts	457	164	439	213	8	429	9
Bought	453	162	434	182	0	313	2
<b>POHNPEI ANIMALS DISPOSED OF</b>							
<b>Total</b>	<b>18 116</b>	<b>3 510</b>	<b>22 460</b>	<b>3 254</b>	<b>496</b>	<b>6 732</b>	<b>12</b>
Consumed at home	9 058	1 755	11 230	1 627	248	3 366	6
Customary/social Obligations	3 152	798	8 694	1 204	157	2 101	5
Sold	4 453	477	1 889	269	60	832	0
<b>Animals Lost</b>							
<b>Total</b>	<b>1 453</b>	<b>480</b>	<b>647</b>	<b>154</b>	<b>31</b>	<b>433</b>	<b>1</b>
Died from disease	373	207	774	510	42	247	0
Died from storm	142	41	76	55	0	71	0
Died natural cause	328	139	471	155	16	167	0
Other losses	330	95	522	237	2	116	0
<b>Animals Gained</b>							
<b>Total</b>	<b>3 106</b>	<b>1 463</b>	<b>3 160</b>	<b>1 464</b>	<b>450</b>	<b>1 872</b>	<b>5</b>
Births	1 829	1 016	2 190	1 235	241	1 114	0
Gifts	643	250	423	125	124	478	5
Bought	634	197	547	104	85	280	0
<b>KOSRAE ANIMALS DISPOSED OF</b>							
<b>Total</b>	<b>665</b>	<b>54</b>	<b>161</b>	<b>7</b>	<b>0</b>	<b>40</b>	<b>0</b>
Consumed at home	333	24	110	7	0	29	0
Customary/social Obligations	190	9	9	0	0	0	0
Sold	142	21	42	0	0	11	0
<b>Animals Lost</b>							
<b>Total</b>	<b>76</b>	<b>16</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>15</b>	<b>0</b>
Died from disease	40	4	0	0	0	6	0
Died from storm	8	2	0	0	0	0	0
Died natural cause	14	6	6	0	0	1	0
Other losses	14	4	0	3	0	8	0

Source: FSM 2016 Integrated Agriculture Census

**TABLE 29**  
**Livestock reported disposed lost and gained in the last 12 months by state: 2016 (continued)**

	NUMBER OF ANIMALS/BIRDS						
	ADULT PIGS	PIGLETS	ADULT CHICKENS	CHICKS	DUCKS	DOGS	OTHER
<b>Animals Gained</b>							
<b>Total</b>	<b>255</b>	<b>96</b>	<b>181</b>	<b>11</b>	<b>0</b>	<b>42</b>	<b>0</b>
Births	127	80	167	11	0	24	0
Gifts	69	12	14	0	0	17	0
Bought	59	4	0	0	0	1	0

Source: FSM 2016 Integrated Agriculture Census

**TABLE 30**  
**Value of livestock sales in the last 12 months by state (USD): 2016**

	TOTAL	ADULT PIGS	PIGLETS	ADULT CHICKENS	CHICKS	DUCKS	DOGS	OTHER
<b>Total</b>	<b>902 702</b>	<b>745 046</b>	<b>77 291</b>	<b>38 398</b>	<b>4 179</b>	<b>4 430</b>	<b>31 308</b>	<b>2 050</b>
Yap	35 088	27 973	4 040	3 075	-	-	-	-
Chuuk	175 690	138 969	17 430	11 131	537	-	7 623	-
Pohnpei	652 348	539 557	55 414	23 834	3 642	4 430	23 421	2 050
Kosrae	39 576	38 547	407	358	-	-	264	-

Source: FSM 2016 Integrated Agriculture Census

**TABLE 31**  
**Livestock and poultry formal services used and purchased feed for main animals by state: 2016**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Adult pigs</b>	<b>6 322</b>	<b>100.0</b>	<b>1 019</b>	<b>100.0</b>	<b>2 524</b>	<b>100.0</b>	<b>2 415</b>	<b>100.0</b>	<b>364</b>	<b>100.0</b>
Vaccination/ dosing	360	5.7	7	0.7	46	1.8	230	9.5	77	21.2
Artificial insemination	96	1.5	7	0.7	16	0.6	39	1.6	34	9.3
Deworming	122	1.9	3	0.3	7	0.3	102	4.2	10	2.7
Castration	371	5.9	120	11.8	94	3.7	156	6.5	1	0.3
All of the above	196	3.1	16	1.6	61	2.4	94	3.9	25	6.9
Other	29	0.5	4	0.4	9	0.4	5	0.2	11	3.0
No services used	5 148	81.4	862	84.6	2 291	90.8	1 789	74.1	206	56.6
Purchased feed	1 710	27.0	30	2.9	112	4.4	1 433	59.3	135	37.1
<b>Piglets</b>	<b>2 391</b>	<b>100.0</b>	<b>390</b>	<b>100.0</b>	<b>709</b>	<b>100.0</b>	<b>1 163</b>	<b>100.0</b>	<b>129</b>	<b>100.0</b>
Vaccination/ dosing	122	5.1	3	0.8	9	1.3	87	7.5	23	17.8
Artificial insemination	45	1.9	1	0.3	11	1.6	19	1.6	14	10.9
Deworming	55	2.3	0	0.0	3	0.4	49	4.2	3	2.3
Castration	80	3.3	23	5.9	10	1.4	43	3.7	4	3.1
All of the above	59	2.5	4	1.0	7	1.0	42	3.6	6	4.7
Other	5	0.2	0	0.0	1	0.1	3	0.3	1	0.8
No services used	2 024	84.7	359	92.1	668	94.2	920	79.1	77	59.7
Purchased feed	743	31.1	9	2.3	37	5.2	644	55.4	53	41.1
<b>Adult chickens: Local</b>	<b>4 488</b>	<b>100.0</b>	<b>805</b>	<b>100.0</b>	<b>1 637</b>	<b>100.0</b>	<b>1 889</b>	<b>100.0</b>	<b>157</b>	<b>100.0</b>
Vaccination/ dosing	109	2.4	3	0.4	31	1.9	50	2.6	25	15.9
Artificial insemination	74	1.6	8	1.0	13	0.8	30	1.6	23	14.6
Deworming	16	0.4	2	0.2	1	0.1	13	0.7	0	0.0
Castration	50	1.1	25	3.1	2	0.1	12	0.6	11	7.0
All of the above	165	3.7	26	3.2	28	1.7	92	4.9	19	12.1
Other	16	0.4	0	0.0	8	0.5	4	0.2	4	2.5
No services used	4 058	90.4	741	92.0	1 554	94.9	1 688	89.4	75	47.8
Purchased feed	343	7.6	21	2.6	68	4.2	233	12.3	21	13.4
<b>Chicks</b>	<b>1 287</b>	<b>100.0</b>	<b>320</b>	<b>100.0</b>	<b>354</b>	<b>100.0</b>	<b>598</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>
Vaccination/ dosing	29	2.3	1	0.3	9	2.5	18	3.0	1	6.7
Artificial insemination	15	1.2	1	0.3	0	0.0	10	1.7	4	26.7
Deworming	5	0.4	1	0.3	0	0.0	4	0.7	0	0.0
Castration	11	0.9	8	2.5	0	0.0	1	0.2	2	13.3

Source: 2016 FSM Integrated Census

**TABLE 31**  
**Livestock and poultry formal services used and purchased feed for main animals by state: 2016**  
*(continued)*

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
All of the above	40	3.1	8	2.5	6	1.7	25	4.2	1	6.7
Other	1	0.1	0	0.0	0	0.0	1	0.2	0	0.0
No services used	1 186	92.2	301	94.1	339	95.8	539	90.1	7	46.7
Purchased feed	95	7.4	8	2.5	13	3.7	71	11.9	3	20.0
<b>Dogs</b>	<b>5 847</b>	<b>100.0</b>	<b>987</b>	<b>100.0</b>	<b>2 220</b>	<b>100.0</b>	<b>2 391</b>	<b>100.0</b>	<b>249</b>	<b>100.0</b>
Vaccination/ dosing	132	2.3	6	0.6	43	1.9	59	2.5	24	9.6
Artificial insemination	84	1.4	7	0.7	11	0.5	26	1.1	40	16.1
Deworming	29	0.5	4	0.4	4	0.2	21	0.9	0	0.0
Castration	71	1.2	36	3.6	9	0.4	17	0.7	9	3.6
All of the above	189	3.2	18	1.8	40	1.8	101	4.2	30	12.0
Other	33	0.6	1	0.1	12	0.5	12	0.5	8	3.2
No services used	5 310	90.8	915	92.7	2 101	94.6	2 155	90.1	139	55.8
Purchased feed	497	8.5	33	3.3	121	5.5	318	13.3	25	10.0

Source: 2016 FSM Integrated Census

**TABLE 32**  
**Waste disposal for selected animals by state: 2016**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Adult pigs</b>	<b>4 085</b>	<b>100.0</b>	<b>791</b>	<b>100.0</b>	<b>944</b>	<b>100.0</b>	<b>2 007</b>	<b>100.0</b>	<b>343</b>	<b>100.0</b>
Septic Tank	768	18.8	14	1.8	30	3.2	462	23.0	262	76.4
Open catchment (e.g. pit)	1 067	26.1	106	13.4	201	21.3	705	35.1	55	16.0
Recycle/Biogas/Dry litter	96	2.4	21	2.7	40	4.2	33	1.6	2	0.6
Open	2 154	52.7	650	82.2	673	71.3	807	40.2	24	7.0
<b>Piglets</b>	<b>1 555</b>	<b>100.0</b>	<b>277</b>	<b>100.0</b>	<b>212</b>	<b>100.0</b>	<b>941</b>	<b>100.0</b>	<b>125</b>	<b>100.0</b>
Septic Tank	307	19.7	2	0.7	7	3.3	214	22.7	84	67.2
Open catchment (e.g. pit)	457	29.4	26	9.4	53	25.0	350	37.2	28	22.4
Recycle/Biogas/Dry litter	40	2.6	8	2.9	6	2.8	26	2.8	0	0.0
Open	752	48.4	241	87.0	146	68.9	351	37.3	14	11.2
<b>Adult chickens: Local</b>	<b>528</b>	<b>100.0</b>	<b>57</b>	<b>100.0</b>	<b>127</b>	<b>100.0</b>	<b>322</b>	<b>100.0</b>	<b>22</b>	<b>100.0</b>
Septic Tank	69	13.1	3	5.3	8	6.3	50	15.5	8	36.4
Open catchment (e.g. pit)	159	30.1	6	10.5	16	12.6	131	40.7	6	27.3
Recycle/Biogas/Dry litter	5	0.9	0	0.0	1	0.8	4	1.2	0	0.0
Open	296	56.1	48	84.2	102	80.3	137	42.5	9	40.9

Source: 2016 FSM Integrated Census

**TABLE 33**  
**Age and sex of those engaged in livestock activities by state: 2016**

SEX AND AGE	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Total</b>	<b>14 662</b>	<b>100.0</b>	<b>3 186</b>	<b>100.0</b>	<b>5 525</b>	<b>100.0</b>	<b>5 283</b>	<b>100.0</b>	<b>668</b>	<b>100.0</b>
Less than 15	781	5.3	270	8.5	273	4.9	206	3.9	32	4.8
15-24	2 469	16.8	434	13.6	946	17.1	966	18.3	123	18.5
25-34	2 855	19.5	505	15.9	1 218	22.0	1 014	19.2	118	17.6
35-44	3 009	20.5	640	20.1	1 177	21.3	1 066	20.2	126	18.9
45-54	2 669	18.2	599	18.8	981	17.8	978	18.5	111	16.6
55-64	2 038	13.9	519	16.3	678	12.3	723	13.7	118	17.6
65+	841	5.7	219	6.9	252	4.6	330	6.2	40	5.9
<b>Male</b>	<b>9 175</b>	<b>62.6</b>	<b>1 450</b>	<b>45.5</b>	<b>3 526</b>	<b>63.8</b>	<b>3 625</b>	<b>68.6</b>	<b>574</b>	<b>86.0</b>
Less than 15	482	3.3	135	4.2	169	3.1	150	2.8	28	4.1
15-24	1 689	11.5	214	6.7	631	11.4	737	14.0	107	16.0
25-34	1 796	12.2	204	6.4	795	14.4	688	13.0	109	16.3
35-44	1 817	12.4	271	8.5	736	13.3	702	13.3	108	16.1
45-54	1 628	11.1	257	8.1	611	11.1	667	12.6	93	14.0
55-64	1 260	8.6	260	8.2	423	7.7	482	9.1	95	14.2
65+	504	3.4	109	3.4	161	2.9	199	3.8	35	5.3
<b>Female</b>	<b>5 487</b>	<b>37.4</b>	<b>1 736</b>	<b>54.5</b>	<b>1 999</b>	<b>36.2</b>	<b>1 658</b>	<b>31.4</b>	<b>93</b>	<b>14.0</b>
Less than 15	299	2.0	135	4.2	104	1.9	56	1.1	4	0.7
15-24	781	5.3	220	6.9	315	5.7	229	4.3	16	2.5
25-34	1 059	7.2	301	9.4	423	7.7	326	6.2	9	1.3
35-44	1 193	8.1	369	11.6	441	8.0	364	6.9	19	2.8
45-54	1 041	7.1	342	10.7	370	6.7	311	5.9	18	2.6
55-64	778	5.3	259	8.1	255	4.6	241	4.6	23	3.5
65+	336	2.3	110	3.5	91	1.6	131	2.5	4	0.7

Source: 2016 FSM Integrated Agriculture Census



**TABLE 34**  
**Livestock hours worked agricultural education hired workers by state: 2016**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>HOURS WORKED IN THE PAST WEEK BY THOSE ENGAGED IN LIVESTOCK ACTIVITIES</b>										
<b>Total</b>	<b>14 688</b>	<b>100.0</b>	<b>3 187</b>	<b>100.0</b>	<b>5 541</b>	<b>100.0</b>	<b>5 291</b>	<b>100.0</b>	<b>669</b>	<b>100.0</b>
None	7	0.0	0	0.0	7	0.1	0	0.0	0	0.0
1 to 4 hours	5 778	39.3	1 811	56.8	1 951	35.2	1 801	34.0	215	32.1
5 to 9 hours	3 910	26.6	890	27.9	1 255	22.6	1 599	30.2	166	24.8
10 to 14 hours	2 759	18.8	298	9.4	1 142	20.6	1 125	21.3	194	29.0
15 to 19 hours	560	3.8	40	1.3	289	5.2	210	4.0	21	3.1
20 to 24 hours	1 069	7.3	80	2.5	568	10.3	382	7.2	39	5.8
25 to 29 hours	130	0.9	12	0.4	66	1.2	32	0.6	20	3.0
30 hours or more	476	3.2	56	1.8	263	4.7	142	2.7	15	2.2
<b>AGRICULTURAL EDUCATION OF THOSE ENGAGED IN LIVESTOCK ACTIVITIES</b>										
<b>Total</b>	<b>14 681</b>	<b>100.0</b>	<b>3 187</b>	<b>100.0</b>	<b>5 534</b>	<b>100.0</b>	<b>5 291</b>	<b>100.0</b>	<b>669</b>	<b>100.0</b>
Informal practical education	6 959	47.4	1 566	49.1	3 239	58.5	1 961	37.1	193	28.8
Short courses	448	3.1	124	3.9	137	2.5	151	2.9	36	5.4
Secondary school	224	1.5	15	0.5	94	1.7	90	1.7	25	3.7
Post-secondary school	42	0.3	20	0.6	5	0.1	14	0.3	3	0.4
None	7 007	47.7	1 462	45.9	2 059	37.2	3 075	58.1	411	61.4
<b>HIRED WORKERS FOR LIVESTOCK ACTIVITIES</b>										
<b>Total</b>	<b>14 029</b>	<b>100.0</b>	<b>2 138</b>	<b>100.0</b>	<b>5 742</b>	<b>100.0</b>	<b>5 259</b>	<b>100.0</b>	<b>890</b>	<b>100.0</b>
Hired workers	284	2.0	38	1.8	103	1.8	128	2.4	15	1.7
Did not hire workers	13 745	98.0	2 100	98.2	5 639	98.2	5 131	97.6	875	98.3

Source: 2016 FSM Integrated Census

**TABLE 35**  
**Households engaged in fishing by activity catch species and environment by state: 2016**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Total households</b>	<b>15 544</b>	<b>100</b>	<b>2 279</b>	<b>100</b>	<b>6 223</b>	<b>100</b>	<b>6 005</b>	<b>100</b>	<b>1 037</b>	<b>100</b>
Households engaged in fishing	8 508	54.7	1 378	60.5	4 222	67.8	2 434	40.5	474	45.7
Households not engaged in fishing	7 036	45.3	901	39.5	2 001	32.2	3 571	59.5	563	54.3
<b>HOUSEHOLDS REPORTING:</b>										
Trolling	3 297	38.8	634	46.0	1 728	40.9	759	31.2	176	37.1
Bottom fishing (include drop stone)	3 939	46.3	633	45.9	2 335	55.3	825	33.9	146	30.8
Casting (Handline/pole)	3 127	36.8	403	29.2	1 443	34.2	1 105	45.4	176	37.1
Spear/harpoon	5 805	68.2	1 050	76.2	3 071	72.7	1 577	64.8	107	22.6
Cast Net	2 786	32.7	380	27.6	1 475	34.9	786	32.3	145	30.6
Gathering/Reef Gleaning	1 551	18.2	181	13.1	876	20.7	364	15.0	130	27.4
Trap/Fish Fence/Gill Net	1 549	18.2	261	18.9	774	18.3	386	15.9	128	27.0
Poison/Dynamite	277	3.3	5	0.4	92	2.2	147	6.0	33	7.0
Other	115	1.4	1	0.1	49	1.2	48	2.0	17	3.6
Only for sale	11	0.1	0	0	4	0.1	6	0.1	1	0.1
<b>HOUSEHOLD CATCHING SPECIES:</b>										
Oceanic fish (tuna and oceanic pelagic)	3 059	36.0	629	45.6	1 577	37.4	709	29.1	144	30.4
Coastal fish (Reef finfish)	6 799	79.9	1 251	90.8	3 203	75.9	1 994	81.9	351	74.1
Ornamental fish	1 878	22.1	332	24.1	1 206	28.6	293	12.0	47	9.9
Lobster	2 850	33.5	604	43.8	1 756	41.6	436	17.9	54	11.4
Crab	3 008	35.4	439	31.9	1 831	43.4	653	26.8	85	17.9
Octopus/squid	4 348	51.1	650	47.2	3 155	74.7	515	21.2	28	5.9
Shellfish (Clams oysters etc.)	2 086	24.5	351	25.5	1 365	32.3	355	14.6	15	3.2
Sea cucumber	1 237	14.5	32	2.3	927	22.0	256	10.5	22	4.6
Turtle	2 210	26.0	408	29.6	1 348	31.9	421	17.3	33	7.0
Sea urchin	134	1.6	15	1.1	95	2.3	22	0.9	2	0.4
Inland/freshwater fish species	232	2.7	4	0.3	59	1.4	130	5.3	39	8.2
Coral (live)	59	0.7	4	0.3	35	0.8	19	0.8	1	0.2
Coral (dead) for lime production	85	1.0	18	1.3	41	1.0	26	1.1	0	0.0
Other	21	0.2	2	0.1	10	0.2	8	0.3	1	0.2

Note: Tables have more than the total number of households reporting households may undertake multiple types of fishing and catch many species

Source: 2016 FSM Integrated Census

**TABLE 35**  
**Households engaged in fishing by activity catch species and environment by state: 2016 (continued)**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>HOUSEHOLDS FISHING IN:</b>										
Mangrove	1 778	20.9	259	18.8	827	19.6	602	24.7	90	19.0
Lagoon	4 529	53.2	588	42.7	2 730	64.7	1 116	45.9	95	20.0
Coastal reefs	6 383	75.0	1 205	87.4	3 162	74.9	1 726	70.9	290	61.2
Outer Reefs	3 849	45.2	682	49.5	2 297	54.4	752	30.9	118	24.9
Pelagic/open ocean	2 027	23.8	491	35.6	992	23.5	430	17.7	114	24.1
Fresh water	352	4.1	9	0.7	144	3.4	146	6.0	53	11.2
Near a fish aggregating device	103	1.2	37	2.7	29	0.7	17	0.7	20	4.2
Other	6	0.1	0	0.0	5	0.1	1	0.0	0	0.0

Note: Tables have more than the total number of households reporting households may undertake multiple types of fishing and catch many species

Source: 2016 FSM Integrated Census

**TABLE 36**  
**Households reporting fish species by main purpose by state: 2016**

SPECIES	NUMBER OF HOUSEHOLDS CATCHING THIS SPECIES	MAIN PURPOSE OF CATCHING							
		HOME USE ONLY		MAINLY HOME USE		MAINLY OR ONLY FOR SALE		MAINLY CHURCH, CULTURAL OR OTHER	
		NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>TOTAL PSM</b>									
Oceanic fish (tuna and pelagic)	3,059	2,107	68.9	397	13.0	154	5.0	401	13.1
Coastal fish (Reef finfish)	6,799	5,152	75.8	971	14.3	120	1.8	556	8.2
Ornamental fish	1,878	1,453	77.4	281	15.0	47	2.5	97	5.2
Lobster	2,850	2,278	79.9	289	10.1	84	2.9	199	7.0
Crab	3,008	2,411	80.2	354	11.8	47	1.6	196	6.5
Octopus/squid	4,348	3,382	77.8	574	13.2	62	1.4	329	7.6
Shellfish (Clams, oysters, etc.)	2,086	1,773	85.0	197	9.4	23	1.1	93	4.5
Sea cucumber	1,237	965	78.0	146	11.8	28	2.3	98	7.9
Turtle	2,210	1,668	75.5	284	12.9	60	2.7	198	9.0
Sea urchin	134	111	82.8	15	11.2	0	0.0	8	6.0
Inland/freshwater fish species	232	170	73.3	29	12.5	1	0.4	31	13.4
Coral (live)	59	47	79.7	9	15.3	0	0.0	3	5.1
Coral (dead) for lime production	85	55	64.7	15	17.6	3	3.5	12	14.1
Other	21	18	85.7	1	4.8	1	4.8	1	4.8
<b>YAP</b>									
Oceanic fish (tuna and pelagic)	629	590	93.8	24	3.8	3	0.5	12	1.9
Coastal fish (Reef finfish)	1 251	1 135	90.7	79	6.3	4	0.3	33	2.6
Ornamental fish	332	323	97.3	5	1.5	1	0.3	3	0.9
Lobster	604	572	94.7	17	2.8	1	0.2	14	2.3
Crab	439	419	95.4	13	3.0	0	0.0	7	1.6
Octopus/squid	650	633	97.4	11	1.7	1	0.2	5	0.8
Shellfish (Clams, oysters, etc.)	351	338	96.3	10	2.8	0	0.0	3	0.9
Sea cucumber	32	29	90.6	1	3.1	0	0.0	2	6.3
Turtle	408	395	96.8	6	1.5	1	0.2	6	1.5
Sea urchin	15	15	100.0	0	0.0	0	0.0	0	0.0
Inland/freshwater fish species	4	4	100.0	0	0.0	0	0.0	0	0.0
Coral (live)	4	3	75.0	1	25.0	0	0.0	0	0.0
Coral (dead) for lime production	18	12	66.7	0	0.0	2	11.1	4	22.2
Other	2	2	100.0	0	0.0	0	0.0	0	0.0

Note: Tables have more than the total number of households as households may catch many species. Some categories have been amalgamated due to small numbers.

Source: FSM 2016 Integrated Agriculture Census

**TABLE 36**  
**Households reporting fish species by main purpose by state: 2016 (continued)**

SPECIES	NUMBER OF HOUSEHOLDS CATCHING THIS SPECIES	MAIN PURPOSE OF CATCHING							
		HOME USE ONLY		MAINLY HOME USE		MAINLY OR ONLY FOR SALE		MAINLY CHURCH, CULTURAL OR OTHER	
		NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>CHUUK</b>									
Oceanic fish (tuna and pelagic)	1 577	1 068	67.7	203	12.9	104	6.6	202	12.8
Coastal fish (Reef finfish)	3 203	2 418	75.5	508	15.9	89	2.8	188	5.9
Ornamental fish	1 206	888	73.6	203	16.8	46	3.8	69	5.7
Lobster	1 756	1 364	77.7	202	11.5	60	3.4	130	7.4
Crab	1 831	1 484	81.0	234	12.8	11	0.6	102	5.6
Octopus/squid	3 155	2 301	72.9	506	16.0	55	1.7	293	9.3
Shellfish (Clams, oysters, etc.)	1 365	1 149	84.2	136	10.0	19	1.4	61	4.5
Sea cucumber	927	734	79.2	100	10.8	20	2.2	73	7.9
Turtle	1 348	949	70.4	206	15.3	43	3.2	150	11.1
Sea urchin	95	80	84.2	9	9.5	0	0.0	6	6.3
Inland/freshwater fish species	59	48	81.4	8	13.6	0	0.0	3	5.1
Coral (live)	35	32	91.4	2	5.7	0	0.0	1	2.9
Coral (dead) for lime production	41	33	80.5	6	14.6	0	0.0	2	4.9
Other	10	10	100.0	0	0.0	0	0.0	0	0.0
<b>POHNPEI</b>									
Oceanic fish (tuna and pelagic)	709	375	52.9	138	19.5	46	6.5	150	21.2
Coastal fish (Reef finfish)	1 995	1 332	66.8	326	16.3	26	1.3	311	15.6
Ornamental fish	293	208	71.0	62	21.2	0	0.0	23	7.8
Lobster	436	308	70.6	61	14.0	21	4.8	46	10.6
Crab	653	465	71.2	93	14.2	30	4.6	65	10.0
Octopus/squid	515	426	82.7	55	10.7	6	1.2	28	5.4
Shellfish (Clams, oysters, etc.)	355	275	77.5	49	13.8	4	1.1	27	7.6
Sea cucumber	256	185	72.3	43	16.8	8	3.1	20	7.8
Turtle	421	309	73.4	65	15.4	14	3.3	33	7.8
Sea urchin	22	15	68.2	5	22.7	0	0.0	2	9.1
Inland/freshwater fish species	130	93	71.5	11	8.5	1	0.8	25	19.2
Coral (live)	19	11	57.9	6	31.6	0	0.0	2	10.5
Coral (dead) for lime production	26	10	38.5	9	34.6	1	3.8	6	23.1
Other	8	5	62.5	1	12.5	1	12.5	1	12.5

Note: Tables have more than the total number of households as households may catch many species. Some categories have been amalgamated due to small numbers.

Source: FSM 2016 Integrated Agriculture Census

**TABLE 36**  
**Households reporting fish species by main purpose by state: 2016 (continued)**

SPECIES	NUMBER OF HOUSEHOLDS CATCHING THIS SPECIES	MAIN PURPOSE OF CATCHING							
		HOME USE ONLY		MAINLY HOME USE		MAINLY OR ONLY FOR SALE		MAINLY CHURCH, CULTURAL OR OTHER	
		NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>KOSRAE</b>									
Oceanic fish (tuna and pelagic)	144	74	51.4	32	22.2	1	0.7	37	25.7
Coastal fish (Reef finfish)	351	267	76.1	58	16.5	1	0.3	24	6.8
Ornamental fish	47	34	72.3	11	23.4	0	0.0	2	4.3
Lobster	54	34	63.0	9	16.7	2	3.7	9	16.7
Crab	85	43	50.6	14	16.5	6	7.1	22	25.9
Octopus/squid	28	22	78.6	2	7.1	0	0.0	3	10.7
Shellfish (Clams, oysters, etc.)	15	11	73.3	2	13.3	0	0.0	2	13.3
Sea cucumber	22	16	72.7	2	9.1	0	0.0	3	13.6
Turtle	33	15	45.5	7	21.2	2	6.1	9	27.3
Sea urchin	2	1	50.0	1	50.0	0	0.0	0	0.0
Inland/freshwater fish species	39	25	64.1	10	25.6	0	0.0	3	7.7
Coral (live)	1	1	100.0	0	0.0	0	0.0	0	0.0
Coral (dead) for lime production	0	0	*	0	*	0	*	0	*
Other	1	1	100.0	0	0.0	0	0.0	0	0.0

Note: Tables have more than the total number of households as households may catch many species. Some categories have been amalgamated due to small numbers.

Source: FSM 2016 Integrated Agriculture Census



**TABLE 37**  
**Proportion of catch sold and where sold by species: 2016**

SPECIES	NUMBER OF HOUSEHOLDS REPORTING SALES		PROPORTION OF CATCH SOLD FOR THOSE THAT SOLD							
			LESS THAN 25%		25% TO 49%		50% TO 74%		75% TO 100%	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
Oceanic fish (tuna and pelagic fish)	952	31.1	135	14.2	202	21.2	284	29.8	332	34.9
Coastal fish (reef fish)	1 648	24.2	348	21.1	404	24.5	510	30.9	385	23.4
Ornamental fish	427	22.7	118	27.6	93	21.8	102	23.9	114	26.7
Lobster	572	20.1	122	21.3	122	21.3	130	22.7	198	34.6
Crab	597	19.8	147	24.6	160	26.8	123	20.6	167	28.0
Octopus/squid	966	22.2	301	31.2	273	28.3	152	15.7	239	24.7
Shellfish (clams oysters etc)	313	15.0	94	30.0	74	23.6	62	19.8	83	26.5
Sea cucumber	273	22.1	55	20.1	81	29.7	45	16.5	91	33.3
Turtle	542	24.5	138	25.5	130	24.0	98	18.1	175	32.3
Inland/ fresh water fish	61	26.3	7	11.5	30	49.2	16	26.2	8	13.1
Coral (dead) for lime production	30	35.3	6	20.0	1	3.3	5	16.7	18	60.0
Other (include Live coral and sea urchin)	38	17.8	10	26.3	8	21.1	6	15.8	14	36.8

Note: Households may sell more than one species, so total is larger than the number of fishing households that sold fish.

Source: 2016 FSM Integrated Census

**TABLE 37A**  
**Proportion of catch sold and where sold by species: 2016**

SPECIES	NUMBER OF HOUSEHOLDS REPORTING SALES		LOCAL SHOP			PUBLIC MARKET			RESTAURANT/HOTEL			DIRECT TO CONSUMER			OTHER		
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	
Oceanic fish (tuna and pelagic fish)	952	31.1	95	10.0	577	60.6	13	1.4	251	26.4	16	1.7					
Coastal fish (reef fish)	1 648	24.2	258	15.7	842	51.1	13	0.8	510	30.9	25	1.5					
Ornamental fish	425	22.7	42	9.9	202	47.5	8	1.9	168	39.5	5	1.2					
Lobster	572	20.1	47	8.2	259	45.3	55	9.6	200	35.0	10	1.7					
Crab	597	19.8	71	11.9	231	38.7	36	6.0	246	41.2	12	2.0					
Octopus/squid	966	22.2	82	8.5	363	37.6	23	2.4	477	49.4	20	2.1					
Shellfish (Clams oysters etc)	313	15.0	41	13.1	130	41.5	7	2.2	127	40.6	8	2.6					
Sea cucumber	273	22.1	38	13.9	107	39.2	14	5.1	109	39.9	4	1.5					
Turtle	542	24.5	70	12.9	149	27.5	3	0.6	311	57.4	8	1.5					
Inland/fresh water fish	61	45.5	4	6.6	31	50.8	2	3.3	25	41.0	0	0.0					
Coral (dead) for lime production	30	12.9	4	13.3	12	40.0	0	0.0	13	43.3	1	3.3					
Other (include Live coral and sea urchin)	38	23.0	5	13.2	19	50.0	0	0.0	14	36.8	0	0.0					

Note: Households may sell more than one species, so total is larger than the number of fishing households that sold fish.  
Source: 2016 FSM Integrated Census

**TABLE 38**  
**Average number of fishing trips per month by state and municipality: 2016**

	NUMBER OF HOUSEHOLDS THAT DID FISHING	AVERAGE NUMBER OF TRIPS PER MONTH REPORTED	TRIPS PER MONTH					NO ACTIVITY/ NO RESPONSE
			1 TO 7 PER MONTH	8 TO 14 PER MONTH	15 TO 21 PER MONTH	22 TO 30 PER MONTH	31+ PER MONTH	
<b>Total FSM</b>	<b>8 508</b>	<b>8.5</b>	<b>9 789</b>	<b>6 463</b>	<b>1 883</b>	<b>460</b>	<b>367</b>	<b>68</b>
<b>Yap</b>	1 378	8.1	1 922	868	327	86	63	5
Yap Proper	825	6.1	1 126	267	32	14	25	2
Outer Islands	553	9.8	796	601	295	72	38	3
<b>Chuuk State</b>	<b>4 222</b>	<b>8.8</b>	<b>4 773</b>	<b>3 857</b>	<b>1 024</b>	<b>287</b>	<b>201</b>	<b>46</b>
Northern Namoneas	705	8.3	726	581	119	33	14	2
Southern Namoneas	1 036	7.7	1 340	889	159	27	38	19
Faichuk	1 188	9.0	1 365	1 189	303	119	43	4
Mortlocks	675	9.5	655	609	235	42	33	9
Northwest	618	10.0	687	589	208	66	73	12
<b>Pohnpei</b>	<b>2 434</b>	<b>8.1</b>	<b>2 575</b>	<b>1 580</b>	<b>467</b>	<b>76</b>	<b>78</b>	<b>16</b>
Madolenihmw	625	7.5	667	370	73	14	17	0
U	243	8.8	163	102	29	6	13	0
Nett	271	7.4	263	113	30	2	11	0
Sokehs	489	7.7	496	255	75	12	11	3
Kitti	437	9.4	472	458	184	25	11	3
Kolonias	170	8.2	204	82	26	9	13	1
Outer Islands	199	7.6	310	200	50	8	2	9
<b>Kosrae</b>	<b>474</b>	<b>7.6</b>	<b>519</b>	<b>158</b>	<b>65</b>	<b>11</b>	<b>25</b>	<b>1</b>

Note: Tables have more than the total number of households reporting trips as some households undertake multiple types of fishing  
Source: FSM 2016 Integrated Agriculture Census

**TABLE 39**  
**Number of fishing trips per month by area fished and type of activity: 2016**

	HOUSEHOLDS REPORTING	AVERAGE NUMBER OF TRIPS PER MONTH BY HOUSEHOLDS REPORTING	TRIPS PER MONTH					NO ACTIVITY/ NO RESPONSE
			1 TO 7 PER MONTH	8 TO 14 PER MONTH	15 TO 21 PER MONTH	22 TO 30 PER MONTH	31+ PER MONTH	
<b>AREA FISHERY</b>								
Mangrove	1 778	8.0	995	563	140	43	33	6
Lagoon	4 529	8.5	2249	1629	462	89	86	15
Coastal reefs	6 383	8.6	3176	2256	659	153	124	15
Outer Reefs	3 849	8.4	1965	1347	353	88	76	20
Pelagic/ open ocean	2 027	8.6	1125	545	235	78	36	10
Fresh water	352	8.3	193	111	34	4	10	0
Near a fish aggregating device	103	6.2	80	13	1	4	2	2
Other	6	4.0	6	0	0	0	0	0
<b>FISHING ACTIVITY</b>								
Trolling	3 297	8.0	1 979	819	288	109	73	28
Bottom fishing (include drop stone)	3 939	8.2	2 054	1 371	334	75	71	34
Casting (Handline/pole)	3 127	8.1	1 710	1 013	263	73	51	17
Spear/harpoon	5 805	9.1	2 665	2 108	719	150	126	35
Cast Net	2 786	8.1	1 493	932	227	62	52	20
Gathering/ Reef Gleaning	1 551	8.2	887	449	110	54	39	12
Trap/Fish Fence/Gill Net	1 549	8.1	869	459	114	48	35	24
Poison/ Dynamite	277	7.8	163	79	21	6	6	1
Other	115	8.7	62	32	12	3	4	1

Note: Tables have more than the total number of household as some households undertake multiple types of fishing.

Source: FSM 2016 Integrated Agriculture Census

**TABLE 40**  
**Age and sex of those engaged in fishing activities by state: 2016**

SEX AND AGE	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Total</b>	<b>11 079</b>	<b>100.0</b>	<b>1 930</b>	<b>100.0</b>	<b>5 966</b>	<b>100.0</b>	<b>2 838</b>	<b>100.0</b>	<b>345</b>	<b>100.0</b>
Less than 15	416	3.8	76	3.9	234	3.9	82	2.9	24	7
15-24	2 173	19.6	382	19.8	1 189	19.9	542	19.1	61	17.5
25-34	2 623	23.7	361	18.7	1 557	26.1	635	22.4	70	20.4
35-44	2 458	22.2	430	22.3	1 313	22	646	22.8	69	20.1
45-54	1 834	16.6	367	19	888	14.9	515	18.1	64	18.5
55-64	1 225	11.1	248	12.8	599	10	333	11.7	45	13.1
65+	349	3.2	66	3.4	186	3.1	85	3	12	3.5
<b>Male</b>	<b>9 349</b>	<b>84.4</b>	<b>1 824</b>	<b>94.5</b>	<b>4 984</b>	<b>83.5</b>	<b>2 266</b>	<b>79.8</b>	<b>275</b>	<b>79.6</b>
Less than 15	319	2.9	70	3.6	169	2.8	63	2.2	16	4.8
15-24	1 898	17.1	369	19.1	1 010	16.9	464	16.3	55	15.9
25-34	2 255	20.4	333	17.3	1 338	22.4	524	18.5	61	17.5
35-44	2 080	18.8	407	21.1	1 109	18.6	509	17.9	55	15.9
45-54	1 525	13.8	346	17.9	739	12.4	393	13.8	47	13.7
55-64	1 004	9.1	237	12.3	476	8	259	9.1	32	9.2
65+	268	2.4	62	3.2	143	2.4	54	1.9	9	2.5
<b>Female</b>	<b>1 730</b>	<b>15.6</b>	<b>106</b>	<b>5.5</b>	<b>982</b>	<b>16.5</b>	<b>572</b>	<b>20.2</b>	<b>70</b>	<b>20.4</b>
Less than 15	98	0.9	6	0.3	65	1.1	19	0.7	8	2.2
15-24	276	2.5	13	0.7	179	3	78	2.7	6	1.6
25-34	368	3.3	28	1.5	219	3.7	111	3.9	10	2.9
35-44	378	3.4	23	1.2	204	3.4	137	4.8	14	4.1
45-54	309	2.8	21	1.1	149	2.5	122	4.3	16	4.8
55-64	221	2	11	0.6	123	2.1	74	2.6	13	3.8
65+	81	0.7	4	0.2	43	0.7	31	1.1	3	1

Source: 2016 FSM Integrated Agriculture Census

**TABLE 41**  
**Households aware of fisheries management programs by source of information by state: 2016**

SOURCE OF INFORMATION	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Total households</b>	<b>15 545</b>	<b>100.0</b>	<b>2 279</b>	<b>100.0</b>	<b>6 223</b>	<b>100.0</b>	<b>6 006</b>	<b>100.0</b>	<b>1 037</b>	<b>100.0</b>
Aware of Fisheries Management Programs	2 745	17.7	1 168	51.3	640	10.3	845	14.1	92	8.9
Not aware of these programs	12 800	82.3	1 111	48.7	5 583	89.7	5 161	85.9	945	91.1
<b>Total</b>	<b>2 745</b>	<b>100.0</b>	<b>1 168</b>	<b>100.0</b>	<b>640</b>	<b>100.0</b>	<b>845</b>	<b>100.0</b>	<b>92</b>	<b>100.0</b>
Fisheries officer	397	14.5	91	7.8	57	8.9	224	26.5	25	27.4
Within the village	1 540	56.1	886	75.9	325	50.8	292	34.6	37	40.5
Nearby village	162	5.9	76	6.5	29	4.5	55	6.5	2	2.4
Radio station	548	20	75	6.4	218	34.1	231	27.3	24	26.2
Television	5	0.2	2	0.2	1	0.2	2	0.2	0	0
Newspaper	11	0.4	3	0.3	0	0	8	0.9	0	0
Schools	28	1	15	1.3	6	0.9	7	0.8	0	0
Other	53	1.9	20	1.7	4	0.6	26	3.1	3	3.6

Source: FSM 2016 Integrated Agriculture Census



**TABLE 42**  
**Aquaculture activity and products by state: 2016**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>DID AQUACULTURE ACTIVITY</b>										
<b>Total</b>	<b>15 541</b>	<b>100.0</b>	<b>2 279</b>	<b>100.0</b>	<b>6 223</b>	<b>100.0</b>	<b>6 002</b>	<b>100.0</b>	<b>1 037</b>	<b>100.0</b>
Did aquaculture	499	3.2	69	3.0	186	3.0	222	3.7	22	2.1
Did no aquaculture	15 042	96.8	2 210	97.0	6 037	97.0	5 780	96.3	1 015	97.9
<b>PRODUCTS CULTIVATED</b>										
Clams	313	62.7	62	89.9	127	68.3	118	53.2	6	27.3
Trochus	85	17.0	36	52.2	29	15.6	16	7.2	4	18.2
Black Pearl	45	9.0	1	1.4	31	16.7	12	5.4	1	4.5
Sea Cucumber	133	26.7	4	5.8	73	39.2	49	22.1	7	31.8
Sponges/soft coral	62	12.4	1	1.4	30	16.1	27	12.2	4	18.2
Hard coral	58	11.6	1	1.4	33	17.7	24	10.8	0	0.0
Ornamental coral	45	9.0	1	1.4	34	18.3	10	4.5	0	0.0
Crustacean	34	6.8	1	1.4	23	12.4	8	3.6	2	9.1
Seaweed	59	11.8	2	2.9	49	26.3	8	3.6	0	0.0
Finfish	48	9.6	2	2.9	31	16.7	9	4.1	6	27.3
Freshwater species	34	6.8	0	0.0	14	7.5	19	8.6	1	4.5
Other	17	3.4	0	0.0	10	5.4	5	2.3	2	9.1

Source: 2016 FSM Integrated Census

**TABLE 43**  
**Main operator and household members engaged in aquaculture by sex and age by state: 2016**

AGE	TOTAL FSM			YAP			CHUUK			POHNPEI			KOSRAE		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
<b>MAIN OPERATOR</b>															
<b>Total</b>	<b>333</b>	<b>257</b>	<b>77</b>	<b>64</b>	<b>59</b>	<b>5</b>	<b>109</b>	<b>85</b>	<b>24</b>	<b>146</b>	<b>107</b>	<b>39</b>	<b>14</b>	<b>6</b>	<b>9</b>
less than 20	22	18	4	8	8	0	8	5	3	6	5	1	0	0	0
20-29	43	33	10	7	7	0	13	8	5	23	18	5	0	0	0
30-39	72	58	14	11	11	0	25	21	4	33	24	9	3	2	1
40-49	83	65	18	13	10	3	31	24	7	37	30	7	2	1	1
50-59	67	54	13	19	18	1	15	14	1	30	20	10	3	2	1
60-69	38	25	13	5	4	1	14	12	2	15	9	6	4	0	4
70 and over	7	3	4	1	1	0	3	1	2	2	1	1	1	0	1
<b>ALL HOUSEHOLD MEMBERS</b>															
<b>Total</b>	<b>539</b>	<b>382</b>	<b>157</b>	<b>108</b>	<b>98</b>	<b>10</b>	<b>196</b>	<b>127</b>	<b>69</b>	<b>216</b>	<b>148</b>	<b>68</b>	<b>19</b>	<b>9</b>	<b>10</b>
less than 20	70	47	23	17	15	2	35	16	19	17	15	2	1	1	0
20-29	92	69	23	14	14	0	35	20	15	43	35	8	0	0	0
30-39	123	91	32	18	18	0	50	38	12	51	32	19	4	3	1
40-49	117	82	35	25	20	5	40	26	14	48	34	14	4	2	2
50-59	81	59	22	23	22	1	17	14	3	38	21	17	3	2	1
60-69	44	29	15	9	7	2	14	12	2	17	10	7	4	0	4
70 and over	10	4	6	2	2	0	5	1	4	2	1	1	1	0	1

Source: FSM 2016 Integrated Agriculture Census

**TABLE 44**

**Household members engaged in aquaculture by sex and hours worked by state: 2016**

HOURS WORKED	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE			
	TOTAL	MALE	TOTAL	MALE	TOTAL	MALE	TOTAL	MALE	TOTAL	MALE		
		FEMALE		FEMALE		FEMALE		FEMALE		FEMALE		
<b>Total</b>	<b>520</b>	<b>374</b>	<b>146</b>	<b>9</b>	<b>191</b>	<b>130</b>	<b>207</b>	<b>141</b>	<b>66</b>	<b>19</b>	<b>9</b>	<b>10</b>
Less than 10	354	258	97	8	121	83	129	86	43	15	8	8
10-14	49	36	13	1	11	9	32	22	10	0	0	0
15-19	19	15	4	0	11	9	3	3	0	2	0	2
20-29	34	20	14	0	4	1	27	16	11	0	0	0
30-39	40	28	12	0	28	18	11	9	2	0	0	0
40 and over	23	17	6	0	16	10	5	5	0	1	1	0

Source: FSM 2016 Integrated Agriculture Census

**TABLE 45**  
**Forest uses by main purpose by state: 2016**

	NUMBER OF HOUSEHOLDS WITH MAIN USE FOR:						
	TOTAL	PRODUCTION	SOCIAL OR CULTURAL VALUES	SOIL AND WATER PROTECTION	RECREATION AND ECO-TOURISM	IMPROVING AGRICULTURE	OTHER
<b>TOTAL FSM</b>							
Trees for building or furniture	5 447	3 260	1 401	388	31	222	145
Trees/products for handicraft (e.g. jewelry, decoration)	1 549	798	469	156	11	88	27
Trees/products for carving (e.g. utensils)	1 235	651	361	113	4	89	17
Trees/products for transportation (canoe)	1 382	754	415	92	8	93	20
Firewood	8 368	5 147	1 982	492	54	310	383
Gathering wild food	222	132	74	9	3	3	1
Gathering medicines	395	256	108	21	0	7	3
Other use	116	76	21	10	0	9	0
<b>YAP</b>							
Trees for building or furniture	931	519	269	86	6	35	16
Trees/products for handicraft (e.g. jewelry, decoration)	402	232	115	22	4	19	10
Trees/products for carving (e.g. utensils)	327	177	103	21	4	13	9
Trees/products for transportation (canoe)	349	188	94	26	4	27	10
Firewood	1 224	736	288	112	7	40	41
Gathering wild food	31	22	6	3	0	0	0
Gathering medicines	161	106	40	12	0	3	0
Other use	17	5	9	2	0	1	0
<b>CHUUK</b>							
Trees for building or furniture	2 802	1516	832	240	24	114	76
Trees/products for handicraft (e.g. jewelry, decoration)	904	413	282	129	7	62	11
Trees/products for carving (e.g. utensils)	761	377	227	90	0	61	6
Trees/products for transportation (canoe)	828	416	285	57	3	60	7
Firewood	4 150	2322	1152	282	45	157	192
Gathering wild food	156	81	64	5	3	3	0
Gathering medicines	166	96	59	7	0	3	1
Other use	60	44	7	6	0	3	0

Note: Households may report more than one use

Source: FSM 2016 Integrated Agriculture Census

**TABLE 45**  
**Forest uses by main purpose by state: 2016 (continued)**

	NUMBER OF HOUSEHOLDS WITH MAIN USE FOR:						
	TOTAL	PRODUCTION	SOCIAL OR CULTURAL VALUES	SOIL AND WATER PROTECTION	RECREATION AND ECO-TOURISM	IMPROVING AGRICULTURE	OTHER
<b>POHNPEI</b>							
Trees for building or furniture	1 563	1 139	271	47	1	72	33
Trees/products for handicraft (e.g. jewelry, decoration)	233	150	65	5	0	7	6
Trees/products for carving (e.g. utensils)	133	85	30	2	0	14	2
Trees/products for transportation (canoe)	194	140	35	9	1	6	3
Firewood	2 728	1 925	498	79	2	110	114
Gathering wild food	33	28	4	1	0	0	0
Gathering medicines	66	54	8	2	0	1	1
Other use	39	27	5	2	0	5	0
<b>KOSRAE</b>							
Trees for building or furniture	151	86	29	15	0	1	20
Trees/products for handicraft (e.g. jewelry, decoration)	10	3	7	0	0	0	0
Trees/products for carving (e.g. utensils)	14	12	1	0	0	1	0
Trees/products for transportation (canoe)	11	10	1	0	0	0	0
Firewood	266	164	44	19	0	3	36
Gathering wild food	2	1	0	0	0	0	1
Gathering medicines	2	0	1	0	0	0	1
Other use	0	0	0	0	0	0	0

Note: Households may report more than one use  
Source: FSM 2016 Integrated Agriculture Census

**TABLE 46**  
**Forest products by frequency of harvest by state: 2016**

FOREST USE	FREQUENCY OF HARVESTS IN LAST 12 MONTHS									
	TOTAL	0	1	2	3	4	5-9	10-19	20-49	50 or more
<b>TOTAL FSM</b>										
Trees for building or furniture	5 399	61	1 931	1 321	641	378	504	266	232	64
Trees/products for handicraft (e.g. jewelry, decoration)	1 525	46	326	371	174	107	226	163	78	34
Trees/products for carving (e.g. utensils)	1 210	42	516	289	92	58	114	51	42	6
Trees/products for transportation (canoe)	1 366	44	793	271	105	30	65	31	15	12
Firewood	8 289	105	264	393	318	332	1 065	1 674	2 295	1 842
Gathering wild food	219	11	41	27	14	9	30	18	51	18
Gathering medicines	394	10	25	32	23	39	72	70	81	42
Other use	98	10	7	13	11	1	31	8	13	4
<b>YAP</b>										
Trees for building or furniture	930	5	435	239	84	41	61	32	14	19
Trees/products for handicraft (e.g. jewelry, decoration)	401	2	136	110	47	29	35	22	7	13
Trees/products for carving (e.g. utensils)	326	0	180	64	21	10	24	16	8	3
Trees/products for transportation (canoe)	348	0	247	52	15	6	9	8	6	5
Firewood	1 224	1	79	43	42	42	211	257	330	219
Gathering wild food	31	0	13	1	0	1	2	5	7	2
Gathering medicines	161	0	18	14	8	23	23	31	31	13
Other use	17	0	2	3	3	1	4	1	3	0
<b>CHUUK</b>										
Trees for building or furniture	2 793	28	821	706	377	263	295	154	130	19
Trees/products for handicraft (e.g. jewelry, decoration)	890	38	159	225	102	57	156	106	37	10
Trees/products for carving (e.g. utensils)	748	38	289	195	55	37	68	32	32	2
Trees/products for transportation (canoe)	821	31	450	185	77	20	39	12	5	2
Firewood	4 129	43	87	212	181	204	489	783	1 110	1 020
Gathering wild food	154	11	24	20	14	6	24	6	37	12
Gathering medicines	165	10	6	15	11	13	41	18	30	21
Other use	51	8	4	9	3	0	22	1	4	0
<b>POHNPEI</b>										
Trees for building or furniture	1 525	26	600	338	168	72	140	72	85	24
Trees/products for handicraft (e.g. jewelry, decoration)	224	5	25	35	24	21	34	35	34	11
Trees/products for carving (e.g. utensils)	122	4	41	27	15	9	20	3	2	1

Note: Households may report more than one use, so totals may be larger than the number of households.

Source: FSM 2016 Integrated Agriculture Census



**TABLE 46**  
**Forest products by frequency of harvest by state: 2016 (continued)**

FOREST USE	FREQUENCY OF HARVESTS IN LAST 12 MONTHS									
	TOTAL	0	1	2	3	4	5-9	10-19	20-49	50 or more
Trees/products for transportation (canoe)	186	13	89	31	12	4	17	11	4	5
Firewood	2 670	47	64	97	75	63	306	592	839	587
Gathering wild food	32	0	4	6	0	2	3	7	7	3
Gathering medicines	66	0	1	2	3	3	8	21	20	8
Other use	30	2	1	1	5	0	5	6	6	4
<b>KOSRAE</b>										
Trees for building or furniture	151	2	75	39	12	2	8	8	3	2
Trees/products for handicraft (e.g. jewelry, decoration)	10	1	6	1	1	0	1	0	0	0
Trees/products for carving (e.g. utensils)	14	0	6	3	1	2	2	0	0	0
Trees/products for transportation (canoe)	11	0	7	3	1	0	0	0	0	0
Firewood	266	14	34	41	20	23	59	42	16	16
Gathering wild food	2	0	0	0	0	0	1	0	0	1
Gathering medicines	2	0	0	1	1	0	0	0	0	0
Other use	0	0	0	0	0	0	0	0	0	0

Note: Households may report more than one use, so totals may be larger than the number of households.

Source: FSM 2016 Integrated Agriculture Census

**TABLE 47**  
**Tree species by use by state: 2016**

FOREST USE	NUMBER OF HOUSEHOLDS USING SPECIES									
	TOTAL	BREADFRUIT	COCONUT	MANGROVE	CALOPHYLLUM INOPHYLLUM	PANDANUS	IVORY NUT TREE	NIPA PALM	NONI	OTHER
<b>TOTAL FSM</b>										
Trees for building or furniture	5 423	1 237	924	1 228	761	207	334	95	127	509
Trees/products for handicraft	1 542	208	526	52	234	349	34	14	9	116
Trees/products for carving	1 226	478	263	57	253	70	10	1	19	75
Trees/products for canoe	1 369	1 105	25	71	68	6	9	2	2	81
Firewood	8 339	2 598	347	2 028	1 181	104	58	36	97	1 889
Other use	106	29	11	0	2	3	0	2	4	55
<b>YAP</b>										
Trees for building or furniture	931	126	145	24	455	58	6	11	94	12
Trees/products for handicraft	400	63	161	10	74	83	1	1	0	7
Trees/products for carving	325	104	67	6	139	4	4	0	0	1
Trees/products for canoe	344	273	8	1	48	0	1	0	1	12
Firewood	1 224	342	103	83	549	1	12	1	7	126
Other use	17	1	6	0	1	0	0	2	2	5
<b>CHUUK</b>										
Trees for building or furniture	2 788	1 024	727	503	141	114	107	52	10	110
Trees/products for handicraft	900	136	323	26	150	201	8	6	8	42
Trees/products for carving	755	361	187	15	90	57	1	1	1	42
Trees/products for canoe	824	720	13	62	7	4	7	1	0	10
Firewood	4 141	2 088	116	1 355	261	93	15	4	59	150
Other use	50	25	4	0	0	3	0	0	2	16
<b>POHNPEI</b>										
Trees for building or furniture	1 553	79	52	568	165	35	219	29	21	385
Trees/products for handicraft	232	8	42	14	10	59	25	6	1	67
Trees/products for carving	132	12	7	26	24	8	5	0	18	32
Trees/products for canoe	190	105	4	6	13	2	1	1	1	57
Firewood	2 708	154	126	370	363	9	28	31	30	1 597
Other use	39	3	1	0	1	0	0	0	0	34
<b>KOSRAE</b>										
Trees for building or furniture	151	8	0	133	0	0	2	3	2	2
Trees/products for handicraft	10	1	0	2	0	6	0	1	0	0
Trees/products for carving	14	1	2	10	0	1	0	0	0	0
Trees/products for canoe	11	7	0	2	0	0	0	0	0	2
Firewood	266	14	2	220	8	1	3	0	1	16
Other use	0	0	0	0	0	0	0	0	0	0

Note: Households may report more than one use and more than one species, so totals may be larger than the number of households.  
Source: FSM 2016 Integrated Agriculture Census

**TABLE 48**

**Main operator and household members engaged in forestry activities by sex and age by state: 2016**

AGE	TOTAL FSM			YAP			CHUUK			POHNPEI			KOSRAE		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
<b>MAIN OPERATOR</b>															
<b>Total</b>	<b>9 568</b>	<b>7 038</b>	<b>2 529</b>	<b>2 074</b>	<b>1 081</b>	<b>993</b>	<b>4 575</b>	<b>3 514</b>	<b>1 061</b>	<b>2 681</b>	<b>2 221</b>	<b>460</b>	<b>238</b>	<b>222</b>	<b>15</b>
less than 20	840	619	221	209	121	88	356	264	92	257	216	41	18	18	0
20-29	1 712	1 298	414	262	129	133	872	671	201	529	453	76	50	45	4
30-39	2 250	1 690	560	427	228	199	1 148	898	250	622	512	110	53	52	1
40-49	2 034	1 497	537	455	228	227	991	769	222	539	451	88	50	50	0
50-59	1 674	1 199	475	440	227	213	726	548	178	473	391	82	35	33	2
60-69	863	618	246	225	127	98	399	305	94	213	166	47	26	20	7
70 and over	194	117	76	56	21	35	83	59	24	48	32	16	7	6	1
<b>ALL HOUSEHOLD MEMBERS</b>															
<b>Total</b>	<b>13 588</b>	<b>9 409</b>	<b>4 179</b>	<b>2 621</b>	<b>1 360</b>	<b>1 261</b>	<b>6 806</b>	<b>4 792</b>	<b>2 014</b>	<b>3 852</b>	<b>2 971</b>	<b>881</b>	<b>309</b>	<b>286</b>	<b>23</b>
less than 20	1 966	1 407	559	378	237	141	953	654	299	594	475	119	41	41	0
20-29	2 924	2 108	816	383	192	191	1 573	1 134	439	902	722	180	66	61	6
30-39	3 042	2 110	932	526	273	253	1 614	1 150	464	835	622	213	67	65	2
40-49	2 513	1 698	815	522	252	270	1 261	881	380	670	508	162	61	57	3
50-59	1 945	1 304	640	499	252	247	854	588	266	551	427	124	41	37	3
60-69	973	655	319	247	131	116	455	322	133	245	182	63	26	20	7
70 and over	225	126	98	66	23	43	96	63	33	55	35	20	8	6	2

Source: FSM 2016 Integrated Agriculture Census

**TABLE 49**  
**Main operator and household members engaged in handicraft activities by sex and age by state: 2016**

AGE	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE						
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE			
<b>MAIN OPERATOR</b>															
<b>Total</b>	<b>1 691</b>	<b>963</b>	<b>728</b>	<b>532</b>	<b>255</b>	<b>277</b>	<b>823</b>	<b>540</b>	<b>283</b>	<b>316</b>	<b>154</b>	<b>162</b>	<b>20</b>	<b>14</b>	<b>6</b>
less than 20	125	76	49	67	37	30	45	31	14	10	5	5	3	3	0
20-29	247	141	106	76	32	44	122	78	44	47	29	18	2	2	0
30-39	359	201	157	109	49	60	178	120	58	65	27	38	7	6	1
40-49	359	203	156	107	54	53	189	122	67	63	27	36	0	0	0
50-59	345	193	152	100	50	50	165	100	65	80	43	37	0	0	0
60-69	208	125	83	59	30	29	106	75	31	40	19	21	3	1	2
70 and over	47	23	24	14	3	11	18	14	4	11	4	7	4	2	2
<b>ALL HOUSEHOLD MEMBERS</b>															
<b>Total</b>	<b>2 303</b>	<b>1 241</b>	<b>1 062</b>	<b>644</b>	<b>301</b>	<b>343</b>	<b>1174</b>	<b>697</b>	<b>477</b>	<b>455</b>	<b>221</b>	<b>234</b>	<b>30</b>	<b>22</b>	<b>8</b>
less than 20	241	139	102	101	56	45	106	63	43	31	17	14	3	3	0
20-29	392	212	180	96	37	59	206	128	78	88	45	43	2	2	0
30-39	496	272	224	130	57	73	264	160	104	92	46	46	10	9	1
40-49	453	236	217	123	56	67	243	143	100	85	35	50	2	2	0
50-59	425	224	201	114	59	55	208	109	99	100	54	46	3	2	1
60-69	239	131	108	64	32	32	124	78	46	47	20	27	4	1	3
70 and over	55	26	29	16	4	12	23	16	7	12	4	8	4	2	2

Source: FSM 2016 Integrated Agriculture Census

**TABLE 50**  
**Households engaged in hunting purpose and animals by state: 2016**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	HHL'D'S	%	HHL'D'S	%	HHL'D'S	%	HHL'D'S	%	HHL'D'S	%
<b>Total</b>	<b>15 545</b>	<b>100.0</b>	<b>2 279</b>	<b>100.0</b>	<b>6 223</b>	<b>100.0</b>	<b>6 006</b>	<b>100.0</b>	<b>1 037</b>	<b>100.0</b>
Engaged in hunting	2 190	14.1	912	40.0	1 010	16.2	217	3.6	51	4.9
Not engaged in hunting	13 356	85.9	1 367	60.0	5 213	83.8	5 789	96.4	987	95.2
<b>PURPOSE OF HUNTING</b>										
<b>Total</b>	<b>2 435</b>	<b>100.0</b>	<b>1 016</b>	<b>100.0</b>	<b>1 078</b>	<b>100.0</b>	<b>291</b>	<b>100.0</b>	<b>50</b>	<b>100.0</b>
Home use only	2 071	85.1	890	87.6	944	87.6	205	70.4	32	64.0
Mainly home use	256	10.5	101	9.9	109	10.1	35	12.0	11	22.0
Mainly for cultural use	37	1.5	15	1.5	15	1.4	7	2.4	0	0.0
Mainly or only for sale	59	2.4	7	0.7	9	0.8	39	13.4	4	8.0
Other (incl church)	11	0.5	3	0.3	1	0.1	5	1.7	2	4.0
<b>SPECIES CAUGHT:</b>										
<b>Total</b>	<b>2 435</b>	<b>100.0</b>	<b>1 016</b>	<b>100.0</b>	<b>1 078</b>	<b>100.0</b>	<b>291</b>	<b>100.0</b>	<b>50</b>	<b>100.0</b>
Land/ coconut crab	1 984	81.5	891	87.7	965	89.5	118	40.5	10	20.0
Fruit bat	107	4.4	67	6.6	24	2.2	16	5.5	0	0.0
Wild pigeon	96	3.9	31	3.1	4	0.4	59	20.3	2	4.0
Wild pig	83	3.4	0	0.0	36	3.3	12	4.1	35	70.0
Deer	73	3.0	*	*	4	0.4	65	22.3	1	2.0
Other wild animal/bird	91	3.7	24	2.4	45	4.2	21	7.2	1	2.0

Note: households may catch more than one species, for different purposes so totals for species and purpose are larger than the number of households.

Source: FSM 2016 Integrated Agriculture Census

**TABLE 51**  
**Number of animals and birds caught by state: 2016**

NUMBER CAUGHT	TOTAL FSM	YAP	CHUUK	POHNPEI	KOSRAE
<b>Land/coconut crab</b>	<b>1 982</b>	<b>891</b>	<b>964</b>	<b>117</b>	<b>10</b>
1 to 4	69	37	23	9	0
5 to 9	109	35	68	5	1
10 to 24	312	76	224	11	1
25 to 49	214	73	130	9	2
50 to 99	448	198	209	40	1
100+	829	472	310	43	4
Mean	117	153	89	83	80
Median	82	150	59	81	75
<b>Fruit bat</b>	<b>106</b>	<b>67</b>	<b>23</b>	<b>16</b>	<b>0</b>
1 to 4	29	15	10	4	0
5 to 9	28	18	6	4	0
10 to 24	32	20	7	5	0
25 or more	17	14	0	3	0
Mean	15	17	7	19	0
Median	9	10	6	10	0
<b>Wild pigeon</b>	<b>95</b>	<b>31</b>	<b>4</b>	<b>58</b>	<b>2</b>
1 to 4	25	10	0	14	1
5 to 9	16	5	2	9	0
10 to 24	37	11	1	25	0
25 or more	17	5	1	10	1
Mean	16	19	21	14	27
Median	13	11	10	14	28
<b>Wild pig</b>	<b>82</b>	<b>0</b>	<b>35</b>	<b>12</b>	<b>35</b>
None	0	0	0	0	0
1 to 4	48	0	26	9	13
5 to 9	19	0	8	2	9
10 to 24	10	0	1	1	8
25 or more	6	0	0	0	6
Mean	6	0	3	3	10
<b>Deer</b>	<b>72</b>	<b>*</b>	<b>4</b>	<b>64</b>	<b>1</b>
1 to 4	44	*	0	44	0
5 to 9	13	*	1	12	0
10 to 24	8	*	0	7	1
25 or more	7	*	3	1	0
Mean	13	*	61	5	15

Source: 2016 FSM Integrated Census

**TABLE 51**  
**Number of animals and birds caught by state: 2016 (continued)**

NUMBER CAUGHT	TOTAL FSM	YAP	CHUUK	POHNPEI	KOSRAE
Median	4	*	75	4	18
<b>Other wild animal/bird</b>	<b>91</b>	<b>24</b>	<b>45</b>	<b>21</b>	<b>1</b>
1 to 4	28	7	17	4	0
5 to 9	20	6	12	1	1
10 to 24	18	3	8	7	0
25 or more	25	8	8	9	0
Mean	27	27	22	38	5
Median	9	9	7	22	8

Source: 2016 FSM Integrated Census



**TABLE 52**  
**Animals and birds hunted by purpose by state: 2016**

ANIMAL/BIRD	NUMBER CAUGHT IN LAST 12 MONTHS							
	TOTAL	HOME USE ONLY	MAINLY HOME USE	MAINLY FOR CULTURAL USE	MAINLY FOR CHURCH	MAINLY FOR SALE	ONLY FOR SALE	OTHER
<b>TOTAL FSM</b>								
Land/coconut crab	233 933	196 555	33 723	2 848	123	355	322	7
Fruit bat	2 614	2 077	234	26	0	125	47	105
Wild pigeon	2 563	975	130	5	0	1 199	204	50
Deer	1 902	1 654	82	30	0	59	77	0
Wild pig	1 497	1 276	190	0	0	31	0	0
Other wild animal/bird (obs)	2 424	1 910	382	113	0	0	0	19
Gathering medicines	395	256	108	21	0	7	3	3
Other use	116	76	21	10	0	9	0	0
<b>Yap</b>	<b>138 798</b>	<b>111 917</b>	<b>23 746</b>	<b>2 798</b>	<b>9</b>	<b>245</b>	<b>80</b>	<b>3</b>
Land/coconut crab	136 078	109 725	23 446	2 798	9	100	0	0
Fruit bat	1 140	858	212	0	0	70	0	0
Wild pigeon	584	371	58	0	0	75	80	0
Deer	*	*	0	0	0	0	0	0
Wild pig	0	0	0	0	0	0	0	0
Other wild animal/bird (obs)	646	613	30	0	0	0	0	3
<b>Chuuk</b>	<b>89 917</b>	<b>79 342</b>	<b>9 923</b>	<b>194</b>	<b>48</b>	<b>160</b>	<b>250</b>	<b>0</b>
Land/coconut crab	86 346	75 931	9 912	50	48	155	250	0
Fruit bat	1 165	1 132	2	26	0	5	0	0
Wild pigeon	85	80	0	5	0	0	0	0
Deer	245	245	0	0	0	0	0	0
Wild pig	1 098	1 091	7	0	0	0	0	0
Other wild animal/bird (obs)	978	863	2	113	0	0	0	0
<b>Pohnpei</b>	<b>14 986</b>	<b>12 298</b>	<b>905</b>	<b>30</b>	<b>0</b>	<b>1 261</b>	<b>320</b>	<b>172</b>
Land/coconut crab	10 720	10 176	365	0	0	100	72	7
Fruit bat	309	87	20	0	0	50	47	105
Wild pigeon	1 836	524	69	0	0	1 069	124	50
Deer	1 290	1 059	82	30	0	42	77	0
Wild pig	37	18	19	0	0	0	0	0
Other wild animal/bird (obs)	794	434	350	0	0	0	0	10
<b>Kosrae</b>	<b>1 231</b>	<b>890</b>	<b>167</b>	<b>0</b>	<b>66</b>	<b>102</b>	<b>0</b>	<b>6</b>
Land/coconut crab	789	723	0	0	66	0	0	0
Fruit bat	0	0	0	0	0	0	0	0
Wild pigeon	58	0	3	0	0	55	0	0
Deer	17	0	0	0	0	17	0	0
Wild pig	362	167	164	0	0	31	0	0
Other wild animal/bird (obs)	6	0	0	0	0	0	0	6

Source: FSM 2016 Integrated Agriculture Census

**TABLE 53**

**Main operator and household members engaged in hunting activities by sex and age by state: 2016**

AGE	TOTAL FSM			YAP			CHUUK			POHNPEI			KOSRAE		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
<b>MAIN OPERATOR</b>															
<b>Total</b>	<b>2 255</b>	<b>1 559</b>	<b>696</b>	<b>1 163</b>	<b>660</b>	<b>503</b>	<b>930</b>	<b>764</b>	<b>166</b>	<b>140</b>	<b>115</b>	<b>25</b>	<b>22</b>	<b>20</b>	<b>2</b>
less than 20	212	146	66	131	81	50	68	54	14	11	9	2	2	2	0
20-29	389	264	125	174	91	83	189	149	40	22	20	2	4	4	0
30-39	540	389	151	255	152	103	244	202	42	34	29	5	7	6	1
40-49	482	338	144	244	136	108	201	170	31	30	26	4	7	6	1
50-59	394	262	132	241	137	104	129	109	20	22	14	8	2	2	0
60-69	195	138	57	95	56	39	82	66	16	18	16	2	0	0	0
70 and over	43	22	21	23	7	16	17	14	3	3	1	2	0	0	0
<b>ALL HOUSEHOLD MEMBERS</b>															
<b>Total</b>	<b>3 061</b>	<b>2 087</b>	<b>974</b>	<b>1 427</b>	<b>792</b>	<b>635</b>	<b>1 430</b>	<b>1 132</b>	<b>298</b>	<b>170</b>	<b>137</b>	<b>33</b>	<b>34</b>	<b>26</b>	<b>8</b>
less than 20	463	340	123	229	149	80	208	170	38	16	14	2	10	7	3
20-29	615	437	178	220	113	107	355	289	66	33	29	4	7	6	1
30-39	709	488	221	296	166	130	369	285	84	37	31	6	7	6	1
40-49	560	369	191	281	146	135	233	187	46	37	29	8	9	7	2
50-59	444	284	160	264	148	116	154	118	36	24	16	8	2	2	0
60-69	222	147	75	110	62	48	93	69	24	19	16	3	0	0	0
70 and over	49	24	25	27	8	19	18	14	4	4	2	2	0	0	0

Source: FSM 2016 Integrated Agriculture Census

**TABLE 54**  
**Equipment used and ownership status by state: 2016**

	HOUSEHOLDS USING	TOTAL FSM			
		OWNED	RENTED	BORROWED	GOVERNMENT
<b>CROP/GENERAL EQUIPMENT</b>					
Machete	13 622	13 321	92	496	107
Shovel	12 766	12 238	72	729	112
Wheelbarrow	4 933	3 868	37	1 021	72
Wood chipper	501	299	10	52	11
Rotary hoe/tractor/tiller	323	152	2	23	5
Knapsack sprayer	220	59	2	14	2
Mist blower	228	67	4	13	4
Weed eaters	3 864	2 959	76	826	75
Chainsaw	3 540	2 474	68	953	84
Sawmill	578	347	3	90	5
Other Crop Equipment	200	73	-	1	-
<b>FISHING EQUIPMENT</b>					
Fishing boats with in-board engine	1 366	826	20	417	12
Fishing boats with out-board engine	4 075	2 604	57	1 498	53
Canoe	3 152	2 174	25	964	20
Fishing gears (e.g. net spear etc)	6 293	5 823	33	701	34
Other Fishing Equipment	330	210	-	7	-
<b>TRANSPORT EQUIPMENT</b>					
Car (e.g. sedan stationwagon etc)	4 798	4 219	62	463	76
Truck/Pickup	1 277	905	46	192	62
Motorcycle	243	108	1	9	4
Trailer	229	77	7	7	1
Pushwagon	261	115	-	21	-
Other Transport Equipment	92	22	-	2	-
<b>ENERGY EQUIPMENT</b>					
Electric generator	1 813	1 528	11	186	33
Biogas generator	638	430	1	84	4
Solar panel	2 563	2 137	32	152	193
Other Energy Equipment	226	129	1	-	1
<b>LIVESTOCK/INFRASTRUCTURE EQUIPMENT</b>					
Water pump (for farming use)	734	516	5	93	12
Other Livestock Equipment	173	71	-	2	-
Permament nursery	223	75	1	8	2
Temporary nursery	344	201	1	10	-
Other Infrastructure (e.g. chicken coop)	421	361	1	5	2
Other	1 124	1 095	3	24	3

Note: Households may report more than one ownership status, so ownership status may add to more than the total. Also, some households did not report the status.

Source: FSM 2016 Integrated Agriculture Census

**TABLE 54**  
**Equipment used and ownership status by state: 2016 (continued)**

	YAP				
	HOUSEHOLDS USING	OWNED	RENTED	BORROWED	GOVERNMENT
<b>CROP/GENERAL EQUIPMENT</b>					
Machete	2 134	2 124	2	12	3
Shovel	1 962	1 908	4	61	12
Wheelbarrow	1 121	922	4	191	11
Wood chipper	84	60	3	19	5
Rotary hoe/tractor/tiller	43	36	-	6	1
Knapsack sprayer	9	2	-	6	1
Mist blower	9	8	-	1	-
Weed eaters	716	499	7	208	12
Chainsaw	697	481	14	214	10
Sawmill	40	30	-	11	-
Other Crop Equipment	35	34	-	1	-
<b>FISHING EQUIPMENT</b>					
Fishing boats with in-board engine	119	64	10	52	3
Fishing boats with out-board engine	571	341	33	220	9
Canoe	447	388	11	60	2
Fishing gears (e.g. net spear etc)	1 279	1 252	1	42	2
Other Fishing Equipment	48	45	-	3	-
<b>TRANSPORT EQUIPMENT</b>					
Car (e.g. sedan stationwagon etc)	872	824	3	43	8
Truck/Pickup	231	172	10	31	26
Motorcycle	17	15	1	-	1
Trailer	24	15	6	3	-
Pushwagon	4	4	-	-	-
Other Transport Equipment	4	3	-	1	-
<b>ENERGY EQUIPMENT</b>					
Electric generator	72	60	4	8	2
Biogas generator	14	9	1	1	3
Solar panel	478	281	25	33	168
Other Energy Equipment	4	4	-	-	-
<b>LIVESTOCK/INFRASTRUCTURE EQUIPMENT</b>					
Water pump (for farming use)	44	37	1	5	2
Other Livestock Equipment	54	53	-	1	-
Permament nursery	13	11	-	1	1
Temporary nursery	31	29	-	2	-
Other Infrastructure (e.g. chicken coop)	109	109	-	-	-
Other	373	370	-	3	-

Note: Households may report more than one ownership status, so ownership status may add to more than the total. Also, some households did not report the status.

Source: FSM 2016 Integrated Agriculture Census

**TABLE 54**  
**Equipment used and ownership status by state: 2016 (continued)**

	CHUUK				
	HOUSEHOLDS USING	OWNED	RENTED	BORROWED	GOVERNMENT
<b>CROP/GENERAL EQUIPMENT</b>					
Machete	5 658	5 502	17	345	15
Shovel	5 409	5 137	10	453	16
Wheelbarrow	2 039	1 491	6	552	17
Wood chipper	217	127	1	22	2
Rotary hoe/tractor/tiller	130	49	1	9	-
Knapsack sprayer	88	14	-	2	-
Mist blower	91	16	-	2	-
Weed eaters	579	377	7	169	7
Chainsaw	1 038	625	8	358	15
Sawmill	228	116	-	41	1
Other Crop Equipment	77	20	-	-	-
<b>FISHING EQUIPMENT</b>					
Fishing boats with in-board engine	800	516	4	233	2
Fishing boats with out-board engine	2 328	1 575	11	843	5
Canoe	1 537	1 107	5	457	3
Fishing gears (e.g. net spear etc)	2 961	2 714	4	436	2
Other Fishing Equipment	157	105	-	2	-
<b>TRANSPORT EQUIPMENT</b>					
Car (e.g. sedan stationwagon etc)	662	517	3	93	13
Truck/Pickup	295	172	4	49	14
Motorcycle	79	16	-	-	-
Trailer	77	9	-	1	-
Pushwagon	110	32	-	12	-
Other Transport Equipment	56	3	-	-	-
<b>ENERGY EQUIPMENT</b>					
Electric generator	1 017	853	2	147	2
Biogas generator	527	391	-	83	-
Solar panel	1 726	1 587	4	106	7
Other Energy Equipment	88	37	-	-	-
<b>LIVESTOCK/INFRASTRUCTURE EQUIPMENT</b>					
Water pump (for farming use)	415	291	2	68	7
Other Livestock Equipment	62	9	-	-	-
Permament nursery	90	14	1	5	1
Temporary nursery	144	70	-	6	-
Other Infrastructure (e.g. chicken coop)	105	52	-	2	-
Other	340	324	-	17	1

Note: Households may report more than one ownership status, so ownership status may add to more than the total. Also, some households did not report the status.

Source: FSM 2016 Integrated Agriculture Census

**TABLE 54**  
**Equipment used and ownership status by state: 2016 (continued)**

	POHNPEI				
	HOUSEHOLDS USING	OWNED	RENTED	BORROWED	GOVERNMENT
<b>CROP/GENERAL EQUIPMENT</b>					
Machete	5 095	5 038	11	84	23
Shovel	4 711	4 600	10	147	22
Wheelbarrow	1 451	1 248	4	217	19
Wood chipper	127	103	5	10	3
Rotary hoe/tractor/tiller	72	56	-	7	-
Knapsack sprayer	54	39	1	5	-
Mist blower	55	39	1	6	1
Weed eaters	2 132	1 778	12	343	11
Chainsaw	1 466	1 140	14	312	27
Sawmill	226	183	1	36	1
Other Crop Equipment	24	17	-	-	-
<b>FISHING EQUIPMENT</b>					
Fishing boats with in-board engine	350	216	2	123	4
Fishing boats with out-board engine	1,007	614	3	394	30
Canoe	1,044	633	1	430	4
Fishing gears (e.g. net spear etc)	1,737	1,619	3	184	2
Other Fishing Equipment	63	56	-	2	-
<b>TRANSPORT EQUIPMENT</b>					
Car (e.g. sedan stationwagon etc)	2 741	2 447	20	288	18
Truck/Pickup	578	462	22	93	13
Motorcycle	75	58	-	8	2
Trailer	60	49	1	3	-
Pushwagon	88	73	-	8	-
Other Transport Equipment	23	15	-	1	-
<b>ENERGY EQUIPMENT</b>					
Electric generator	636	589	4	30	27
Biogas generator	30	23	-	-	1
Solar panel	293	266	2	11	16
Other Energy Equipment	92	86	-	-	-
<b>LIVESTOCK/INFRASTRUCTURE EQUIPMENT</b>					
Water pump (for farming use)	181	158	-	18	1
Other Livestock Equipment	15	8	-	1	-
Permanent nursery	52	47	-	-	-
Temporary nursery	93	88	1	1	-
Other Infrastructure (e.g. chicken coop)	186	182	-	2	1
Other	396	388	3	3	2

Note: Households may report more than one ownership status, so ownership status may add to more than the total. Also, some households did not report the status.

Source: FSM 2016 Integrated Agriculture Census

**TABLE 54**  
**Equipment used and ownership status by state: 2016 (continued)**

	HOUSEHOLDS USING	KOSRAE			
		OWNED	RENTED	BORROWED	GOVERNMENT
<b>CROP/GENERAL EQUIPMENT</b>					
Machete	735	657	62	55	66
Shovel	684	593	48	68	62
Wheelbarrow	322	207	23	61	25
Wood chipper	73	9	1	1	1
Rotary hoe/tractor/tiller	78	11	1	1	4
Knapsack sprayer	69	4	1	1	1
Mist blower	73	4	3	4	3
Weed eaters	437	305	50	106	45
Chainsaw	339	228	32	69	32
Sawmill	84	18	2	2	3
Other Crop Equipment	64	2	-	-	-
<b>FISHING EQUIPMENT</b>					
Fishing boats with in-board engine	97	30	4	9	3
Fishing boats with out-board engine	169	74	10	41	9
Canoe	124	46	8	17	11
Fishing gears (e.g. net spear etc)	316	238	25	39	28
Other Fishing Equipment	62	4	-	-	-
<b>TRANSPORT EQUIPMENT</b>					
Car (e.g. sedan stationwagon etc)	523	431	36	39	37
Truck/Pickup	173	99	10	19	9
Motorcycle	72	19	-	1	1
Trailer	68	4	-	-	1
Pushwagon	59	6	-	1	-
Other Transport Equipment	9	1	-	-	-
<b>ENERGY EQUIPMENT</b>					
Electric generator	88	26	1	1	2
Biogas generator	67	7	-	-	-
Solar panel	66	3	1	2	2
Other Energy Equipment	42	2	1	-	1
<b>LIVESTOCK/INFRASTRUCTURE EQUIPMENT</b>					
Water pump (for farming use)	94	30	2	2	2
Other Livestock Equipment	42	1	-	-	-
Permament nursery	68	3	-	2	-
Temporary nursery	76	14	-	1	-
Other Infrastructure (e.g. chicken coop)	21	18	1	1	1
Other	15	13	-	1	-

Note: Households may report more than one ownership status, so ownership status may add to more than the total. Also, some households did not report the status.

Source: FSM 2016 Integrated Agriculture Census



**TABLE 55**  
**Participated in product organization visits from agriculture extension agent information**  
**sources time from household to market by state: 2016**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Households with land used for agriculture</b>	<b>14 031</b>	<b>100.0</b>	<b>2 138</b>	<b>100.0</b>	<b>5 743</b>	<b>100.0</b>	<b>5 260</b>	<b>100.0</b>	<b>890</b>	<b>100.0</b>
<b>PARTICIPATED IN PRODUCT ORGANIZATION</b>										
<b>Total</b>	<b>14 031</b>	<b>100.0</b>	<b>2 138</b>	<b>100.0</b>	<b>5 743</b>	<b>100.0</b>	<b>5 260</b>	<b>100.0</b>	<b>890</b>	<b>100.0</b>
Participated in Product Organization	1 237	8.8	208	9.7	445	7.7	485	9.2	99	11.1
No participation	12 794	91.2	1 930	90.3	5 298	92.3	4 775	90.8	791	88.9
<b>VISITS FROM AGRICULTURE EXTENSION AGENT IN THE PAST 12 MONTHS</b>										
<b>Total</b>	<b>14 031</b>	<b>100.0</b>	<b>2 138</b>	<b>100.0</b>	<b>5 743</b>	<b>100.0</b>	<b>5 260</b>	<b>100.0</b>	<b>890</b>	<b>100.0</b>
None	11 406	81.3	1 857	86.9	4 323	75.3	4 525	86.0	701	78.8
1 visit	1 298	9.3	86	4.0	799	13.9	324	6.2	89	10.0
2 or more visits	1 327	9.5	195	9.1	621	10.8	411	7.8	100	11.2
<b>SOURCES OF INFORMATION</b>										
Ag Extension	1 794	12.8	311	14.5	837	14.6	509	9.7	137	15.4
Radio	4 372	31.2	522	24.4	1 985	34.6	1 539	29.3	326	36.6
Television	328	2.3	43	2.0	89	1.5	163	3.1	33	3.7
Newspaper	393	2.8	42	2.0	88	1.5	250	4.8	13	1.5
Newsletter	88	0.6	18	0.8	14	0.2	45	0.9	11	1.2
Input agencies	215	1.5	47	2.2	94	1.6	64	1.2	10	1.1
Internet or phone	360	2.6	26	1.2	144	2.5	166	3.2	24	2.7
Other farmers	3 401	24.2	617	28.9	1 249	21.7	1 268	24.1	267	30.0
CB Radio	547	3.9	12	0.6	487	8.5	34	0.6	14	1.6
Other info	684	4.9	84	3.9	330	5.7	251	4.8	19	2.1
No information	6 768	48.2	984	46.0	2 643	46.0	2 731	51.9	410	46.1
<b>TIME FROM HOUSEHOLD TO MARKET</b>										
<b>Total</b>	<b>14 031</b>	<b>100.0</b>	<b>2 138</b>	<b>100.0</b>	<b>5 743</b>	<b>100.0</b>	<b>5 260</b>	<b>100.0</b>	<b>890</b>	<b>100.0</b>
Less than 30 minutes	2 118	15.1	484	22.6	510	8.9	845	16.1	279	31.3
Between 30 to 59 minutes	2 147	15.3	230	10.8	934	16.3	877	16.7	106	11.9
1 to 2 hours	1 323	9.4	40	1.9	721	12.6	522	9.9	40	4.5
More than 2 hours	357	2.5	10	0.5	160	2.8	178	3.4	9	1.0
No market available/accessible	351	2.5	66	3.1	223	3.9	60	1.1	2	0.2
Produce is collected by buyer	478	3.4	44	2.1	264	4.6	123	2.3	47	5.3
No Market engagement	7 257	51.7	1 264	59.1	2 931	51.0	2 655	50.5	407	45.7

Source: FSM 2016 Integrated Agriculture Census

**TABLE 56**  
**Barriers to further agriculture forestry handicraft fisheries livestock activities by state: 2016**

BARRIER	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	HHL'D'S	%	HHL'D'S	%	HHL'D'S	%	HHL'D'S	%	HHL'D'S	%
<b>Total households</b>	<b>15 545</b>	<b>100.0</b>	<b>2 279</b>	<b>100.0</b>	<b>6 223</b>	<b>100.0</b>	<b>6 006</b>	<b>100.0</b>	<b>1 037</b>	<b>100.0</b>
<b>AGRICULTURE</b>										
No land available	5 192	33.4	657	28.8	1 967	31.6	2 340	39.0	228	22.0
Difficulty getting to the land	3 996	25.7	321	14.1	1 640	26.4	1 795	29.9	240	23.1
Lack of production inputs	9 700	62.4	1 316	57.7	3 848	61.8	4 037	67.2	499	48.1
Lack of source of finance	6 262	40.3	1 208	53.0	2 002	32.2	2 770	46.1	282	27.2
Lack of management skills	4 612	29.7	847	37.2	1 604	25.8	1 932	32.2	229	22.1
Lack of market to sell produce	2 763	17.8	302	13.3	1 244	20.0	1 052	17.5	165	15.9
Lack of new tech and infrastructure	1 675	10.8	359	15.8	502	8.1	698	11.6	116	11.2
No barrier	4 727	30.4	791	34.7	2 310	37.1	1 100	18.3	526	50.7
<b>LIVESTOCK</b>										
No land available	2 788	17.9	410	18.0	969	15.6	1 179	19.6	230	22.2
Difficulty getting to the land	990	6.4	74	3.2	406	6.5	378	6.3	132	12.7
Lack of production inputs	4 134	26.6	674	29.6	1 576	25.3	1 627	27.1	257	24.8
Lack of source of finance	6 116	39.3	1 085	47.6	1 491	24.0	3 241	54.0	299	28.8
Lack of management skills	5 111	32.9	878	38.5	1 446	23.2	2 555	42.5	232	22.4
Lack of market to sell produce	2 648	17.0	324	14.2	681	10.9	1 538	25.6	105	10.1
Lack of new tech and infrastructure	3 322	21.4	536	23.5	740	11.9	1 890	31.5	156	15.0
No barrier	8 073	51.9	1 151	50.5	4 240	68.1	2 045	34.0	637	61.4
<b>FISHERIES</b>										
No land available	712	4.6	154	6.8	172	2.8	335	5.6	51	4.9
Difficulty getting to the land	832	5.4	94	4.1	250	4.0	347	5.8	141	13.6
Lack of production inputs	3 676	23.6	611	26.8	1 363	21.9	1 473	24.5	229	22.1
Lack of source of finance	6 364	40.9	923	40.5	2 188	35.2	2 976	49.6	277	26.7

Source: 2016 FSM Integrated Census

**TABLE 56**  
**Barriers to further agriculture forestry handicraft fisheries livestock activities by state: 2016**  
**(continued)**

BARRIER	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	HHL'D'S	%	HHL'D'S	%	HHL'D'S	%	HHL'D'S	%	HHL'D'S	%
Lack of management skills	5 763	37.1	818	35.9	1 825	29.3	2 868	47.8	252	24.3
Lack of market to sell produce	4 084	26.3	357	15.7	1 582	25.4	1 967	32.8	178	17.2
Lack of new tech and infrastructure	4 024	25.9	583	25.6	1 245	20.0	2 006	33.4	190	18.3
No barrier	7 919	50.9	1 285	56.4	3 765	60.5	2 210	36.8	659	63.5
<b>FORESTRY</b>										
No land available	4 071	26.2	544	23.9	1 327	21.3	2 033	33.8	167	16.1
Difficulty getting to the land	4 928	31.7	392	17.2	1 649	26.5	2 516	41.9	371	35.8
Lack of production inputs	5 028	32.3	708	31.1	1 725	27.7	2 376	39.6	219	21.1
Lack of source of finance	4 911	31.6	834	36.6	1 492	24.0	2 390	39.8	195	18.8
Lack of management skills	4 875	31.4	728	31.9	1 841	29.6	2 161	36.0	145	14.0
Lack of market to sell produce	1 451	9.3	155	6.8	545	8.8	679	11.3	72	6.9
Lack of new tech and infrastructure	2 481	16.0	460	20.2	862	13.9	1 042	17.3	117	11.3
No barrier	6 941	44.7	1 162	51.0	3 472	55.8	1 626	27.1	681	65.7
<b>HANDICRAFT</b>										
No land available	1 185	7.6	169	7.4	436	7.0	537	8.9	43	4.1
Difficulty getting to the land	1 008	6.5	89	3.9	337	5.4	451	7.5	131	12.6
Lack of production inputs	2 884	18.6	523	22.9	986	15.8	1 258	20.9	117	11.3
Lack of source of finance	5 193	33.4	838	36.8	1 505	24.2	2 698	44.9	152	14.7
Lack of management skills	6 689	43.0	1 001	43.9	2 319	37.3	3 135	52.2	234	22.6
Lack of market to sell produce	4 131	26.6	451	19.8	1 663	26.7	1 881	31.3	136	13.1
Lack of new tech and infrastructure	2 711	17.4	494	21.7	942	15.1	1 186	19.7	89	8.6
No barrier	8 266	53.2	1 273	55.9	3 852	61.9	2 362	39.3	779	75.1

Source: 2016 FSM Integrated Census

**TABLE 57**  
**Income sources and loans for households with land used for agriculture by state: 2016**

	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Total Households</b>	<b>15 545</b>	<b>100.0</b>	<b>2 279</b>	<b>100.0</b>	<b>6 223</b>	<b>100.0</b>	<b>6 006</b>	<b>100.0</b>	<b>1 037</b>	<b>100.0</b>
<b>MAIN SOURCE OF CASH INCOME</b>										
Growing crops	2 197	14.1	202	8.9	799	12.8	1 116	18.6	80	7.7
Raising livestock	290	1.9	11	0.5	109	1.8	117	1.9	53	5.1
Fishing	1 020	6.6	27	1.2	595	9.6	331	5.5	67	6.5
Own non-agricultural business	563	3.6	47	2.1	175	2.8	295	4.9	46	4.4
Paid work in agricultural occupation	335	2.2	24	1.1	30	0.5	244	4.1	37	3.6
Paid work in non-agricultural occupation	5 959	38.3	1 239	54.4	1 629	26.2	2 600	43.3	491	47.3
Pension	1 371	8.8	310	13.6	421	6.8	506	8.4	134	12.9
Remittances	3 026	19.5	366	16.1	2 164	34.8	445	7.4	51	4.9
Other (obs)	784	5.0	53	2.3	301	4.8	352	5.9	78	7.5
<b>USED LOAN/CREDIT FOR AGRICULTURE, FISHING OR FORESTRY RELATED PURPOSES</b>										
Yes	672	4.3	34	1.5	136	2.2	355	5.9	147	14.2
No	14 873	95.7	2 245	98.5	6 087	97.8	5 651	94.1	890	85.8
<b>SOURCE OF LOAN</b>										
<b>Total</b>	<b>672</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>	<b>136</b>	<b>100.0</b>	<b>355</b>	<b>100.0</b>	<b>147</b>	<b>100.0</b>
Bank	487	72.5	22	64.7	83	61.0	277	78.0	105	71.4
Credit union	34	5.1	2	5.9	3	2.2	26	7.3	3	2.0
Other loan agency	43	6.4	6	17.6	1	0.7	17	4.8	19	12.9
Business	18	2.7	1	2.9	11	8.1	6	1.7	0	-
Employer	11	1.6	0	-	4	2.9	4	1.1	3	2.0
Private person	71	10.6	2	5.9	34	25.0	21	5.9	14	9.5
Other	8	1.2	1	2.9	0	-	4	1.1	3	2.0
More than 2 hours	357	2.5	10	0.5	160	2.8	178	3.4	9	1.0

Source: FSM 2016 Integrated Agriculture Census

**TABLE 58**  
**Proportion of income from agriculture by sex of operator in households with land used for agriculture by state: 2016**

PROPORTION OF INCOME FROM AGRICULTURE	TOTAL FSM		YAP		CHUUK		POHNPEI		KOSRAE	
	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%	NUMBER	%
<b>Total</b>	<b>14 029</b>	<b>100.0</b>	<b>2 138</b>	<b>100.0</b>	<b>5 743</b>	<b>100.0</b>	<b>5 258</b>	<b>100.0</b>	<b>890</b>	<b>100.0</b>
None	7 120	50.8	1 473	68.9	3 187	55.5	1 986	37.8	474	53.3
< 1/4	3 274	23.3	318	14.9	1 480	25.8	1 270	24.2	206	23.1
1/4 - 1/2	1 681	12.0	157	7.3	577	10.0	847	16.1	100	11.2
1/2 - 3/4	1 158	8.3	93	4.3	380	6.6	628	11.9	57	6.4
3/4+	796	5.7	97	4.5	119	2.1	527	10.0	53	6.0
<b>MALE OPERATORS</b>										
<b>Total</b>	<b>10 797</b>	<b>100.0</b>	<b>1 287</b>	<b>100.0</b>	<b>4 639</b>	<b>100.0</b>	<b>4 120</b>	<b>100.0</b>	<b>751</b>	<b>100.0</b>
None	5 234	48.5	836	65.0	2 516	54.2	1 497	36.3	385	51.3
< 1/4	2 617	24.2	210	16.3	1 217	26.2	1 009	24.5	181	24.1
1/4 - 1/2	1 338	12.4	99	7.7	482	10.4	670	16.3	87	11.6
1/2 - 3/4	953	8.8	63	4.9	323	7.0	516	12.5	51	6.8
3/4+	655	6.1	79	6.1	101	2.2	428	10.4	47	6.3
<b>FEMALE OPERATORS</b>										
<b>Total</b>	<b>3 232</b>	<b>100.0</b>	<b>851</b>	<b>100.0</b>	<b>1 104</b>	<b>100.0</b>	<b>1 138</b>	<b>100.0</b>	<b>139</b>	<b>100.0</b>
None	1 886	58.4	637	74.9	671	60.8	489	43.0	89	64.0
< 1/4	656	20.3	108	12.7	263	23.8	261	22.9	24	17.3
1/4 - 1/2	343	10.6	58	6.8	95	8.6	177	15.6	13	9.4
1/2 - 3/4	206	6.4	30	3.5	57	5.2	112	9.8	7	5.0
3/4+	140	4.3	18	2.1	18	1.6	99	8.7	6	4.3

Source: FSM 2016 Integrated Agriculture Census

# APPENDIX 2 OTHER TABLES AVAILABLE UPON REQUEST

A large number of these tables are available by municipality as well as by state and can be requested from FSM Statistics. Some of the tables described here should be used with caution as they may not have been produced in the same way as the aggregate tables. For example, detailed tables for crops are available for the three plots of land reported on and aggregating across plots is not equivalent to households.

The following sets of tables were produced at the National and State levels:

## 1. Municipalities crossed by all of the other variables

For each State, the columns were the municipalities.

These tables include:

1. Population – relationship, sex, age, derived age at marriage, schooling and educational attainment,
2. Economic activity and labor force participation, hours worked, occupation, industry, looking for work
3. Unshared Land – information about unshared land in general, and for each of three parcels of unshared land
4. Shared land – information about shared land in general, and for each of three parcels of shared land
5. Land issues – specific issues related to the land associated with the specific household
6. Crops Production – information about the specific crops produced on each parcel, including detailed information about each type of crop, how much was being produced, and other information about specific crop production
7. Crops Harvested – information about the specific crops harvested on each parcel, including detailed information about each type of crop, how much was being harvested, and other information about specific crops harvested
8. Other crops – information about other crops associated with the specific household
9. Livestock – information about types of livestock, like cattle, pigs and chicken, how many were produced, how many were sold, how many were given away, young chicks, and other information about livestock
10. Fisheries – information about the types of fish, the amounts taken, amounts sold, species, and other characteristics of fishing activities
11. Aquaculture – information about aquaculture activities, including types of aquaculture, the amount of each species grown and/or collected, and other aspects of the aquaculture activities
12. Forestry – information about forestry activities including amounts produced, types of products, amount sold, etc.
13. Equipment – type of equipment for all the various activities described, including crops, livestock, fishing, aquaculture, forestry, and amounts and frequency used
14. Agriculture services – agricultural services, barriers, and other characteristics

## 2. Additional tables

1. Numbers of households involved in cultivating each crop. The number cells are counts of numbers of households that grew the crop on any parcel of land, by state.
2. Number of households with new planting of each crop. The number cells are counts of numbers of households that had the new planting on any of the plot, by state.



3. Total pounds/ other units harvested of each crop. Quantity of harvest information in pounds only for those households that reported the crop in pounds, by state.
4. Number of Households harvesting each crop by municipalities. The cells in the column counted the households that have harvested the crop from any parcel, by state.
5. Number of households selling each crop. The cells counted the households that had sold the crop from any parcel, by state.
6. Number of agriculturally active households participating in producer organization, number of agriculturally active households by number of visits from an agriculture extension agent in the last 12 months, number of agriculturally active households by sources of information on agriculture, number of agriculturally active households by time taken to get to a place to sell products, by municipality.
7. Source of cash income, proportion of income, use loan/credit, source of loan by municipality and whether agriculturally active.
8. Number of agriculturally active households using chemicals, number using organic farming methods, number growing medicinal plants (table not currently available).
9. Crops by reason for crop loss (table for FSM and each state) – The cell sum is the number of occurrences of each loss but no losses are only counted once for each crop/parcel, by state.
10. Number of agriculturally active households by total area of land (categorized) that they operate (sum of shared and not shared areas) by main purpose of use of land, by state.
11. Number of households by total area of land (categorized) that they have access to (sum of shared and not shared areas) by use of each equipment types, by state.
12. Number of households by use of each equipment types by proportion of income from agriculture, by state.
13. Number of agriculture active households by sex of main operator by the proportion of their total income generated from agriculture activity, by state.
14. Number of people 15 and over in the labor force by Occupation and main activity by sex and state.
15. Number of people 15 and over in the labor force by Industry and main activity by sex and state.





# APPENDIX 3 METHODOLOGY AND QUALITY

This report outlines the processes of development and carrying out the Federated States of Micronesia Integrated Agriculture Census 2016 (IAC 2016). It provides some assessment of the impact of development and timing issues on the results of the census.

The 2012 Federated States of Micronesia Agriculture Policy document proposed that an agriculture census should be carried out. FSM then started planning work for the National Agriculture Census, initially planning the project for 2013 (see Capital Investment Project Department of Resources and Development FY13)

Full funding was not achieved for this timeframe and FAO included support for a census (to be carried out by end 2015) in their FSM Country Programming Framework (CPF) Implementation and Monitoring Plan 2013-2015. The Secretariat of the Pacific Community (SPC) was expected to contribute support, and further support was found from the Government of India.

The Census was eventually carried out in 2016. This report documents the processes from initial development to analysis. It draws on the work of Michael Levin who assisted with the data processing system, edited the dataset and produced tabulations. He also carried out a detailed demographic analysis of the data.

## Methodology

### Preliminary consultation and planning

FSM held an Agriculture Census – Planning and Preparation Workshop on December 5, 2014. A follow-up workshop was held in February 2015, with participation from FSM State statistics, agriculture and fisheries departments as well as a range of stake holders. At this, the FAO guidelines for agricultural censuses were introduced and priority topics identified. Part of the aim of the workshop was to ensure that the important partners were clear on the objectives of an agriculture census and their role in the process. FAO supported the attendance of representatives from the FSM states at this workshop.

### Methodology design

The general approach to the design of the census was based on the Food and Agriculture Organization of the United Nations, 2017, *World Programme for the Census of Agriculture 2020*. This was available in draft form at the time of the Census development. However, as FSM have more knowledge and experience of conducting household income and expenditure surveys and population censuses, much of the format and planning followed those models. Enumeration areas (EAs) were based on the areas defined from the 2010 methodology, as used in the 2013 Household Income and Expenditure Survey (sample survey). Enumerators were asked to update the listings as they went.

There are very few commercial farms in FSM and all were able to be identified through the household survey frame. Other institutional farms (e.g. church, community or school farms) were not known, and enumerators were asked to identify them on a separate listing for future research.

## Scope and coverage

The intended scope of the census was information on the agricultural production industry, and this was interpreted very broadly. The IAC included crop and livestock production activities, forestry and fisheries activities, other food- and agriculture-related activities, and other relevant information.

The data was collected in eight sections:

Section 1: Demographic Profile and Labor Force Status

Section 2: Land

Section 3: Crops

Section 4: Livestock

Section 5: Fisheries and Aquaculture

Section 6: Forestry, Hunting and Handicraft

Section 7: Equipment

Section 8: Services, Barriers, Food Insecurity, Income and Credit

Ideally, an agricultural census should cover all agricultural activity across the whole country. The census for FSM was intended to cover all agricultural activity carried out by households. Almost all households in FSM have some own-account agricultural production activities, such as keeping a few chickens or having a small kitchen garden. The inclusion of small holdings was considered essential to ensure all food production is covered, and to reflect women's participation in agricultural work.

The operation of the census was carried out using the FSM Statistics Division's usual processes for pen and paper surveys. Computer-assisted personal interviewing (CAPI) was not considered for the IAC because there was no previous experience in FSM with CAPI.

## Questionnaire design

Based on the topics identified in the consultation process a draft outline was developed and this was converted to a paper questionnaire. The questionnaire layout was developed using the 2013 Household Income and Expenditure Survey as a model. This meant that the development was less difficult for the Statistics Division team, but the structure was not well set out for agriculture collection when multiple plots of land were farmed. The design meant that detailed data was collected for a maximum of three individually owned plots and three shared plots.

The questionnaire was not translated into any of the many local languages.

## Pilot testing and train the trainers

The SPC Technical Adviser and the FAO Consultant both contributed to the first training of trainers training for the Pilot test in January 2016.

The training focused on the concepts and definitions for the survey and included training in area estimation.

However, there was no opportunity for the consultants to review the questionnaire after the pilot test. There were many areas that could have been simplified or improved but few changes were made after the pilot test.

A second training of trainers was held in May 2016, focusing on operational matters. Neither consultant was able to attend.

## Enumerator and supervisor recruitment and training

The recruitment for enumerators and supervisors was carried out using FSM standard practices for statistical surveys and the recruits included people had worked on previous Household Income and Expenditure Surveys (HIES) or population censuses. However, there was no one with previous experience of agriculture statistics collection in FSM. Although the agriculture and fisheries staff in the states assisted with the training and recruitment, they had little knowledge of the statistical requirements and formal definitions and concepts. So it is not surprising that quality of the enumeration varied.

Training was carried out in the four states in June 2016, with five days training for both supervisors and enumerators followed by an additional three days of training supervisors. The training was split into several groups in the larger states, meaning the trainers were spread very thinly. Where possible, the groups were organized around the area the enumerators would be collecting in, and each area was allocated trainers who spoke the appropriate language. A representative of the state agriculture and fishing departments was also nominated for each training session, but were not always available when needed.

This training time was only just enough to go through all the content, and there was insufficient time to do specialized training and practice in estimating area or ensuring all the agricultural concepts were well understood. Training was carried out separately in each state, and there was little overlap of the trainers. Although all trainers had undertaken the training of trainers courses, there are variations in results between states that suggest there may have been differences in interpreting the questions. For example, the questionnaire was intended to collect information on dogs, but not other household pets, and this was covered in some training sessions. However in one state a number of cats were recorded as livestock.

The SPC Technical Adviser supported the training in Pohnpei and the FAO Consultant supported the training in Chuuk.

The number of staff expected to be recruited is given in the following table.

**TABLE 59**  
**Estimated number of households, and staff required for IAC 2016**

STATE	NUMBER OF OCCUPIED HOUSEHOLDS	NUMBER OF EAS (REVISED)	NUMBER OF ENUMERATORS	NUMBER OF SUPERVISORS	TOTAL FIELDWORKERS
<b>Total</b>	<b>16 767</b>	<b>570</b>	<b>570</b>	<b>140</b>	<b>710</b>
<b>Yap</b>	2 311	76	76	21	97
Proper	1 680	55	55	15	70
Outer Islands	631	21	21	6	27
<b>Chuuk</b>	7 024	249	249	64	313
Lagoon	5 445	199	199	56	255
Outer Islands	1 579	50	50	8	58
<b>Pohnpei</b>	6 289	205	205	46	251
Proper	5 970	196	196	44	240
Outer Islands	319	9	9	2	11
<b>Kosrae</b>	1 143	40	40	9	49

## Enumeration

Enumerators and supervisors were deployed in the field from June 30, 2016.

The census was supposed to be carried out over July 2016. However delays and difficulties in organizing transport meant that some outer islands were not completed until about six months later.

The number of houses identified/approached, and their final status is given in the following table. As can be seen the total number identified is higher than the original 16 767 occupied houses used to estimate the number of enumerators, but with the number of vacant and demolished houses identified, the final number of interviews completed or partially completed was substantially lower.

**TABLE 60**  
**Final enumeration status**

HOUSEHOLD OCCUPANCY STATUS						
STATUS CODE <sup>1</sup>	YAP	CHUUK	POHNPEI	KOSRAE	?	GRAND TOTAL
1 Completed	2 279	5 663	5 997	1 032		14 971
3 Entire household absent for extended period of time		3	36	2		41
4 Incomplete		4	9	5		18
5 Refused	5	35	50			90
6 Vacant	578	733	742	121		2 174
7 Building demolished	224	3	20	6		253
8 Building not found		4	18	1		23
9 Other	2	9	7	1		19
?					1	1
<b>Total</b>	3 088	6 454	6 879	1 168	1	17 590
Codes 1 and 4	2 279	5 667	6 006	1 037	0	14 989
Number in provisional tables	2 279	6 223	6 006	1 037		15 545

Note code 2 is 'No household members home at time of visit'. All households with this code were revisited and allocated another code.

<sup>1</sup> All households with initial status code '2 No household member at home at time of visit' were either interviewed or reclassified before the questionnaire was submitted

## Data processing

Delays and funding difficulties meant that developing the systems, the data entry and database structure, editing, tabulation and analysis were all carried out by different people at different times.

Data entry was delayed due to issues both with developing the data entry system and funding for data entry staff. The data entry system was partly developed by SPC and partly by FSM staff.

The data entry system was developed in CPro with the dictionary including 14 record types based on the questionnaire format. The dictionary record types included population, auxiliary variables, unshared lands used, shared lands used, other lands used, crops produced, crops harvested, other crops, livestock, fishing, aquaculture, forestry (and others like hunting, handicrafts), equipment, and agriculture services. While these 14 record types make entry easier, they become bulkier for editing, and even more complicated for making tables across record types.

Data entry was delayed due to resourcing issues and an initial 10 percent of the data was entered in 2017 in the different states, to test the entry application and estimate the entry duration. The data was re-entered after the data entry system was refined and data entry was all completed in 2018.

A full set of tables by municipality was developed based around the questionnaire content. For the main report additional analytical tables were produced, but due to the delays and difficulties working with the data not all derivations needed were able to be produced, and by the time the analysis was done much information needed about the data and tables was not available.

## Editing, imputation and weighting

After the data was entered, incomplete households were edited, and values imputed for missing key variables. As this was two years after the enumeration, it was too late to return to the field for any additional data collection.

Chuuk presented a problem. Some Enumeration Districts (EDs), particularly on Weno, were not included in the census. For these EDs, the information in adjacent EDs was copied and pasted into its proper place in the geographic hierarchy with the ED geography changed to reflect what should have been there. So, it is possible that this procedure skewed the data somewhat, but it was felt that since most of Weno – which is urban – did not do much agriculture, this would be acceptable.

One of the Hall Islands was also not enumerated. The information from an adjacent island was duplicated and dropped into the proper geographic sequence, and the ED numbers changed so that an estimate of the population and characteristics for that island could be included in the census results. Most of the outer islands have similar agriculture and fishing patterns, so it was deemed acceptable to do this.

However, the total for Chuuk came out very low, much lower than would have been expected given the current migration patterns. A weight (adding 10 percent) was assigned to the Chuuk records, but the numbers are still low. There was also evidence that the Pohnpei total counts were low, but those for Yap and Kosrae were in line with what was expected.

## Under coverage adjustment

After the census, a follow up Chuuk household listing was carried out using tablets to understand what areas were missed. At the time of writing this had not been analyzed, but as noted, data from Chuuk was weighted up by ten percent in the tables.

## Tabulation

A preliminary set of tables were proposed before the census was finalized. However they were not evaluated or tested, nor used to guide the database construction. Some of these tables proved difficult to program with the complex data structure.

After the data entry was set up another set of tables was developed but these were designed more from a demographic perspective and there were a number of gaps in items important to agriculture.

## Analysis

By the time the analysis was carried out much of the knowledge about the data structure and derivations were not available.

## Quality assessment

Tabulation, and hence reviews of the data outputs, were only carried out at a very late stage, so correction of problems found was very difficult. The main issues include demographic profile, land area, crop data, livestock and fishing.

## Demographic profile

Number of households and total population are low compared to previous data gathering. The possible sources of the differences were analyzed by Michael Levin and are likely to be a result of both out-migration and under-coverage, but no obvious demographic biases were noted.

## Land area

The collection of area data is affected in several ways. People often do not know or have information to estimate land areas, land can be shared among a number of households and operated jointly, boundaries are unclear and in some places there are limited official records and land ownership may be disputed.

Two variables were used in the tables: UNACRES (acres of owned, not shared land) and SACRES (acres of shared land). However, no one seems to know how these variables were created, or if they correctly converted the land area recorded in hectares into acres and included these in the total.

Estimates of the total land area used for agriculture were derived from a table that categorized the total area of a household's land used for agriculture (sum of the SACRES and UNACRES variables), using the midpoints of the category ranges below. Despite the issues with the data, this produced result comparable with other sources of information as shown in the main report Land section.

**TABLE 61**  
**Estimates for land area calculations: 2016**

CATEGORY	MIDPOINT USED IN CALCULATIONS.
Less than 0.2 acres	0.15
0.20 to 0.49	0.35
0.50 to 0.99	0.75
1.00 to 2.49	1.75
2.50 to 4.99	3.75
5.00 to 9.99	7.50
10.00 to 14.99	14.00
15.00 to 19.99	18.00
20.00 to 29.99	25.00
30.00 to 39.99	35.00
40.00 to 49.99	45.00
50.00 to 99.99	75.00
100.00 acres or more	110.00

## Crop data

Crops data was fairly consistent with what was known about FSM agriculture and no significant issues were identified with the reported number of households growing crops. However, the quantity harvested was recorded in a range of units and further analytical work is needed to be able to use the data to be able to estimate total production volume and values.

One inconsistency was noted in that 74 percent of the households reported that the main purpose of land use was for home consumption only (no sales), but for major crops sales were reported by over 40 percent of households. This may be a matter of interpretation of 'main purpose'.

## Livestock

Total numbers of livestock look reasonable, in comparison with the 2013 HIES:

**TABLE 62**  
**Total livestock by survey: 2016**

	PIGS (AND PIGLETS)	CHICKENS	DOGS
2013 HIES	25 000	77 900	14 000
2016 IAC	29 916	70 828	16 636

Pigs and piglets were asked separately in the IAC, while the HIES only asked pigs, and piglets may not always have been counted.

However, both the number disposed of in the past year and the number of births look unreliable. For example, there were around 10 000 adult female pigs recorded. Even if only half of these gave birth to an average of 5 pigs, we would expect around 25 000 births as opposed to the 5 000 recorded.

The total value of sales, \$902 702, looks a bit low compared to that recorded in the 2013 HIES (\$1 173 000), and the numbers sold are hard to validate. The average value per animal sold were discussed with the local staff and seem odd for pigs (too low), chickens, (too high) and dogs (too high).

There is also evidence that the livestock services question was not well understood. For example, castration or artificial insemination being reported for chicks (that are unsexed) or the level of animal waste disposal to septic tanks.





## Fishing

Households were asked how many fishing trips they made for each method of fishing, and also how many fishing trips they made for each area/habitat they fished in. Where a trip covered more than one method of fishing or more than one area the trips would be reported in each category. They were also asked to report the number of trips either monthly or weekly. To obtain estimates of the number of trips per month, the weekly data was multiplied by four. This was then categorized, and only the numbers in each category were supplied to the analyst. Mid-points were chosen to calculate the totals and averages:

After the data entry was set up another set of tables was developed but these were designed more from a demographic perspective and there were a number of gaps in items important to agriculture. of the category ranges below. Despite the issues with the data, this produced result comparable with other sources of information as shown in the main report Land section.

**TABLE 63**  
**Estimates for fishing trips per household per month: 2016**

CATEGORY	VALUE USED TO CALCULATE TOTAL AND AVERAGES
1 to 7 per month	4
8 to 14 per month	10
15 to 21 per month	18
22 to 30 per month	27
31+ per month	31

A statistical validation of the Food Insecurity Experience Scale Module is presented in the Annex to this section.



## Recommendations for future

### Analysis of the 2016 Census

There is a lot of data in the FSM 2016 that has not been fully analyzed, and further work would significantly enhance usability and usefulness of the information.

With the data in its current format it is difficult to access and analyze. It is recommended that the data be made available to the SPC to be archived in the Pacific Data Hub. At that point it would be helpful if the data was reconfigured to allow for additional analysis now, and for easier trends analysis when the next agriculture census is undertaken. This could also allow in-depth analysis to be carried out by researchers for approved projects.

Most of the value of production has not been able to be estimated for the initial report. The exercise to convert the crop data to standard units and then estimate its value would be very useful. Some elements of the 2013 HIES data and methodology may be able to be used to validate the value of crops, livestock and fishing production.

Assuming there is little double counting of plants in shared parcels, plant numbers can be used to estimate the single crop equivalent area using conversion tables. Single crop equivalence conversion tables are available for some Pacific countries and FSM agriculture staff may be able to develop them for FSM based on plant spacing guidelines.

### Recommendations for future agriculture statistics

FSM does not have the resources for regular annual agriculture data collection. It is intended to expand the range by collection of basic information in the population census and other surveys.

An agriculture survey is proposed for 2021. This could focus on more accurate collection of production or yield data to improve production estimates required for Gross Domestic Product estimates.

Further information/data collection will also be needed to establish more accurately the area of land held and the crop uses.

### Questionnaire improvements

The following are some suggestions for improvement if a similar census/survey is carried out in future. The whole questionnaire should be simplified and reduced to make data collection, processing and analysis simpler

### Section 1 Demographic profile and labor force status.

This section could be significantly reduced as much of the information is not essential for an agriculture census.

- Section 1.1 Simplify education questions to avoid inconsistencies between highest grade completed and currently attending.
- Section 1.2 'Available for more hours' and 'Looking for work' questions were not used and could be dropped. Industry and occupation could be replaced by questions focusing on Agricultural activity, replacing the 'Which members of this household are normally engaged in...' questions in sections 3, 4, 5 and 6.

Instead of these questions, the questions on involvement in agricultural activities could be included in this section, simplifying later sections of the questionnaire.

## **Section 2 Land**

The tabulation and analysis of this section was very complex and key variables such as total area were only able to be estimated, and not verified. It would be best if the land area could be more accurately measured and its uses better allocated. Investigation of the potential for satellite data to supplement data collection could be useful, although the amount of informal agro-forestry means that boundaries of land use or crop identification is likely to be difficult.

For shared parcels, a better way of allocating the individual production to land area is needed. A separate holding and parcel questionnaire approach should be tested. If CAPI is able to be used this would be a more efficient way of collecting parcel data.

## **Section 3 Crops**

Crop production estimates are vital. Although censuses are not usually the primary source of production information the lack of other data in FSM means that the census is a core source. Further analysis of the 2016 data should help to identify the best indicators of production and enable the detail of crop information to be reduced.

## **Section 4 Livestock**

The question on livestock services and waste disposal was not well understood and need to be improved.

## **Section 5 Fishing**

Simplify the questionnaire by asking number of fishing trips only once, not against each species/habitat.

## **Section 6 Forestry, Handicraft & Hunting**

For forestry, the question 'Parcels harvested from' was not used. Questions to better identify environmental issues with forestry use may be more valuable.

## **Section 7 Equipment**

These questions are standard.

## **Section 8 - Services, Barriers, Income and Credit**

The Food Insecurity Experience Scale questions may not be needed in an agriculture census if other sources of the data are available.

## **Methodology**

If CAPI is proved successful in the 2020 Household Income and Expenditure Survey, a CAPI methodology could be adopted for FSM agriculture surveys and censuses, potentially based on models being used in other Pacific countries.



## Classifications and definitions

The definitions were almost entirely based on the FAO guidelines from FAO World Programme for the Census of Agriculture (WCA) 2020, as the limited experience with agriculture data collection meant that there was little knowledge available about modifications that might make them more appropriate or understandable for the FSM context

The definitions used are available in the Questionnaire, Map, & Household Listing Instruction Manual which will be available on the FAO website <http://www.fao.org/world-census-agriculture/wcarounds/wca2020/countries2020/en/> as well as from the FSM Statistical office.



## Annex 1: Statistical Validation of the FIES Module

The version of the Food Insecurity Experience Scale (FIES) was household level. The module was located after the module on services, barriers, income and credit.

Reference Period: 12 months

### Background about survey implementation

The FIES was introduced in the national agriculture census. This is a test case, as it was the first use of the questions in the Pacific region. The manual and questionnaire were only available in English and enumerators were given instructions to translate when needed. Regarding refusal to answer, enumerators were given instructions not to push but try to provide comments on reasons of the refusal. This information was not available in the file. Instructions related to the FIES are quoted below:



#### 3.8.3 Food Insecurity

This is an international standard set of questions to identify the extent that food insecurity is a problem for FSM. It is included here to provide information to understand links between food insecurity and agriculture and related issues and activities.

These questions are used to derive a Food insecurity scale. It can be a very sensitive issue for people so care will be needed. But with FSM experience of cyclones and drought it is likely that some households are struggling to eat well, and the data will be very helpful to better target help in future. Please ask questions 83101 – 83108 as close as possible to the wording give. **If needed explain that there is no shame in reporting their experience**, and there is very strong protection of confidentiality. Do not discuss these answers with anyone, or react to the respondent's answer.



Total sample seems to be of 15 545 agriculture households involved in farming but FIES data were provided for only 14 937 households. No information is available on why these households are missing. It is also unclear whether or not they were deleted because FIES was not administered to them or because they refused or did not know how to answer. In later cases, no final judgment on the performance of the scale can be formed even though the FIES passed all the statistical validity tests.

## Results

The results of the analysis are then based on the 14 937 cases present in the available file. The number of non-extreme cases (cases for which raw score is different from 0 or 8) represents 6 924 households.

Overall reliability is high, with a Rasch reliability index of 0.73. The infit statistics of each items are within acceptable range (from 0.7 to 1.3), showing each item has the same ability to discriminate compared to the other items. The outfit statistics do not seem to show an issue in respondent pattern. All the other correlations that exist among residuals are lower than 0.4 which shows that all items measure only one latent trait, the food insecurity (see matrix of correlation) which is further confirmed by the scree plot of the matrix of residuals.

The analysis of the distribution or raw score shows that 35 percent of households denied all items and 19 percent affirmed all the items.

**TABLE 64**  
**Item parameters and fit statistics: 2016**

ITEM	SEVERITY OF ITEM	STANDARD ERROR OF SEVERITY	INFIT	OUTFIT	PROPORTION OF AFFIRMATIVE RESPONSES (WEIGHTED)	NUMBER OF AFFIRMATIVE RESPONSES
WORRIED	-1.95	0.04	1.24	1.82	80.75	5 591
HEALTHY	-1.31	0.03	1.13	1.75	70.73	4 897
FEWFOOD	-1.30	0.03	0.87	0.91	70.67	4 893
SKIPPED	0.03	0.03	0.84	0.79	47.26	3 272
ATELESS	0.12	0.03	0.79	0.70	45.71	3 165
RUNNOUT	0.98	0.03	0.97	0.96	31.21	2 161
HUNGRY	1.17	0.03	0.86	0.78	28.39	1 966
WHLDAY	2.26	0.04	1.14	1.55	13.39	927

## Equating to the global standard

Given the results of the statistical validation, the raw score can be considered a reliable, ordinal indicator of food security severity. The results reveal that, after appropriate scaling of the severity values, all the eight items can be considered “common” to the global FIES one. Figure 1 shows the equated common items.

**GRAPH A.1**

**Equated items severities and identification of common items**



As weights were not available we only estimated the prevalence for the sampled agriculture households and 45 percent of sampled households are “moderate and severe food insecure” and 18 percent are “severe food insecure”. This later rate is close to the proportion of households that affirmed yes to all the eight items.

**Conclusion**

The results of the statistical tests tend to point towards a relatively good performance of the scale in FSM. However, because of the lack of information on missing households and non-response these results cannot be validated.

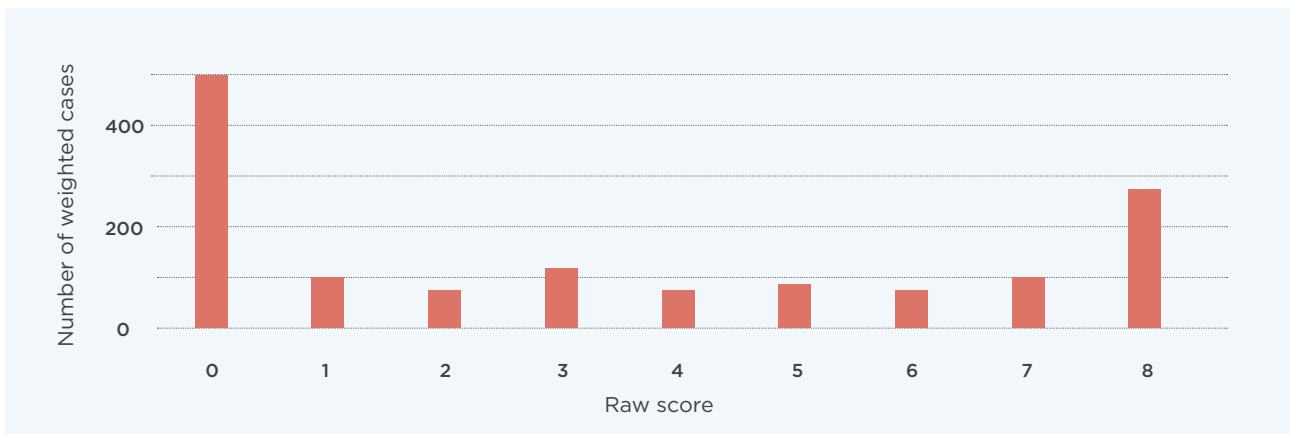
**Additional Information**

**Distribution of raw score**

The distribution of raw scores shows that 35 percent of households are food secure (raw score equals 0).

**GRAPH A.2**

**Distribution of raw score**





## Matrix of residual correlations

All correlations are lower than 0.3 (except correlation between ATELESS and SKIPPED that is a bit higher and equal to 0.35).

**TABLE 65**  
**Matrix of residual correlations: 2016**

	HEALTHY	FEWFOOD	SKIPPED	ATELESS	RANOUT	HUNGRY	WHLDAY
WORRIED	0.025	0.010	-0.146	-0.097	-0.155	-0.136	-0.205
HEALTHY		0.201	-0.105	-0.079	-0.200	-0.203	-0.229
FEWFOOD			0.106	0.128	-0.069	-0.038	-0.172
SKIPPED				0.346	0.059	0.124	-0.020
ATELESS					0.134	0.138	-0.057
RUNNOUT						0.226	0.052
HUNGRY							0.211

## Scree plot

The result of unidimensionality is further confirmed by the scree plot of the residuals showing the variance explained by each item. That there is no elbow in the contribution of each component to the total variance of the residuals means that each item contributes to the latent trait and no sub-dimension is observed.

**GRAPH A.3**  
**Prcomp (result\$mat.res)**







## S1.1 - Demographic profile (All persons)

**10000 ) Please list all persons who usually live in this household (Usual Resident). Start with the head of the household.**  
*Head of the household is the person in charge of the household finances/resources.*

**Only include persons who:**

- a) currently live in this household (even if temporarily away, and they intend to return)
- b) absent more than a month but dependent on household (eg, student o'seas and in dorm only, person in hospital, etc)
- c) absent for more than a month, but part of (and supporting) the household (eg, seamen, seasonal worker, etc)
- d) visitors currently living with the household for more than 6 month
- e) just moved in with the household but intends to stay longer than 6 months

Household Member [HM]	Name (Last name, First name)  <i>List Household Head first</i>	Sex	Relationship to household head	Birth date  mm / dd / yyyy	Age (in complete years)	Marital status	Is [HM] attending school now?	What grade is [HM] currently attending?  code 10109	What was the highest grade [HM] completed?  code 10110
			code 10104			code 10107	Ask if Age is 13+  1 Yes 2 No If 2 ► 10110		
10101	10102	10103	10104	10105	10106	10107	10108	10109	10110
01		<input type="checkbox"/>	0 1	-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02		<input type="checkbox"/>		-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03		<input type="checkbox"/>		-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04		<input type="checkbox"/>		-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05		<input type="checkbox"/>		-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06		<input type="checkbox"/>		-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07		<input type="checkbox"/>		-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
08		<input type="checkbox"/>		-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
09		<input type="checkbox"/>		-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10		<input type="checkbox"/>		-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11		<input type="checkbox"/>		-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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18		<input type="checkbox"/>		-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19		<input type="checkbox"/>		-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20		<input type="checkbox"/>		-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21		<input type="checkbox"/>		-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22		<input type="checkbox"/>		-- / -- / ----		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10103: Sex  
1. Male  
2. Female

code 10104 :Relationship  
01. Household Head  
02. Spouse  
03. Son/daughter (incl. adopted)  
04. Son/daughter-in-law  
05. Parent  
06. Uncle/Auntie  
07. Grand-son/daughter  
08. Brother/Sister  
09. Other Relative  
10. Non-relative

code 10107: Marital status  
1. Never Been Married  
2. Legally Married  
3. Traditional/Consensual  
4. Separated  
5. Divorced  
6. Widowed

code 10109 : Currently attend  
31. Preschool/ Kindergarten  
01 to 12. 1st to 12th grade  
13. Pre-college vocational school  
14. Associate's degree  
15. Bachelor's degree  
16. Master's degree  
17. Doctorate degree or higher  
18. Other (obs)

10110 : Highest grade completed  
30. None completed  
31. Preschool/ Kindergarten  
01 to 12. 1st to 12th grade  
13. Some college, no degree (including pre-college vocational certificate)  
14. Associate's degree  
15. Bachelor's degree  
16. Master's degree  
17. Doctorate degree or higher  
18. Other (obs)

## S1.2 - Activities last week (age 15+ years)

Reference Period:  
Last week

Please provide the main activity details for every member of this household, aged 15 years and older.

What was this [HM]'s <b>main activity</b> during <b>last week</b> ? <i>(If temporarily away from activity last week, due to holidays or illness, state what this person would normally be doing)</i>  code 10111 if 01 - 08: (▶ 10112) if 09 - 13: (▶ 10116)	<b>Main Activity Section</b>				Did [HM] actively look for work <b>last week</b> ?  1 Yes 2 No  if 1 ▶ next HM	Why not?  code 10117	Obs			
	Type of activity (occupation)  Examples  nurse, teacher, enumerator, security, cook, shop-keeper, farmer, fisherman	What industry did [HM] work in?  Examples  hospital, education, security, restaurant, retail sales, agriculture, fisheries	How many hours did [HM] work in this <b>main activity last week</b> ?  if 30+ hrs (▶ next [HM] age 15+)  if < 30 hrs (▶ 10115)	Would [HM] be willing and available to work more hours in this <b>main activity</b> ?  1 Yes 2 No						
	10111	10112	10113	10114				10115	10116	10117
	_ _	_ _	_ _	_ _  hrs				_	_	_ _
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_ _	_ _	_ _	_ _  hrs	_	_	_ _				
_ _ </										





## S2 - LAND / Description and Use (continued)

Reference period:  
Day of enumeration

Details of parcels of lands which you share with other households											
25100 Describe the parcels of land your household shares with people from other households											
Parcel No.	Location			Area measurement			Land Use and Access				Obs
	State code 25102	Municipality	Village	Size		How was the parcel measured? code 25107	Tenure code 25108	Main land use code 25109	Period of land use code 25110	How do you get to it? code 25111	
				Number	Unit code 25106						
25101	25102	25103	25104	25105	25106	25107	25108	25109	25110	25111	25199
251	<input type="text"/>			<input type="text"/>	<input type="text"/>						
252	<input type="text"/>			<input type="text"/>	<input type="text"/>						
253	<input type="text"/>			<input type="text"/>	<input type="text"/>						
254	<input type="text"/>			<input type="text"/>	<input type="text"/>						
255	<input type="text"/>			<input type="text"/>	<input type="text"/>						

Details of land issues						
26100 For the land your household operates:						
26101	Description of issue	Affected by issue?		Which Parcel Number(s)	What measures did you take to adapt to the situation?	Obs
		1 Yes	2 No			
26101	26102	26103	26104	26105	26199	
<b>In the past year</b>						
01	Has any of your land been damaged by landslides?					
02	Has any of your land been damaged by rain flooding?					
03	Has any of your land been damaged by sea water?					
04	Has any of your land been damaged by drought?					
05	Has any of your land been damaged in other ways?					
06	Has any of your land been irrigated?			na		
07	Has any of your land been burnt off to clear it (e.g. for planting or livestock)?					
<b>At the current time</b>						
08	Does any of your land have drainage or other water management (ditches, pumping out water)?			na		
09	Does any of your land have invasive species problem?					

code 24109 & 25109: Main land use

- 1 Land Under Garden Crop (temporary/short-term)
- 2 Land Under Tree Crop (permanent/long-term)
- 3 Agro forestry (mixed tree and garden crops)
- 4 Land Temporary Fallow
- 5 Land Under Livestock
- 6 Forest/wooded land (not tree crops)
- 7 Land under farm buildings and farmyards
- 8 Land under other (non-agricultural use)

code 24110 & 25110: Period of Land Use

1. Less than a year
2. 1 - 4 years
3. 5 - 9 years
4. 10 years or more

code 24111 & 25111: Access to Land

1. car
2. walk / live by / live on
3. boat / canoe
4. other (obs)

Observations	



### S3.1 - CROPS / Production

31000 ) What crops did this household have on land you have access to in the last 12 months?

Last 12 months													
Crop name	Parcel <input type="text"/>						Parcel <input type="text"/>						
	Number of plants and trees in the parcel	Method of planting	Type of planting	Is any of this crop grown under protective cover or shade?	New planting		Number of plants and trees in the parcel	Method of planting	Type of planting	Is any of this crop grown under protective cover?	New planting		
					Did your h/hold plant any new crop?	Source of plant					Did your h/hold plant any new crop?	Source of plant	
	If none ► next crop	code 31104	code 31105	code 31106	1 Yes 2 No	code 31108	If none ► next crop	code 31110	code 31111	code 31112	1 Yes 2 No	code 31114	
31101	31102	31103	31104	31105	31106	31107	31108	31109	31110	31111	31112	31113	31114
<b>Fruits</b>													
01	Breadfruit												
02	Coconut												
03	Banana												
04	Lime/lemon												
05	Tangerine/orange												
06	Pineapple												
07	Papaya												
08	Pandanus												
09	Mango												
10	Other (obs)												
<b>Vegetables</b>													
11	Cabbage (all types, incl. kangkong)												
12	Cucumber												
13	Beans												
14	Pumpkin												
15	Pepper (all types, incl. chilli and bell)												
16	Eggplant												
17	Squash (all types, incl. pumpkin)												
18	Green Onion												
19	Other (obs)												
<b>Rootcrops</b>													
20	Yam												
21	Swamp taro												
22	Land taro												
23	Tapioca												
24	Sweet potato												
25	Other (obs)												
<b>Other crops</b>													
26	Sakau												
27	Betelnut												
28	Piper leaves												
29	Black pepper												
30	Ornamental plants												
31	Other (obs) [e.g. cane, hibiscus (bark for sakau preparation), madeu, etc]												

code 31104, 31110 & 31116 : Method of planting

1. Compact
2. Line
3. Scatter

code 31105, 31111 & 31117 : Type of planting

1. Single crop
2. Mixed crop
3. Scattered pattern

code 31106, 31112 & 31118 : Protective cover

1. Under cover from local material
2. Under other cover
3. Natural tree cover
4. No cover



### S3.2 - CROPS / Harvesting

32000 ) What crops did this household harvested from the land you have access to in the last 12 months?

Last 12 months													
Crop name	Parcel <input type="text"/>							Parcel <input type="text"/>					
	Quantity of harvest		Purpose	If sold:		If any of the crop was lost, what's the reason? <i>List up to 2 causes, most losses first</i>	Quantity of harvest		Purpose	If sold:		If any of the crop was lost, what's the reason? <i>List up to 2 causes, most losses first</i>	
	Number	Unit		What proportion of the crop was sold?	Who did you sell to?		Number	Unit		What proportion of the crop was sold?	Who did you sell to?		
			code 32105 <b>If 1 ▶ 32108</b>	code 32106	code 32107	code 32110 <b>If 1 ▶ 32114</b>			code 32112	code 32113	code 32114		
32101	32102	32103	32104	32105	32106	32107	32108	32109	32110	32111	32112	32113	32114
<b>Fruits</b>													
1	Breadfruit	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
2	Coconut	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
3	Banana	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
4	Lime/lemon	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
5	Tangerine/orange	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
6	Pineapple	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
7	Papaya	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
8	Pandanus	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
9	Mango	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
10	Other (obs)	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
<b>Vegetables</b>													
11	Cabbage (all types, incl. kangkong)	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
12	Cucumber	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
13	Beans	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
14	Pumpkin	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
15	Pepper (all types, incl. chilli and bell)	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
16	Eggplant	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
17	Squash (all types, incl. pumpkin)	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
18	Green Onion	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
19	Other (obs)	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
<b>Rootcrops</b>													
20	Yam	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
21	Swamp taro	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
22	Land taro	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
23	Tapioca	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
24	Sweet potato	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
25	Other (obs)	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
<b>Other crops</b>													
26	Sakau	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
27	Betelnut	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
28	Piper leaves	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
29	Black pepper	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
30	Ornamental plants	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_
31	Other (obs) [e.g. cane, hibiscus (bark for sakau preparation), madeu, etc]	_ _ _ _	_	_	_	_	_	_ _ _ _	_	_	_	_	_

code 32104, 32110 & 32116 : Unit  
 1. pound  
 2. each  
 3. bunch  
 4. other (obs)

code 32105, 32111 & 32117 : Purpose  
 1. Home use only  
 2. Mainly home use  
 3. Mainly cultural use  
 4. Mainly church activities use  
 5. Mainly for sale  
 6. Only for sale  
 7. Other (obs)

code 32106, 32112 & 32118 : Proportion sold  
 1. Less than 25% (less than 1/4 of the crop harvest)  
 2. 25% - 49.9% (1/4 to less than 1/2 of the crop harvest)  
 3. 50% - 74.9% (1/2 to less than 3/4 of the crop harvest)  
 4. 75% - 100% (3/4 to 100% of crop harvest)



### S3.3 - CROPS / Other details

Reference Period  
last 12 months

33100 Which members of this household are normally engaged in crop activities?

[HM]	How many hours did this [HM] work last week on crop activities? (If not doing activity last week due to temporary illness or travel, ask number of hours <i>normally</i> work)	Is this [HM] the main operator for crop activities in the household?	Where did [HM] receive agricultural education from?	obs
		1 Yes 2 No	code 33104	
33101	33102	33103	33104	33199
<input type="text"/>	<input type="text"/> hrs	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/> hrs	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/> hrs	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/> hrs	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/> hrs	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/> hrs	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/> hrs	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/> hrs	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/> hrs	<input type="text"/>	<input type="text"/>	

33200 Did this household hire anyone (non-household members) to work on Crop activities in the **last 12 months**? 1 Yes   
2 No  if 2 ► 33400 na

33300 How many males and females? males  females  na

33400 Did this household use any of these organic farming method in the last 12 months?

	Farming method	Use method?		Obs
		1 Yes	2 No	
	33401	33402		33499
1	Compost	<input type="text"/>	<input type="text"/>	na
2	Green manures	<input type="text"/>	<input type="text"/>	na
3	Chilli spray	<input type="text"/>	<input type="text"/>	na
4	Chipping for mulch	<input type="text"/>	<input type="text"/>	na
5	Others (obs)	<input type="text"/>	<input type="text"/>	

33500 Did this household use any purchased fertilizer or agricultural chemicals in the last 12 months?

	Chemical type	Use chemical?		Obs
		1 Yes	2 No	
	33501	33502		33599
1	Insecticide	<input type="text"/>	<input type="text"/>	na
2	Herbicide	<input type="text"/>	<input type="text"/>	na
3	Fungicide	<input type="text"/>	<input type="text"/>	na
4	Other (obs)	<input type="text"/>	<input type="text"/>	

33600 Did this household grow medicinal plants in the **last 12 months**? 1 Yes   
2 No  na

code code 33104 & 41304 : Education

- |                                 |                          |
|---------------------------------|--------------------------|
| 1. informal practical education | 4. post-secondary school |
| 2. short courses                | 5. none                  |
| 3. secondary school             |                          |

#### Observations


## S4 - LIVESTOCK & PETS

**40000** ) Does the household have any livestock and poultry including dogs as of the day of enumeration?

Yes

No  Go to S5

### Details of livestock activities

41100 Provide the details of these livestock and poultry you have.

On the day of enumeration						In the last 12 months				obs	
Livestock / poultry	Coding code 41102	Number			How are they kept? code 41106	Parcel where animal kept? 41107	How was their waste disposed of? code 41108	Did the h/hold purchase any feed for these animals? 1 Yes 2 No			What services the h/hold used for these animals? <b>Indicate up to 3 services</b> code 41110
		Total	Males	Females	<b>if 1 ▶ 41109</b>		1 Yes	2 No	code 41110		
41101	41102	41103	41104	41105	41106	41107	41108	41109		41110	41199
01	Adult Pigs (older than 6 mos)	na									
02	Piglets (younger than 6 mos)	na									
03	Adult Chickens: Broiler	na									
04	Adult Chickens: Layer	na									
05	Adult Chickens: Dual	na									
06	Adult Chickens: Local	na									
07	Chicks	na		na	na						
08	Ducks	na									
09	Dogs	na									
10	Other (obs)										

41200 How many livestock did the household dispose of, lose and acquire in the last 12 months?

Livestock / poultry	Coding	Animals disposed				Animals lost				Animals gained			obs
		Consumed at home 41203	Customary or social obligations 41204	Sold 41205		Died from disease 41207	Died from storm 41208	Died from natural cause 41209	Other losses 41210	Births 41211	Gifts 41212	Bought 41213	
				Number	Total value (\$)								
41201	41202	41203	41204	41205	41206	41207	41208	41209	41210	41211	41212	41213	41299
01	Adult Pigs	na			\$  , , , , , , .00								
02	Piglets	na			\$  , , , , , , .00								
03	Adult Chickens	na			\$  , , , , , , .00								
04	Chicks	na			\$  , , , , , , .00								
05	Ducks	na			\$  , , , , , , .00								
06	Dogs	na			\$  , , , , , , .00								
07	Other (obs)				\$  , , , , , , .00								

41300 Which members of this household are normally engaged in livestock activities?

[HM]	How many hours [HM] work last week in livestock activities? (If not doing activity 1st week due to temporary illness or travel, ask number of hours normally work)	Is this [HM] the main operator for livestock activities in the household?		Where did [HM] receive agricultural education from? code 41304	obs
		1 Yes	2 No		
41301	41302	41303		41304	41399
	_____ hrs				
	_____ hrs				
	_____ hrs				
	_____ hrs				
	_____ hrs				
	_____ hrs				
	_____ hrs				
	_____ hrs				

41400 Did this household hire anyone (non-household member) to work on livestock activities in the last 12 months?

1 Yes   
2 No

code 41102 & 41202 : Coding

- 11 Goat
- 12 Deer
- 13 Cow
- 14 Water buffalo
- 15 Other (obs)

code 41106 : How kept

- 1. Free ranging
- 2. In fenced enclosure
- 3. In buildings/cages

code 41108 : Waste disposal

- 1 Septic tank
- 2 Open catchment (e.g., pit)
- 3 Recycle/biogas/dry litter
- 4 Open

code 41110 : Services used

- 1. Vaccination/Dosing (disease prevention)
- 2. Artificial insemination
- 3. Deworming / antibiotic treatment (disease cure)
- 4. Castration
- 5. All of the above
- 6. Other (obs)
- 7. None

code 41304 : Education

- 1. informal practical education
- 2. short courses
- 3. secondary school
- 4. post-secondary school
- 5. none

## S5.1 - FISHERIES / Description and Use

Reference Period:  
last 12 months

**51000** ) During the past **12 months**, did any member of this household conduct any fishing activities?

Yes

No  Go to 52000

Characteristics of the fishing activities						Obs
51100 What type of fishing activities were carried out by members of this household?						
Fishing Activity	Engaged in activity?		How often do you take fishing trips?		How many trips?	
	1 Yes	2 No	1 Weekly 2 Monthly		Number	1 per wk 2 per mth
<span style="color: red;">If 2 ► next activity</span>						
51101	51102		51103		51104	51105
1 Trolling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Bottom Fishing (include drop stone)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Casting (handline/pole)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Spear / Harpoon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Cast Net	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Gathering/Reef Gleaning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Trap / Fish Fence / Gill Net	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Poison / Dynamite	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Other (obs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

51200 What were the marine species caught?						Obs
Species	Did you catch?		Main use / purpose	Proportion of catch was sold?	Who did you sell it to?	
	1 Yes	2 No	code 51203	code 51204	code 51205	
<span style="color: red;">If 2 ► next species</span>						
51201	51202		51203	51204	51205	
1 Oceanic fish (tuna & oceanic pelagic fish)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2 Coastal fish (Reef Finfish)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3 Ornamental fish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4 Lobster	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5 Crab	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6 Octopus/squid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7 Shellfish (Clams, Oysters, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8 Sea cucumber	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9 Turtle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10 Sea urchin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11 Inland / freshwater fish species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12 Coral (live)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13 Coral (dead) for lime production	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
14 Other (obs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

51300 In which areas / habitat did members of your household fish in the last 12 months?						Obs
Areas / habitat	Fished in area?		How often do you fish in the area?		How many trips?	
	1 Yes	2 No	1 Weekly 2 Monthly		Number	1 per wk 2 per mth
<span style="color: red;">If 2 ► next area</span>						
51301	51302		51303		51304	51305
1 Mangrove	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Lagoon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Coastal Reefs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Outer Reefs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Pelagic / Open Ocean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Fresh Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Near a Fish Aggregating Device	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Other (obs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

code 51203: Main purpose

- |                                 |                    |
|---------------------------------|--------------------|
| 1. Home use only                | 5. Mainly for sale |
| 2. Mainly home use              | 6. Only for sale   |
| 3. Mainly cultural use          | 7. Other (obs)     |
| 4. Mainly church activities use |                    |

code 51204: Proportion sold

1. Less than 25% (less than 1/4 of the catch)
2. 25% - 49.9% (1/4 to less than 1/2 of the catch)
3. 50% - 74.9% (1/2 to less than 3/4 of the catch)
4. 75% - 100% (3/4 to 100% of the catch)

code 51205: Who did you sell to

- |                       |                       |
|-----------------------|-----------------------|
| 1. Local shop         | 4. Direct to consumer |
| 2. Public market      | 5. Other (obs)        |
| 3. Restaurant / hotel |                       |



## S5.2 - AQUACULTURE / Description and Use

Reference Period:  
last 12 months

**52000** ) During the past **12 months**, did any member of this household conduct any aquaculture activities?

Yes

No

. If response to 51000 is Yes ► 52200

. If response to 51000 is also No ► 52300

### Characteristics of the aquaculture activities

**52100** Did any member of this household cultivated any of the below listed aquaculture products in the **last 12 months**?

Aquaculture Product	Cultivated product?		Purpose	Obs
	1 Yes	2 No	code 52103	
52101	52102		52103	52199
1. Clams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Trochus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Black pearl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Sea cucumber	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Sponges / soft coral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Hard coral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Ornamental coral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Crustacean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Seaweed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Finfish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. Freshwater species (obs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. Other (obs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## S5.3 - Other Details of Fishing and Aquaculture Activities

### Other details of fishing and aquaculture activities

**52200** Which household members normally engaged in Fisheries and Aquaculture activities?

Fisheries Activities				Aquaculture Activities				obs	
[HM]	No. of hours [HM] worked in activity last wk?	Is [HM] the main operator?		[HM]	No. of hours [HM] worked in activity last wk?	Is [HM] the main operator?			
		1 Yes	2 No			1 Yes	2 No		
52201	52202	52203		52204	52205	52206	52207	52208	52299
	hrs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	hrs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	hrs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	hrs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	hrs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	hrs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	hrs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	hrs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	hrs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	hrs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	hrs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	hrs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	hrs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	hrs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**52300** Did this household hire anyone (non-household members) to work on Fisheries and Aquaculture activities in the last 12 months? 1 Yes  **if 2 ► 52500**  
2 No

**52400** How many males and females? males >>> | | | females >>> | | |

**52500** Is this household aware of any fisheries management program (fish reserve/management program) in the village or elsewhere? 1 Yes  **if 2 ► S6.1**  
2 No

**52600** Where did you hear about it? | | |

- |                       |                   |               |                          |
|-----------------------|-------------------|---------------|--------------------------|
| 1. Fisheries officer  | 3. Nearby village | 5. Television | 7. Schools               |
| 2. Within the village | 4. Radio station  | 6. Newspaper  | 8. Other (specify) _____ |

Observations	

- |   |   |
|---|---|
| code 52103 : Purpose<br>1. Home use only<br>2. Mainly home use<br>3. Mainly cultural use<br>4. Mainly church activities use<br>5. Mainly for sale<br>6. Only for sale<br>7. Other (obs) | code 52204 & 52208 : Education<br>1. informal practical education<br>2. short courses<br>3. secondary school<br>4. post-secondary school<br>5. none |
|---|---|

## S6 - FORESTRY, HANDICRAFT & HUNTING / Description and Use

Reference Period:  
last 12 months

**60000** ) Does this household have the use of any forest? (Include agroforest and native forest)

Yes

No  Go to 61300

### Characteristics of the forestry, handicraft and hunting activities

61100 What is the main use of the Forest (upland forest, agroforest, mangrove, beachstrand, etc)?

- |                              |                               |                                     |
|------------------------------|-------------------------------|-------------------------------------|
| 1. Production                | 3. Soil and water protection  | 5. Improving agriculture protection |
| 2. Social or cultural values | 4. Recreation and Eco-tourism | 6. Others (specify) _____           |

61200 Has your household used the forest in the last twelve months for

Product	What tree species you MAINLY use? code 61202	How often harvested in past 12 months? 61203	Which parcels you MAINLY harvest from?			What is the MAIN purpose or use of product? code 61207	Obs 61299
			NOT Shared	Shared	Other (obs)		
			1 Yes 2 No	1 Yes 2 No	1 Yes 2 No		
61201	61202	61203	61204	61205	61206	61207	61299
1. Trees for house building or furniture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Trees / products for handicrafts (e.g. jewelry, decoration)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Trees / products for carving (i.e., utensils)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Trees / products for transportation (canoe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Firewood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Gathering wild food	na	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Gathering medicines	na	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Other use (obs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

61300 During the past 12 months, did any member of this household conduct any Hunting activities? 1 Yes  2 No  **if 2 ► 61500**

61400 Indicate which animals / birds you caught?

Animal / bird	Caught?		How many caught in past 12 months? 61403	What is the MAIN purpose or use? code 61404	Obs 61499
	1 Yes	2 No			
	if 2 ► next animal or bird				
61401	61402	61403	61404	61499	
1. Deer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2. Wild Pig	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3. Fruit Bat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4. Wild Pigeon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
5. Land / coconut crab	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
6. Other wild animal/bird (obs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

61202: Tree species

- |              |                                   |               |
|--------------|-----------------------------------|---------------|
| 1 Breadfruit | 4 Calophyllum inophyllum          | 7 Nipa palm   |
| 2 Coconut    | (biyuch, rekir/rekich, isou, itu) | 8 Noni        |
| 3 Mangrove   | 5 Pandanus                        | 9 Other (obs) |
|              | 6 Ivory nut tree                  |               |

code 61207 & 61404: Purpose

- |                                 |                    |
|---------------------------------|--------------------|
| 1. Home use only                | 5. Mainly for sale |
| 2. Mainly home use              | 6. Only for sale   |
| 3. Mainly cultural use          | 7. Other (obs)     |
| 4. Mainly church activities use |                    |



## S7 - EQUIPMENT

Reference Period  
last 12 months

**70000** ) Has your household used any of these equipments for farming and fishing activities in the past 12 months?

Yes

No  Go to S8

Code	Type of Equipment	Used	Source of equipment / machinery				Obs
		1 Yes 2 No	Borrowed	Owned	Private rental	Government	
		if 2 ► next equipment	Mark "X" for all that applies				
71001	71002	71003	71004	71005	71006	71007	71099
<b>10</b>	<b>Crop Equipment</b>						
11	Wood chipper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12	Rotary hoe / tractor / tiller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13	Knapsack Sprayer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
14	Mist Blower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
15	Weed Eaters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
16	Chainsaw	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
17	Sawmill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
18	Other (obs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>20</b>	<b>Fishing Equipment</b>						
21	Fishing boats with in-board engine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
22	Fishing boats with out-board engine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
23	Canoe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
24	Fishing gears (eg. net, spear, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
25	Other (obs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>30</b>	<b>Transport</b>						
31	Car (e.g. Sedan, stationwagon, etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
32	Truck/Pickup	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
33	Motorcycle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
34	Trailer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
35	Pushwagon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
36	Other (obs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>40</b>	<b>Energy</b>						
41	Electric Generator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
42	Biogas generator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
43	Solar panel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
44	Other (obs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>50</b>	<b>Livestock and other Equipment</b>						
51	Wheelbarrow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
52	Water pump (for farming use)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
53	Other (obs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>60</b>	<b>Infrastructure</b>						
61	Permanent nursery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
62	Temporary nursery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
63	Other (eg. pigpen, chicken coop)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>70</b>	<b>Other tools</b>						
71	Machete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
72	Shovel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
73	Other (obs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Observations	



Food Insecurity			Obs
		1 Yes 2 No	83199
83101	During the past 12 months, was there a time when you or any other adult in your household were <u>worried</u> you would not have enough food to eat because of a lack of money or other resources?	<input type="checkbox"/>	
83102	During the past 12 months, was there a time when you or any other adult in your household were <u>unable to eat healthy and nutritious food</u> because of a lack of money or other resources?	<input type="checkbox"/>	
83103	During the past 12 months, was there a time when you or any other adult in your household ate <u>only a few kinds of foods</u> because of a lack of money or other resources?	<input type="checkbox"/>	
83104	During the past 12 months, was there a time when you or any other adult in your household <u>had to skip a meal</u> because there was not enough money or other resources to get food?	<input type="checkbox"/>	
83105	During the past 12 months, was there a time when you or any other adult in your household ate <u>less than you [he/she] thought you [he/she] should</u> because of a lack of money or other resources?	<input type="checkbox"/>	
83106	During the past 12 months, was there a time when your household <u>ran out of food</u> because of a lack of money or other resources?	<input type="checkbox"/>	
83107	During the past 12 months, was there a time when you or any other adult in your household were <u>hungry but did not eat</u> because there was not enough money or other resources for food?	<input type="checkbox"/>	
83108	During the past 12 months, was there a time when you or any other adult in your household went <u>without eating for a whole day</u> because of a lack of money or other resources?	<input type="checkbox"/>	

Income and Credit			Obs
84101	What is the main source of cash income for this household?	code 84101	<input type="checkbox"/>
84102	What proportion of your household's total income (in cash/in kind) usually derived from agricultural activities during the past twelve months? <i>(If response is "1", verify against responses to 32105, 32117, 41206, 51203, 52103, 61207, 61404)</i>	code 84102	<input type="checkbox"/>
84103	Did you use any loans or microcredit to develop your agricultural (crops or livestock) fishing or forestry activities during the last year?	1 Yes 2 No if 2 ► page 18	<input type="checkbox"/>
84104	Where did the loan come from?	code 84104	<input type="checkbox"/>

code 84101: Main source of income

- 1 Growing crops
- 2 Raising livestock
- 3 Fishing
- 4 Own non-agricultural business
- 5 Paid work in agricultural occupation
- 6 Paid work in non-agricultural occupation
- 7 Pension
- 8 Remittances
- 9 Other (obs)

84102: Proportion of income from agricultural activities

- 1 None
- 2 1% - 24.9% (less than 1/4 of total income)
- 3 25% - 49.9% (1/4 to less than 1/2 of total income)
- 4 50% - 74.9% (1/2 to less than 3/4 of total income)
- 5 75% - 100% (3/4 to 100% of total income)

code 84104: Where loan from

- 1 Bank
- 2 Credit union
- 3 Other loan agency
- 4 Business
- 5 Employer
- 6 Private person
- 7 Other (obs)









## **CONTACT**

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