

Federated States of Micronesia 2013/2014 HIES Agriculture



Executive summary

26%

of the labour force
engage in agriculture
as their main
economic activity



43%

of the labour force
engage in agriculture
as their main or
secondary activity

14%

of household
income comes from
agriculture and
livestock activities



63%

of households engage in
agricultural activities

Summary

Agriculture is extremely important for the livelihoods of households (HH) across the Federated States of Micronesia (FSM). 63% of HHs report conducting some form of agriculture and forestry. 43% of the labour force conduct agriculture as a primary or secondary activity, and agriculture contributes 14% to overall HH income.

However, most of these agricultural activities are for subsistence. Nearly 40% of HHs produce goods purely for their own consumption (subsistence). Only 24% of FSM HHs have sold any part of their agriculture production. Very few agriculturally active HHs hire labour or use inputs such as fertiliser and irrigation.

Agricultural production varies considerably across states. The most important food crops (in terms of total value sold, gifted and consumed) were: taro in Yap, breadfruit in Chuuk, yam in Pohnpei and banana in Kosrae.

Other crops also provide significant income in some states. Sakau (kava) had the highest value of production in total, and provides the highest income from sales, with more than US\$2.5 million in sales in Pohnpei. Betel nut was a major income earner in Yap, and was sold, gifted and consumed across all states.

Livestock is also important for subsistence. 51% of HHs reported raising livestock but only 20% of these HHs sold their production. Pigs are the most important livestock, with 80% of livestock HHs reporting having pigs.

Introduction

This factsheet provides a summary of information on agricultural activities collected through the 2013/2014 FSM Households Income and Expenditure Survey (HIES), including: the participation of workers and HHs in agricultural activities; the contribution of agriculture to HH income; the use of agricultural inputs and services; and agricultural production. The factsheet aims to improve understanding of how agriculture contributes to sustainable livelihoods and food security. The HIES defined agriculture as including crop production, forestry, hunting and livestock raising.



Participation in agricultural activities

Engagement in agriculture is clearly important for livelihoods in FSM, but activity is predominantly on a subsistence level. **26%** of the labour force is engaged in agriculture as a main activity, and 89% of these persons are producing goods for their own consumption.



Agriculture is also an important secondary activity. Again the majority (75%) of people conducting agriculture as a secondary activity are producing goods for their own consumption (subsistence production) or report unpaid HH duties such as tending kitchen gardens. For just under half (43%) of the labour force agriculture is either a primary or a secondary activity.

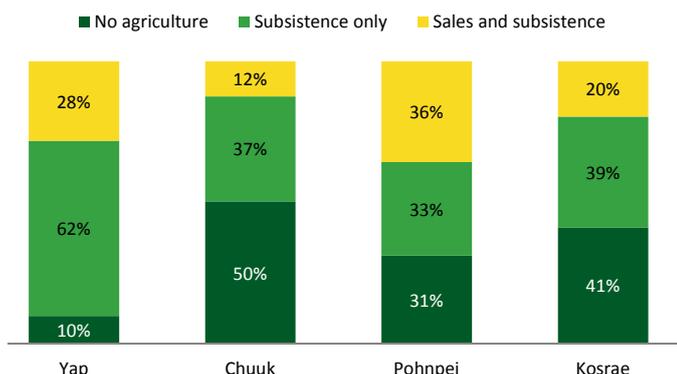
63% of all HHs report conducting agricultural activities. This is principally subsistence production, with only 24% of these HHs selling any of their production.



Agricultural engagement varies across the states. In Yap 90% of HHs engage in agricultural activities, but only 28% have sold any of their production, meaning that subsistence production is high. In Pohnpei 69% of HHs engage in agriculture, and a relatively large proportion of HHs (36%) have sold some of their production, which shows that Pohnpei has a higher level of commercial activity than all other states.

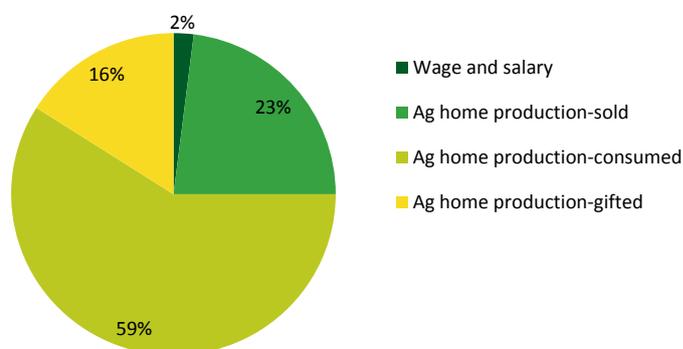
In Chuuk and Kosrae agricultural engagement is lower (50% and 59% respectively), as is the percentage of HHs that have sold their production (12% and 20%, respectively) (Chart 1).

Chart 1: HH participation rate in agriculture activities by state



Income and expenditure

Chart 2: Composition of HH agriculture income



Overall, agriculture, forestry and livestock account for **14%**¹ of HH income in FSM. This includes income from wages of people in the agricultural sector, income earned from the sale of agricultural goods, and the value of agricultural items produced and consumed by the HH. The value of intermediate expenditures (e.g. pig feed) has been excluded from the figure of home production sold and consumed.

HH income from agriculture comes predominantly (59%) from the value of home production produced and consumed by the HH.

Total expenditure on inputs for agriculture was US\$1.6 million, most of which (**87%**) was expenditure on **livestock feed**. 35% of expenditure was made by HHs that had sold some of their produce, meaning that the majority of expenditure is made by HHs producing for their own consumption.

87%

% of agricultural spending goes on livestock feed



Agricultural inputs and services

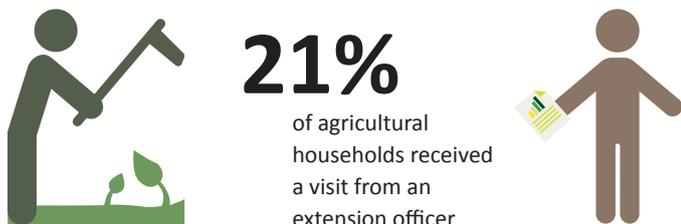
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Use of inputs and services for agricultural production is very limited. Only **2%** of HHs reported using hired staff; **3%** engage in producer organisations; and only **0.3%** have used microcredit.

¹ This is a net figure. Due to the composition of the modules this includes expenditure on aquaculture and excludes income from hunting. The contributions of these elements are marginal and are unlikely to significantly affect the overall figure.

21% of agricultural HHs reported receiving a visit from an extension officer in the previous three months. The frequency of visits varied widely across states: in Kosrae 48% of agricultural HHs reported at least one visit in the last three months, while in Yap only 8% had received a visit.



Agricultural production

The total value of agricultural products sold, consumed or gifted was just over US\$32 million, made up of **US\$28 million from crops** and **US\$4 million from livestock**.



The most common items harvested by HHs are banana, taro, coconut, breadfruit and papaya. The most common products sold are betel nut, *sakau* (kava), banana, lime/lemon and cucumber. The highest value crops produced were *sakau*, taro, breadfruit, banana and yams, as illustrated in the following table.

Table 1: Total value of agricultural products sold, consumed or gifted; by state (US\$ '000s)²

Crop	Yap	Chuuk	Pohnpei	Kosrae	Total
Sakau	0	0	7,254	35	7,289
Taro	1,818	1,359	1,243	92	4,513
Breadfruit	557	2,955	542	118	4,173
Banana	548	1,197	1,285	143	3,173
Yam	94	40	2,278	5	2,416
Betel nut and leaves	1,331	37	526	36	1,930
Coconut	673	398	202	28	1,301
Cassava/tapioca	73	412	354	4	842
Other	494	568	1,328	140	2,530
Total crops	5,588	6,966	15,011	601	28,167

Of the total value of agricultural products, 24% was sold, 63% was consumed at home and 14% was gifted.

Pohnpei had the highest income of all states from food crop sales, despite Chuuk having the highest population, which suggests that markets for agricultural produce are more established in Pohnpei. The most valuable food crops sold across FSM were yam, banana, taro, cucumber, tapioca, green coconut and copra, with the remainder being predominantly a mix of vegetables and fruit.

Most valuable food crops sold in each state:

- In Yap, taro, followed closely by coconut
- In Chuuk, taro, with significant breadfruit
- In Pohnpei, yam, with cucumber and banana also significant
- In Kosrae, banana, cucumber and cabbage.

Betel nut and *sakau* are extremely important crops in FSM for sale, consumption and cultural exchange, but their sale and usage varies widely across the states. Across FSM betel nut is the most common agricultural product sold, but *sakau* provides HHs with a higher total amount of income because it is a higher-value product.



While betel nut sales, gifting and consumption were recorded across all states, it was most significant in Yap. Betel nut represented 84% of all crop sales in Yap, which has an established export industry, and approximately 10% of the value of both gifting and home consumption.

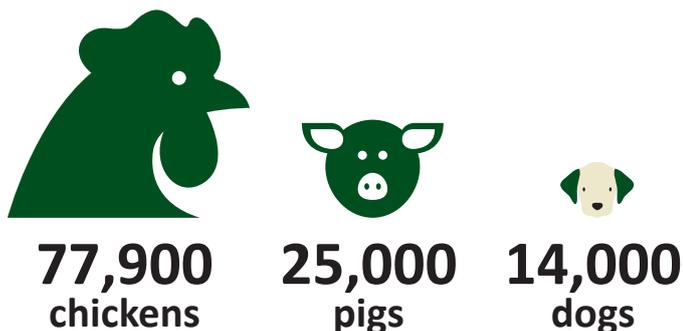
The total value of *sakau* produced (for home consumption, gifting or sale) was the highest of any crop, and *sakau* also had the highest value of sales of any crop across FSM. However, *sakau* was only recorded as consumed in Pohnpei. Almost all sales of *sakau* (99%) were recorded in Pohnpei, and *sakau* represented 57% of the income from sales of produce in Pohnpei. The only other state with sales of *sakau* was Kosrae. Although the income was small by comparison with Pohnpei, it contributed 21% of the cash income from all crop sales in that state.

49% of all HHs surveyed reported engagement in livestock activities in the last 12 months. The large majority of these

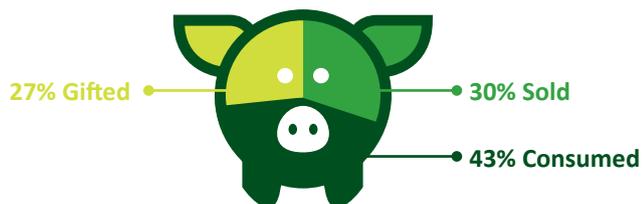
² All analysis is on gross value of crops.

(80%) said that they raised pigs. Other important livestock were dogs and chickens.

HHs that engaged in livestock activities had a total of approximately **77,900 chickens, 25,000 pigs and 14,000 dogs**. HHs that raise pigs had three pigs on average, and HHs with chickens had nine chickens on average.



Of the US\$3,909,000 total value of livestock production in FSM, 30% was sold, 43% was consumed and 27% was gifted.



Pigs were the most valuable animals for sale, home consumption and gifting. Overall, pigs represented 94% of the total value of livestock production sold, consumed or gifted (Table 2). Chickens made up 5%, and dogs, other livestock or livestock products (e.g. eggs) just 2%.

Table 2: Total value of livestock products sold, consumed or gifted, by state (US\$ '000s)³

Livestock	Yap	Chuuk	Pohnpei	Kosrae	Total
Pigs	238	516	2,697	205	3,656
Chicken	76	50	44	9	180
Other	6	25	35	7	74
Total livestock	320	591	2,776	222	3,909

³ All analysis on gross value of livestock.

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