



2nd Wave

Longitudinal Livelihood Study
(LLS)

Second Wave Report on Coconut Sugar Sub-Sector in Pacitan

January 2017

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LONGITUDINAL LIVELIHOOD STUDY

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PRISMA

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List of Abbreviation and Explanation of Expressions

Abbreviations

DVD	Digital Versatile Disc
SD	Sekolah Dasar (Primary School)
SMP	Sekolah Menengah Pertama (Junior High School)
SMA	Sekolah Menengah Atas, (Senior High School),
SMK	Sekolah Menengah Kejuruan (Vocational High School)
UBSP	Unit Bersama Simpan Pinjam (Small Savings and Borrowings Group)
UPK	Unit Pengelola Kegiatan ((Government) Activity Managing Units)
VCR	Videocassette Recorder
VCP	Videocassette Player
VCD	Video Compact Disc

Expressions

Adat	Local traditions
Arisan	Group-based rotating savings and lending fund
Desa	Village
Koperasi,	Cooperative
Nira	Coconut tree sap
Pasar	Local traditional market
Warung	Local shop/ restaurant

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1 Introduction

This second wave report is part of a study, which aims to gain a deeper understanding on how targeted households use their additional income. It focuses on one intervention in the coconut sector under PRISMA in Pacitan, East Java (EJ). The goal of the intervention is to enhance productivity of coconut sugar production by promoting organic certification of coconut sugar, which will be discussed in detail. The study aims to gain a deeper understanding on how coconut sugar and coconut fruit farmers use their anticipated increased income generated by the intervention. This is the longitudinal livelihood study (LLS) which will run until the end of the program. The household interviewed during this year (wave) will be tracked during the following years to see how their livelihood situation changed and how the changes relate to the intervention. Such a study is important for PRISMA because it helps assess whether targets selected for raising rural income are reasonable and how it can affect rural livelihoods.

This document is the second wave report of the overall LLS which shall give an overview over the current livelihood situation of the households producing organic coconut sugar. In the final round of data collection, the program will be able to assess how the livelihood situation has changed for coconut farmers. The study uses a mixed methods approach to answer its research questions. Quantitative and qualitative data were collected which together give a picture of the current livelihood situation of coconut sugar and coconut fruit farmers in Pacitan. Farmers were interviewed which were classified by the partner to be potential organic coconut sugar producers, which will be discussed more in detail in later stages. In this study, a questionnaire containing information on livelihood aspects and the intervention was developed and applied in the field reaching 194 respondents. Another semi-structured questionnaire was developed to collect data qualitatively while interviewing 6 respondents could be interview from 11 respondents of LLS 2015. The qualitative interviews permit a deeper understanding on the complex livelihood situation.

This second wave report initially provides a short overview over the intervention (Section 2); with the frame sampling for the study discussed in Section 3; the five assets of the sustainable livelihood framework are described in Section 4; with a discussion of income generation discussed in Section 5). Section 6 describes expenditure; while Section 7 focuses on use of income generated by coconut earnings.

2 Sampling

2.1 Sampling Quantitative

The sample frame has two different components.

Table 1: Sampling

Village	Nr. of HH	
	2015	2016
Gawang	25	24
Gembok	25	23
Klepu	25	24
Klesem	25	24
Mantren	25	26
Sawahan	25	25
Sendang	25	24

Sidomulyo	25	24
Total	200	194

2.2 Sampling Qualitative

For qualitative data collection the study used the same list of farmers for quantitative data collection and chose the respondents randomly in two steps. First six villages were selected and then one or two respondents were interviewed in each village. Those households which were taken as respondents for quantitative data collection were excluded from qualitative data collection. Table 2 shows the results of this sampling.

Table 2: Sampling of Qualitative Data Collection

Name of Desa	Nr of HH 2015	Nr of HH 2016	Reason
Klepu	1	0	died
Klesem	2	2	
Mantren	2	2	
Sawahana	2	2	
Sendang	2	0	info unknown
Sidomulyo	2	0	1 died and other not produced coconut sugar
Total	11		

2.3 Poverty Rate of Households using PPI

The Poverty Rate of Households using PPI is given below. The 100% and 150% National Poverty Rate had a slight increase in 2016 while the \$2.5 2005 PPP Poverty Rate remain stable at 70% (table 3).

Table 3: Poverty Rate of Households using PPI

	2015		2016	
	Nr. Obs	mean	Nr. Obs	mean
100% National Poverty Rate	155.00	7.18	194	9,4
150% National Poverty Rate	155.00	37.77	194	42,6
\$2.5 2005 PPP Poverty Rate	155.00	70.84	194	69,1

3 Five Livelihood Assets

In a first step it is useful to see what assets the households hold. For this purpose, the five assets described by the sustainable livelihood approach were used which are namely human, physical, natural, social and financial assets (DFID, 1999). To see how these assets change with wealth level, a wealth variable was constructed based on total expenditure per capita. As the questionnaire contains scope for detailed information on expenditure, total expenditure per capita were calculated. This total expenditure per capita were divided into quintiles which provides information on household expenditure per capita level. As discussed in the baseline report, these quintiles then were used to split the sample and understand information about different quintile levels. Table 4 is reproduced from the baseline report, table 5 provides

the updated figures for 2016. The tables show a reduction in per capital expenditure as a mean across the five quintiles.

Table 4: Per Capita Expenditure per Quintile in IDR per Month (2015)

	Nr. Obs	mean	sd	min	max
Q1	37	323,227.55	52,145.79	216,875.00	397,950.00
Q2	37	443,630.67	28,108.02	401,000.00	489,222.22
Q3	37	576,706.31	48,685.23	494,533.34	645,027.75
Q4	37	740,935.91	64,207.63	656,625.00	878,250.00
Q5	36	1,178,970.28	318,984.68	880,833.31	2,321,625.00

Table 5: Per Capita Expenditure per Quintile in IDR per Month (2016)

	Nr. Obs	mean	sd	min	max
Q1	39,0	199.100,8	54.536,3	72.930,6	260.833,3
Q2	39,0	308.264,2	29.201,2	263.950,0	352.633,3
Q3	39,0	427.745,9	45.097,1	353.483,3	509.916,7
Q4	39,0	587.058,7	54.139,8	513.388,9	683.533,3
Q5	38,0	1.006.540,7	369.887,6	684.555,6	1.899.083,3

3.1 Human Assets

Human assets describe assets which lie with the person or household itself. This might be health, education or other household characteristics. This sub-section first focuses on household characteristics and then on education.

3.1.1 Household Characteristics

As shown in table 6 the average household size is 3.5 while the minimum are one person households and the maximum are seven person households. In the sample the average number of household members has remained constant at 3.8 (table 6). The number of female-headed households has decreased from 7.7% to 6.7% in 2016 (table 7).

Table 6: Household Characteristics

	Nr. Obs	mean	sd
HH Size 2015	200.00	3.50	1.26
HH Size 2016	194	3,8	1,3

Table 7: Female Headed HH

	Nr. Obs	percent
Female Headed 2015	193.00	7.77
Female Headed 2016	194	6,7

3.1.2 Education

Education is an important human asset because it relates to the capabilities of a person which affects the productivity of a person's activities. Table 8 shows that the number of people over 15 years of age who could read and write and had attended school increased, though the percentage reduced slightly overall between 2015 and 2016.

Table 8: Education of People 15 Years or Older

	2015		2016	
	Nr. Obs	percent	Nr. Obs	percent
Can Read and Write	583.00	92.45	600	90,5
Ever Went to School	582.00	92.10	603	91, 3

Table 9 illustrates the percentage of boys aged between 7 and 15 being able to read and write and going to school declined from 95% and 100% to 83.8% and 86.5% respectively, while there is a slight decrease for the percentage of girls (table 9).

Table 9: Education of Children 7-15 Years

2015	Nr. Obs Boys	mean Boys	Nr. Obs Girls	mean Girls
Can Read and Write	40.00	95.00	42.00	100.00
Ever Went to School	40.00	100.00	42.00	97.62
2016				
2016	Nr. Obs Boys	mean Boys	Nr. Obs Girls	mean Girls
Can Read and Write	37	83,8	37	93,4
Ever Went to School	37	86,5	37	97, 3

While the enrolment rates are high for males and females in the younger age groups in 2015, the figures went down in 2016 (table 11). Whereas the percentage of males and females in the older age groups going to school reached 100% in 2016, which are much higher compared to the baseline (table 10).

Table 10: School Enrolment by Age Group (2015)

	ALL		Male		Female	
	mean	Nr. Obs.	mean	Nr. Obs.	mean	Nr. Obs.
age 6-8	100.0	16.0	100.0	7.0	100.0	9.0
age 9-11	96.3	27.0	100.0	15.0	90.9	11.0
age 12-14	96.8	31.0	100.0	12.0	94.7	19.0
age 15-18	77.1	35.0	66.7	18.0	87.5	16.0
age 19-22	23.3	30.0	13.3	15.0	33.3	15.0

Table 3: School Enrolment by Age Group (2016)

	%	Obs	Male	Obs	Female	Obs
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6-8	83,0%	28	56%	16	92%	12
9-11	98,2%	23	62%	13	90%	10
12-14	100,0%	29	100%	13	100%	16
15-18	97,8%	38	100%	18	100%	20
19-20	96,3%	39	100%	17	91%	22

The percentage of males and females who have no education or not finishing elementary school slightly dropped from 13% and 19% to 8% and 9.8% respectively in 2016 (figures 1 and 2). The enrolment rates in elementary school for males and females are also higher than that in 2015. While the secondary school enrolments for males and females have a minor drop from 25.5% and 24.7% (2015) to 23.9% and 20.9% (2016) respectively, the rates grew from 7.7% and 5.4% to 10.5% and 11.1% in senior high school level.

Figure 1: Highest Education of persons 25+ years (2015)

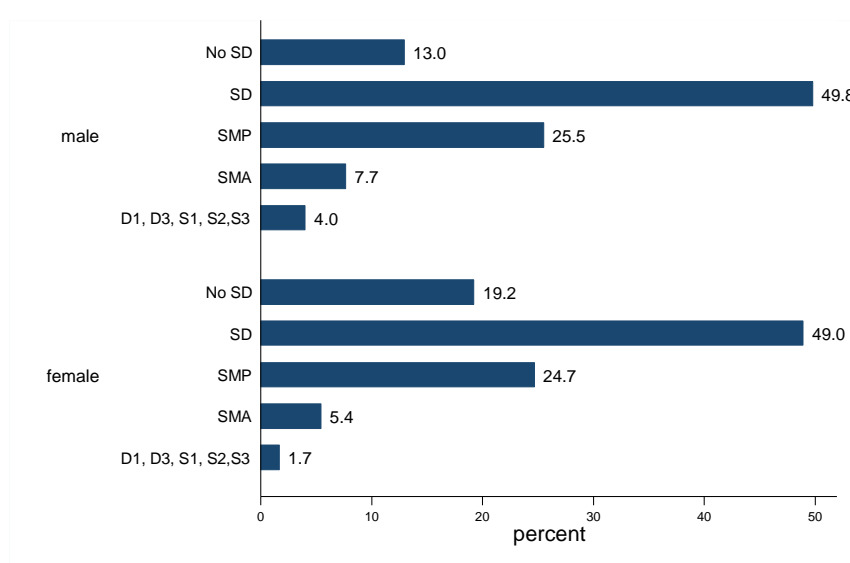
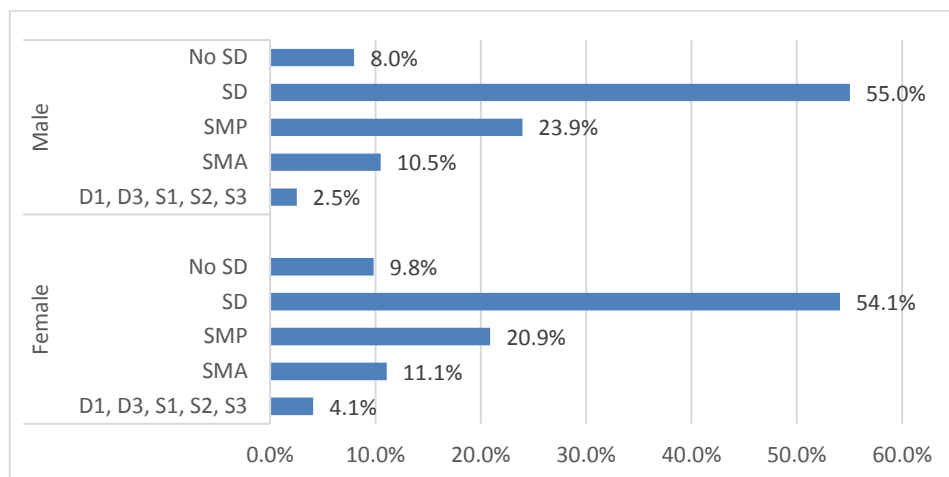


Figure 1: Highest Education of persons 25+ years (2016)



3.2 Physical Assets

Physical assets comprise the basic infrastructure and producer goods needed to support household members to pursue their livelihood strategies (see DFID, 1999). These can include: infrastructure, the physical environment that help people to meet their basic needs and to be more productive; and producer goods, the tools and equipment that people use to function more productively.

3.2.1 Housing, WC, Electricity and Water

Most household mentioned the house as the most important asset as it is the place where daily activities take place and is necessary for life. In 2015, most households possess a house and hold agricultural land for all expenditure quintiles (figure 3 and 4). However, the percentages of households possessing a house dramatically fell from 100% (2015) to minimum 53.8% and maximum 77% for all expenditure quintiles in 2016, whereas the figures of households holding agricultural land remain constant. Additionally, the households owning other assets also have an impressive decline for all expenditure quintiles.

Figure 2: Assets - House and Land (2015)

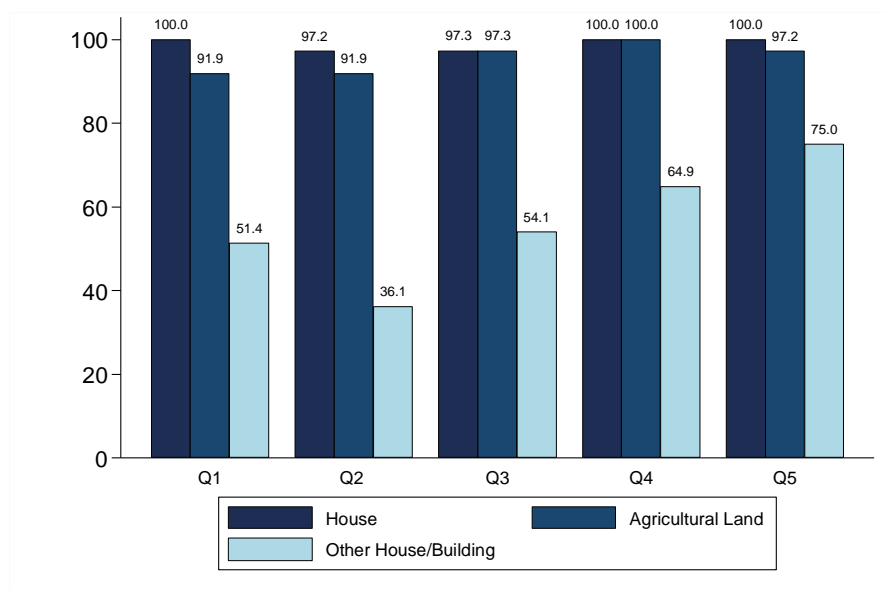
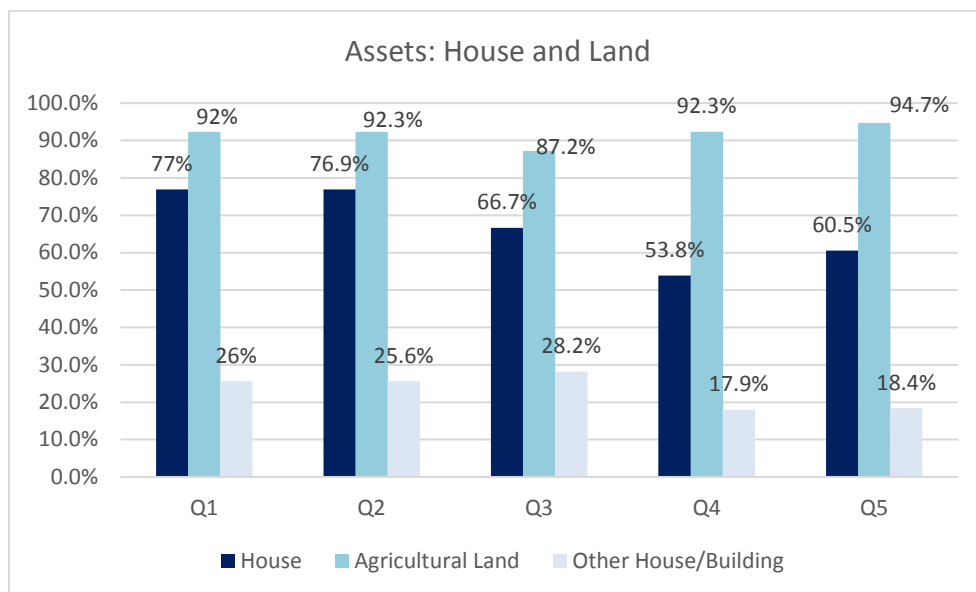


Figure 4: Assets - House and Land (2016)



As seen in figure 6, almost all households have electricity in 2016. In 2015 and 2016, over 80% of the households owning the house that the floor is not the earth or bamboo across all expenditure quintiles (figures 5 and 6). The accessibility of WC in the house is also high in 2015 and 2016. The possession of well/ tubewell increased across the expenditure quintiles in 2015 (figure 6) from 8% to 31% and the number fluctuated in between 7% and 20% in 2016 (figure 7).

Figure 5: Assets – Housing (2015)

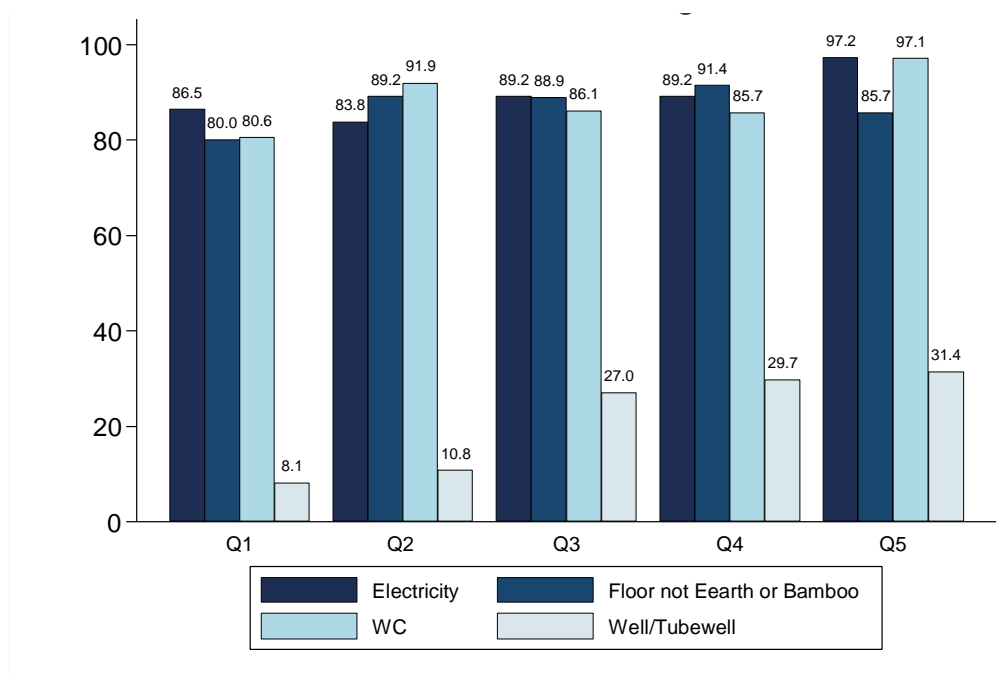
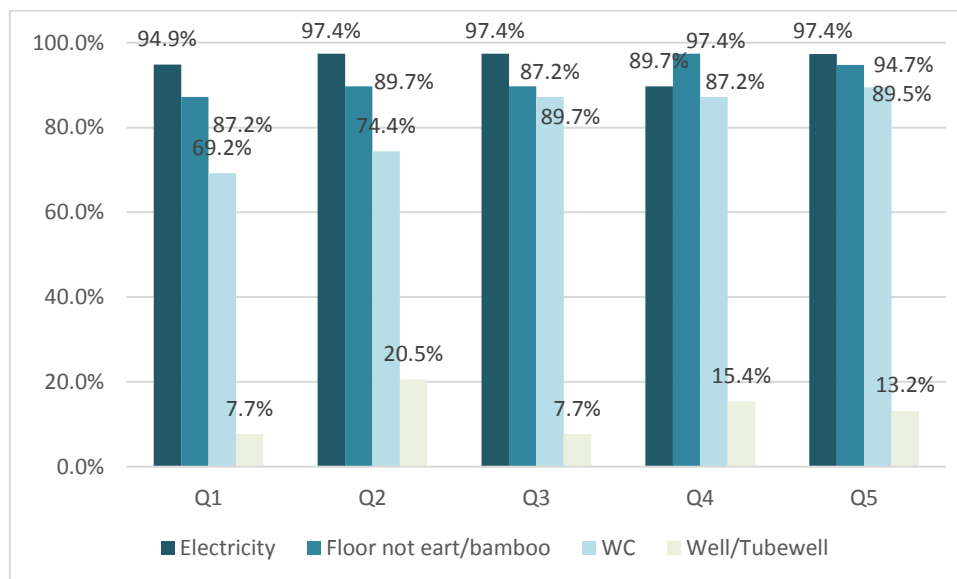


Figure 6: Assets – Housing (2016)



3.2.2 Transport

Motorbikes are the most common means of transportation. Respondents reported growth in motorcycle ownership between 2015 to 2016 (figures 7 and 8) for all expenditure quintiles. The percentages of bicycle ownership dropped slightly in lower expenditure quintiles, yet have a certain increase in higher expenditure quintiles. Car possession rate in 2016 is lower than in 2015.

Figure 7: Assets – Transport (2015)

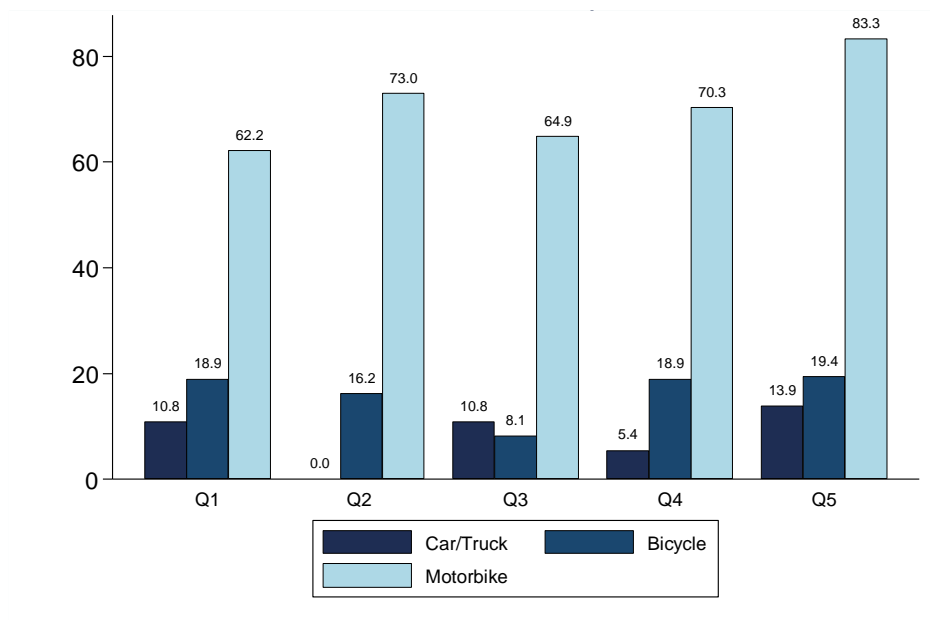
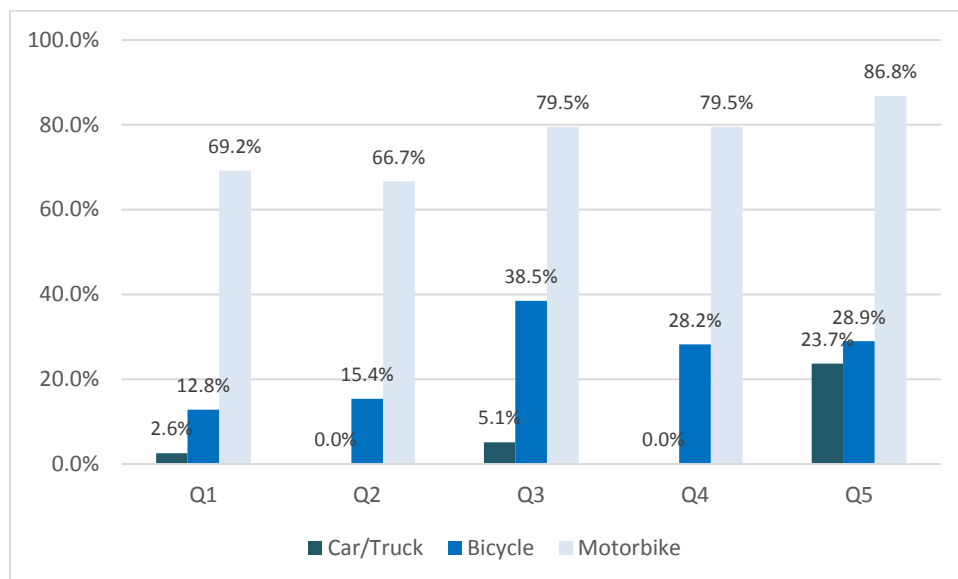


Figure 8: Assets – Transport (2016)



3.2.3 Communication

Televisions and mobile phones remain the most common communication assets in 2016 (figure 9 and 10). There is no significant change in the ownership of radio or stereo across 2015 and 2016 as well.

Figure 9: Assets – Communication (2015)

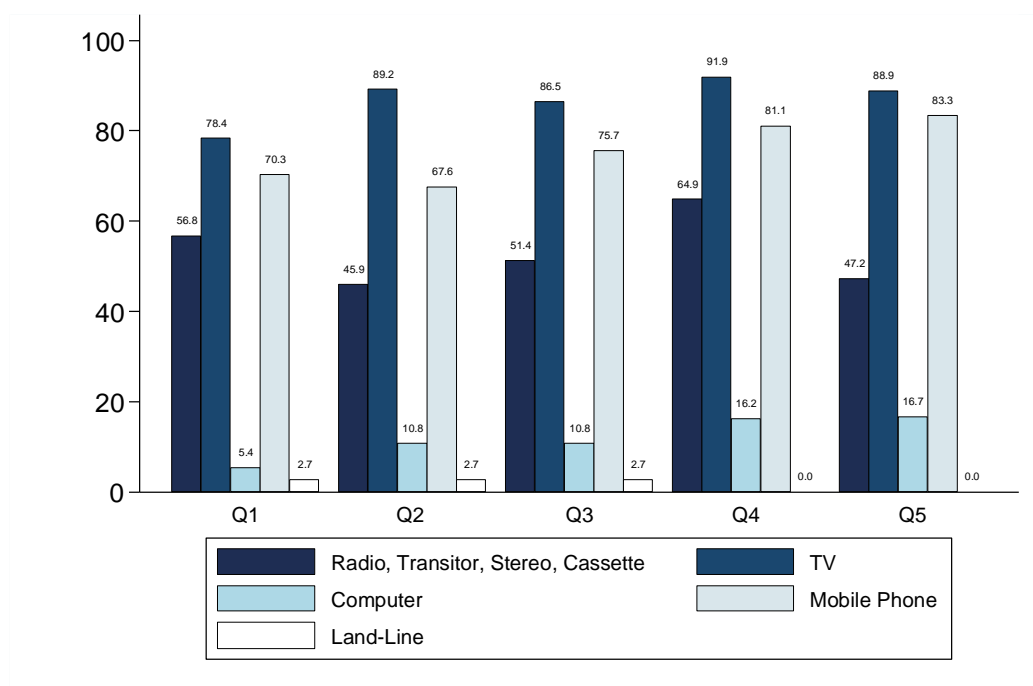
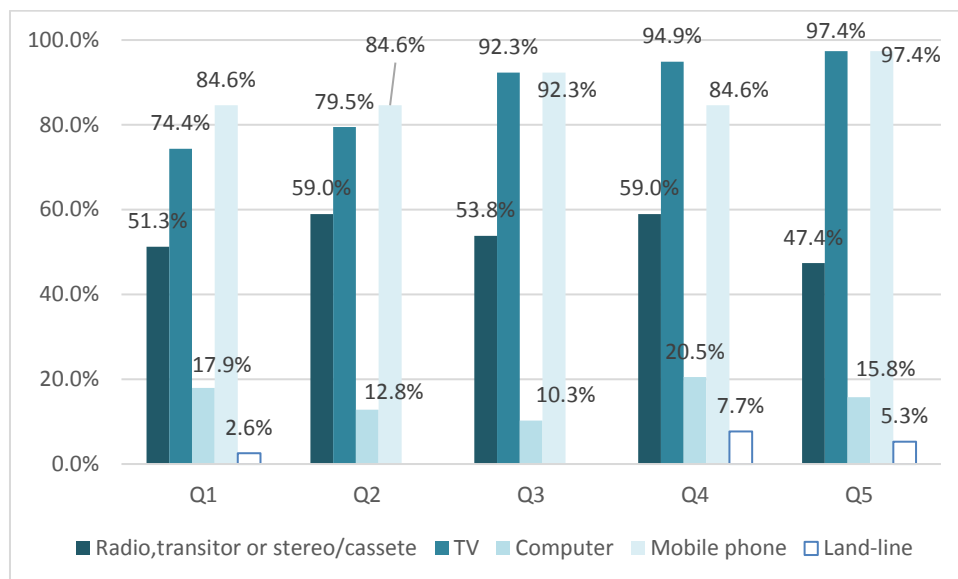


Figure 10: Assets – Communication (2016)



3.2.4 Storing and Kitchen Assets

As shown in the figures 11 and 12, in 2016, the number of households owning stoves has increased, yet the number reduced in grain storage container ownership. The data also indicates that only quintiles 3 and 4 rises in the ownership of refrigerators, while the rest have a significant drop in number.

Figure 11: Assets – Kitchen and Storage (2015)

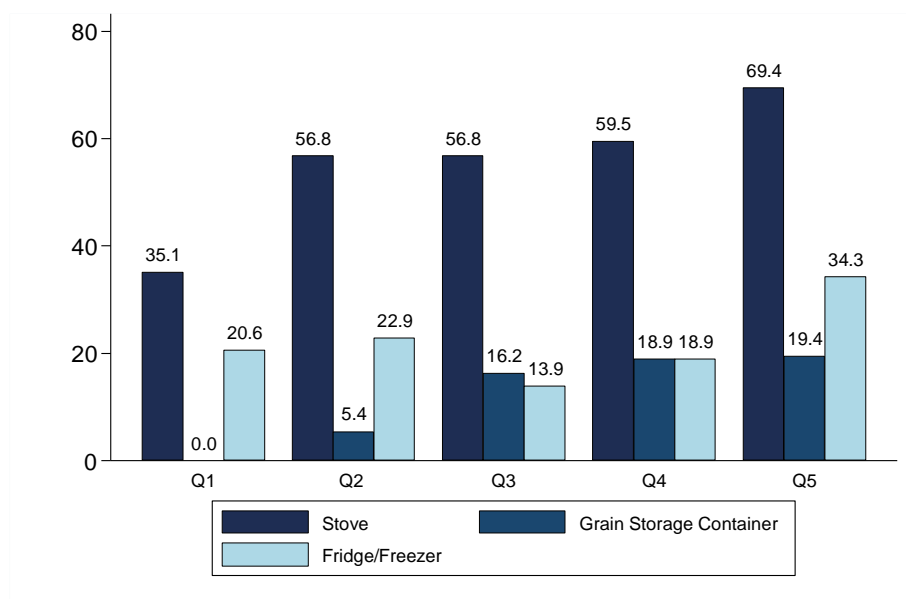
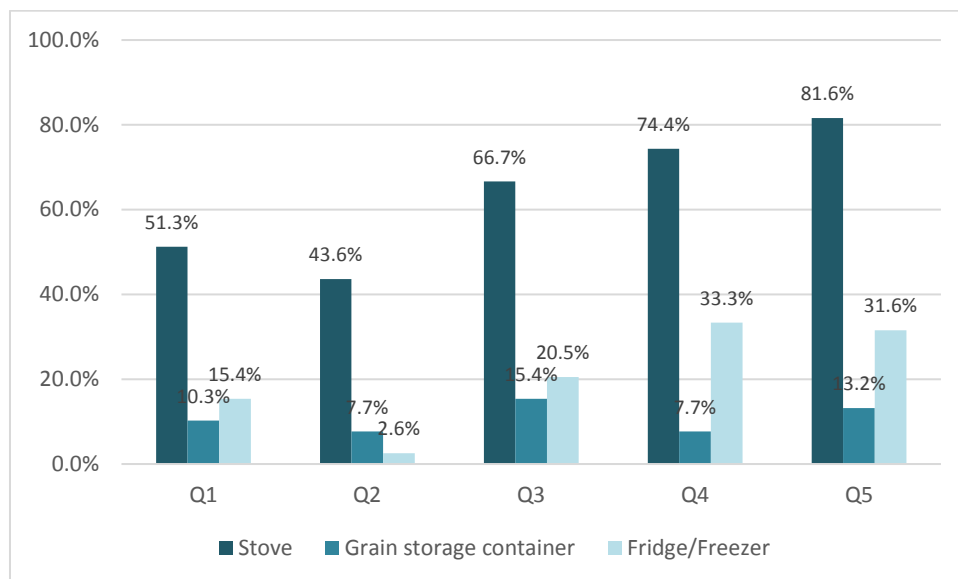


Figure 12: Assets – Kitchen and Storage (2016)



3.2.5 Other Household Assets

The ownership of jewellery and VCR, VCP, VCD and DVD remains high among other items in 2016 (figures 14), though the number of jewellery ownership has reduced (figure 14). There is no significant change across 2015 (figure 13) and 2016 in the number of sewing machines and washing machines for all expenditure quintiles.

Figure 13: Assets - Other Household Items (2015)

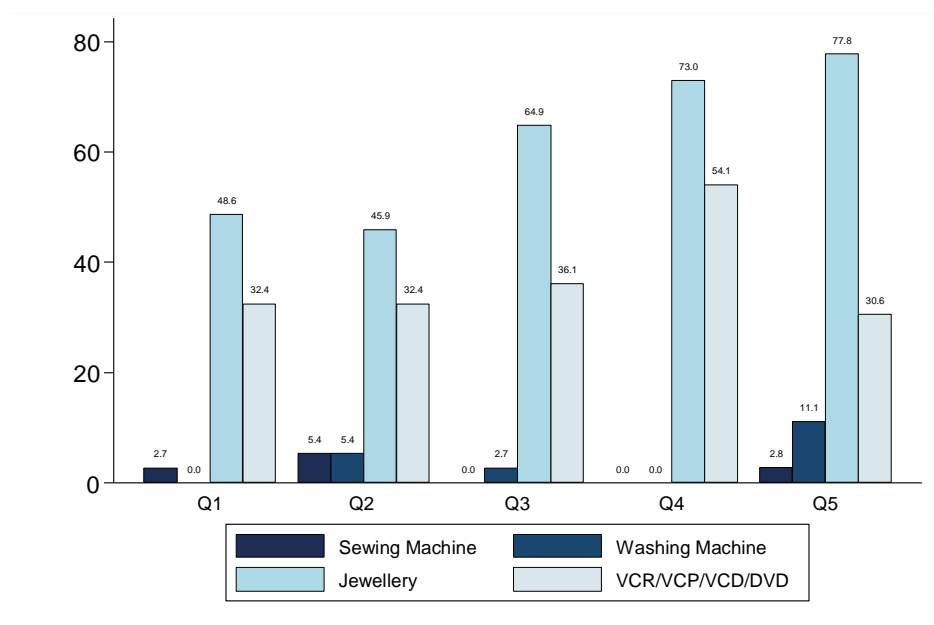
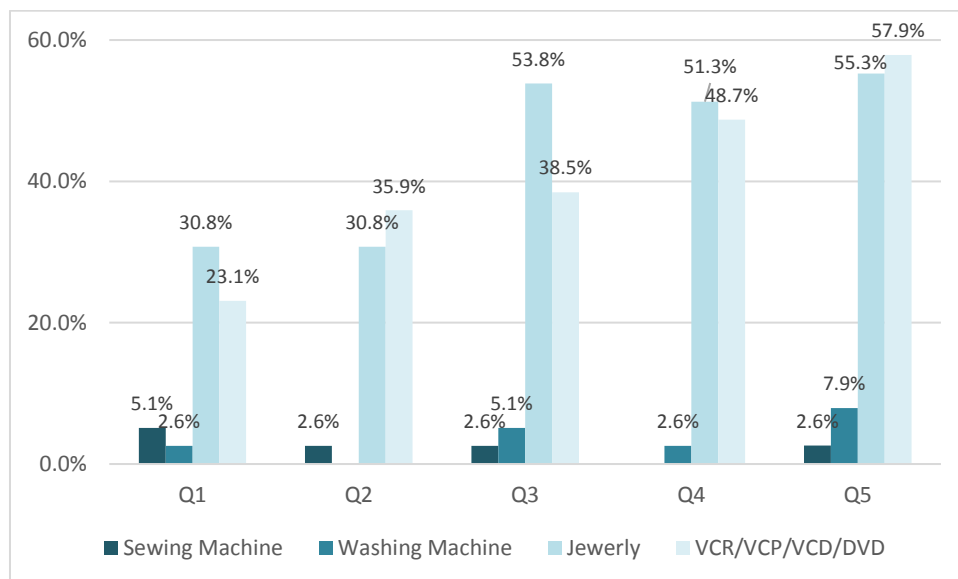


Figure 14: Assets - Other Household Items (2016)



3.2.6 Agricultural Assets

The data in 2016 (figure 16) is similar to the baseline data (figure 15). Tractors, irrigation equipment and other heavy farming equipment remain uncommon for all expenditure quintiles. The data shows more than 90% of the households possessing small tools for agricultural activities.

Figure 15: Assets – Agricultural Items (2015)

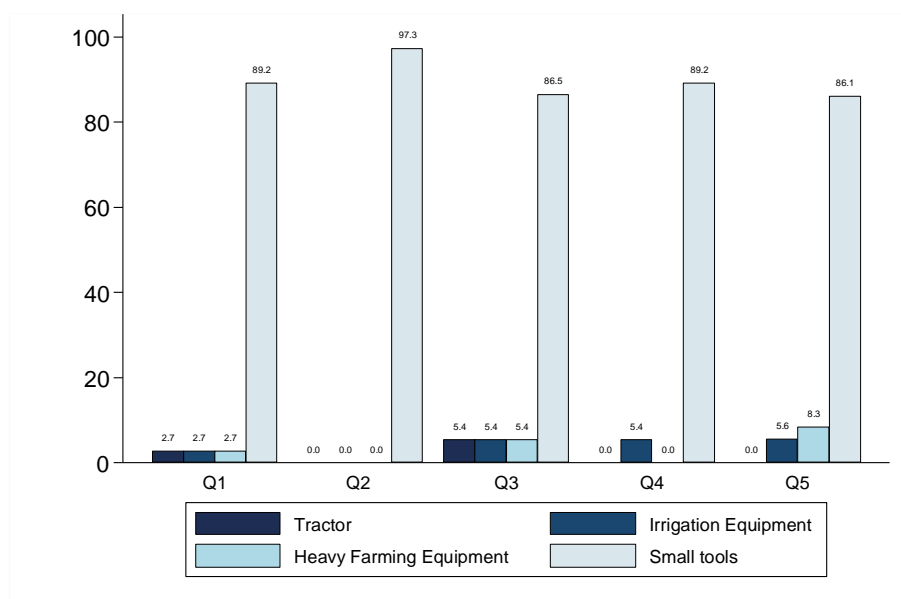
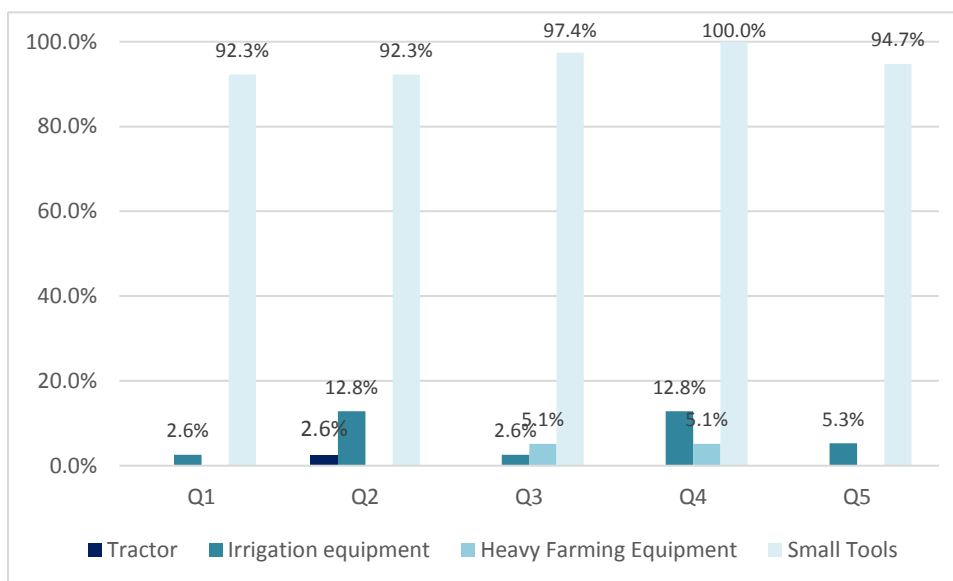


Figure 16: Assets – Agricultural Items (2016)



3.2.7 Livestock

Figure 17: Livestock ownership by quintile (cows, horses, buffalos) (2015)

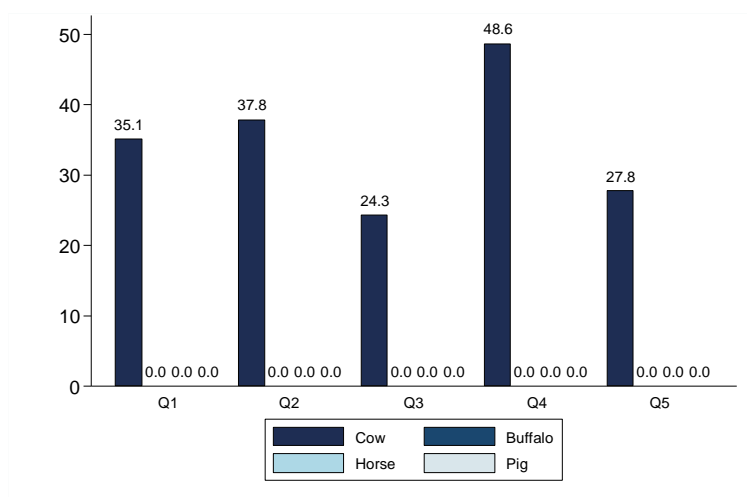


Figure 18: Livestock ownership by quintile (cows, horses, buffalos) (2016)

No data

As shown in figure 19 and 20, the amount of livestock ownership for larger animals including cows, horses and buffalos remain unchanged at around 40% for the two lowest expenditure quintiles. Both Q3 and Q5 had a dramatic increase from 30% and 50% (2015) to 82% and 95% (2016) respectively, while Q4 fell from 70% in 2015 to 49% in 2016.

Figure 19: Amount of Livestock ownership by quintile (cows, horses, buffalos) (2015)

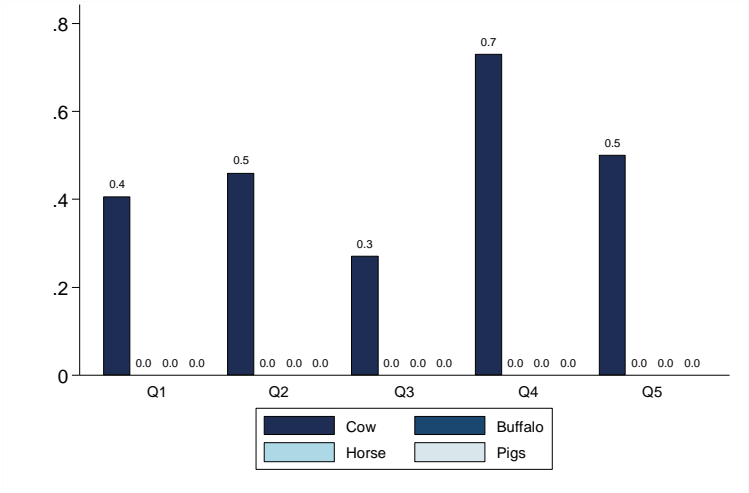
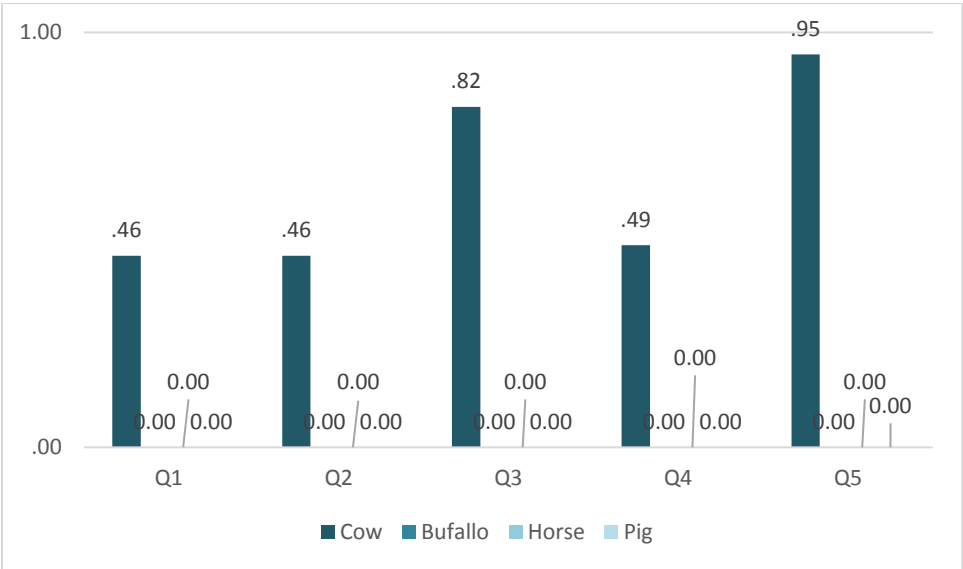


Figure 20: Amount of Livestock ownership by quintile (cows, horses, buffalos) (2016)



Apart from cows, goats and sheep and chicken are the most common livestock owned by the households in the sample. This is both in terms of percentage of owners (figures 21 and 22) and in the numbers of animals owned (figures 23 and 24).

Figure 21: Livestock ownership by Quintile (goat/ sheep, ducks, chicken, fish) (2015)

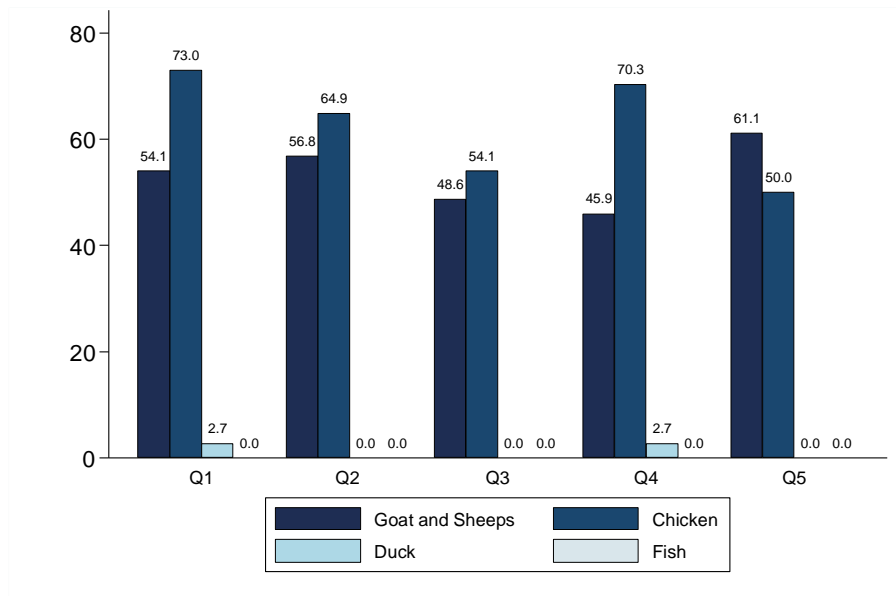


Figure 22: Livestock ownership by Quintile (goat/ sheep, ducks, chicken, fish) (2016)

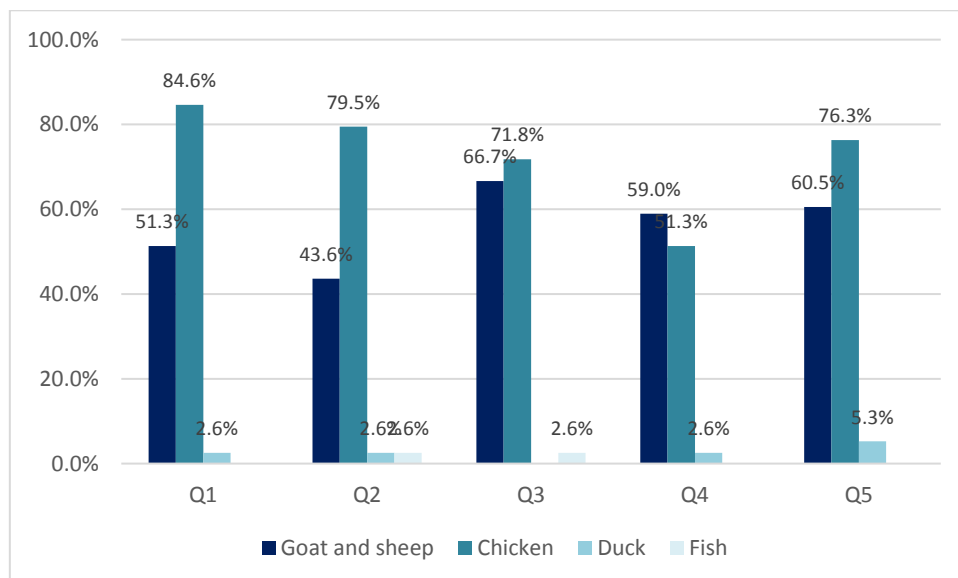


Figure 23: Amount of Livestock ownership by Quintile (goat/ sheep, ducks, chicken, fish) (2015)

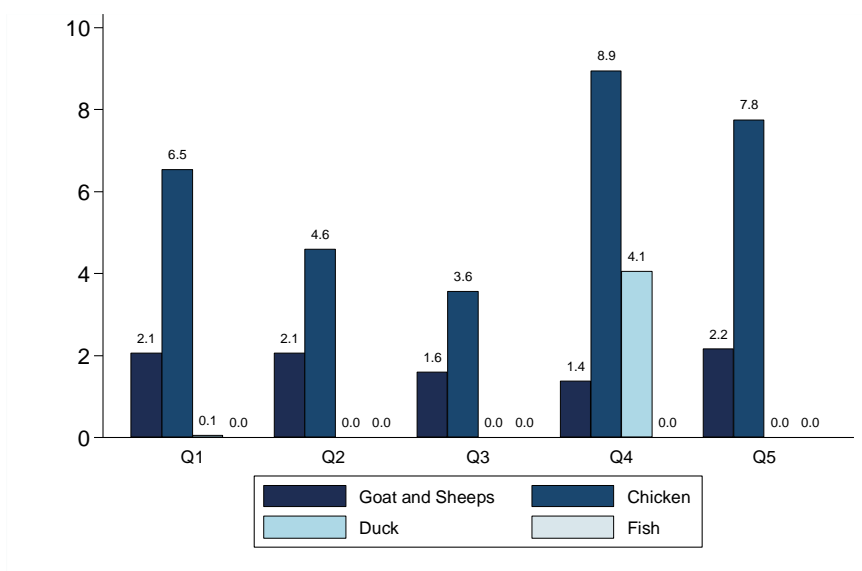
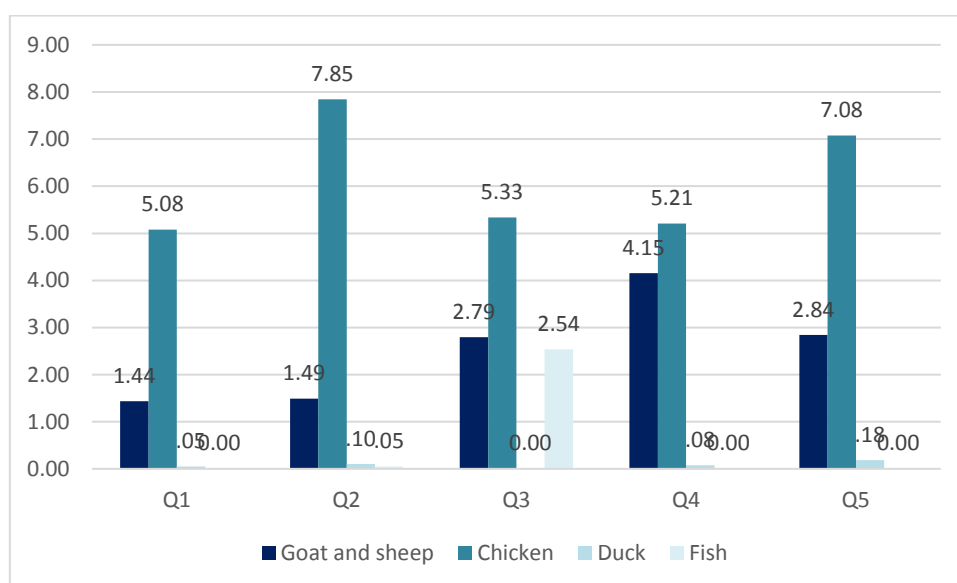


Figure 24: Amount of Livestock ownership by Quintile (goat/ sheep, ducks, chicken, fish) (2016)



3.3 Natural Assets

In terms of land holdings, there is no noticeable change across 2015 and 2016 (figures 25 and 26). The households in higher quintiles own more land than the lower ones, except the Q4. However, the disparity in 2015 was between 0.5 and 1.7 hectares while in 2016 was between 0.5 and 0.9 hectares.

Figure 25: Land Holdings by Quintile (2015)

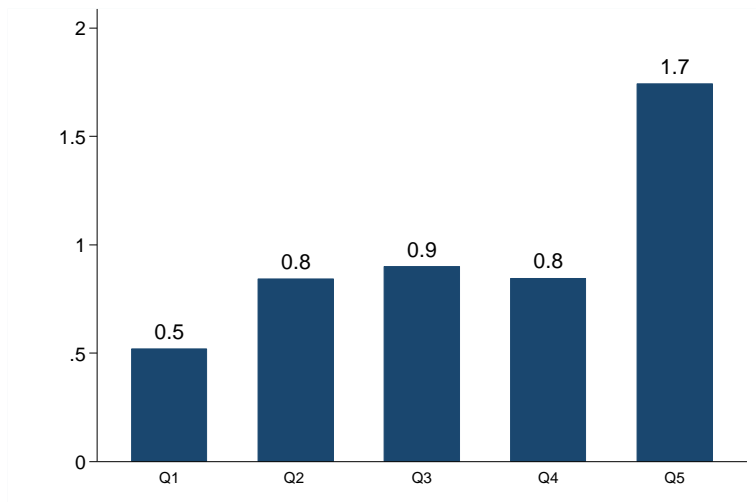
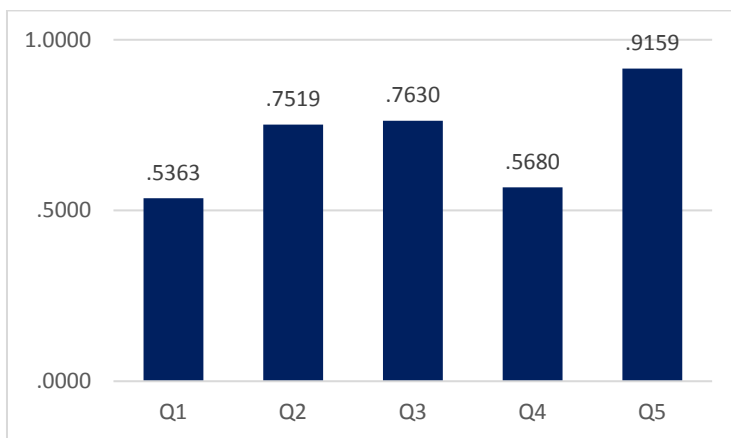


Figure 26: Land Holdings by Quintile (2016)



As shown in figures 27 and 28, in 2016, Q1 and Q2 have a significant increase in amount of food production whereas there is a sharp decrease from around 20% to 10% in the higher quintiles (Q3, Q4, Q5). This indicates that the higher expenditure households produce less food than the lower ones.

Figure 27: Own food production/ received food as percentage of total consumption (2015)

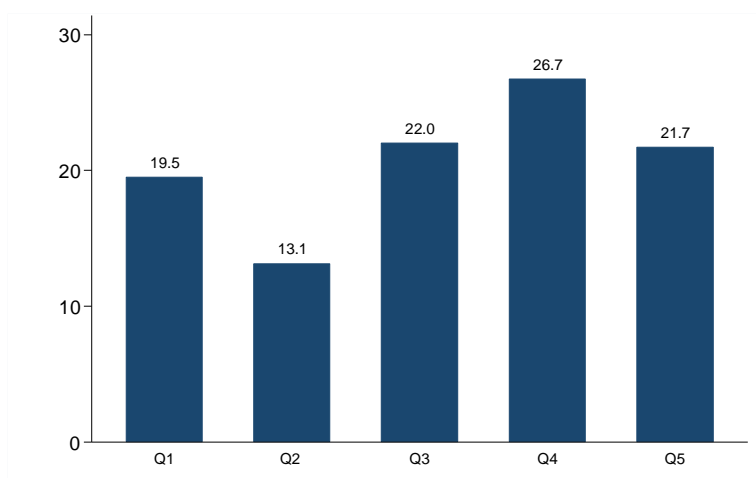
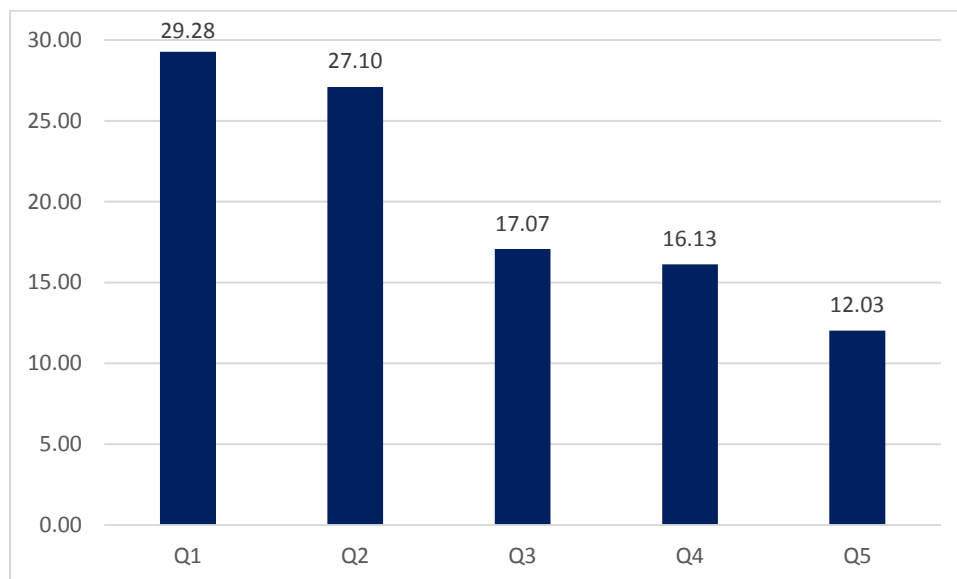


Figure 28: Own food production/ received food as percentage of total consumption (2016)



3.4 Social Assets

Village and family members in Pacitan are often very inter-connected and social inter-dependence plays an important role in daily life in the interviewed *desas*. Qualitative information derived from interviews found that when in sickness often households rely upon help from friends and neighbours, particularly to finance health expenditure.

3.5 Financial Assets

Generally, the financial assets of both year data are broadly similar (figures 29 and 30). The data in 2016 illustrates the financial assets of the lower expenditure households (Q1 to Q4) come from borrowing, which is around 30%, whereas the saving assets scatter from 2% to 30% for the four quintiles. The exception is the wealthiest quintiles whose more than half of their financial assets (52%) are saving assets and 44% are borrowing assets.

Figure 29: Saving and Borrowing percentage by Quintile (2015)

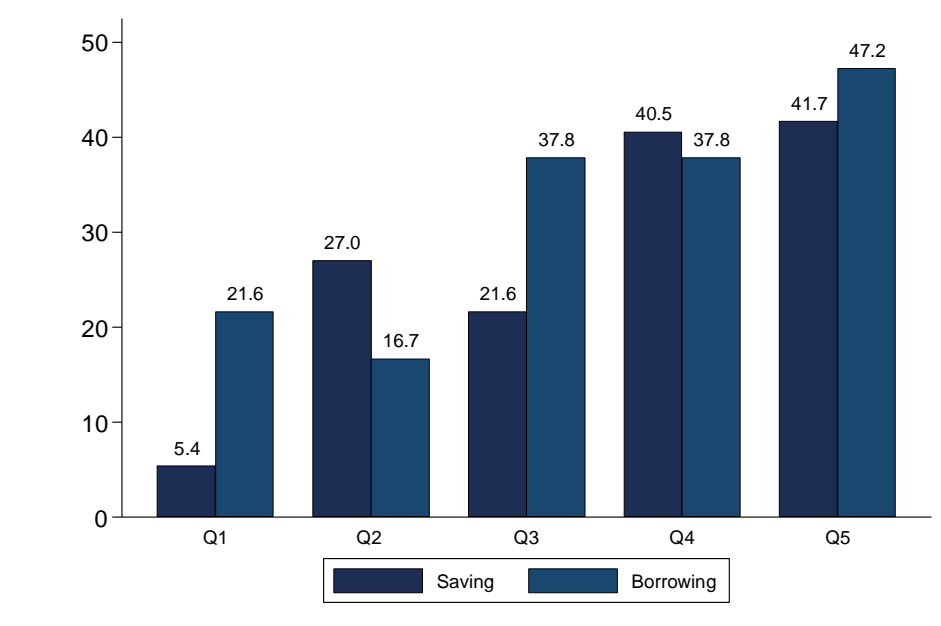
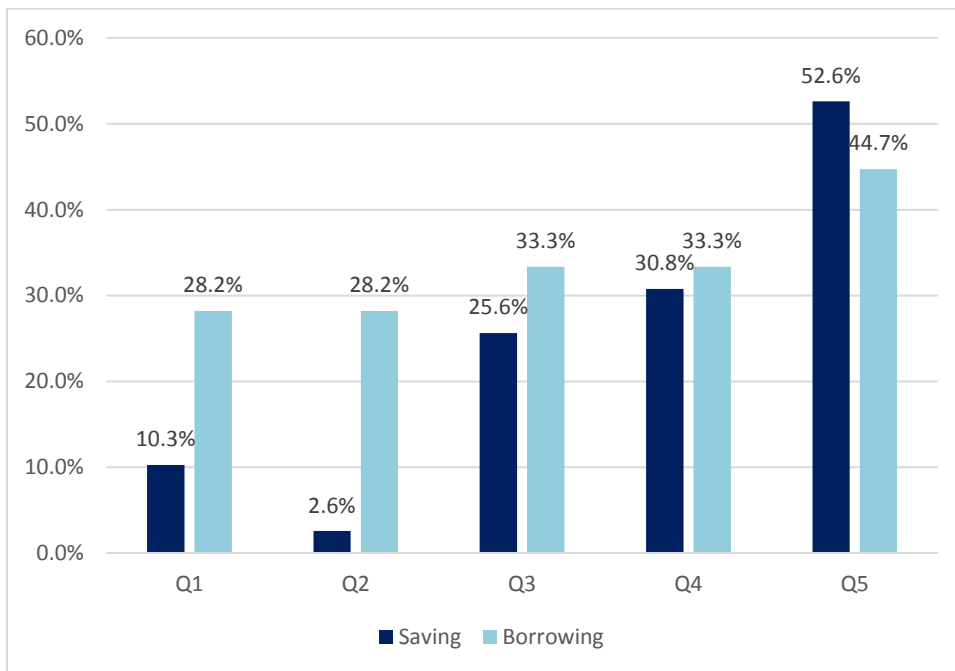


Figure 30: Saving and Borrowing percentage by Quintile (2016)



As illustrated in figure 31 and 32, data shows that the saving assets of Q1 and Q2 decrease significantly from between 3.5 to 7.5 million to around 1 million in 2016, while their borrowing assets remain higher than their saving assets. The opposite picture can be seen in the saving assets of the households in Q3 and Q4 in 2016, which are higher than the borrowing assets. The saving assets of Q5 remain stable, yet the borrowing assets rose dramatically from 7.5 million to 15 million between 2015 and 2016 (figures 32 and 33).

Figure 31: Saving and Borrowing by Quintile - total amount in IDR (2015 million IDR)

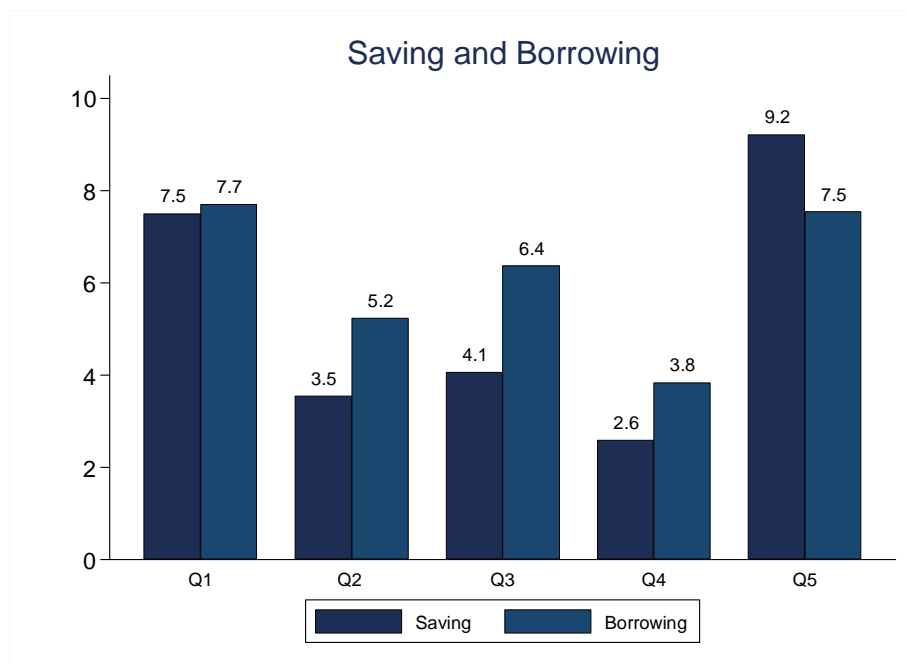
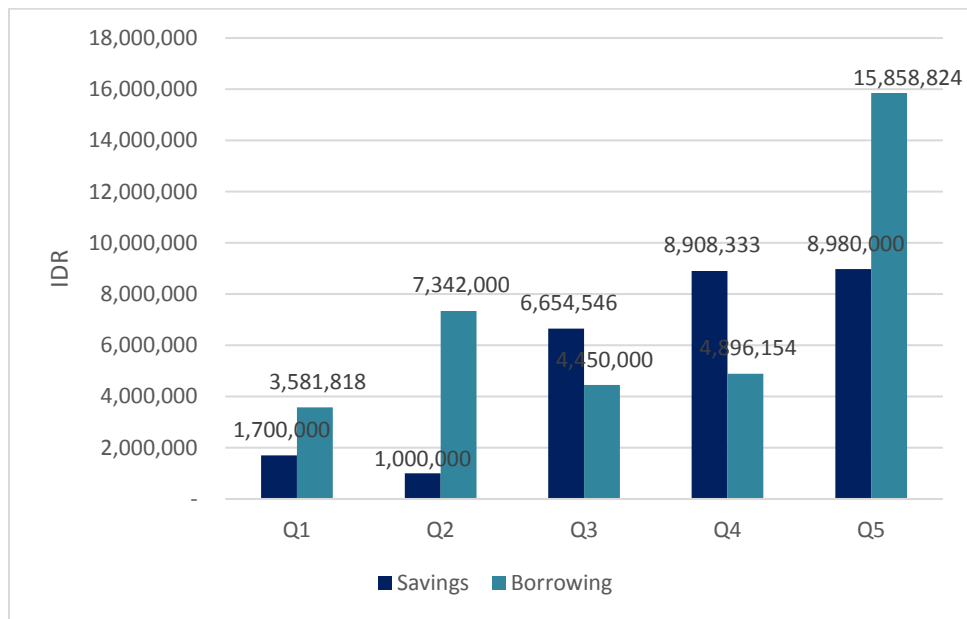


Figure 32: Saving and Borrowing by Quintile - total amount in IDR (2016)



4 Income Generation

Regarding income generation, as shown in figure 33 and 34, the percentage of households earning less than half of their income with agricultural or livestock activities dropped from 57% (2015) to 38% (2016). The households sample that reported earning half or majority of income with agricultural or livestock activities grew from around 20% (2015) to 21% - 39% in 2016.

Figure 33: Agricultural and Livestock Income generation (2015)

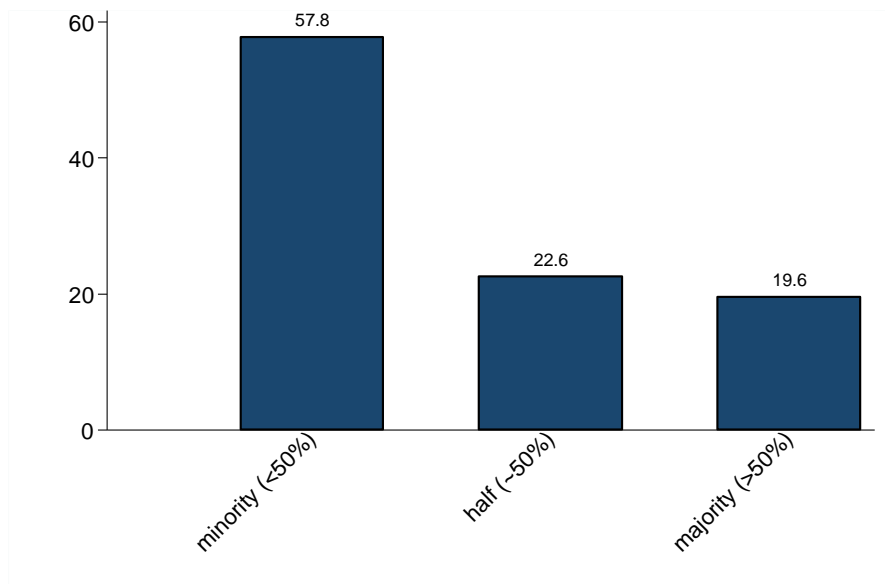
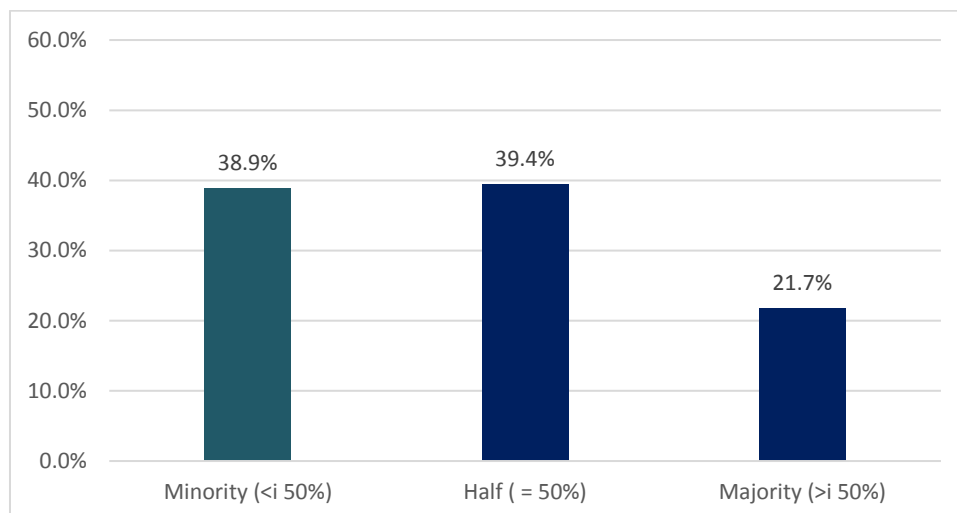


Figure 34: Agricultural and Livestock Income generation (2016)



4.1 Agricultural Activity with Focus on Coconut Sugar

Agricultural activity of the households is very diverse and households report various crops to be one of their three most important in terms of income. As seen in figures 35 and 36, coconut fruit continues to be the most important crop among all. The second most important crop in 2015 was rice, yet the number of households reporting it is important had a sharp drop from 176 to 24 in 2016, leading to coconut sugar ranking second instead of third (figures 37 and 38).

Figure 35: Frequency of Crops mentioned as one of the three most important crops (in terms of income) (2015)

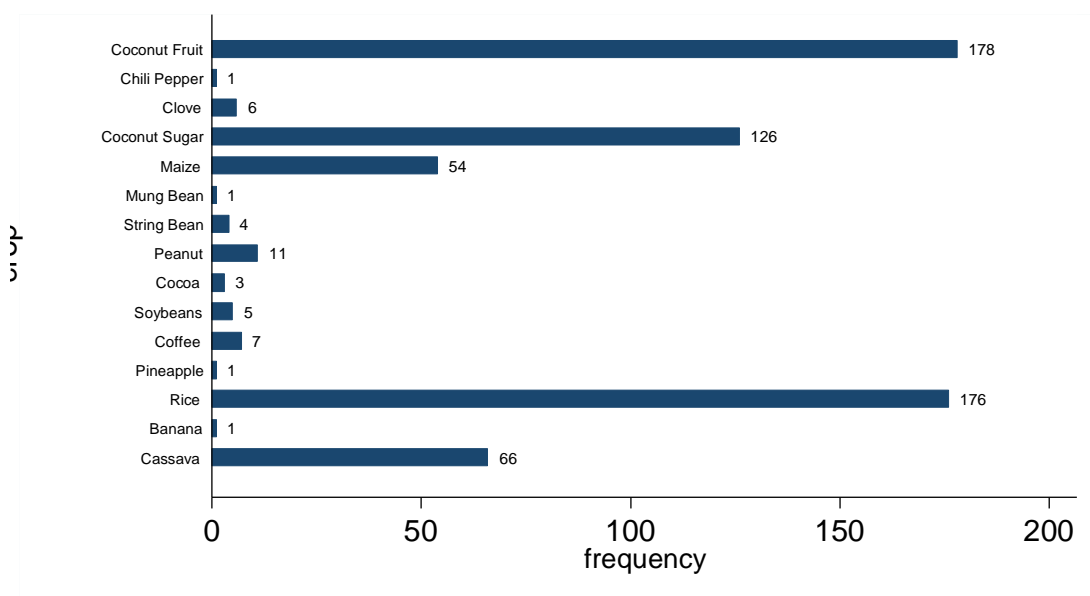


Figure 36: Frequency of Crops mentioned as one of the three most important crops (in terms of income) (2016)

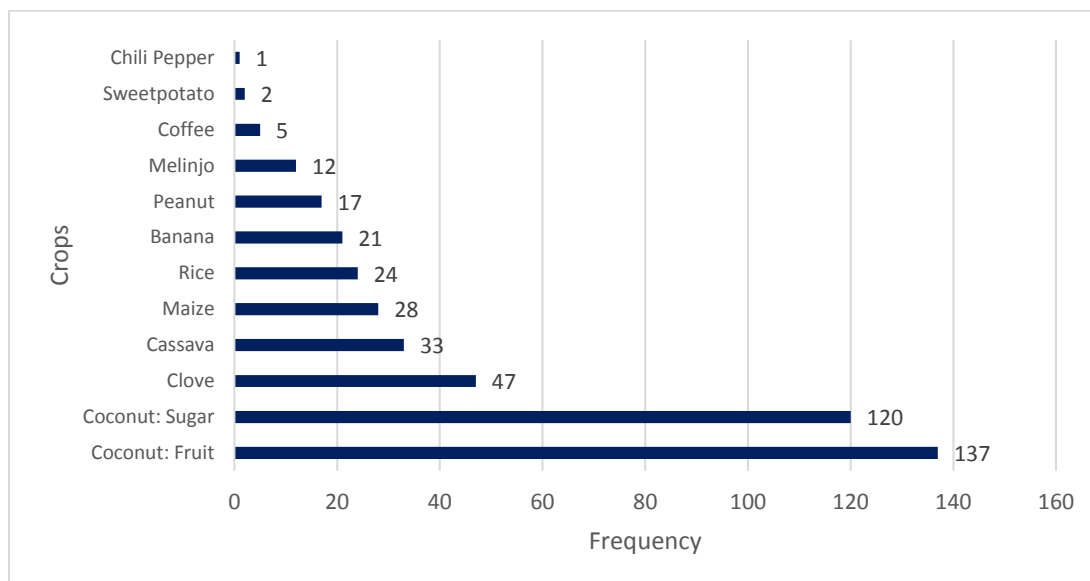


Figure 37: Crops for Self-consumption (reported no selling) (2015)

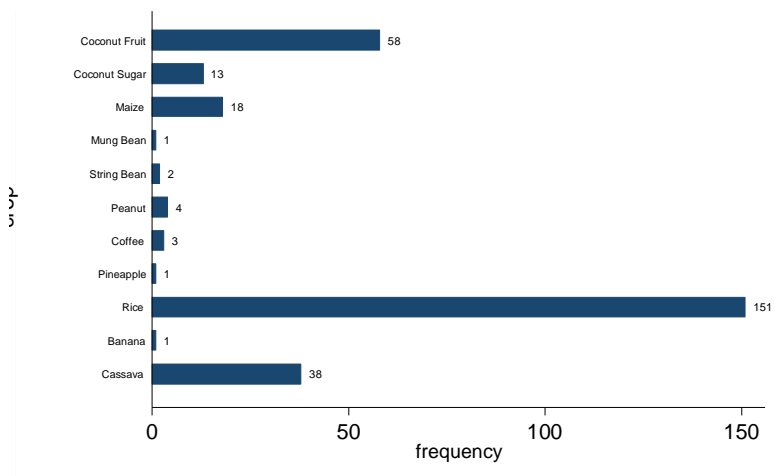


Figure 38: Crops for Self-consumption (reported no selling) (2016)

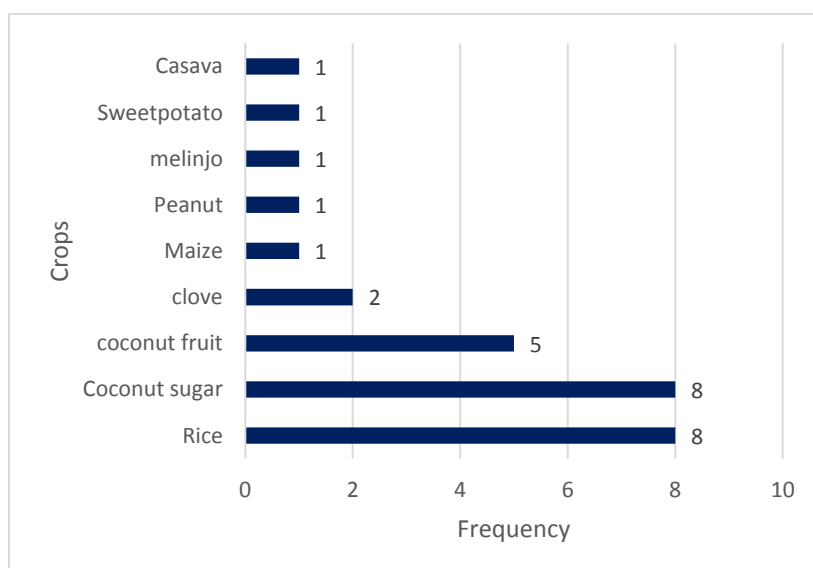


Figure 39: Crops which are mainly sold (reported 50%+ sales) (2015)

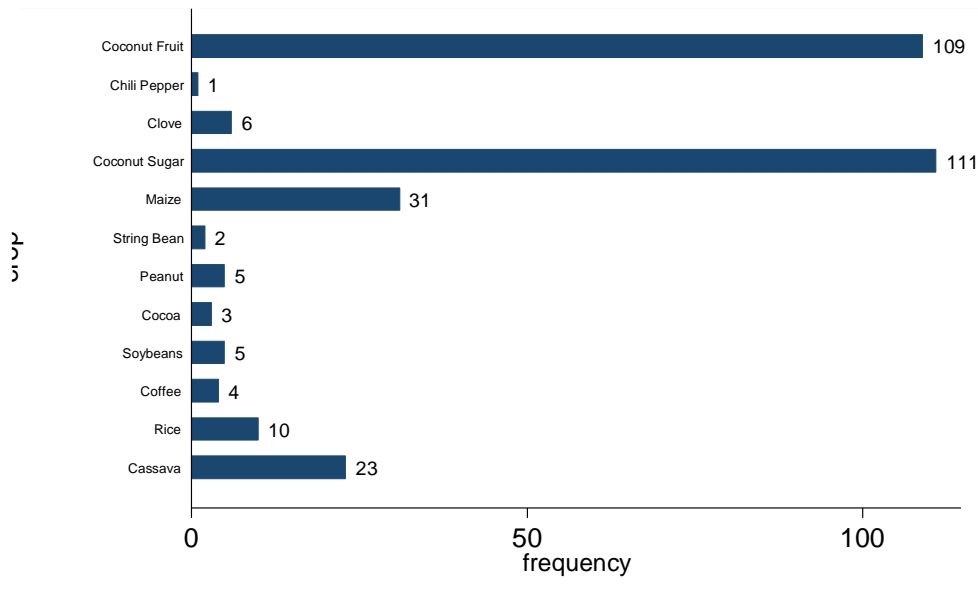
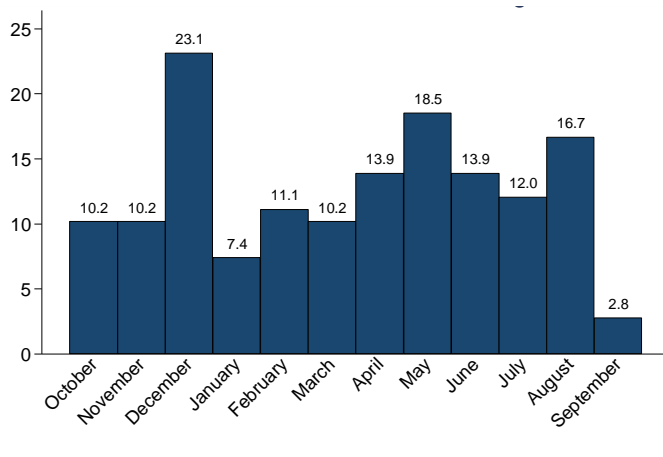


Figure 40: Crops which are mainly sold (reported 50%+ sales) (2016)

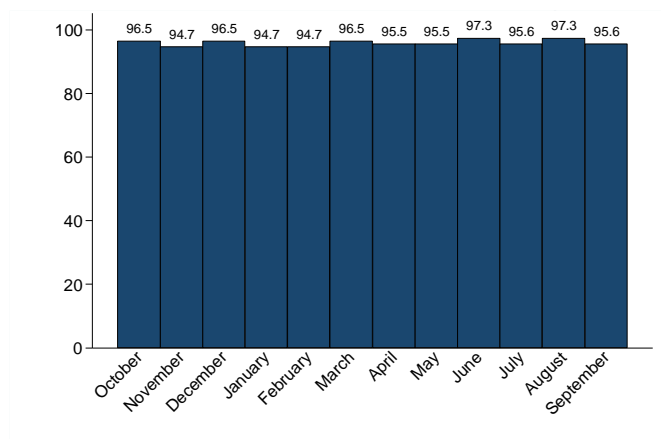
No data

Figure 41: Sales of crops other than coconut fruit and sugar (by calendar month) (2015)

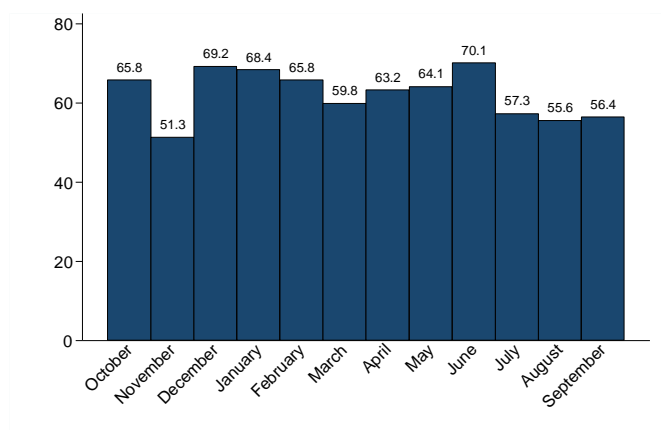


Sales of crops other than coconut fruit and sugar (by calendar month) (2016)

No. data

Figure 42: Sales of Coconut Sugar (by calendar month) (2015)**Sales of Coconut Sugar (by calendar month) (2016)**

No. data

Figure 43: Sales of Coconut Fruit (by calendar month) (2015) no data in 2016**Sales of Coconut Fruit (by calendar month) (2016)**

As seen in table 12, the percentage of total household income earned with coconut sugar increase from 28% (2015) to 47% (2016). The earnings from coconut fruit also had a slight grow from 16% (2015) to 18% (2016).

Table 12: Income Earned with Coconut Fruit and Coconut Sugar (2015&2016)

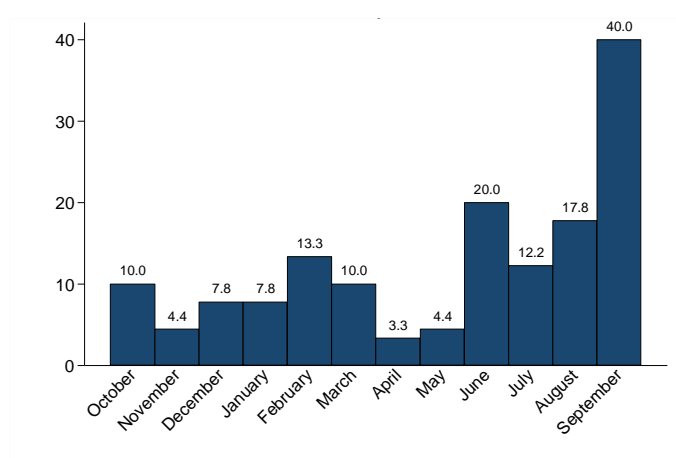
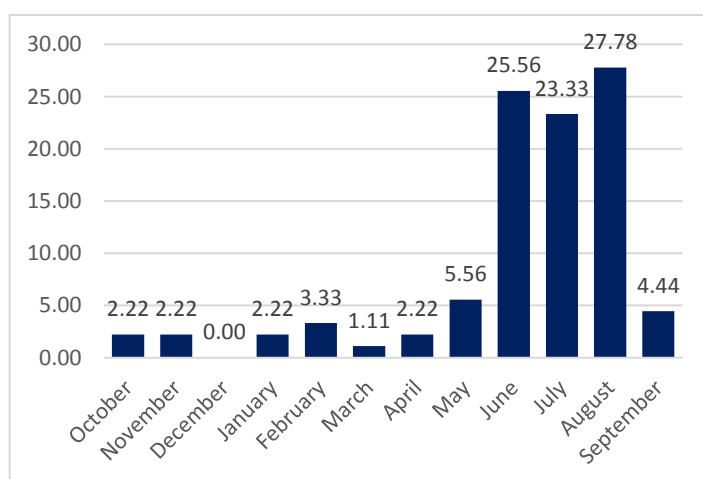
	2015		2016	
	Nr. Obs	mean	Nr. Obs	mean
Percent of Total HH Income Earned with Coconut Sugar	118.00	28.30	119	47.0
Percent of Total HH Income Earned with Coconut Fruit	167.00	16.35	119	18,1

Table 13: Female Decision Making Power and Engagement in Coconut Sugar Activities (2015 & 2016)

	2015	2016
	Nr. Obs	mean
Most important decision maker in HH is female: Selling Coconut Sugar	109.00	49.54
Second important decision maker in HH is female: Selling Coconut Sugar	105.00	54.29

4.2 Livestock Activities

June to August are the periods when the livestock are mostly sold (figure 44 and 45). The data in both year is consistent, except that 40% (2015) of the households reported selling livestock in September dropped down to only 4% in 2016.

Figure 44: Sales of Livestock (by calendar month) (2015)**Figure 3: Sales of Livestock (by calendar month) (2016)**

5 Expenditures and Financing Expenditure

Similar to the data in 2015, health and educational expenditure remain the highest expenditures amongst all, and the percentages climb higher from 27% - 29% to 74% - 100% respectively between 2015 and 2016

(figures 46 and 47). The third highest expenditure, repaying debts, hit 23% in 2015 and went up to 37% in 2016. The third highest expenditure in 2016 is spending on marriage which data shows rose from 18% to 60%.

Figure 46: Significant Expenditure (2015)

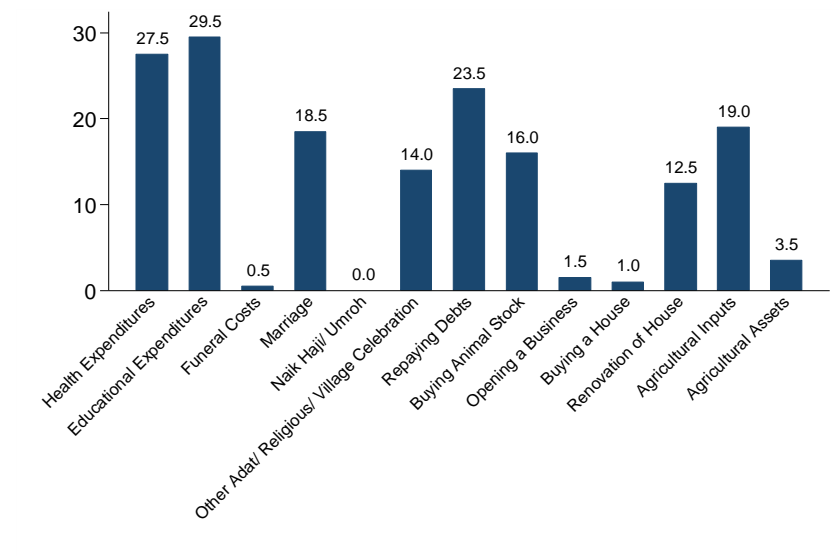
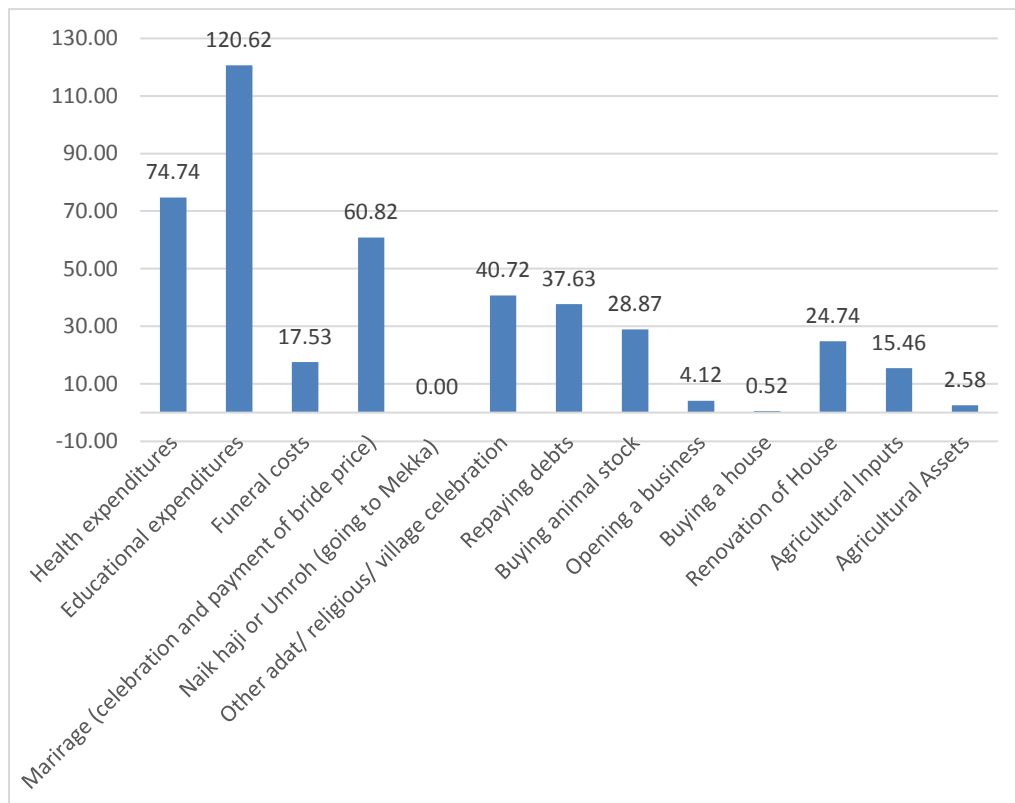


Figure 47: Significant Expenditure (2016)



5.1 Educational Expenditure

The educational expenditure in 2016 has dropped down significantly for all expenditure quintiles. The highest educational expenditure in 2016 (figure 49) was 30% which only amounts to the lowest expenditure in 2015 (figure 48). The percentage of educational expenditure does not show a correlation with the expenditure quintiles.

Figure 48: Educational Expenditure by Quintile (percentage) (2015)

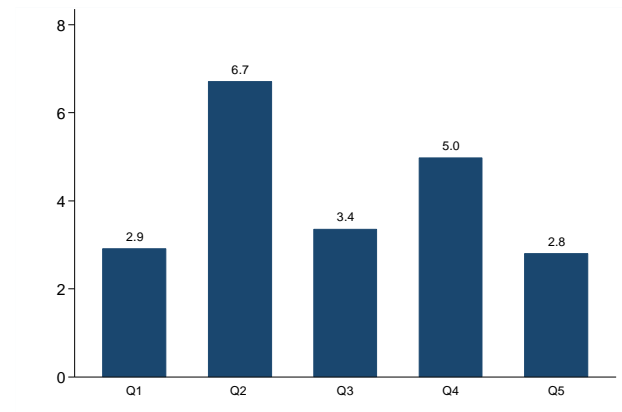


Figure 49: Educational Expenditure by Quintile (percentage) (2016)

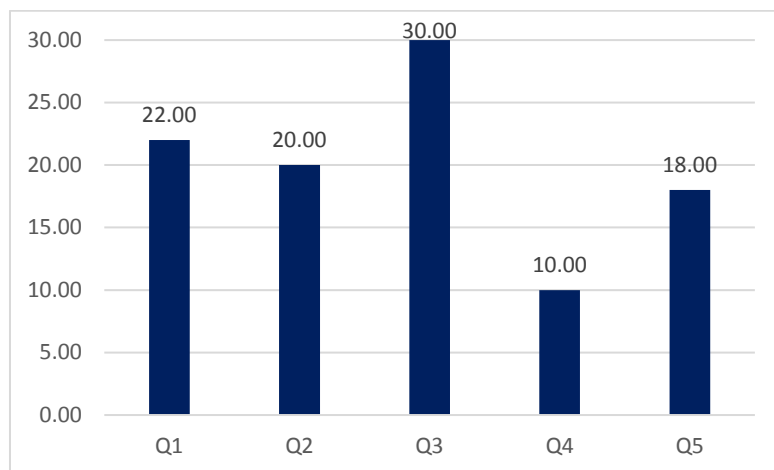


Figure 50 and 51 show a significant increase in educational expenditure in 2016 compared to 2015. The lowest in 2016 was 95,000 IDR in Q4, while the rest are above 100,000 IDR and the highest hit 220,000 IDR.

Figure 50: Educational Expenditure by Quintile (IDR) (2015)

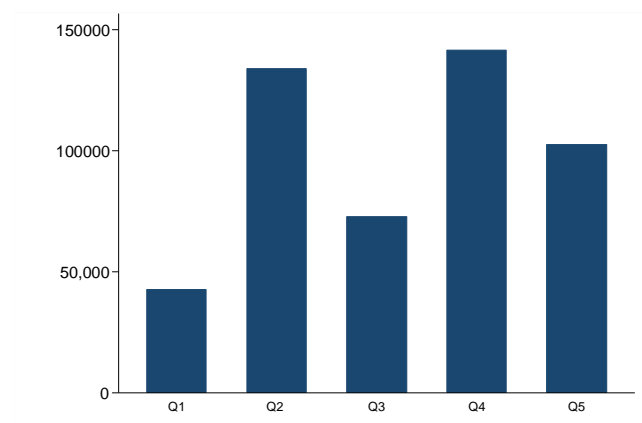
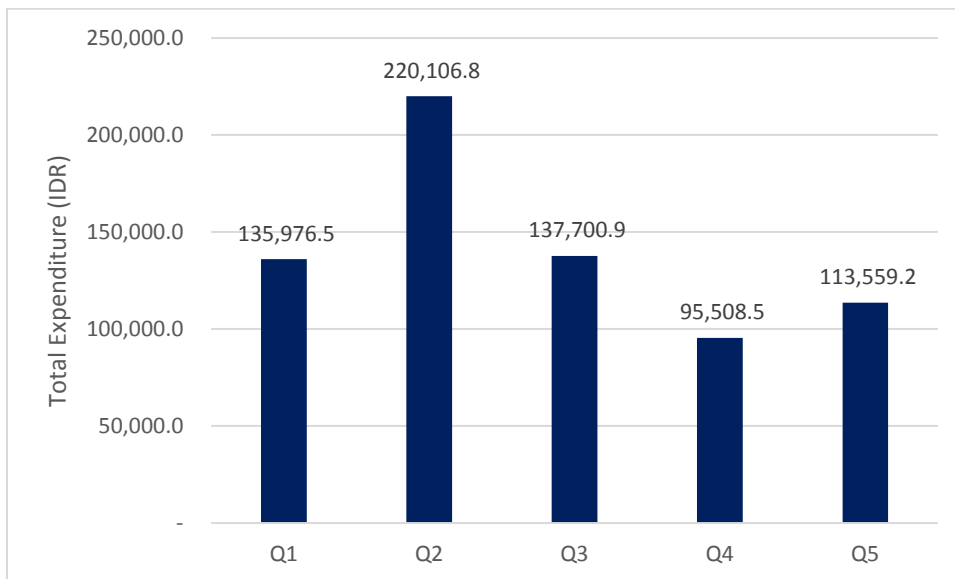
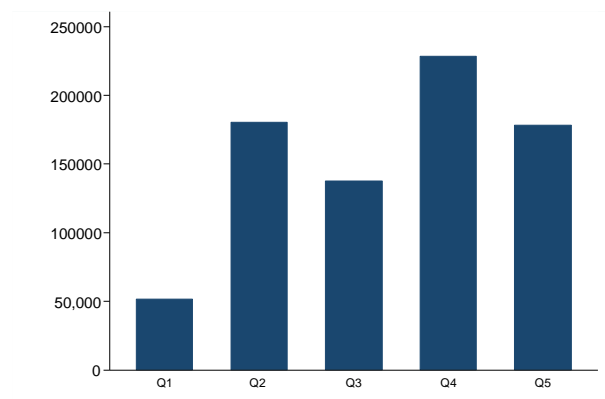
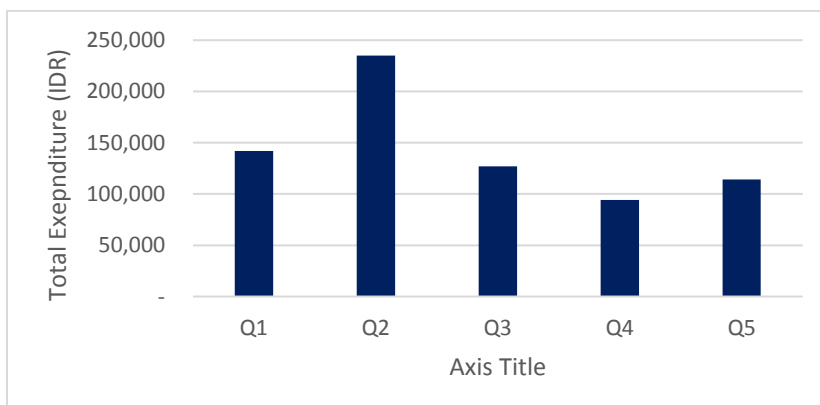


Figure 51: Educational Expenditure by Quintile (IDR) (2016)

The educational expenditure per child in 2015 and 2016 is stable for all quintiles (figures 52 and 53). The lowest remains less than 100,000 IDR and the highest falls between 200,000 and 250,000 IDR.

Figure 52: Educational Expenditure by Quintile per child (2015)**Figure 53: Educational Expenditure by Quintile per child (2016)**

Data in both 2015 and 2016 are broadly similar. Households tend to finance their education with savings, selling from agricultural assets and crop stock (figures 54 and 55).

Figure 54: Financing Education (2015)

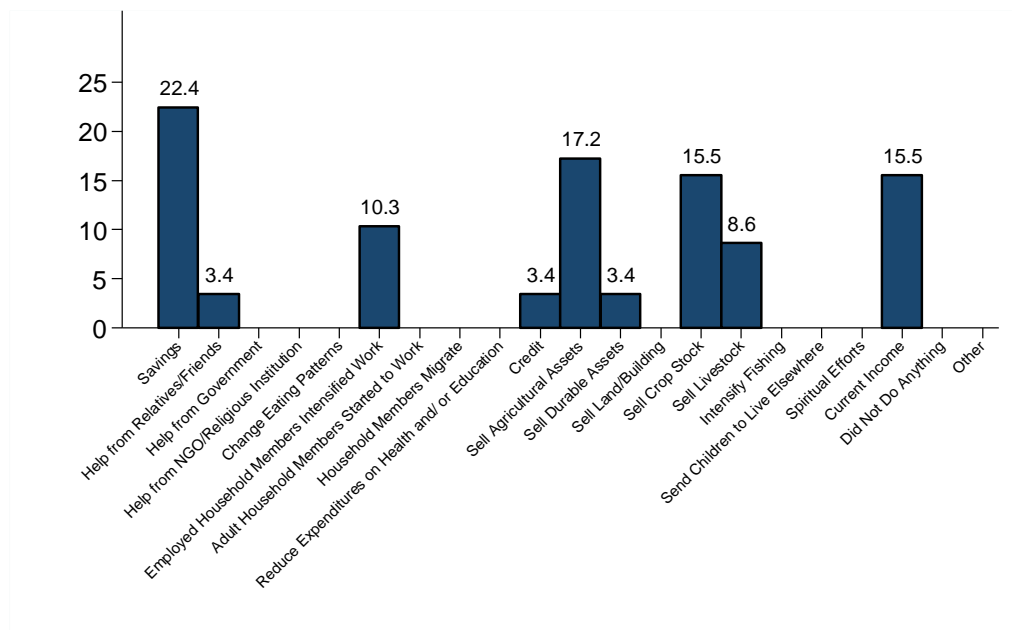
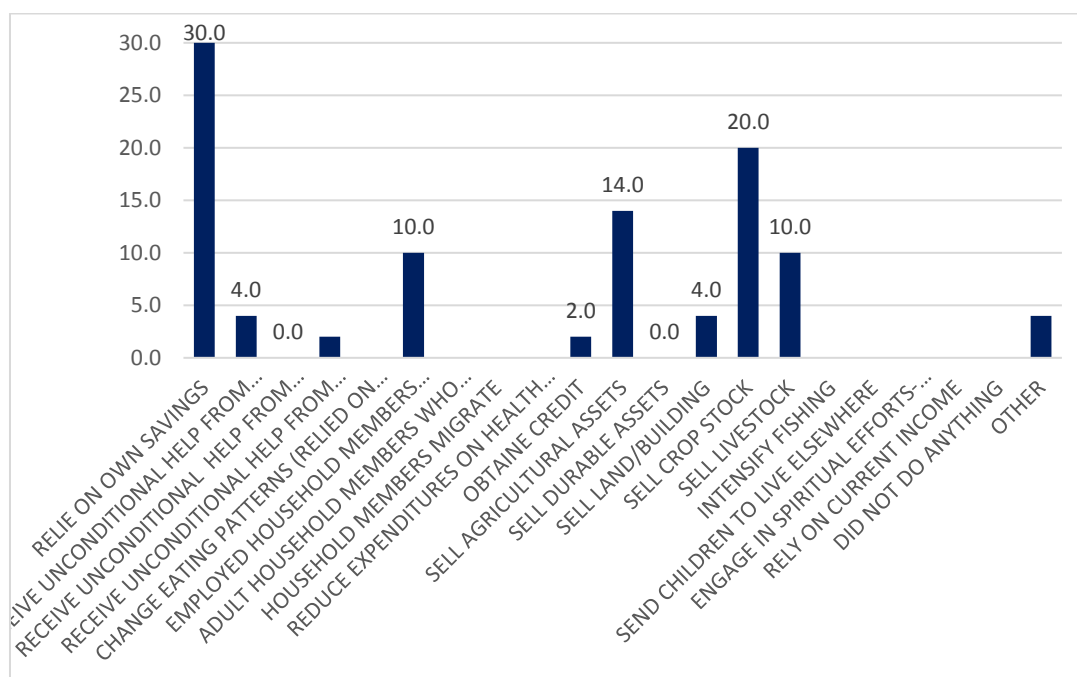


Figure 55: Financing Education (2016)



The data shows that education expenditure are highest in June and July (figures 56 and 57). August and September are higher in 2016 compared to 2015.

Figure 56: Timing of Significant Expenditure – Education (2015)

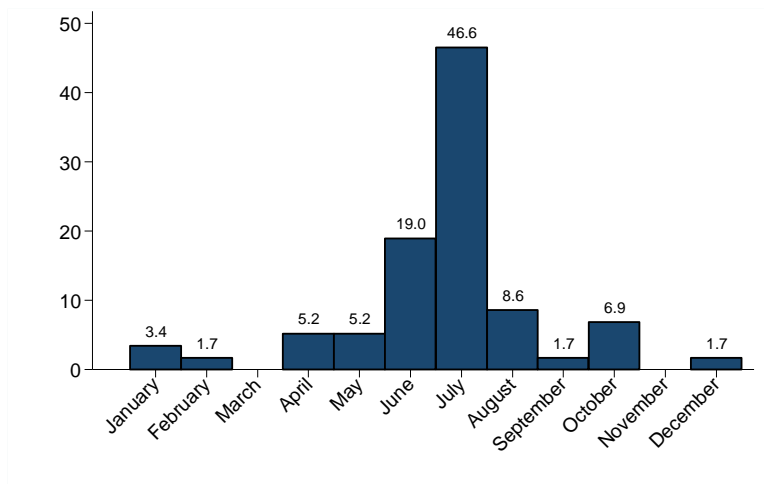
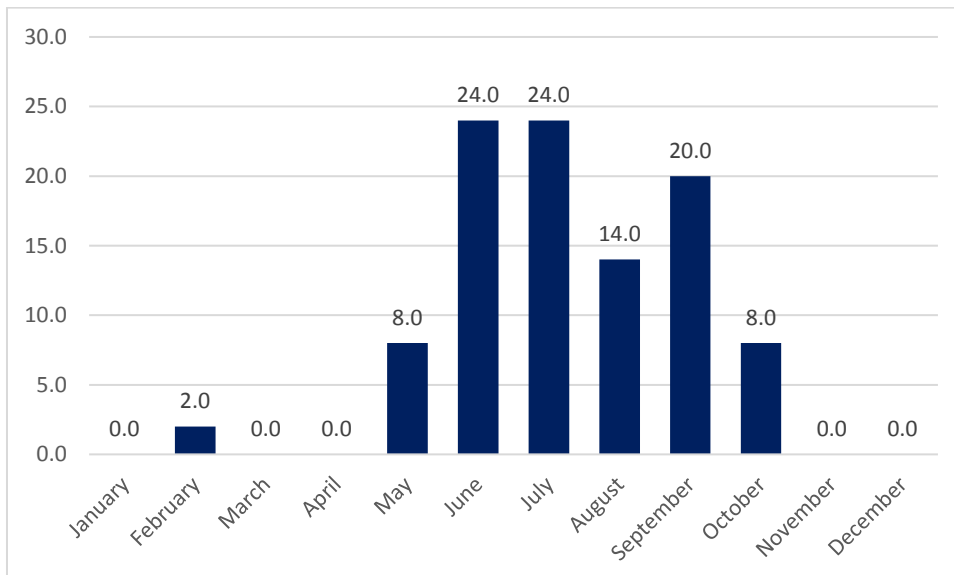


Figure 57: Timing of Significant Expenditure – Education (2016)



5.2 Social Expenditures

Regarding social expenditure, the share of alcohol and tobacco consumption increased with the expenditure quintiles and reached 9% for the highest quintile in 2015 (figure 58). This highest number dropped to 5% in 2016 while the rest remain steady (figure 58 and 59). Overall, the spending on ceremonies was higher for all quintiles in 2016 (figure 59). Recreation and entertainment and food consumed outside of the house was low, ranging from 0% to 2%.

Figure 58: Social Expenditure by Quintile (2015)

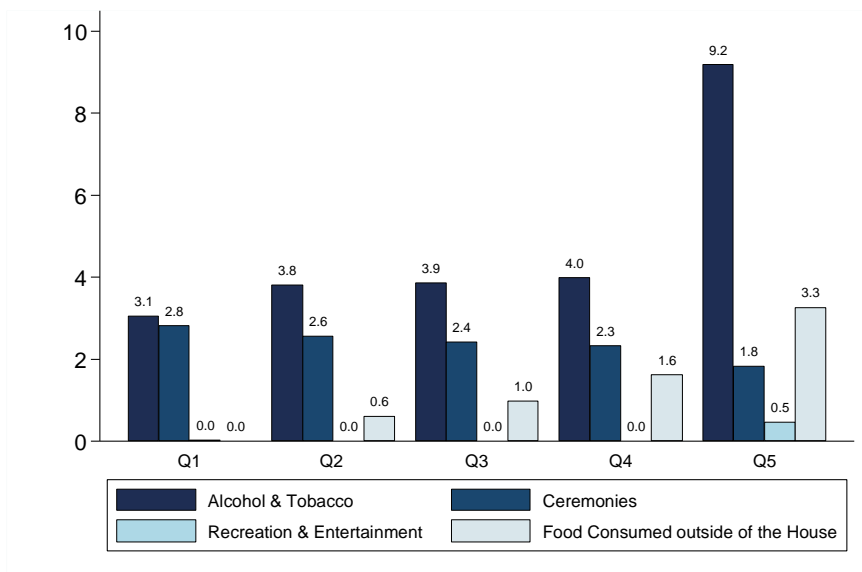
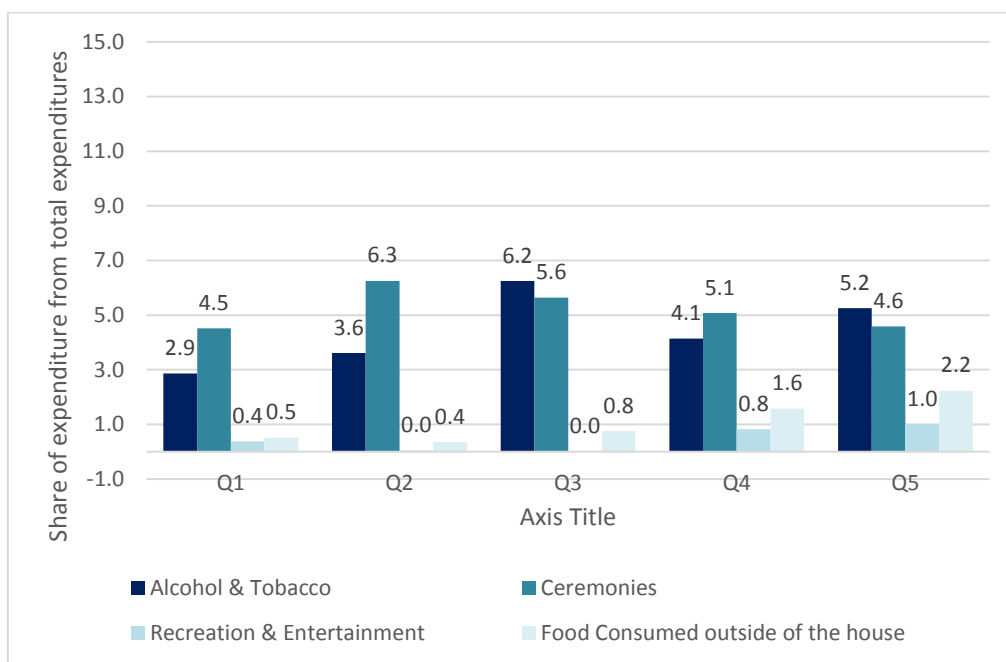


Figure 59: Social Expenditure by Quintile (2016)



Expenditure in financing marriage as well as other celebrations are significant for the households. As seen in figure 60 and 61, July to September are the common period for celebrations in 2015 while August to October are more common in 2016. The data indicates that most celebrations take place more often at the third quarter of the year.

Figure 60: Timing of Significant Expenditure - Other Adat/ Religious/ Village Celebration 2015)

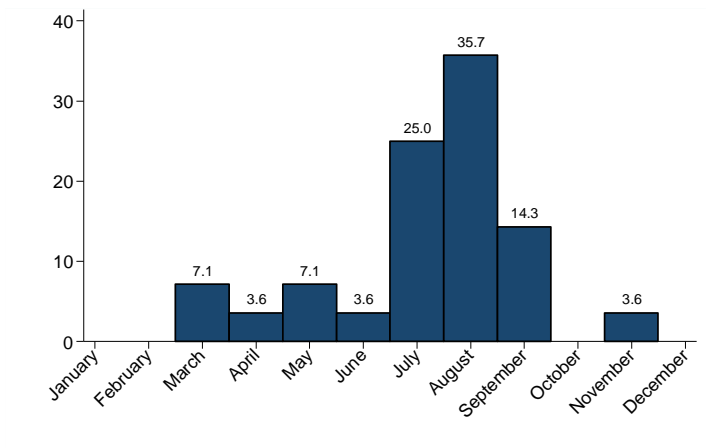
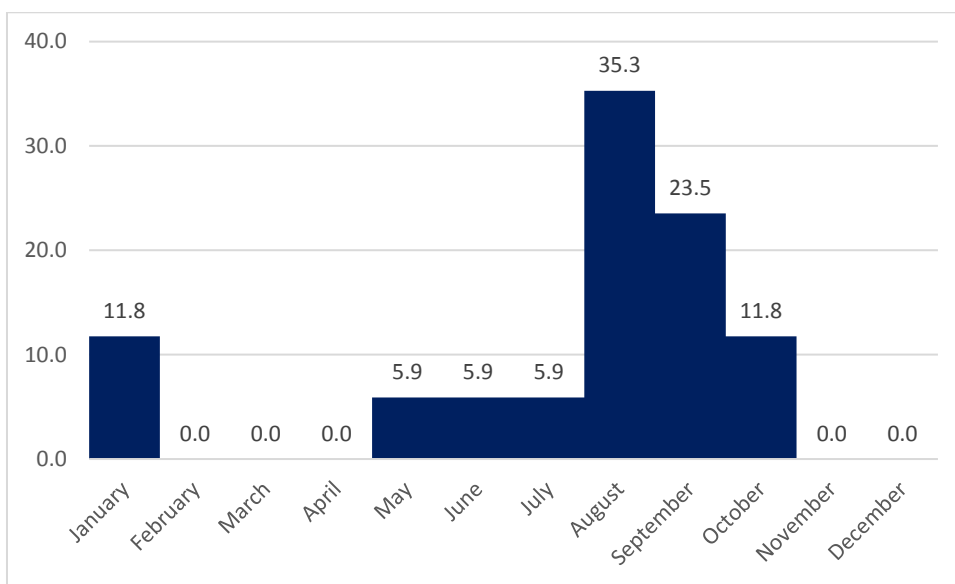


Figure 61: Timing of Significant Expenditure - Other Adat/ Religious/ Village Celebration 2016)



According to figures 62 and 63, marriage expenditures are mostly paid in September for 2015 and August in 2016.

Figure 62: Timing of Significant Expenditure – Marriage (2015)

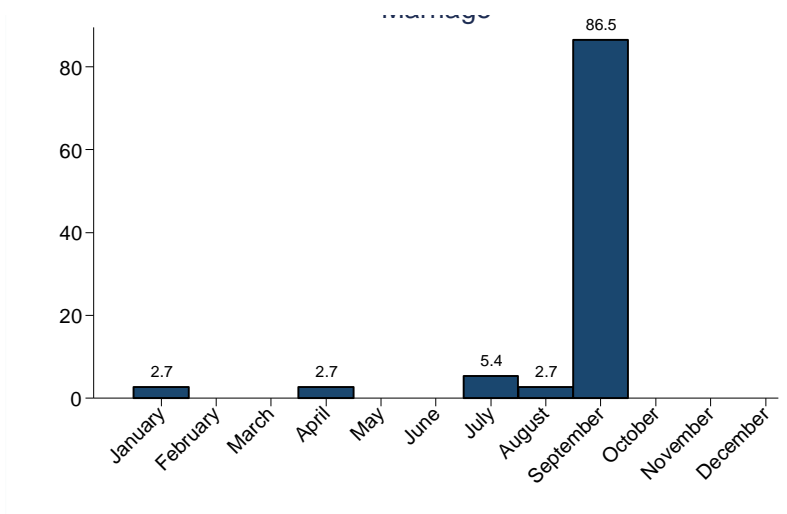
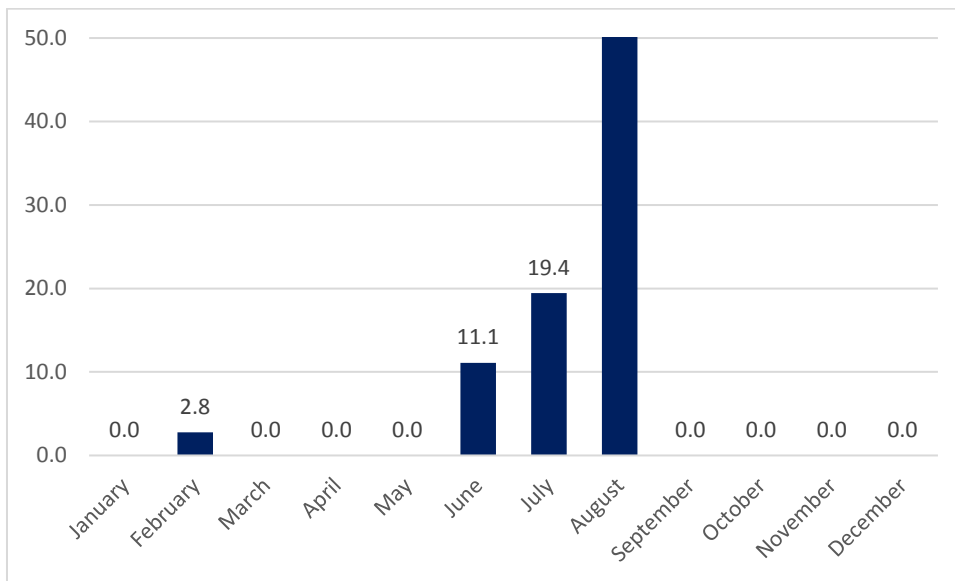


Figure 63: Timing of Significant Expenditure – Marriage (2016)



There is no significant change in how the households finance their marriage expenditure. Data from both years indicate that the top financial sources for marriage expenditure come from selling livestock, agricultural assets and savings (figures 64 and 65).

Figure 64: Financing Marriage (2015)

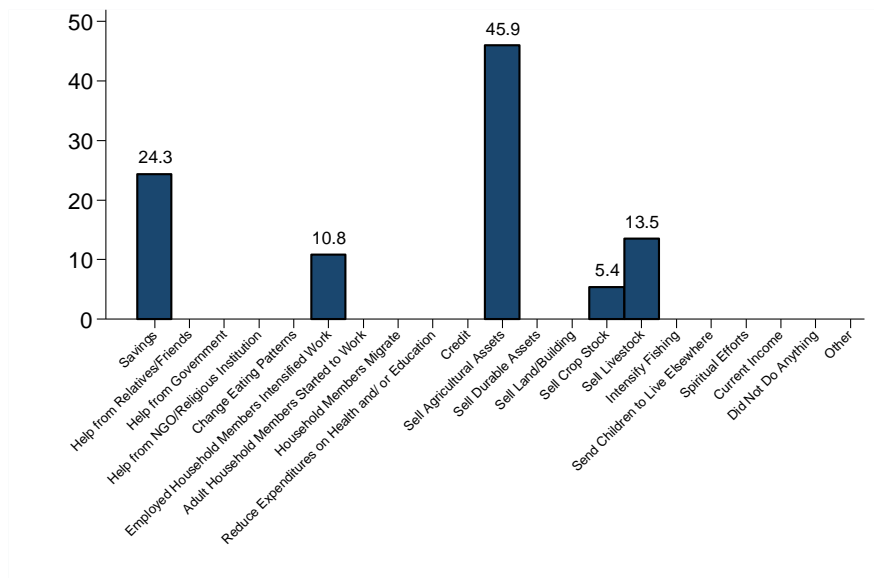
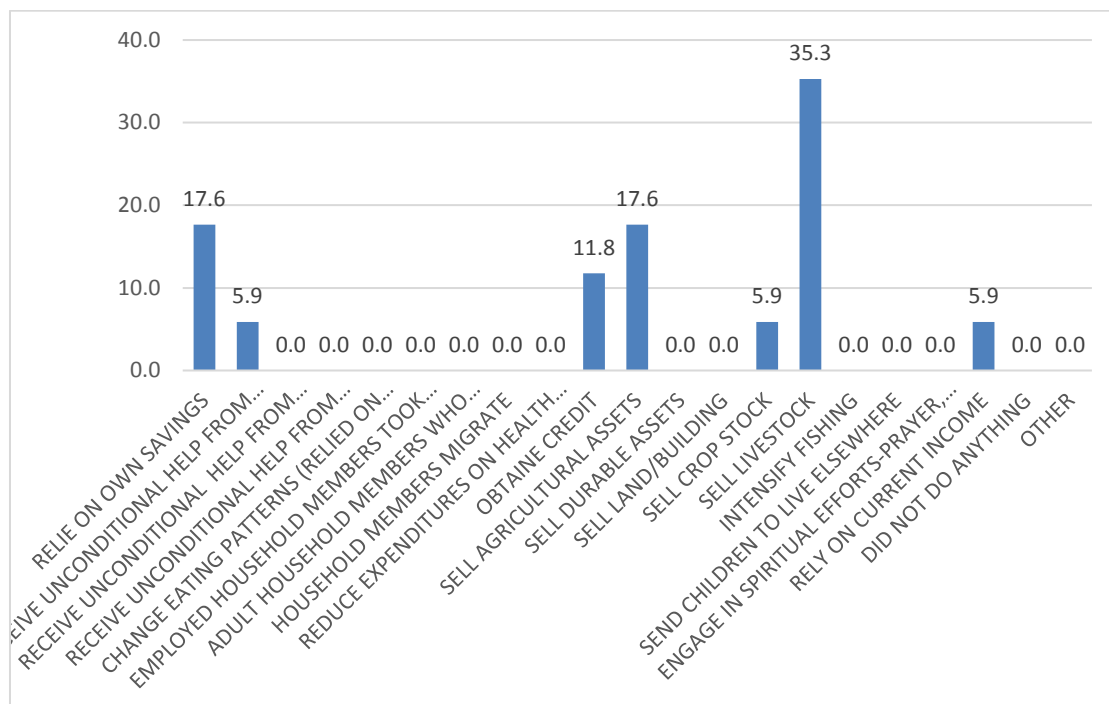


Figure 65: Financing Marriage (2016)



In 2015, the top three financial sources for various expenditure were selling livestock, savings and selling agricultural assets (figure 66). In 2016, own savings stood the highest at the rate of 63%, yet the percentage of selling agricultural assets and livestock dropped down to as low as 5% and 8% respectively (figure 67).

Figure 46: Financial Other Adat (2015)

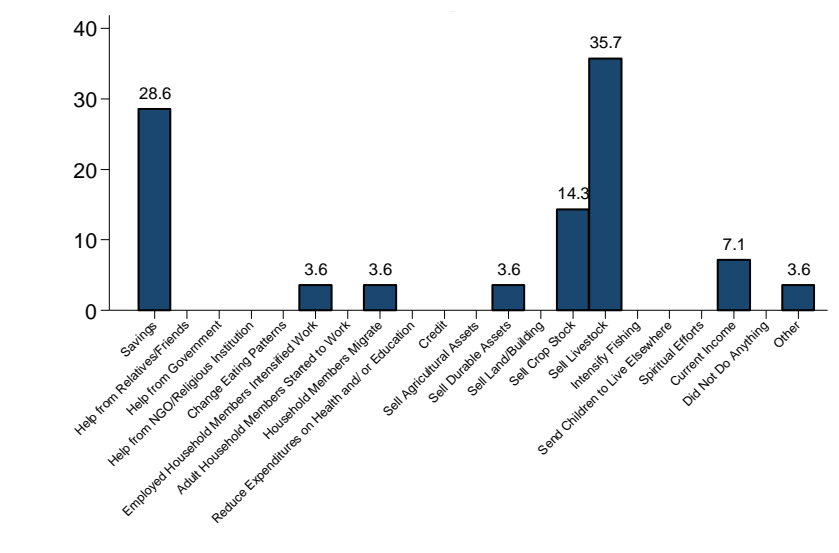
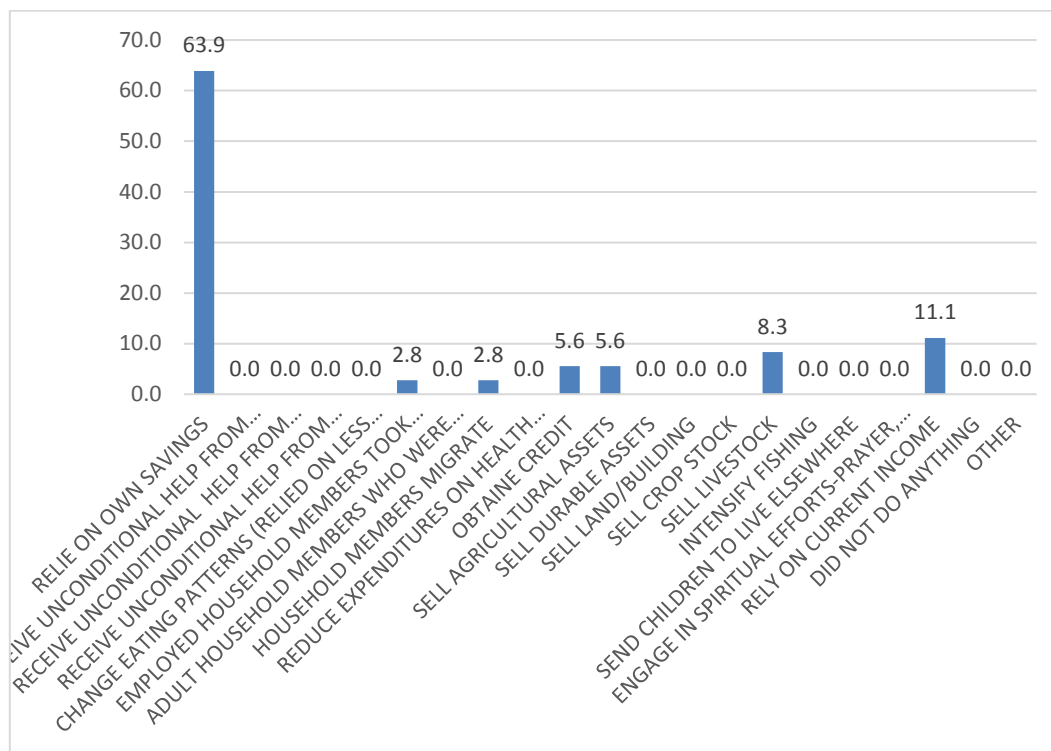


Figure 57: Financial Other Adat (2016)



5.3 Agricultural Assets

In general, business investment for coconut sugar is not considered to be very large, and the coconut farmers usually finance them with daily income or savings from the last harvest or causal work. Some tools were also inherited. Agricultural inputs are financed with daily income.

5.4 Repaying Debt

As seen in figure 68, data shows that May to October are the months when most debts are paid back. It is a similar picture in 2016 where July to September are the period when most debts are paid back (figure 69).

Figure 68: Timing of Significant Expenditure - Repaying Debt (2015)

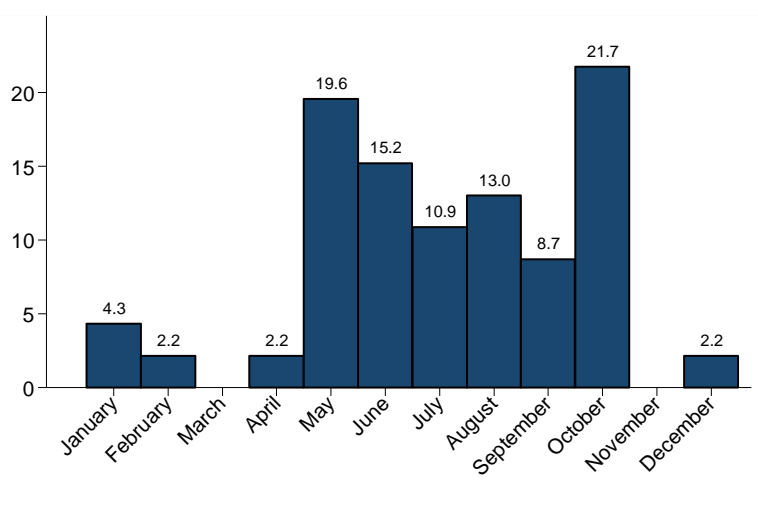
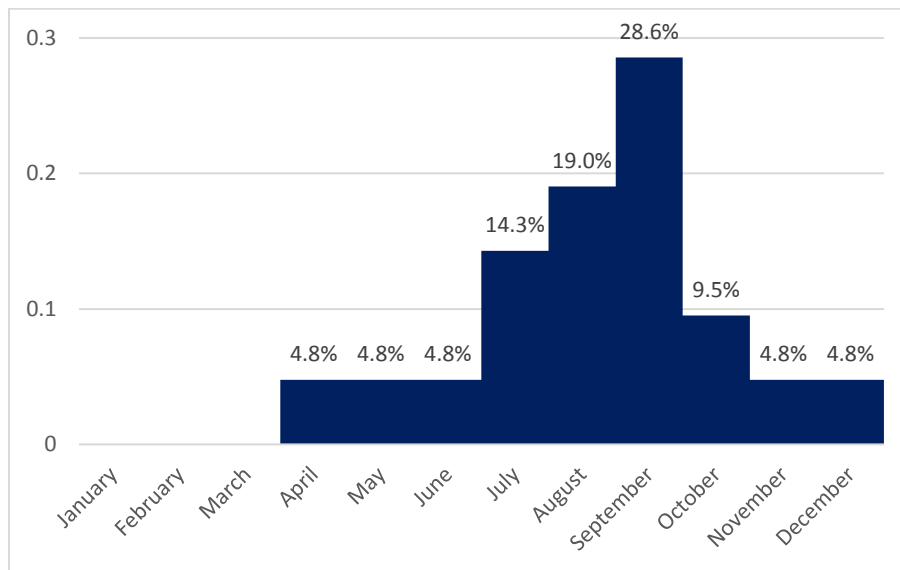


Figure 69: Timing of Significant Expenditure - Repaying Debt (2016)

5.5 Food Expenditures

Daily food consumption is regarded as a large expenditure which is financed by daily household income. As presented in figures 70 and 71, the share of food expenditure decreased by expenditure quintiles but total expenditure increased in both years (figures 72 and 73).

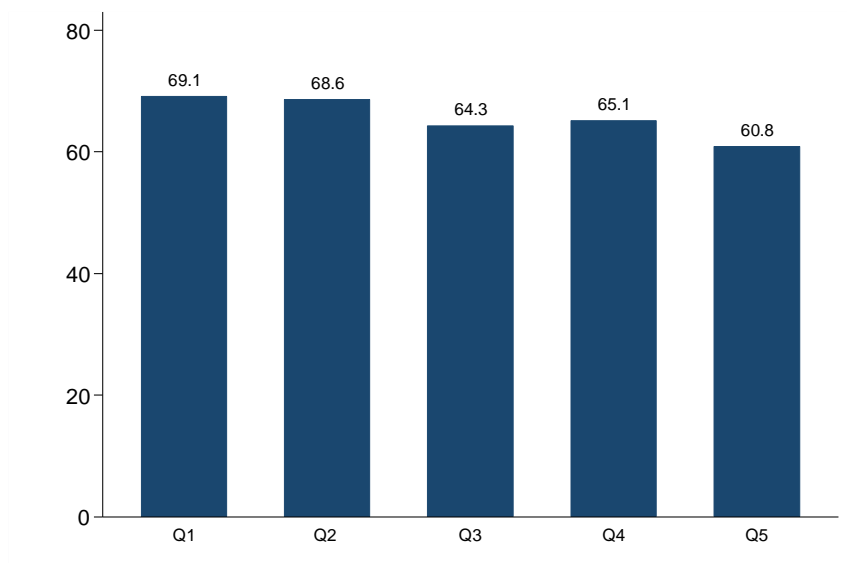
Figure 70: Food Expenditure (2015)

Figure 71: Food Expenditure (2016)

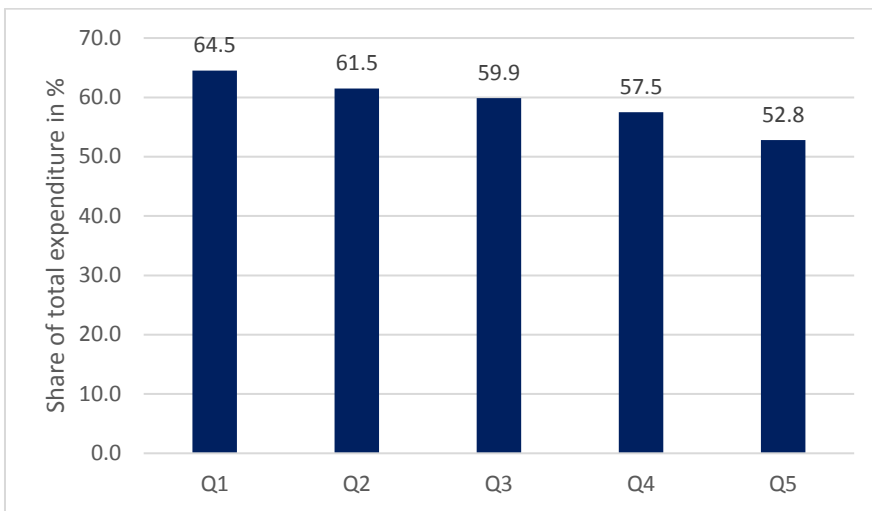


Figure 72: Total Food and non-food Expenditure by Quintile (2015)

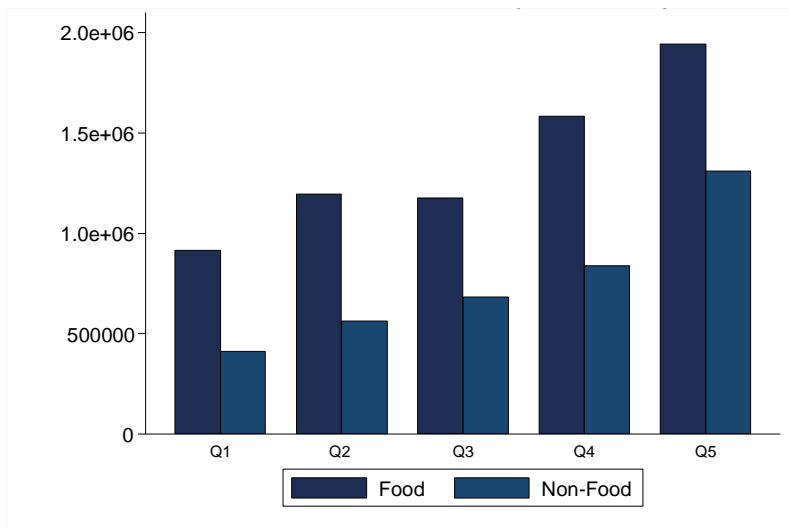
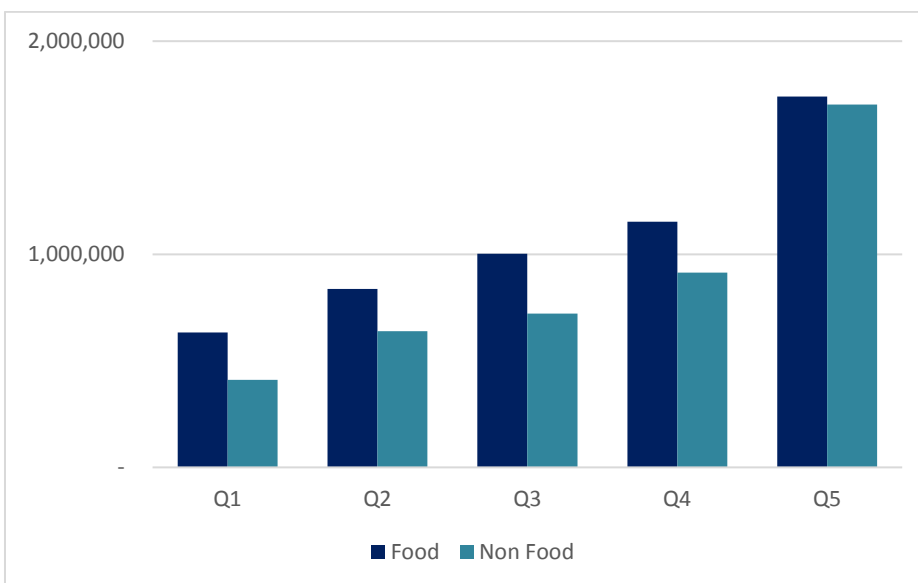


Figure 73: Total Food and non-food Expenditure by Quintile (2016)



As can be seen in figure 74, the share of total rice and staple food expenditure decreased by expenditure quintile in 2015. In 2016, the share of rice and staple food fluctuated across the wealth quintiles but nevertheless remained the highest (figure 75).

Figure 74: Type of Food Expenditure by Quintile (percentage) (2015)

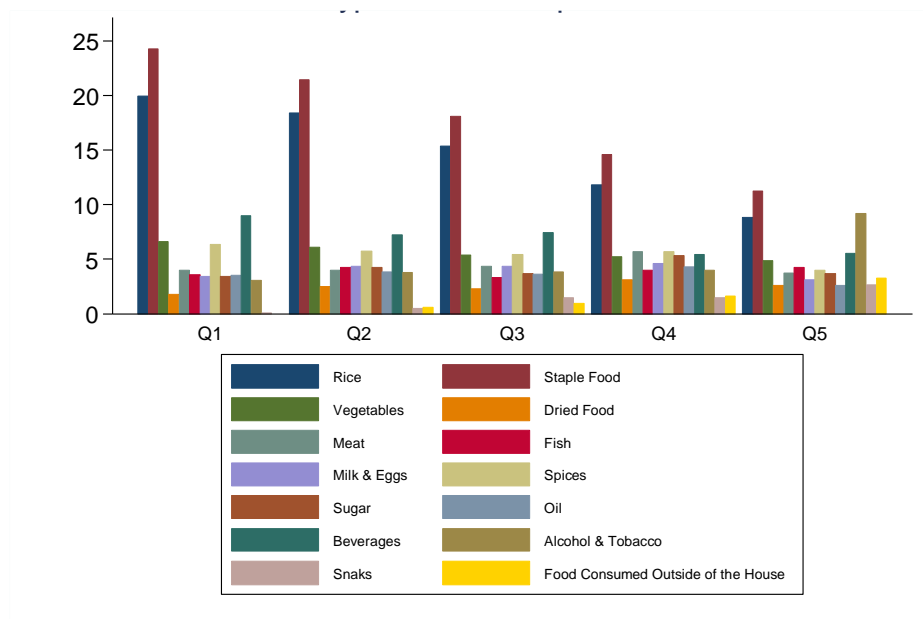
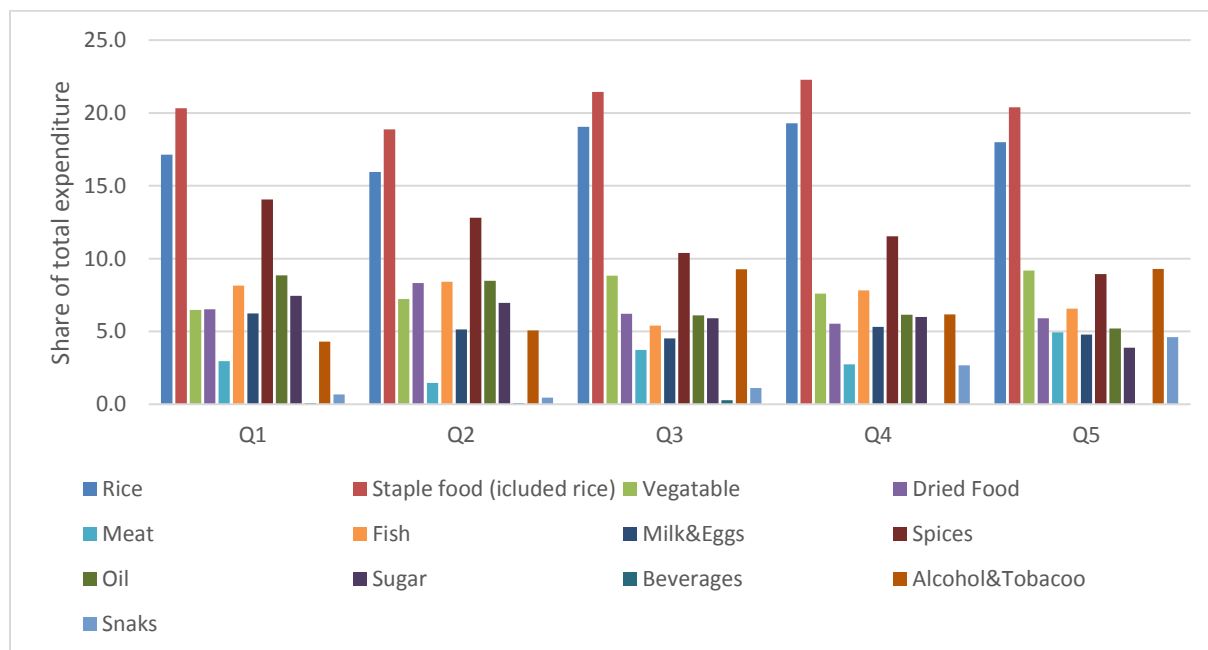


Figure 75: Type of Food Expenditure by Quintile (percentage) (2016)



Data shows that expenditure on meat, fish, spices, milk and eggs consumption are higher in expenditure quintiles in 2015 and 2016 (figure 76 and 77). Rice and staple food consumption also increased in expenditure quintiles. Taken together this information suggests that higher expenditure quintiles seem to have more nutritious food.

Figure 76: Type of Food Expenditure by Quintile (IDR) (2015)

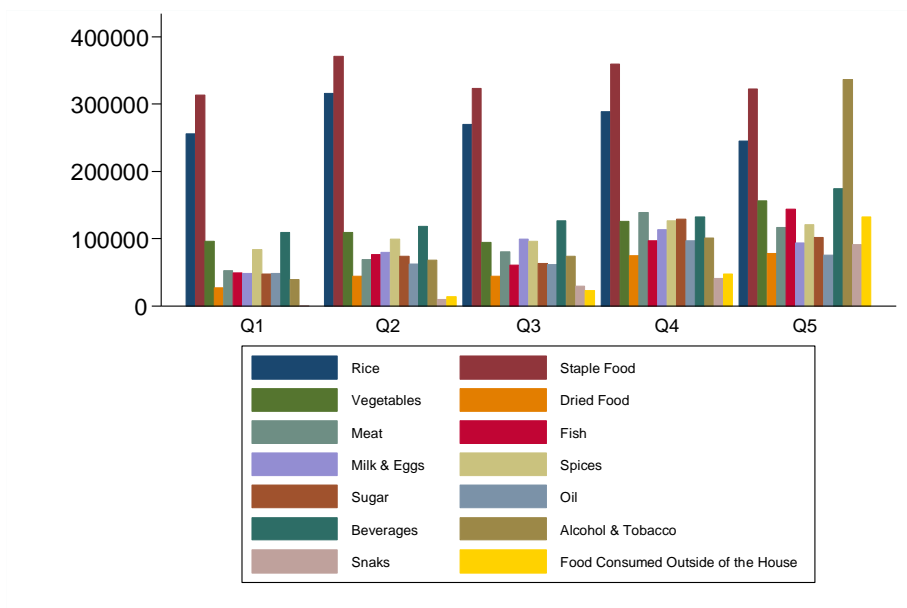
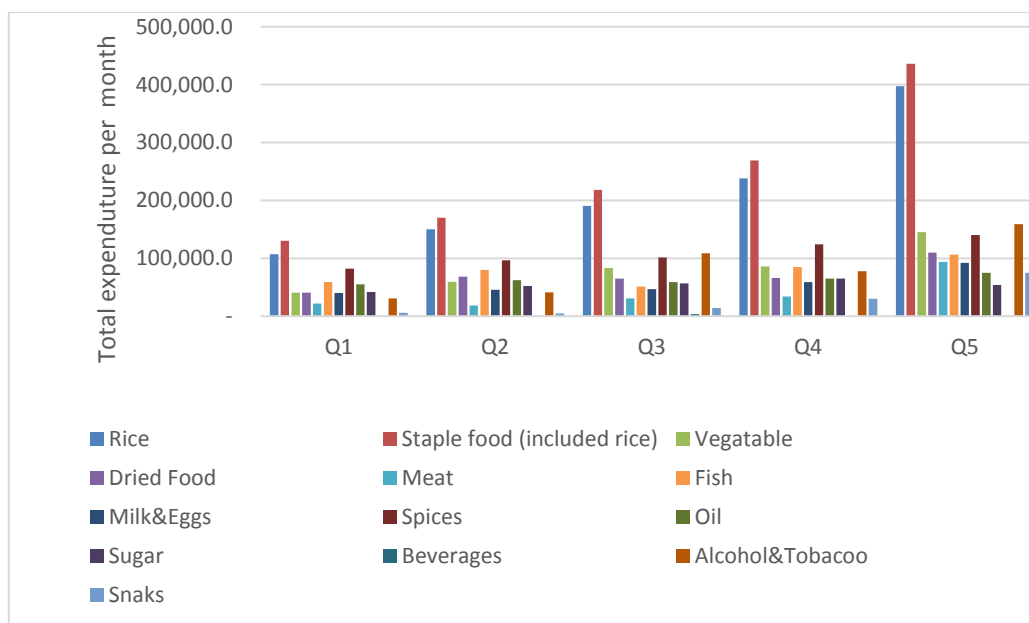


Figure 77: Type of Food Expenditure by Quintile (IDR) (2016)



6 Income Use of Coconut Sugar

The daily household needs remain the most important use of income derived from coconut sugar earnings (figures 78 and 79). After daily household needs are satisfied, the second most important use of earnings from coconut sugar are cash savings, educational and health expenditure, as shown in figures 80 and 81.

Figure 78: Most important use of income derived from Coconut Sugar Earnings (2015)

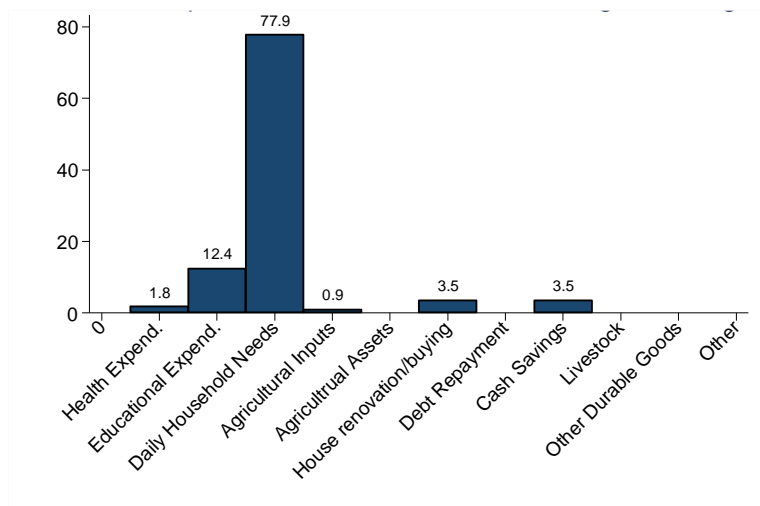


Figure 79: Most important use of income derived from Coconut Sugar Earnings (2016)

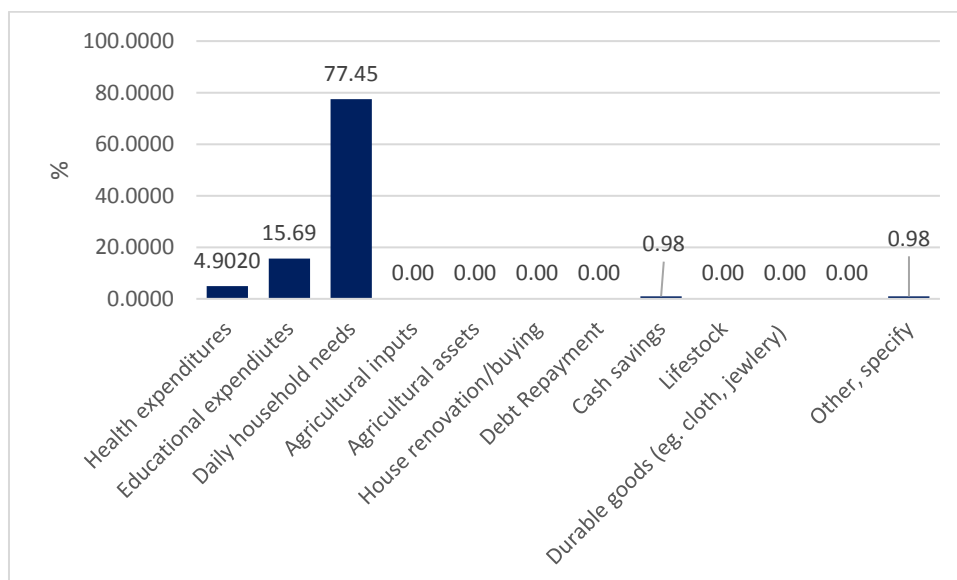


Figure 80: Second most important use of income derived from Coconut sugar Earnings (2015)

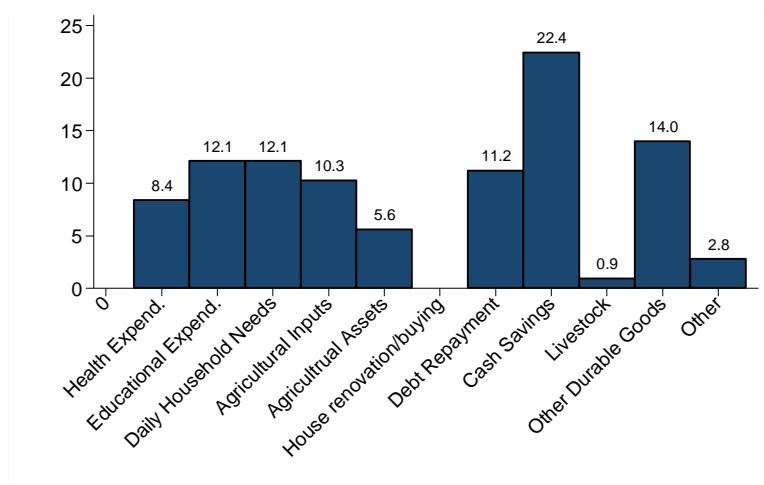
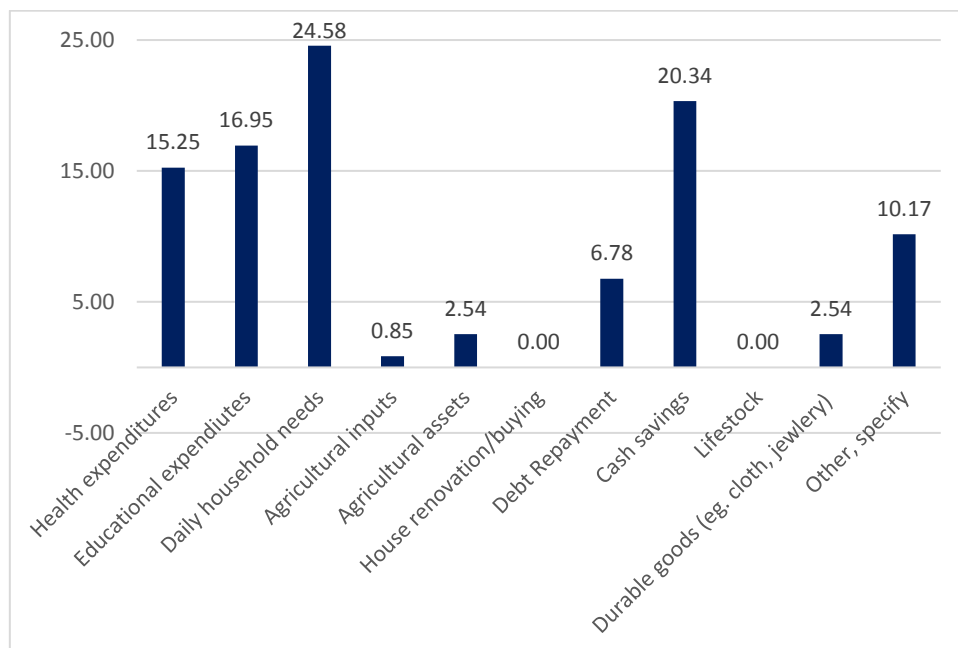


Figure 81: Second most important use of income derived from Coconut sugar Earnings (2016)



Figures 82 and 83 show that the use of coconut fruits earnings are used in a similar way. Daily household needs remain the most important use of income from coconut fruit earnings in 2015 and 2016. The second most important use of coconut fruits earnings are savings, educational and health expenditure (figures 84 and 85).

Figure 82: Most important use of income derived from Coconut Fruit Earnings (2015)

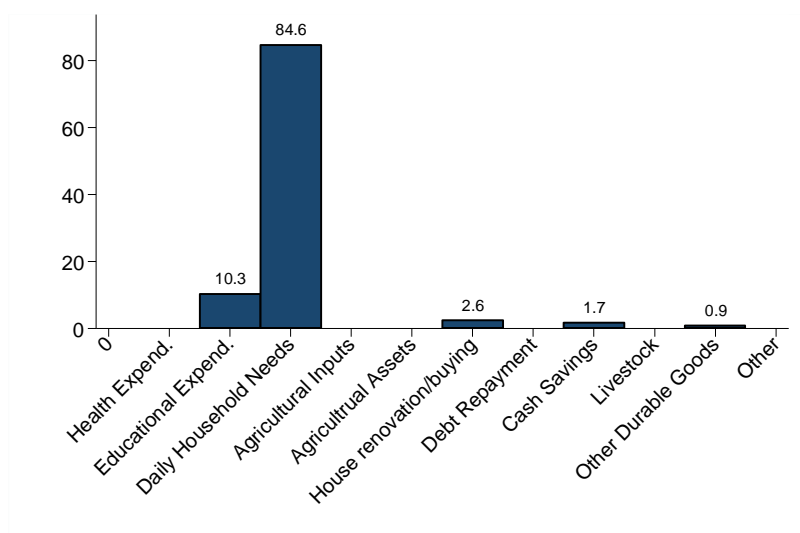


Figure 83: Most important use of income derived from Coconut Fruit Earnings (2016)

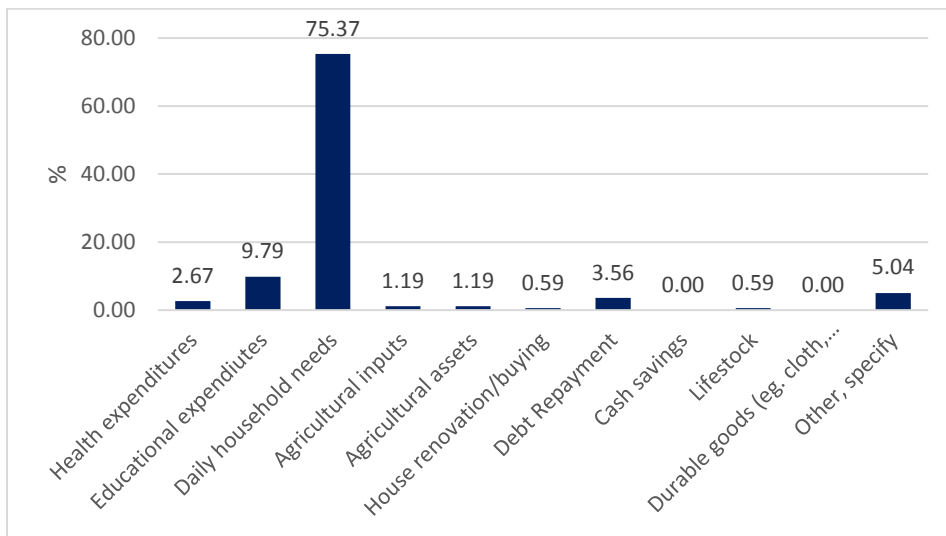


Figure 84: Second most important use of income derived from Coconut Fruit Earnings (2015)

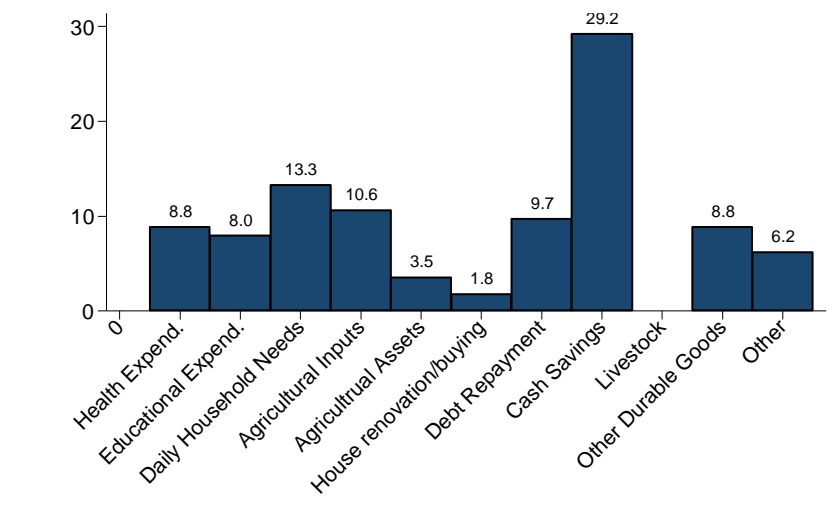
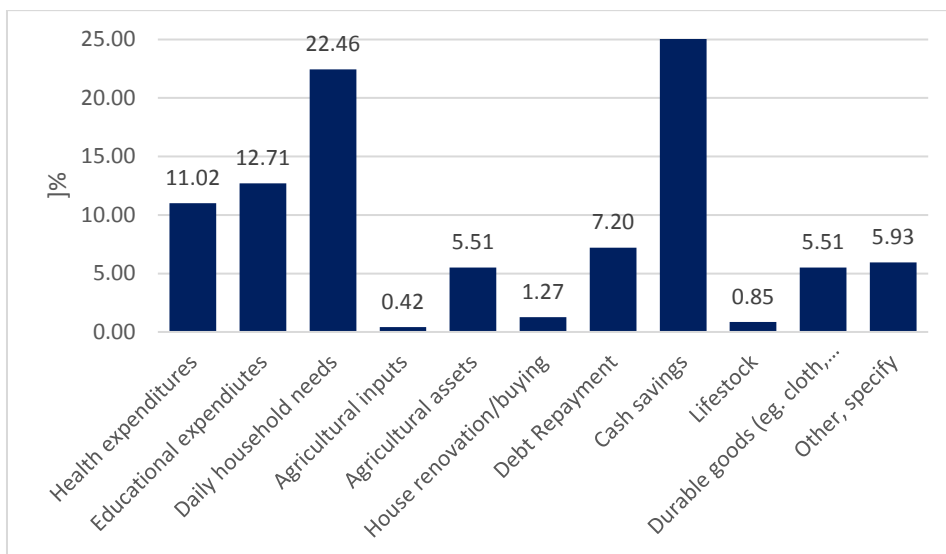


Figure 6: Second most important use of income derived from Coconut Fruit Earnings (2016)



As shown in table 14, the percentage of females as the most important decision maker in household went up from 53% (2015) to 63% (2016). Whereas the percentage of females as the second important decision maker in household fell from 48% (2015) to 33% (2016).

Table 14: Control and Decision Making Power of Earnings from Coconut Sugar (2015 & 2016)

	2015		2016	
	Nr. Obs	mean	Nr. Obs	mean
Most important decision maker in HH is female	107.00	53.27	180	63, %
Second important decision maker in HH is female	104.00	48.08	106	33,4 %

7 Seasonality and Vulnerability

Table 15 indicates that the number of households in the sample worrying about the food security has decreased from 2.5% (2015) to 2.1% (2016) while the figure for households that did not have enough food declined from 1.5% (2015) to 0.5% (2016).

Table 15: Food Security (2015 and 2016)

	2015		2016	
	Nr. Obs	percent	Nr. Obs	percent
Worried	200.00	2.50	190	2,1
Did not Have Enough Food	199.00	1.51	193	0,5