PRISMA Promoting Rural Income through Support for Markets in Agriculture

Kementerian PPN/ Bappenas

Australian Aid



Longitudinal Livelihood Study (LLS)

Baseline Report on Coconut Sugar Sub-Sector in Pacitan

JANUARY 2016

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 Kagiatan ((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 baseline 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 baseline report of the overall LLS which shall give an overview over the current livelihood situation before the households produced organic coconut sugar promoted by the program. In later rounds 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 was collected which together give a picture of the current livelihood situation of coconut sugar and coconut fruit farmers in Pacitan. Farmers where interviewed which were classified by the partner to be potential organic coconut sugar producers, which will be discussed more in detail in later stages. A questionnaire containing information on livelihood aspects and the intervention was developed and applied in the field reaching 200 respondents. Another semi-structured questionnaire was developed to collect data qualitatively while interviewing 11 respondents. The qualitative interviews permit a deeper understanding on the complex livelihood situation. In the following years (waves) the respondents of qualitative and quantitative interview will be tracked to construct a panel.

The baseline 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. Section 8 discusses seasonality and vulnerability of the households, with conclusions provided in Section 9.

2 Short Description Intervention

2.1 Pacitan

For the year 2013 91'300 people living in Pacitan were classified as poor. This corresponds to 16.66% of the population (Statistic Centre Agency, 2015b). The Human Development Index (HDI) in 2013 was 73.36 for Pacitan district, which is number 19 out of 38 districts in East Java (Statistic Centre Agency, 2015a). In Pacitan, average years of schooling is 7.41 for boys and 6.48 years for girls in the year 2012 while literacy rate for 2013 lied at 91.69% (Statistic Centre Agency 2013d; Statistical Centre Agency, 2015c). Live expectancy in Pacitan was 71.9 years in 2013. (Statistic Centre Agency, 2013d). Also, in the year 2013, 19.1 percent of the under-five years old children were undernourished (weight per age) and also stunting is an issue with 35.8% of

prevalence. Even though undernourishment and nutrition are high, both are below the national level (Indonesia Health Profile).

2.2 Intervention Summary

Context

Coconut trees produce two different type of products; coconut (fruit) and coconut sugar (*nira*). Globally, Indonesia is the largest coconut producer. According to the data from the FAO, Indonesia produced more than 1.8 million tons of coconuts in 2013. Coconuts are also exported. In 2012, Indonesia exported 159 tons of coconut. The largest producer of coconut sugar is the Philippines followed by Indonesia, which is the world's second largest coconut sugar producing country (SNV, 2013). According to the SNV sector report (under PRISMA), there are over 100,000 coconut sugar farmers along the south coast of Java.

Demand for coconut sugar is large for domestic and international markets. Domestically coconut sugar is mainly used to produce sweet soy sauce, cigarettes, local food and herbal medicine. Globally, there is an increasing trend to use coconut sugar instead of other types of sugar because it is considered to be healthier with consumption holding a lower risk of generating diabetes and obesity.

Intervention

The intervention under PRISMA is implemented by SNV as co-facilitator implementing the intervention. According to the PRISMA and SNV intervention plan, there are three main improvements required in the coconut sugar sector in Pacitan. Firstly, the coconut sugar production process is mainly organic. Since the farmers do not have organic certification, it is difficult or even impossible to export coconut sugar to other countries, because international companies would not buy the products. Secondly, methods of processing coconut sugar are characterised by inefficiency and are not hygienic which results in coconut sugar of low quality. Finally, even though international demand for organic coconut sugar is increasing and export coconut sugar prices are higher, the local producers are not connected to those markets. Most coconut sugar farmers sell to local markets.

The overall aim of the PRISMA and SNV intervention in Pacitan is to promote organic certification of coconut sugar. The intervention therefore focuses on the supply of improved processing technologies and equipment, organic certification services, and financial services. PRISMA and SNV will work together with *Big Tree Farm* (BTF). BTF will train people which can train coconut sugar farmers to produce high quality organic coconut sugar as well as certify them. In addition to this, BTF will arrange access to finance for farmers. In the first year, BTF covers all the costs of organic coconut sugar certification. Also BTF promotes more efficient cooking stoves.

3 Sampling

3.1 Sampling Quantitative

The sample frame has two different components. The first component includes areas where data has been collected before the intervention started in November/December 2014. Pacitan the team collected data on potential partners for organic coconut sugar production in eight villages in Pacitan where the partner (BTF)

assumed growth potential in the future. While the survey was only conducted in those villages other areas such as villages in *kecamatan* (sub-district) of Donorojo were also considered potential beneficiaries in Pacitan as there is potential that the intervention might be scaled up later to include Trenggalek. The survey contains data on eight villages and 2,621 coconut farmers, which are all considered potential organic coconut sugar producers. Farmers that might be potential coconut sugar producers independently were considered whether they produce coconut sugar already or just have the trees (ie the potential to produce). Three villages in the area are currently being certified. As BTF was concerned about managing expectations in these three villages, they were excluded from the sample frame. Also farmers who had been interviewed for the baseline coconut assessment done by the PRISMA sector teams which was conducted in the beginning of the year were excluded in order to reduce the burden on the households to answer further questionnaires. The remaining farmers within the five villages were considered part of the sample frame.

The second component includes five villages that are considered potential beneficiaries in Donorojo, thought where no data has been collected yet on farmer level. Three villages were chosen randomly out of those five villages, which were also taken as sample frame. Together with the local government of each *desa* (village) in Donorojo, lists of habitants were created. The respondents were chosen randomly, while people without coconut trees were replaced by other habitants. To reduce the risk of raising expectations and speculation large traders were excluded from the sample. Therefore, farmers which bought more than 1 ton of coconut sugar within the last month were not taken as respondents. Overall, this provides a sample with eight villages with 25 households per village (See table 1). This ensures variation within and across villages.

Table 1: Sampling

Village	Nr. of HH
Gawang	25
Gembok	25
Klepu	25
Klesem	25
Mantren	25
Sawahan	25
Sendang	25
Sidomulyo	25
Total	200

3.2 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
Klepu	1
Klesem	2
Mantren	2
Sawahan	2
Sendang	2
Sidomulyo	2
Total	11

3.3 Intervention Status in the Villages

These households were not yet involved in the intervention. The certification of coconut sugars production has not yet started in those eight villages, therefore income effects from the intervention are unlikely to exist during the first wave. This is described below in table 3.

Table 3: Current Status of the Intervention per Village

Village	Status of Intervention
Gawang	Not yet started
Gembok	Not yet started
Klepu	Not yet started
Klesem	Not yet started
Mantren	Not yet started
Sawahan	Not yet started
Sendang	Not yet started
Sidomulyo	Not yet started

3.4 Poverty Rate of Households using PPI

The Poverty Rate of Households using PPI is given below.

Table 4: Poverty Rate of Households using PPI

	Nr. Obs	mean
100% National Poverty Rate	155.00	7.18
150% National Poverty Rate	155.00	37.77
$2.5 2005 PPP Poverty Rate	155.00	70.84

4 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 will be discussed later, these quintiles then were used to split the sample and understand information about different quintile levels.

Table 5 shows the division of the total expenditure per capita in quintiles. The first expenditure quintile group has total average expenditure per capita between of 323'228 IDR per month while the highest expenditure quintile has average expenditure per capita of 1,178,970 IDR per month.

Table 5: Per Capita Expenditure per Quintile in IDR per Month

	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

4.1 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.

4.1.1 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. The number of household members for a household is important because it determines the capacity to perform productive activities. In the sample are households with no children and households with up to three children (children are defined as persons less than eighteen years old). An average household has 0.7 children. The average number of elderly persons in a household is 0.5 while the range is from 0 to 3. Elderly people and children were mentioned here separately because they often less productive and contribute less to the household income.

Table 6: Household Characteristics

	Nr. Obs	mean	sd	min	max
HH Size	200.00	3.50	1.26	1.00	7.00
Nr Children	200.00	0.69	0.75	0.00	3.00
Nr Elderly	200.00	0.45	0.66	0.00	3.00

On average 49% of the household members are female and average age is 39.5 years as can be seen in table 7. However, most of the households are male headed with 7.8% female headed households as shown in table 8.

Table 7: HH Member Characteristics

	Nr. Obs	percent
Female Dummy	689.00	0.49
Age	700.00	39.41

Table 8: Female Headed HH

	Nr. Obs	percent
Female Headed	193.00	7.77

4.1.2 Education

Education is an important human asset because it relates to the capabilities of a person which affect the productivity of a person's activities. Also, education is often seen as a pathway out of poverty. In the sample 92.5 % of the household members over fifteen years report being able to read and write while 92.1 % report that they ever went to school (table 9).

Table 9: Education of People 15 Years or Older

	Nr. Obs	percent
Can Read and Write	583.00	92.45
Ever Went to School	582.00	92.10

Literacy is high (table) 10 where 95% of the boys aged between seven and fifteen report being able to read and write while the percentage for girls is higher with 100%. Also the percentage of children going to school is higher than it used to be. 100% of boys report that they went to school and 97.6% of the girls aged between seven and fifteen years report that they went to school.

Table 10: Education of Children 7-15 Years

	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

School enrolment for girls and boys is highest between the age of six and eight years while 100% report going to school (table 11). While 100% school enrolment for boys is reported to stay at 100% until the age of 14 years old girls report lower enrolment rates. For the age group of nine to eleven years 91% of girls report school enrolment and for the age group twelve to fourteen years 94.7% school enrolment was reported. For older girls and boys this relationship changes and school enrolment for girls is higher. For the age group fifteen to eighteen school enrolment rates for boys is 66.7 % and for girls 87.5% while school enrolment rates for boys is 13.3% and 33.3 % for girls for the age group of nineteen to twenty-two.

Table 11: School Enrolment by Age Group

	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

School enrolment by expenditure quintile is presented in figure 1. Enrolment is lowest for the lowest expenditure quintile with 83.3%. The trend is increasing for higher expenditure quintiles, while the second quintile is an exception with 100% school enrolment. Enrolment for the highest expenditure quintile lies at 88.2%.

Figure 1: School Enrolment of Children 7-18 years by Quintile

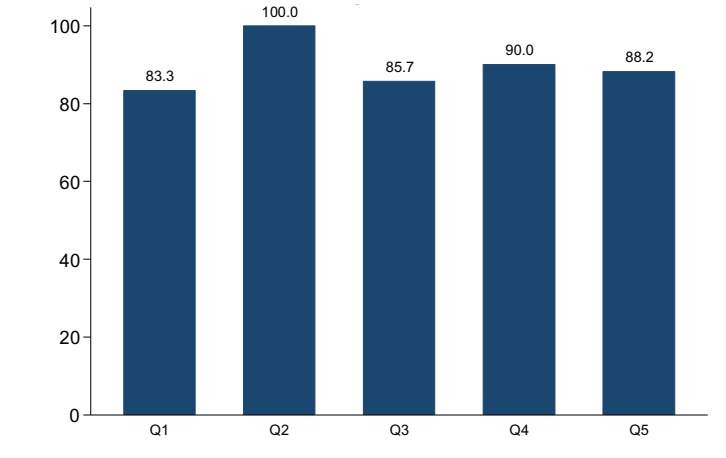
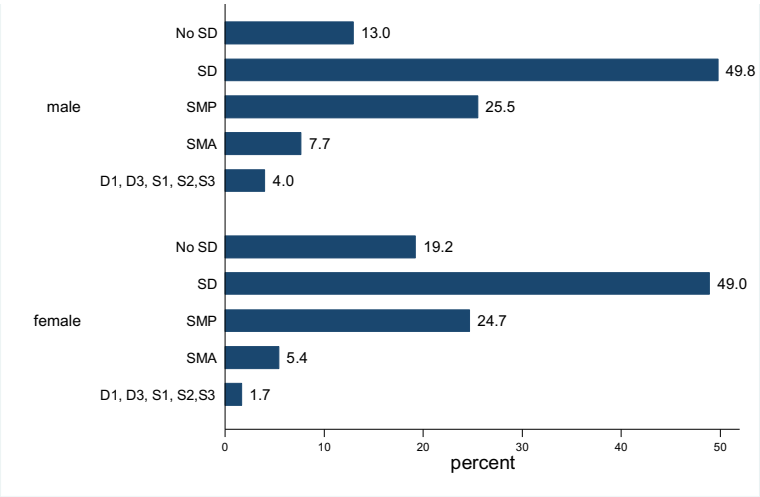


Figure 12 shows gender disaggregated data for the highest education achieved by people over 25 years. 13% of the men did not finish primary school (SD) while this percentage is 19.2% for women. Primary school is the highest educational achievement for 49.8% of men and 49% of women. 25.5% of men report having a junior high (SMP) school degree as highest education while this is reported by 24.7% of the women. Senior high school (SMA) is reported by 7.7% of men and 5.4% of women to be the highest educational achievement.

Higher education was reported by 4% of the men and 1.7% of women. Taken together women tend to have a lower educational status than men for people aged over 25 years.

Figure 2: Highest Education of persons 25+ years



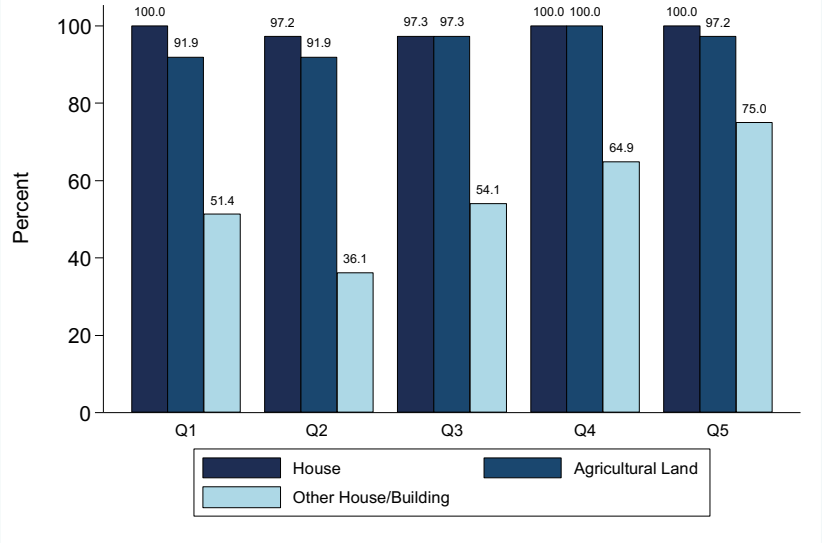
4.2 Physical Assets

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. The following components of infrastructure are usually essential for sustainable livelihoods: affordable transport; secure shelter and buildings; adequate water supply and sanitation; clean, affordable energy; and access to information (communications). This section will focus on housing, household, agricultural assets as well as livestock holdings.

4.2.1 Housing, WC, Electricity and Water

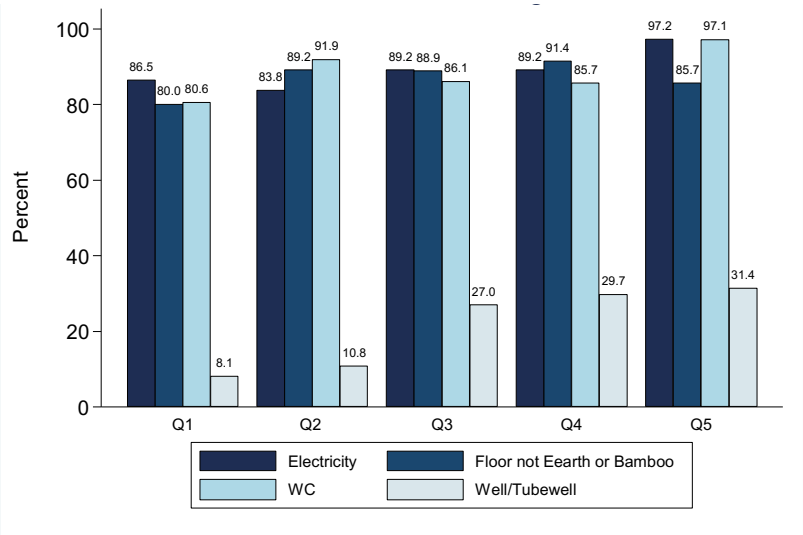
Most household mentioned the house as the most important asset as it is the place where daily activities take place and is necessary for life. Quantitative data demonstrates that most households possess a house for all expenditure quintiles (figure 3). Also most households hold agricultural land for all expenditure quintiles (91.9-100%). The trend, however, is increasing for expenditure quintile. The possession of other houses or buildings generally increases with expenditure quintile.

Figure 3: Assets - House and Land



Housing conditions are better for higher expenditure quintiles. 86.5% of the households in the lowest expenditure quintile report having electricity while this is 97.2% in the highest expenditure quintile. Similarly, the trend to use flooring materials other than earth or bamboo is increases with expenditure quintile. Overall 80-91% of households report having flooring material other than earth or bamboo. Possession of toilet facilities in the home is more frequent in higher expenditure quintiles reaching 97.1% for the highest quintile. Fewer households report having a well or tube well. This measure has quite a large range - reaching 8.1% for the lowest expenditure quintile and 31.4% for the highest expenditure quintile.

Figure 4: Assets - Housing



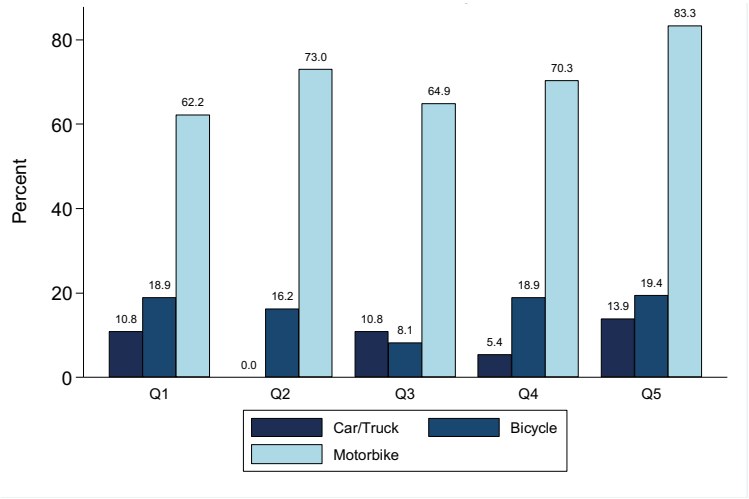
4.2.2 Transport

Most common mean of transportation for the target group is the motorcycle as is reflected in the data shown in figure 5. Over 60% of all households have motorcycles regardless of expenditure quintile. The probability that a household has a motorcycle, however, increases with expenditure quintile reaching 83.8% for the

highest quintile. Motorcycles were reported to be important for mobility during qualitative data collection. Not only for human transportation but also for transporting agricultural products (for instance to the market).

Less frequent are households that own cars, trucks or bicycles while 0-19% of the households report having those items in different expenditure quintiles. However, no clear correlation appears to exist between possession of those items and expenditure quintile.

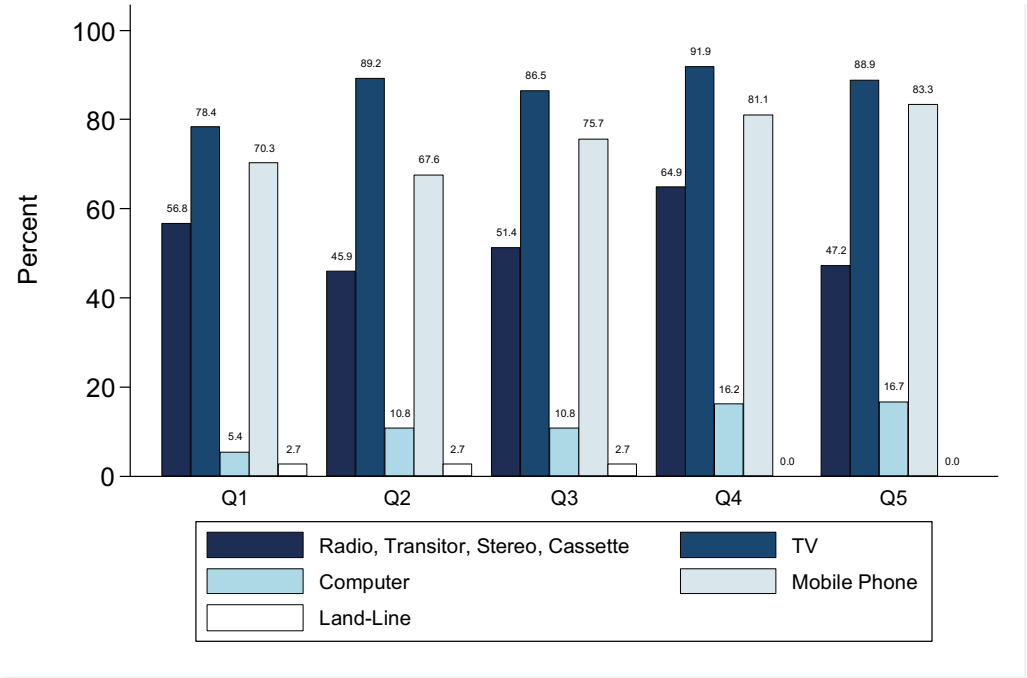
Figure 5: Assets - Transport



4.2.3 Communication

No clear correlation is visible between radio, transition, stereo, cassette and expenditure quintile as shown in figure 6. TV possession increases by expenditure quintile – ranging from 78.4% at the lowest and 88.9% at the highest reporting possessing a TV. Similarly, the probability of having a computer is higher in higher expenditure quintiles, however on a lower level. Only 5.4% of the households in the lowest expenditure quintile report having a computer while this rises to 16.7% for the highest expenditure quintile. Mobile phones are more widespread, with 70.3% of households reporting having a mobile phone in the lowest expenditure quintile with 83.3% of the households report having a mobile phone in the highest quintile. Lower expenditure quintiles more households report having a land-line than higher expenditure quintiles. There may be a trade-off between whether to have a mobile phone or land line, with people with higher total expenditure per capita choosing mobile phones.

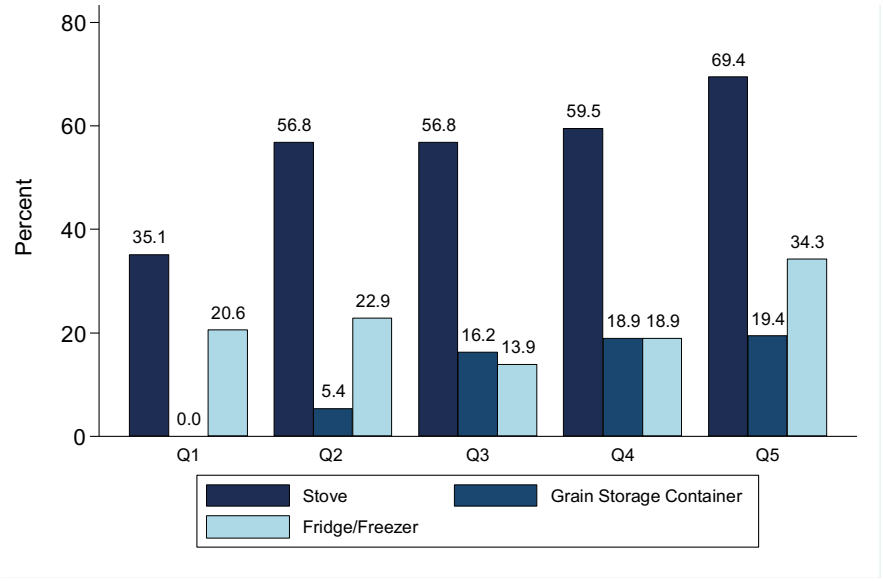
Figure 6: Assets - Communication



4.2.4 Storing and Kitchen Assets

The probability of kitchen asset possession is correlated positively with the expenditure quintile (figure 7). Possession of stoves, storage containers, fridges and freezers are all more frequent in higher expenditure quintiles. Stoves, however, are more common than the other two items. While 35.1% of households have stoves in the lowest expenditure quintile, 69.4% of households in the highest expenditure quintile have a stove. This is relevant as possession of a stove is crucial to being able to process coconut sugar. Grain storage (resp. fridge) are both less common and 19.4% (resp. 34.3) of households report having these items.

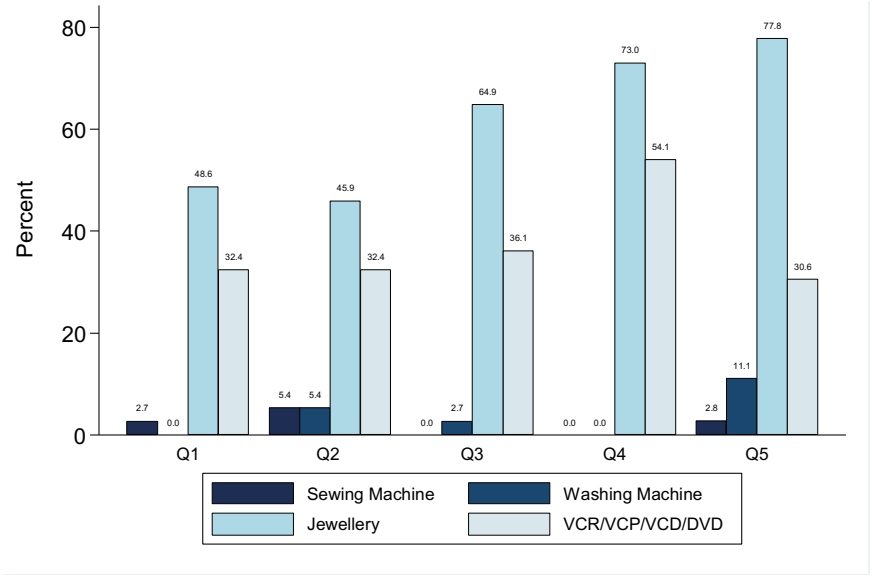
Figure 7: Assets – Kitchen and Storage



4.2.5 Other Household Assets

Other household items such as jewellery and VCR, VCP, VCD and DVD are more common with households with higher expenditure quintiles (table 8). Sewing machines and washing machines are not very often owned by all expenditure quintiles.

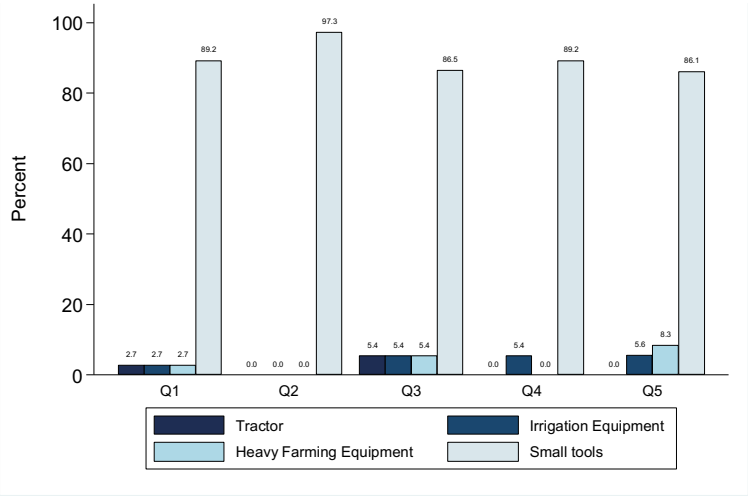
Figure 8: Assets - Other Household Items



4.2.6 Agricultural Assets

Agricultural equipment such as owning a tractor or irrigation equipment was not found to be common in the sample. Small agricultural tools however, are widely possessed by most of the households as shown in Figure 9.

Figure 9: Assets – Agricultural Items



4.2.7 Livestock

As can be seen in tables 10, 11, 12, and 13 (below), holding buffaloes, horses, pigs, ducks and fish is not common for the sample. Holding cows, goats, sheep and chickens, however, are common in the sample. For

holding livestock no correlation can be detected in relation to expenditure quintile. This holds in terms of the percentage of households having livestock and for the amount of livestock possessed by the households.

Figure 10: Livestock ownership by quintile (cows, horses, buffalos)

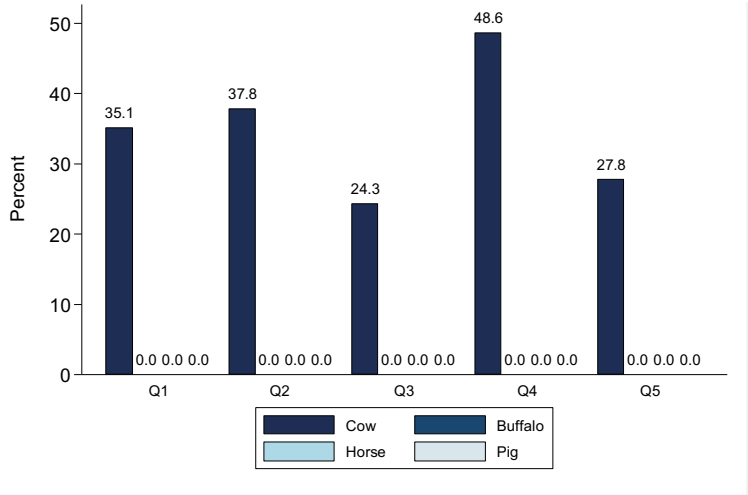


Figure 11: Amount of Livestock ownership by quintile (cows, horses, buffalos)

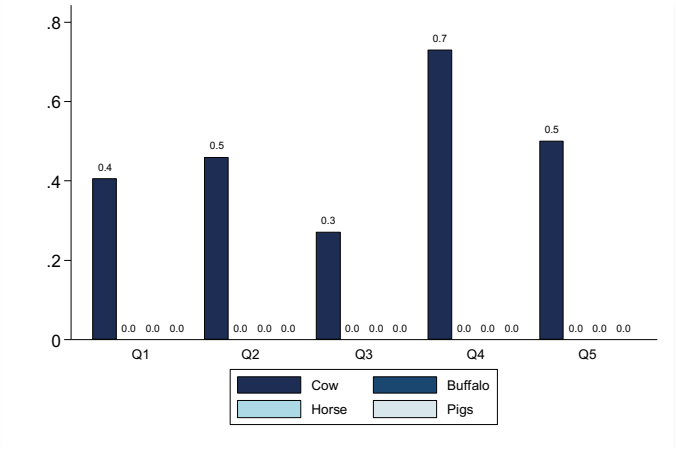


Figure 12: Livestock ownership by Quintile (goat/ sheep, ducks, chicken, fish)

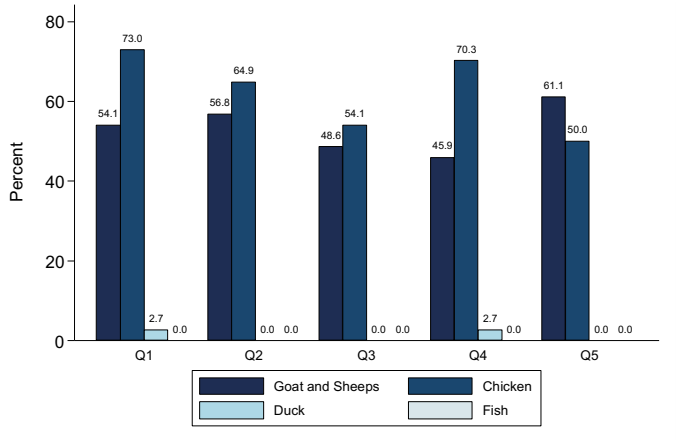
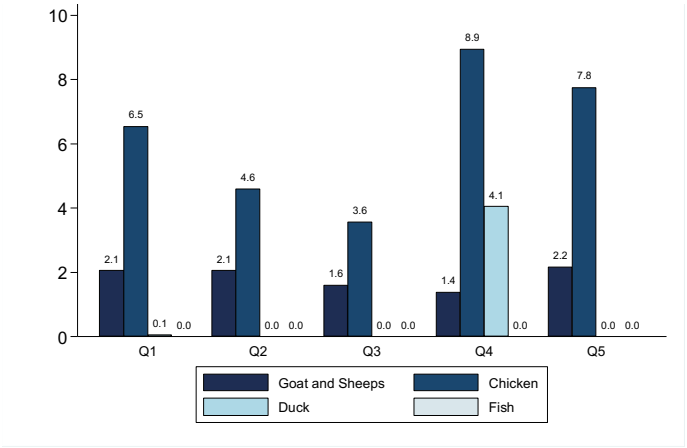


Figure 13: Amount of Livestock ownership by Quintile (goat/ sheep, ducks, chicken, fish)



4.3 Natural Assets

Land is typically classified as natural asset. As was already seen in figure 3 more than 90% of the households have agricultural land holdings while the percentage has the tendency to be increasing with expenditure quintile. As shown in figure 14 the amount of hectares of land owned by a household is also higher for higher expenditure quintiles. The highest expenditure quintile reports on average 1.7 hectares.

A crucial part of the value of natural assets is whether households can produce from their land. Figure 15 presents the percentages of owned (and received) food of total food consumption. As can be seen, higher expenditure quintiles tend to consume more food produced on own land (or received from third parties).

Taken those two graphs together, one might say that higher expenditure quintiles have more natural resources and can rely more on their own land for food production.

Figure 14: Land Holdings by Quintile

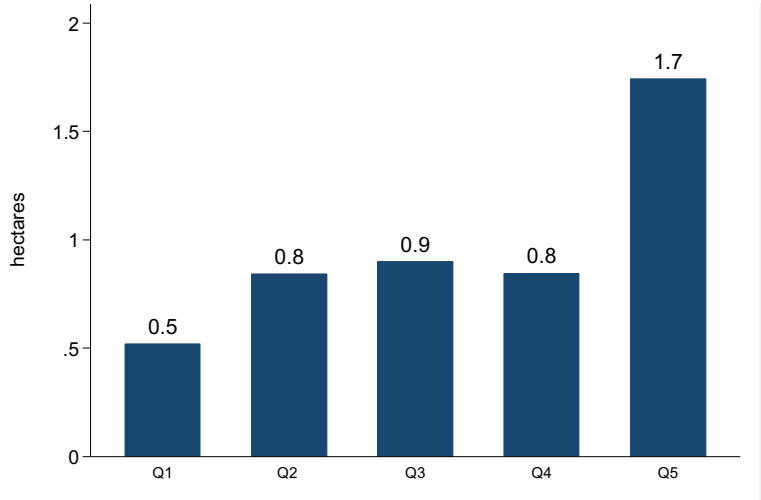
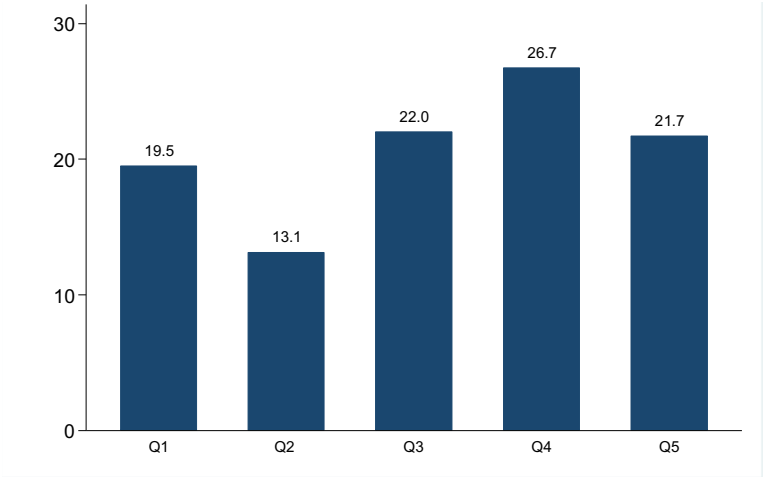


Figure 15: Own food production/ received food as percentage of total consumption



4.4 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.

4.5 Financial Assets

Saving can be considered a financial asset. While borrowing may not be considered as a financial asset it does indicate a level of access to credit which can be seen as a valuable asset. Figure 16[1] indicates that saving and borrowing is more common in higher expenditure quintiles. While the lowest expenditure quintile exhibits only 5.4% of households saving money, some 41.7% of households report having savings in the highest expenditure quintile. Similarly, 21.6% of households report borrowing money in the lowest expenditure quintile while this percentage rises to 47.2% in the highest expenditure quintile. In terms of amount the lowest and highest expenditure quintiles report higher IDR values of saving and borrowings than the second, third and fourth expenditure quintile (figure 17).

[1] Data of savings and borrowings was not always conclusive since it was contradicting. Therefore, results might be considered with caution.

Figure 16: Saving and Borrowing percentage by Quintile

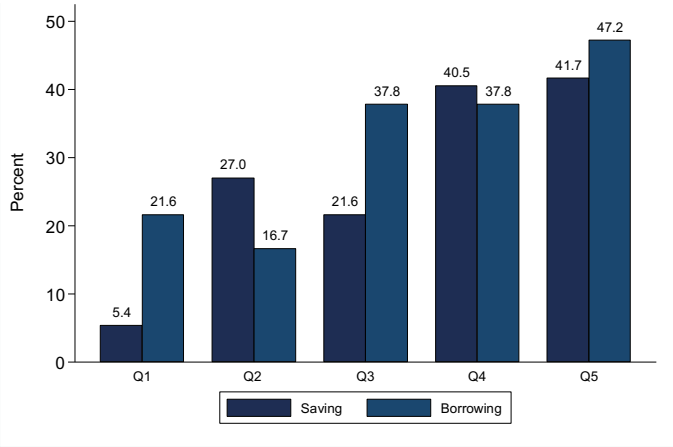
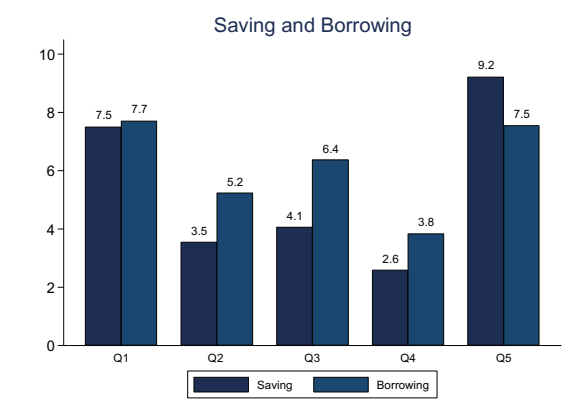


Figure 17: Saving and Borrowing by Quintile - total amount in IDR)



Households report savings where they have 'spare' money (as discussed during qualitative data collection), while different forms of savings were reported. Some households save at formal institutions like banks, village koperasi (cooperatives) or *arisan* (village level, group-based savings and lending fund) while others keep their cash money at home. Other households explain that they consider gold and livestock to be savings. Storing coconut sugar as a form of saving is not found to be applied by the farmers, because the income from coconut sugar is needed for daily expenditure and because they are afraid that it might affect product quality. Some households explain that saving at the bank is convenient as it opens the possibility to get connected to bank officers - a relationship which they feel might help them if they need to borrow money in the future. However, administrative burdens prevent some other households from saving at banks.

Coconut sugar farmers in Pacitan exhibit different ways to borrow money. Some borrow from the bank directly, while other cannot due to lack of collateral or concerns regarding interest and payment schedules. Also borrowing from local *koperasi* and neighbours is common. Another form of borrowing is when the coconut farmers get food from the *warung* (local restaurants) and pay back in the form of coconut sugar once they have collected enough product. This seems to be a very important way of borrowing for coconut farmers since it allows them to get nutrition even if they do not have enough money or coconut sugar to buy the food. This form of saving was mentioned repeatedly by households even if it probably is not reflected in figures 16

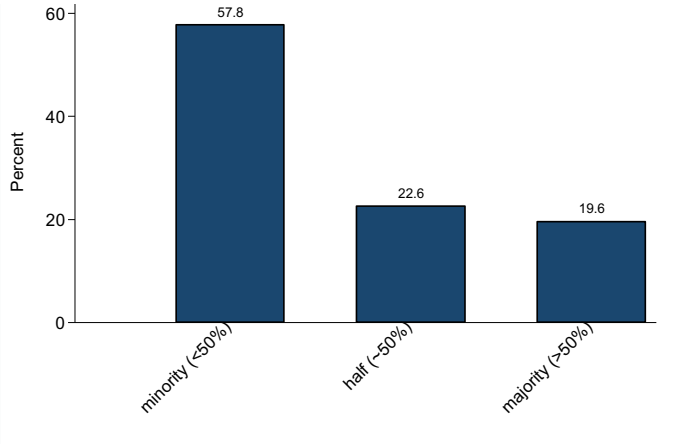
and 17. Also school fees are sometimes deferred and paid later. This seems to be common and accepted way of borrowing money.

5 Income Generation

Regarding income generation, as can be seen in figure 18, most of the households in the sample generate less than half of their income with agricultural and livestock activities. Some 57.8% of households report earning less than half of their income with agricultural or livestock activities with only 22.6% stating that they earn around half of their income with agriculture or livestock activities. One fifth (19.6%) report that the majority of their income comes from agriculture and livestock activities.

The income not earned from agriculture or livestock activities appears diverse. During qualitative data collection farmers explained that sources include causal work in the city or with neighbours. Fishing was also mentioned. Generally, this is highly gendered where the husband engages in these activities outside the village or in different cities while the wife stays in the village.

Figure 18: Agricultural and Livestock Income generation

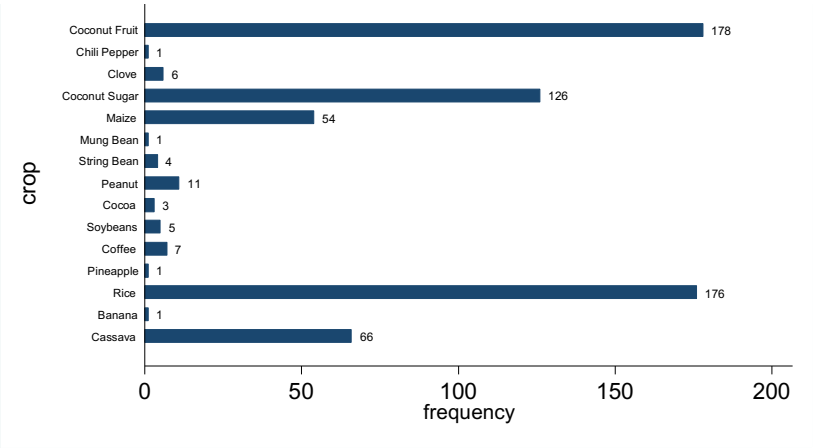


5.1 Agricultural Activity with Focus on Coconut Sugar

Agricultural activity of the households is also very diverse and households report various crops to be one of their three most important in terms of income. Coconut sugar is included here for all farmers which have coconut sugar production independently if it is one of the three most important crops in terms of income or not. This is relevant as only households were considered in the sample which tapped coconut sugar or owned a coconut tree (thereby having production potential).

Coconut fruit and rice were mentioned as one of the three most important crops by the majority of the households, while 178 households reported coconut fruit to be important with 176 reporting rice to be important. Coconut sugar is tapped by 126 of the households. Cassava (66 households) and maize (54 households) were also frequently mentioned.

Figure 19: Frequency of Crops mentioned as one of the three most important crops (in terms of income)



Rice (151 households), coconut fruit (58 households) and cassava (38 households) were often reported to be used for self-consumption. However, coconut fruit and cassava is also used for selling as can be seen in figure 20. 109 households reported that they mainly sell their coconut fruits and 23 households report that they mainly sell their cassava. Coconut sugar is also reported to be mainly used for sale (111 households).

Figure 20: Crops for Self-consumption (reported no selling)

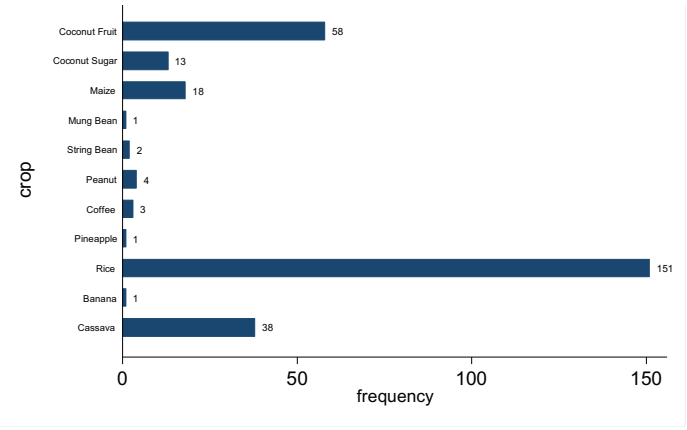
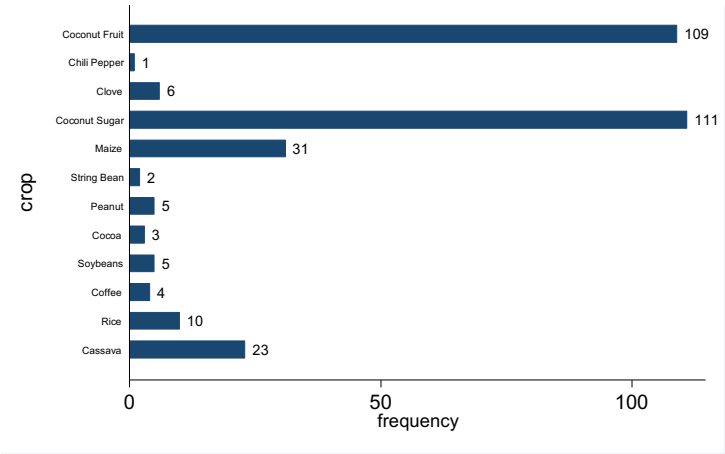
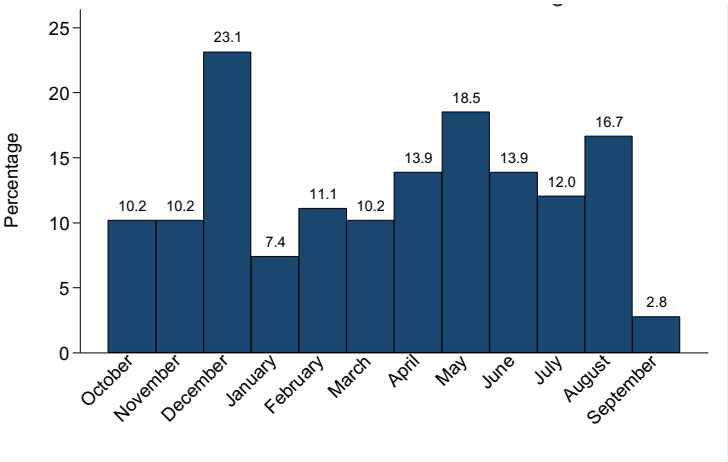


Figure 21: Crops which are mainly sold (reported 50%+ sales)



As can be seen in figure 22, December as well as April until August are the months when households sell agricultural products most frequently (not including coconut sugar and coconut fruit).

Figure 22: Sales of crops other than coconut fruit and sugar (by calendar month)



As discussed previously, a coconut tree can either be used for coconut sugar production or for coconut fruit production or both at the same time. Harvesting the sugar however will have a negative impact on the fruit production side. Therefore, a household generally chooses whether the priority lies on the production of coconut sugar or fruit. Most coconut sugar producers interviewed explained that they choose to produce coconut sugar because it is more profitable than coconut fruit. Moreover, coconut sugar is a very regular (daily) income source, while coconut fruit can be only harvested 2-3 times per year. That coconut sugar is a very regular income source can also be seen in figure 23. Households selling coconut sugar report selling coconut sugar each month. As can be seen in figure 24 households report selling coconut sugar less frequently.

Figure 23: Sales of Coconut Sugar (by calendar month)

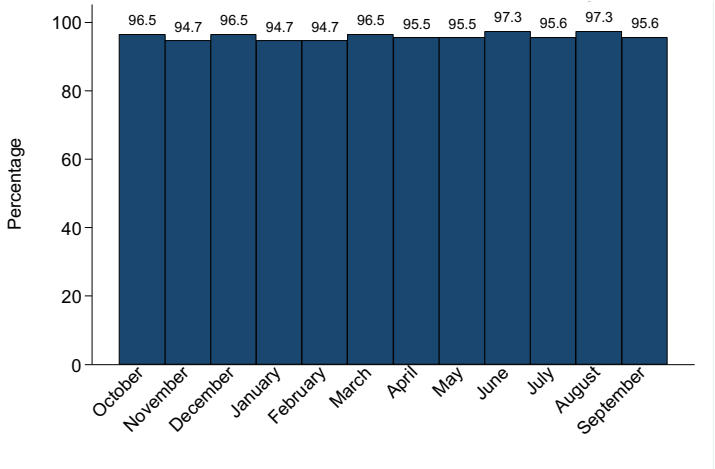
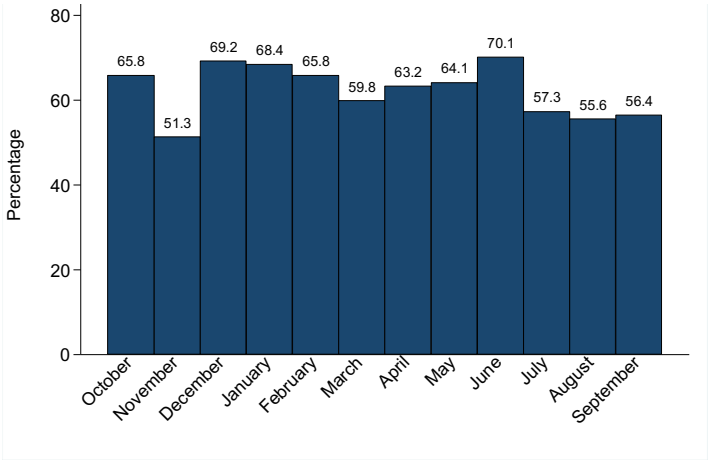


Figure 24: Sales of Coconut Fruit (by calendar month)



Qualitative data indicates that some households would like to tap the *nira* (coconut tree sap) but they do not have anyone in the household who can tap the tree or the tree climber is only one strong enough to climb some but not all trees that could be tapped by the household. As another reason mentioned for not tapping the tree includes lack of knowledge and experience. Other households report that they lack a person who can take the sugar but hire neighbours to tap the sugar for them.

As can be seen in table 11, the percentage that coconut sugar income contributes to total household income is higher than the coconut fruit income for the households interviewed. Coconut sugar contributes 28% on average to total household income while coconut fruit is reported to contribute 16% to total income.

Table 12: Income Earned with Coconut Fruit and Coconut Sugar

	Nr. Obs	mean
Percent of Total HH Income Earned with Coconut Sugar	118.00	28.30
Percent of Total HH Income Earned with Coconut Fruit	167.00	16.35

Even though coconut sugar is a steady income source *nira* (coconut tree sap) production by the coconut tree is not reported to be steady. During dry season the trees do not produce as much *nira* as during the wet season. This is related to the fact that coconut trees receive less water and therefore are less productive in producing *nira*. Some trees reduce their sugar production to an extent that coconut farmers choose not to tap the tree anymore during dry season because the effort is not worth it (qualitative data collection).

Most households have the option to sell coconut sugar in the local market or in local shops/ restaurants (*warung*). While most households report higher selling prices in local markets, the *warung* are more accessible because they are nearer from the households living place. Whether households sell their sugar in local markets or to local restaurants depends whether they have a means of transportation. Some report that transportation would be more expensive than what they would gain when selling to *warung*. The location of sales also depends on the amount of coconut sugar they have to sell, which in-turn depends on their frequency of selling. However, most report selling between every 2 to 10 days. Also, selling to the *warung*

could be promising for some households if they use it to create relationships with the *warung* owner. If they lack money, they might be able to get free food from the *warung* and pay back later. Also they can trade coconut sugar directly for food. When selling to the local market farmers usually sell every *kliwon* (the name of a day in the 5-day Javanese week).

A minority of farmers report having local traders in their neighbourhood. If they want to sell the sugar they ask the traders to come and pick it up. For those having this option it seems the most convenient way to sell sugar. These households, however, also report giving commission to the traders.

Therefore, the moment of selling is determined by their needs. If they urgently need money households tend to sell all they coconut sugar they have. They do not store coconut sugar and sell all at once. Farmers also report that the price of coconut sugar is very important to them since it directly determines their incomes. Even though prices of coconut sugar fluctuate, and farmers know that, they mostly sell even if the prices are low because they rely on the income for daily household needs (as will be discussed later in more detail).

Since income from coconut sugar is needed for daily household expenditure they often cannot postpone selling to realise better prices. Prices fluctuate around 7'000- 10'000 IDR per kilo. When selling to *pasar* (local traditional market) they are around 2'000 IDR higher than when selling to *warung*. Prices are highest during Ramadan and lowest shortly before the rainy season starts (from qualitative data)

Income from coconut sugar is mostly generated jointly by male and female household members. While the men generally climb trees, the women cook the coconut sugar. Men and women are reported to engage in selling produce. As can be seen in table 12 men and women are almost equal decision-making power regarding the selling of coconut sugar.

Table 13: Female Decision Making Power and Engagement in Coconut Sugar Activities

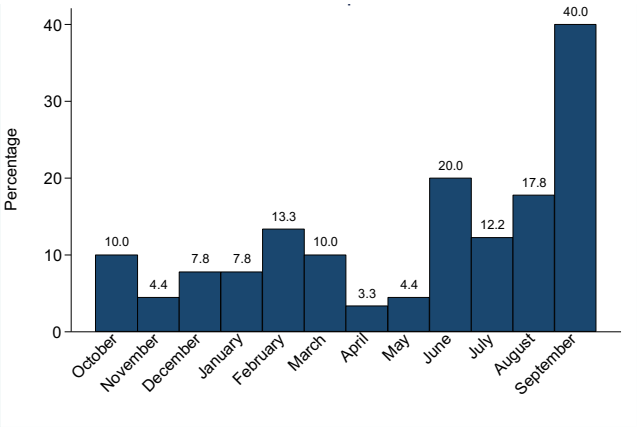
	Nr. Obs	mean
Most important decision maker in HH is female: Selling Coconut Sugar	109.00	49.54
Second important decision maker in HH is female: Selling Coconut Sugar	105.00	54.29

Climbing trees is generally considered as a dangerous task (especially if it is wet and the trees are slippery in rainy season). Consequently, men in the household are often responsible for climbing trees while the women are mainly responsible to cook the sugar. Where no male household member is available the households have systems where they share produce from the tree with their neighbours. They hire the neighbour to tap the coconut sugar from the tree and also share the coconut sugar with the neighbour (*bagi hasil*). One day the coconut sugar produced belongs to the household and the next day it belongs to the neighbour.

5.2 Livestock Activities

As was seen in the physical asset section, households interviewed hold different livestock with chickens, cows, goats, and sheep are common. Some 40% of the households reported selling livestock in September (the highest in the year) - this might be related to the fact that September is the month when most weddings take place (figure 25).

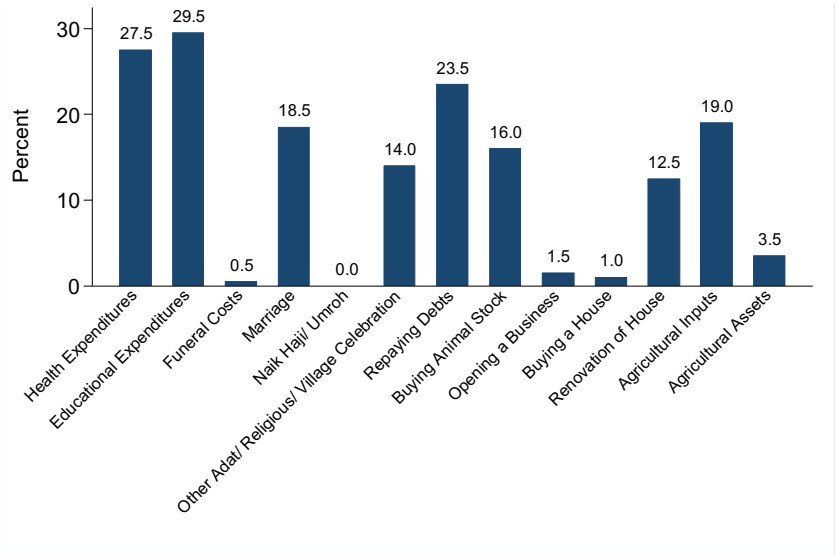
Figure 25: Sales of Livestock (by calendar month)



6 Expenditure and Financing Expenditure

Different expenditure are reported to be financed in various ways. Figure 26 shows expenditure which the households considered to be significant during the last 12 months. Educational expenditure was mentioned to be as significant expenditure by 29.5% of the households. This expenditure is followed by health expenditure which 27.5% of the households consider to be significant. These percentages are followed by repaying debts (23.5% of the households), buying agricultural inputs (19.0% of the households) and marriage (18% of the households).

Figure 26: Significant Expenditure



During qualitative data collection households mentioned food expenditure as the most important for the household. As one farmer said, they can work better and think clearer if they eat enough. Also, investments in food consumption can prevent farmers from becoming sick. While other expenditure can be postponed, consumption of food cannot. Educational expenditure was mentioned as very important as it is aspirational -

seen as allowing children to have a better chance than what parents had. Due to concerns regarding interest rates, bank payments are considered important expenditure, while also donations for the neighbourhood were mentioned as important as a sign of solidarity and tradition.

6.1 Educational Expenditure

Even though tuition fees are low, educational expenditure are considered significant even for children in primary school and junior high school. This is because the households have to pay books and uniforms and other operational costs including for transportation. A s can be seen in figure 27, on average 2.8-6.7% of total expenditure are in education. The share of educational expenditure of the total does not show a strong correlation with expenditure quintiles. Total expenditure on education, however, seems to increase with expenditure quintile (see table 29).

Figure 27: Educational Expenditure by Quintile (percentage)

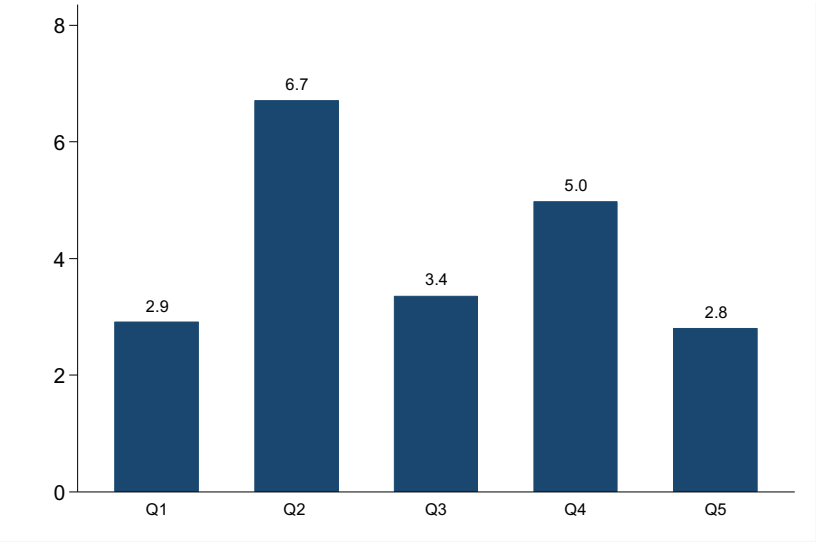


Figure 28: Educational Expenditure by Quintile (IDR)

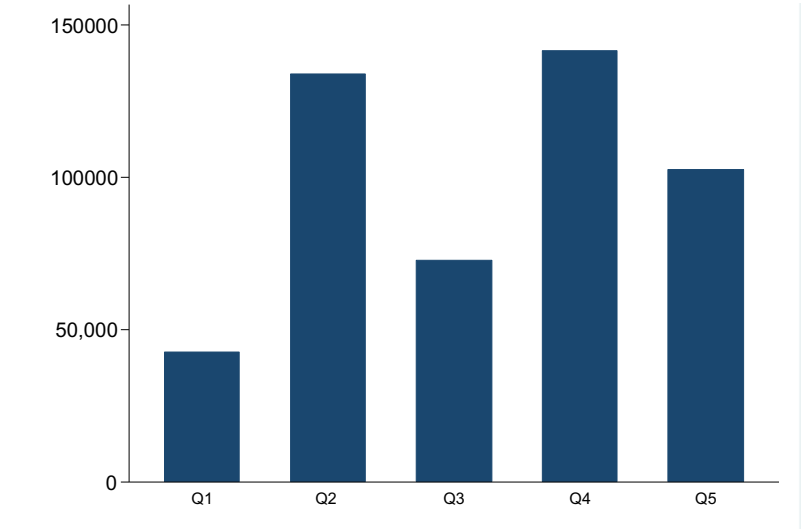
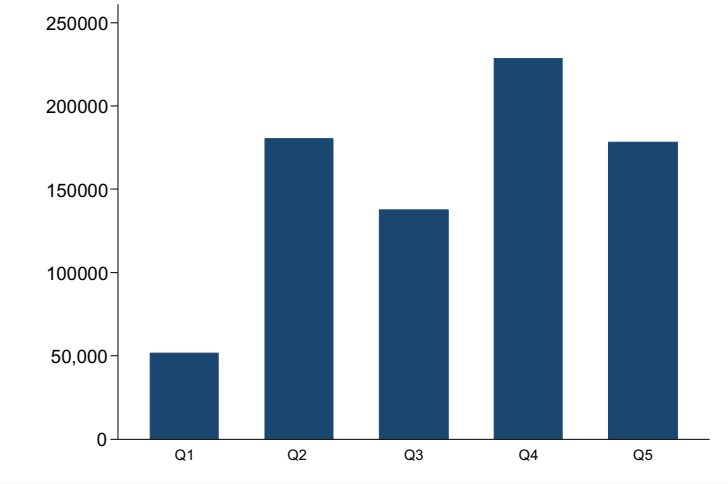
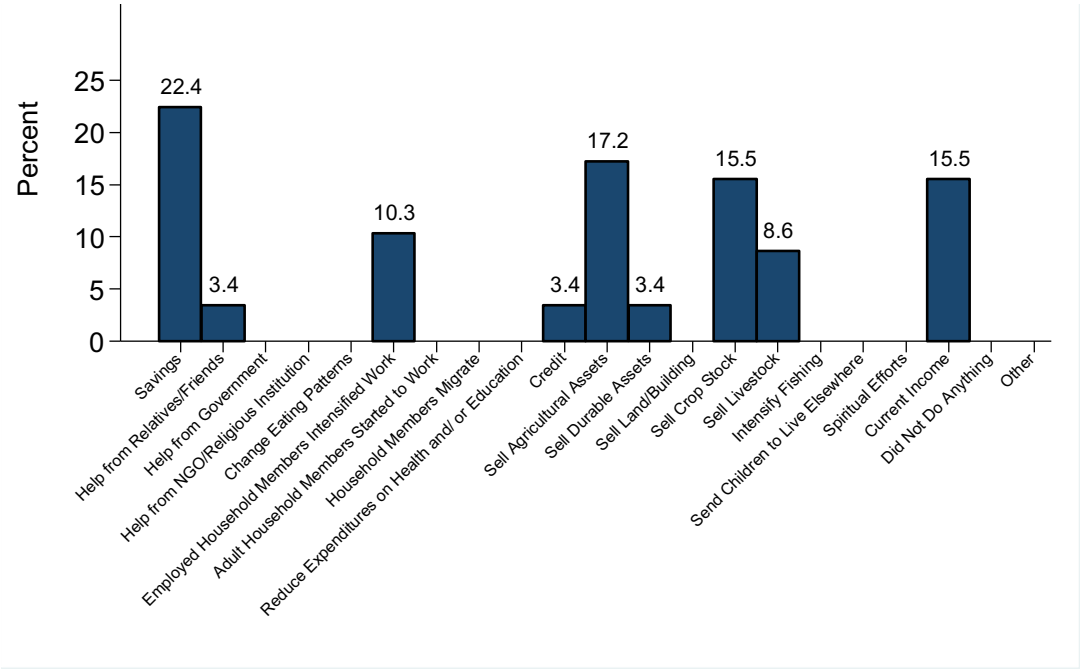


Figure 29: Educational Expenditure by Quintile per child



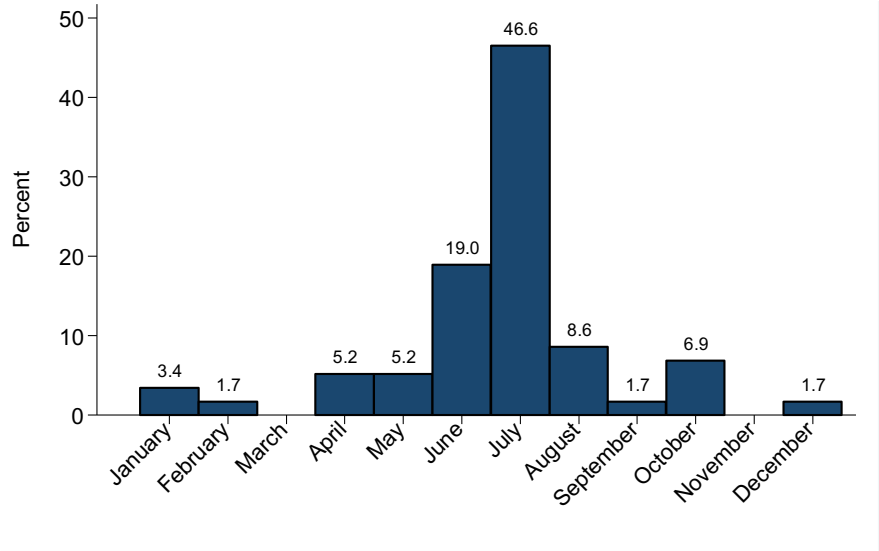
As seen in figure 30, households tend to finance their education with savings, current income and selling agricultural assets as well as crop stocks. Especially the selling of agricultural assets indicates that education expenditure are not always be easy for the households to finance as they even sell agricultural assets to finance education.

Figure 30: Financing Education



As can be seen in figure 31, education expenditure are highest in July. This is the time when the school year starts and most costs need to be met - new uniforms and books need to be bought at the beginning of the school year. Also there are a lot of ceremonies are held during dry season (e.g. wedding) for this ceremonies (from quantitative data) the neighbourhood needs to donate (this will explained in more detail later).

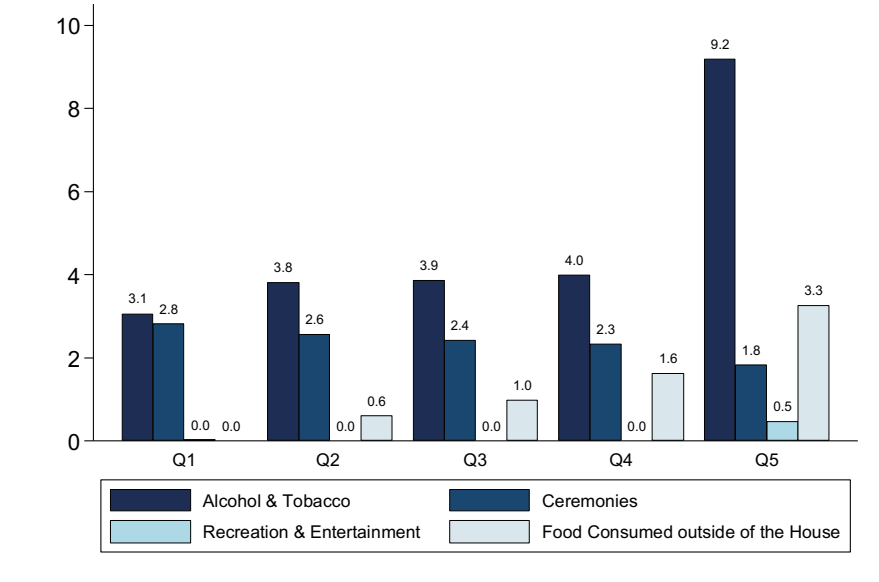
Figure 31: Timing of Significant Expenditure - Education



6.2 Social Expenditure

Consumption of alcohol and tobacco, entertainment and recreation, ceremonies and food consumed outside the house might be considered as social expenditure because they are often generated in a group rather than by individuals. As presented in figure 32, the share of alcohol and tobacco consumption increases with expenditure quintile and reaches 9.2% for the highest quintile. The expenditure share for ceremonies is higher for low expenditure quintiles than for high and is 1.8 for the highest expenditure quintile. The expenditure shares of food consumed outside the house as well as the share of expenditure for recreation and entertainment are higher for higher expenditure quintiles. For the highest expenditure quintile, the expenditure share of recreation and entertainment is 0.5% and the one of food consumed outside the house is 3.3%.

Figure 32: Social Expenditure by Quintile



Also households consider social expenditure as donations and helping neighbours as important, as discussed in qualitative data collection. It is common to donate money to neighbours when they are sick and help them finance ceremonies as weddings or funerals. Such donations are a sign of collaboration in the villages and important for social acceptance. Social pressure is high in the villages which makes it important for the households to afford those expenditure. Also, households identify those expenditure to be important because the recipient relies on those donations from other people. They also consider those expenditure to be important because they themselves also rely on getting help if they get sick or plan a wedding.

As was seen in figure 33 above also expenditure in financing marriage as well as other celebration celebrations are significant for the households. Marriage expenditure are especially due in September while other celebrations are more common in July, August and September.

Figure 33: Timing of Significant Expenditure - Other Adat/ Religious/ Village Celebration

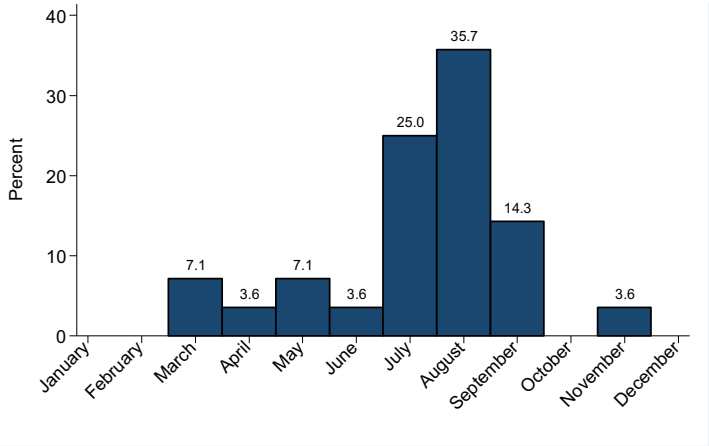
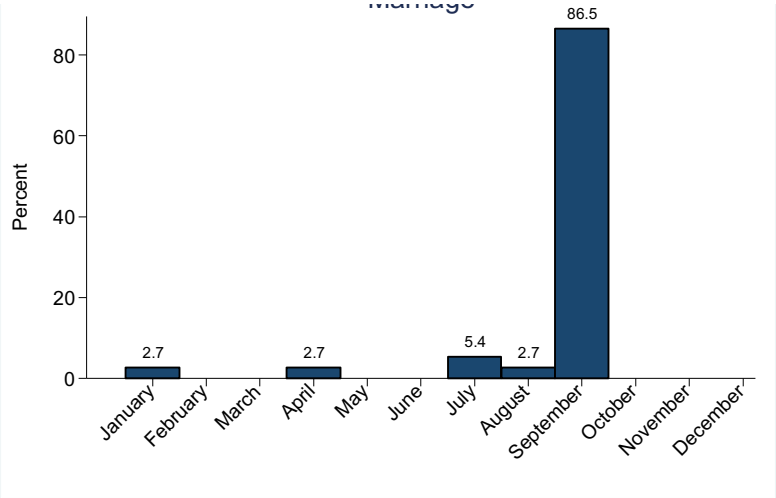


Figure 34: Timing of Significant Expenditure - Marriage



How the households use to finance marriage and other celebrations can be seen in figure 35 and 36. Marriage is reported to be paid mainly through selling agricultural assets and using savings while also selling livestock was mentioned. Other *Adat* celebrations were mainly financed with savings and selling livestock or crops.

Figure 35: Financing Marriage

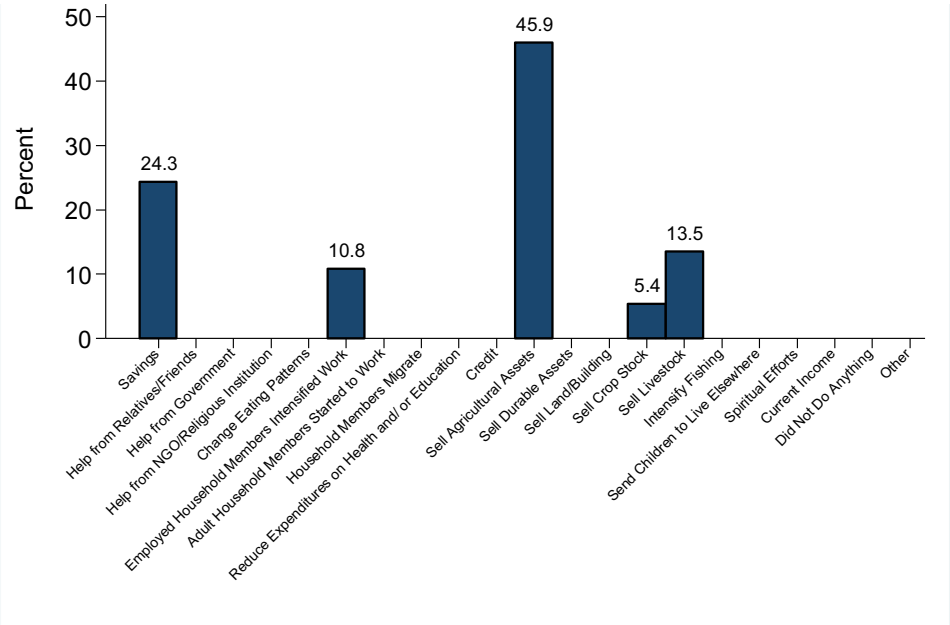
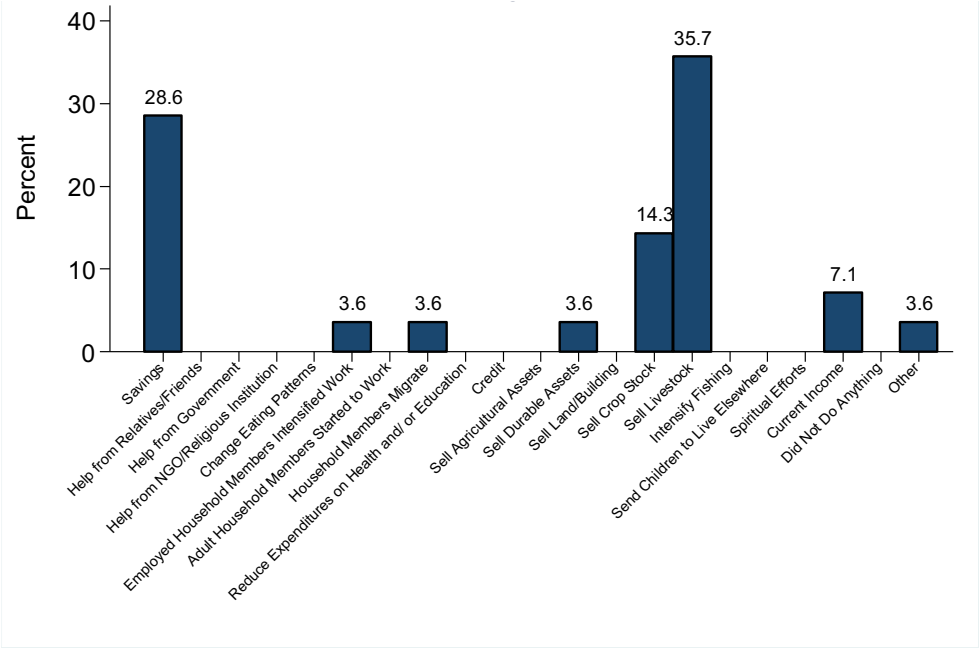


Figure 36: Financial Other Adat



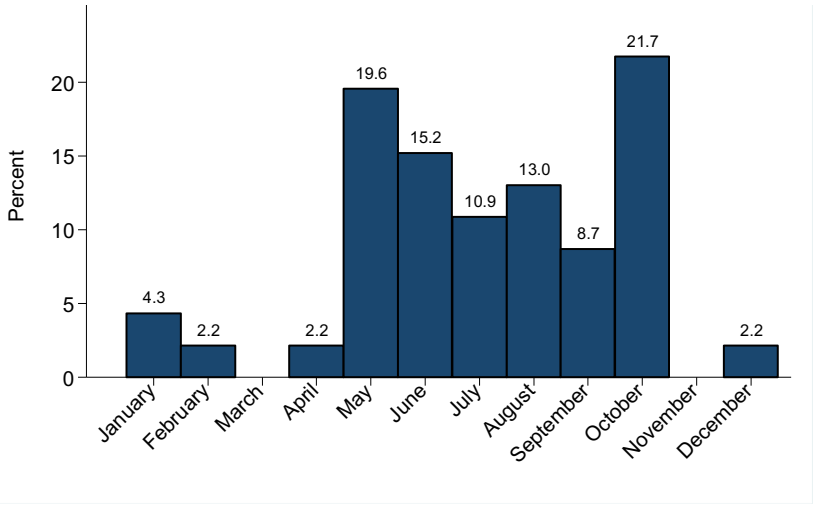
6.3 Agricultural Assets

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.

6.4 Repaying Debt

To pay back neighbours or the bank households seek to wait until the next harvesting season, or wait until they receive money from family members doing casual work in the city (remittances) while others report paying back monthly with their daily income. As can be seen in figure 37, May until October is the month when most debts are paid back. This corresponds to the harvest season of some crops as discussed in section 5.1.

Figure 37: Timing of Significant Expenditure - Repaying Debt



6.5 Food Expenditure

Daily food consumption is regarded as a large expenditure which is financed by daily household income. As can be in figures 38 and 39, the share of food expenditure decreases by expenditure quintile but total expenditure increases. While the lowest expenditure quintile spends 69.1% for food the highest expenditure quintile spends 60.8% on food. As can be seen in figure 39 total value of expenditure in IDR is increasing with expenditure quintile.

Figure 38: Food Expenditure

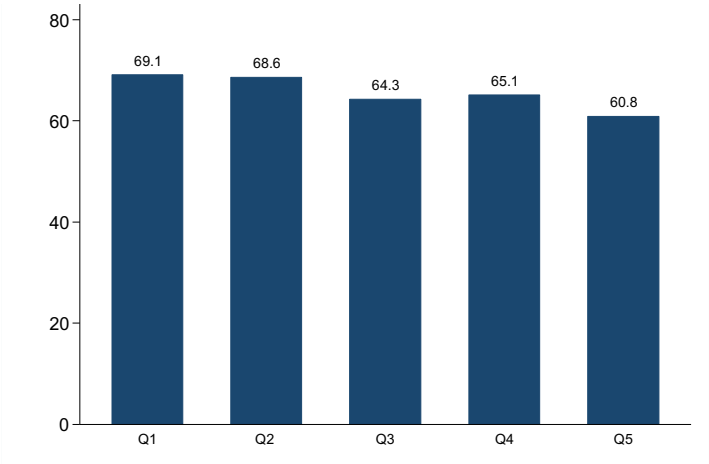


Figure 39: Total Food and non-food Expenditure by Quintile

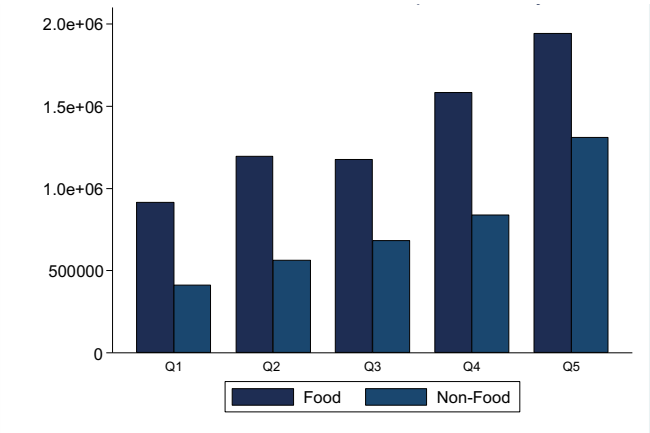
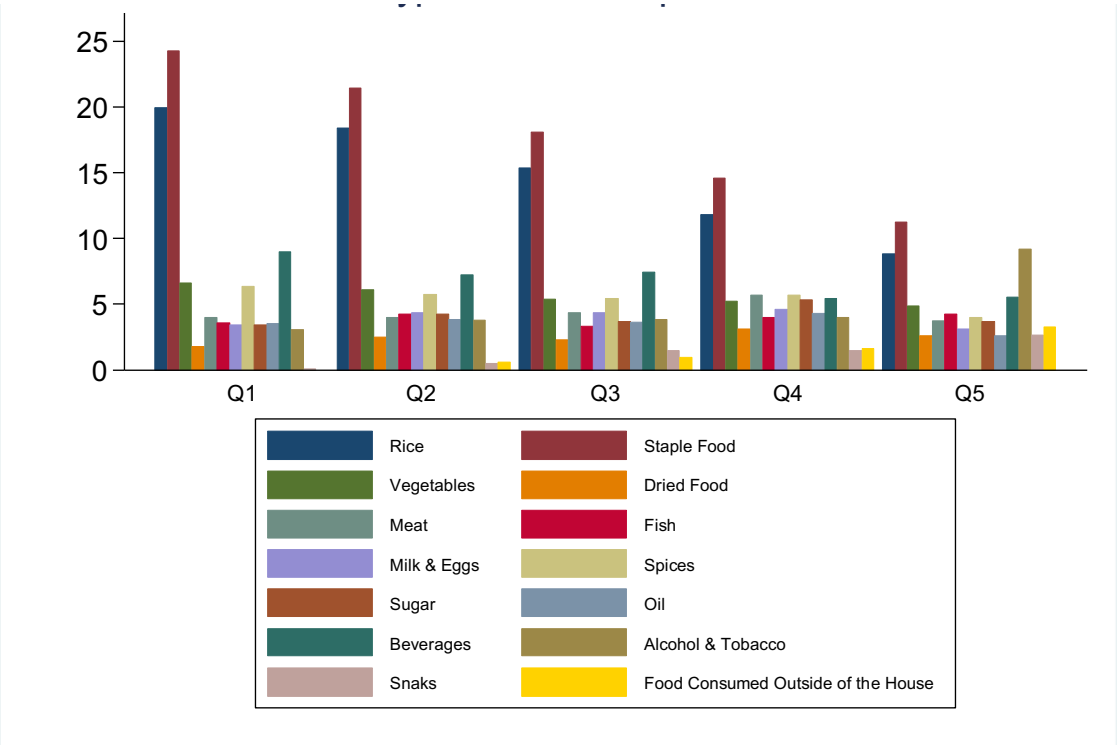
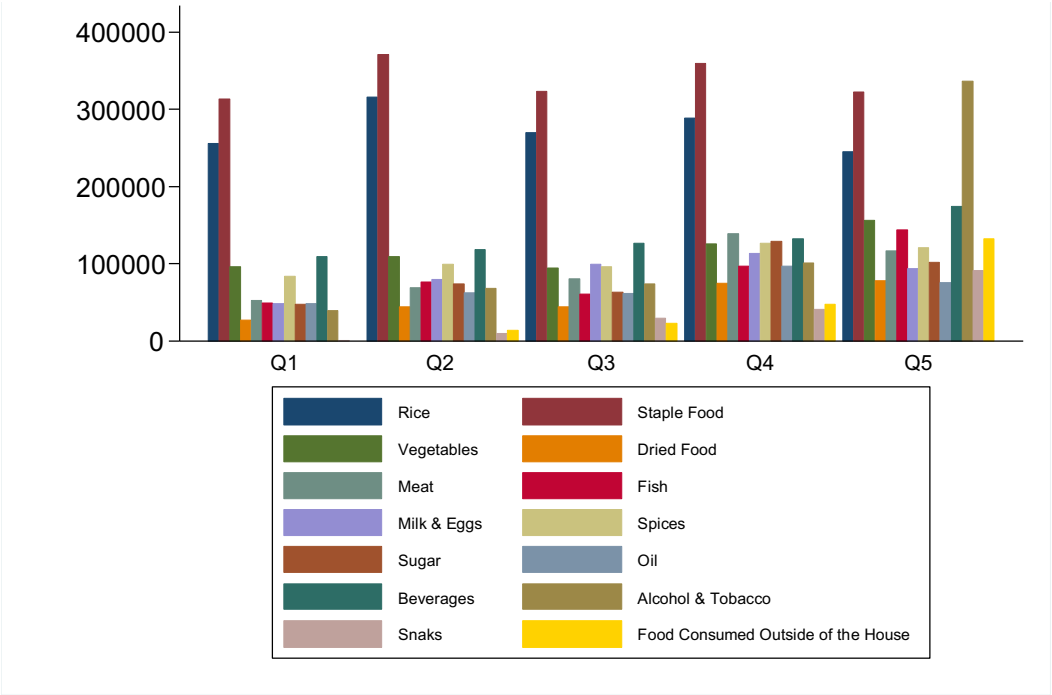


Figure 40: Type of Food Expenditure by Quintile (percentage)



As can be seen in figures 40 and 41 the share of total the share of rice and staple food expenditure decreases by expenditure quintile. Also the total value in IDR decreases with expenditure quintile. Instead, the IDR value of meat and fish consumption is higher in higher expenditure quintiles. This is also true for milk and egg consumption as well as sugar, oil, beverages and alcohol and tobacco. Also food consumed outside the house is higher for higher expenditure quintiles. Taken together this information suggests that higher expenditure quintiles seem to eat more nutritious food as meat, fish, milks and eggs but also consume more items which are not necessarily vital as sugar, snacks, alcohol, tobacco and food consumed outside the house.

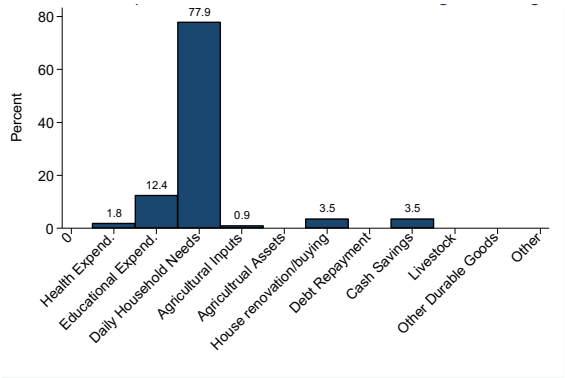
Figure 41: Type of Food Expenditure by Quintile (IDR)



7 Income Use of Coconut Sugar

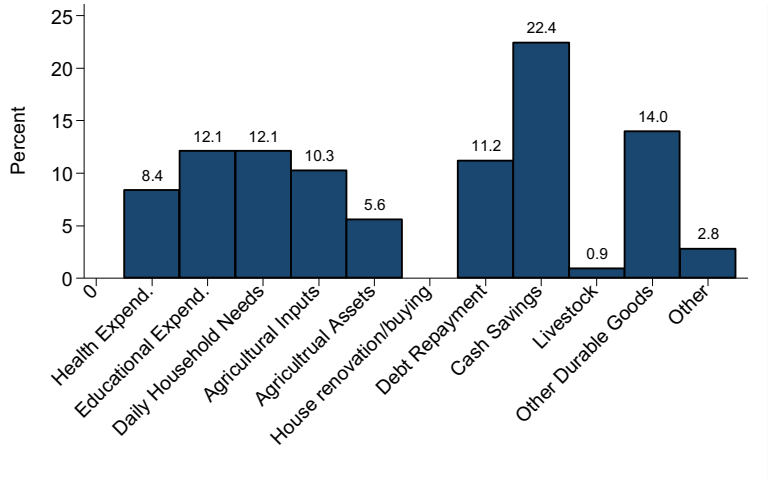
During qualitative data collection the households report using income from coconut sugar for daily household needs which is also reflected in the quantitative data shown in figure 42. Coconut sugar income is generally used (or traded) to buy food and satisfy daily needs. While income from maize, rice and other commodities is tied to specific seasons, coconut sugar can be produced every day yielding income every 2 to 10 days. Households explained that food and other daily household expenditure also needs to be paid in full every couple of days. Therefore, this income source is important for the household as it gives them stability and a more or less fixed income each week to purchase food and satisfy daily household needs. Even though the income from coconut sugar is also volatile (season, price fluctuation etc. as discussed in Section 5) it is less volatile than other income sources.

Figure 42: Most important use of income derived from Coconut Earnings



After daily household needs are satisfied second most important use of earnings from coconut sugar are savings, buying durable gods education etc as shown in table figure 43.

Figure 43: Second most important use of income derived from Coconut Earnings



Figures 44 and 45 show that the use of coconut fruits earnings are used in a similar way. Earnings are mainly used for daily expenditure while second most important use of coconut sugar earnings are savings.

Figure 44: Most important use of income derived from Coconut Fruit Earnings

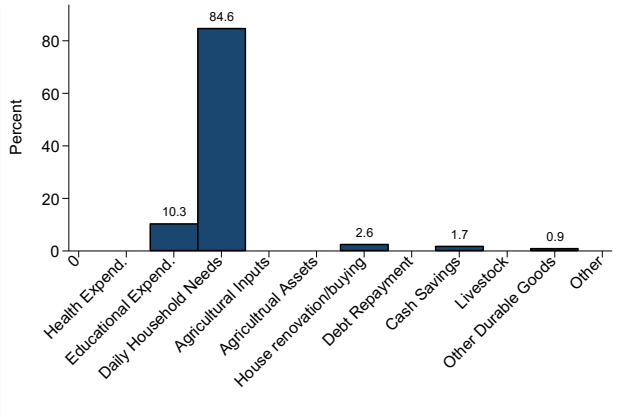
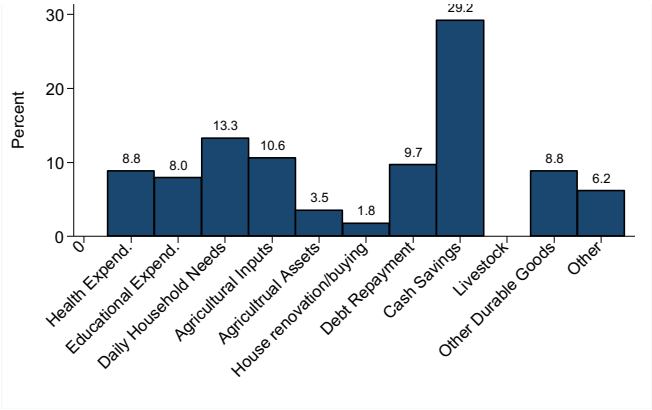


Figure 45: Second most important use of income derived from Coconut Fruit Earnings



Within a household the female household members are mostly entrusted and responsible for household economies and what to use the income from coconut sugar for. This normally is the wife of the household head or the mother if she also lives in the same household. Between these two women the elder has the right to decide what to do with the money (unless already very old). As a reason why female household members are entrusted with the household economics, the division of labour between men and women was often mentioned. Generally, the man generates the income while women spend it for household expenditure. It was mentioned that women have more knowledge on how to manage household finances and about the markets as well as trust were mentioned. However, there were reports of cultural norms which dictate that the wife has to obey and follow the decisions of the husband if she wants to be a good wife. As can be seen in table 13 men and women are generally considered equally important in taking decisions about how to spend the income from coconut sugar.

Table 14: Control and Decision Making Power of Earnings from Coconut Sugar

	Nr. Obs	mean
Most important decision maker in HH is female	107.00	53.27
Second important decision maker in HH is female	104.00	48.08

8 Seasonality and Vulnerability

The households reported generating income at different times, and the rainy season was mentioned as a time when some get most income from coconut sugar (the trees are more productive than in the dry season). However, each household is different. Some reported having most money when they sell livestock or had most causal work which is related to a specific time in the year. When they have most income they also report having most available money.

During the dry season and especially during the end of the dry season during the months of September and October, farmers report that they have least money. Almost all households interviewed during the qualitative data collection reported that they suffer from the especially long dry season. Coconut trees have been producing less coconut sugar and also other commodities cannot be planted because there is no water. This leads to a drop in coconut sugar income and overall income for the year for most households. Also school expenditure are due in the dry season and others report drain on finances caused by social obligations such as ceremonies or due to investments in livestock in the dry season.

In the questionnaire it was asked whether the household was worried during the last seven days that they would not have enough food to eat or if they experienced a situation in the last 12 months when they did not have enough food to eat. As shown in table 14, 2.5% of the household reported that they worried that they would not have enough food to eat in the last seven days and 1.5% stated that they actually faced a situation when they did not have enough to eat in the last 12 months.

Table 15: Food Security

	Nr. Obs	percent
Worried	200.00	2.50
Did not Have Enough Food	199.00	1.51

Food consumption, however, is sometimes compromised by eating less favourable foods or by eating food with fewer nutrients as discussed in the qualitative interviews. If the household lacks money, less meat, fish are consumed and which then need to be replaced by tofu and tempe. Production of rice for self-consumption was reported to give the households security that they get to eat something at least. Also reducing expenditure for cloth and reducing donations for ceremonies and sickness for other household was mentioned by households strategies for reducing expenditure. Many respondents said they pay a lot which does not directly benefit the own household. Two other people said they cannot reduce anything since they only consume the most important things already. While one would take more credit, the other household would sell their livestock if they lack money.

For poor households, negative income shocks can result in a reduction of wellbeing. During qualitative data collection, it was found that some shocks occurred which resulted in lower wellbeing of the whole household. Three examples found during qualitative data collection are presented:

- The first example of negative income shock is a long dry season. 2015 is the year of El Niño. The consequence is that it rains less and the dry season is longer in some parts of Indonesia. Most households seem to be suffering from the long dry season and a lot of households mentioned it during qualitative data collection. Also coconut sugar production is affected by the long dry season because the coconut trees became less productive in coconut sugar production which has a negative effect on household income. Especially for households which are affected by other shocks (see below) the long dry season worsens their livelihood situation.
- A second example is a case in which the main income earner of the household had an accident while working and becomes deceased. Even though the household has assets including a TV, motorcycle and a proper house, they are in an economically difficult situation. Income from coconut sugar is very important to them because they get the income regularly and it helps buying daily necessities. They have a shared income system (*bagi hasil*) with their neighbour which can get the *nira* from the coconut tree. However, coconut sugar income is not enough and they often have to borrow from *warung*, neighbours and *koperasi*. They would also like to borrow from the bank, but they lack collateral as the assets are under the name of the deceased husband. Their debt has increased very rapidly. They wait until they receive money from a household member working in a city and then pay back borrowing. They consider food expenditure as the most important because they do not want to get sick. Therefore, they prefer increasing their debts rather than consuming less food. This however led to very large debts and the payback becomes a significant expenditure for the household.
- The third example is not directly related to an income shock but to pregnancy. The household is preparing to finance a midwife for the birth of the second child which will cost the household around 4 million IDR. The husband left the village to find casual work in the city but the wife can no longer work as casual worker in her neighbourhood because of her pregnancy. The household was collecting coconut sugar

before the pregnancy, but now that the husband is gone, there is no one left to collect the *nira* and coconut sugar production had to be stopped. Now that the household is short on money and is saving for the midwife, the household is forced to consume less fish and meat than usual and eats more tofu and tempe. Also milk consumption for the daughter had to be stopped which is specially worrying the household.

9 Conclusion and Recommendations for Future Waves

This baseline study shows that households in the target area of the intervention generate around 28% of their income with coconut sugar while coconut fruits make up around 16%. Common crops locally also include cassava and maize. Rice is a crop which is reported to be planted often for self-consumption. The income of coconut sugar is important for the households because it is a form of fixed income which can be generated each week while other income sources are less regular.

Coconut sugar is mainly used to finance daily household needs. Since the income from coconut sugar is earned on a regular basis it is mainly used for daily household needs such as buying food since those needs also have to be satisfied frequently and on a daily basis. This, however, does not mean that additional income derived from coconut sugar necessarily will be spent to satisfy more household needs.

The task of the next waves will be to see how the livelihood patterns of the households will change if they have additional income. During qualitative data collection households were asked what they would do with additional income. The responses were mixed. One person would invest the money to buy livestock, while another would buy more delicious food. Two people explained they would repair their house while one pointed to the roof explaining that their roof is broken and when it rains the interior gets wet. Saving for a midwife to get assistance in delivery and paying back borrowing were also mentioned. Two other people said they do not know what they would do because they do not think about what they would buy before they do not have the money to buy it even though there are a lot of needs.

As was seen in the asset section, households in higher income quintiles tend to have more education, and more physical assets like stoves, motorcycles and electricity. This might indicate how additional income might be spent if the households get wealthier. This needs to be analysed and discussed more in detail based upon data from the next waves.

It is important to note for the next waves that an increased income in coconut sugar might be related to a decrease in income coming from coconut fruit since production of those products might be negatively correlated (coconut tree less productive). It therefore needs to be considered that increased income in coconut sugar causes income of coconut fruit to be smaller.

As the intervention also seeks to make production more efficient, in order to consume less time and less wood (time to collect the wood) future waves may also consider what the households can do with this additional time.

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11 Appendix

Questionnaire: Longitudinal Livelihood Study September/October/November 2015

Questionnaire: Longitudinal Livelihood Study September/October/November 2015

Consent:

We are conducting a livelihood study about household income and use of income in selected areas in East Java and eastern Indonesia. Some households in your area have been selected randomly by PRISMA researchers to be interviewed. With this study PRISMA tries to better understand the livelihood situation of rural farmers.

Your household was also selected and we would highly appreciate if we could ask you some questions. Your answers would help us understand the livelihood situation of households in our target area. Please be aware that this is an independent study and that your answers will NOT affect the eligibility of your household to any government program. The information will be handled with full confidentiality.This is a longitudinal study and we might come back again in the future to interview your household, if you agree. The interview will take 1.5 to 2 hours.

Codes for missing values:

REFUSE TO ANSWER..... -9997
DON'T KNOW ..... -9999

A. Basic information on Interview

1	Number from kartu keluarga (family card)	_____
2	Respondent Name	_____
3	Respondent ID Number from HOUSEHOLD ID ROSTER (p.5)	_____
4	Date of Interview (DD/MM/YY)	|___| |___| / |___| |___| / |___| |___|
5	Name of Interviewer	_____
6	Time started	|___| |___| / |___| |___|
7	Time finished	|___| |___| / |___| |___|
8	Kabupaten	_____
9	Kacamatan	_____
10	Desa/Kelurahan	_____
11a	Dusun	_____
11	RT	_____
12	RW	_____
	GPS Data: Latitude	_____
	GPS Data: Longitude	_____
	GPS Data: Altitude	_____
13	Does the household plan to move next year?	1 YES 2 NO
14	Where does the household want to move?	_____

IF ANOTHER VILLAGE AND THIS VILLAGE IS NOT PART OF THE SAMPLING >> NOT CONTINUE HOUSEHOLD QUESTIONNAIRE!

Check sampling

	ONLY TO ASK IN D. SUMENEP	
15	Did you or any other member of the household plant maize in the last 12 month?	1 YES 2 NO >> **DO NOT CONTINUE QUESTIONNAIRE**
	ONLY TO ASK IN D.NGADA	
16	Do you or any other member of the household own pigs?	1 YES 2 NO >> **DO NOT CONTINUE QUESTIONNAIRE**
17	ONLY TO ASK IN D.PACITAN: Do you or does any other member of the household own a cococnut tree?	1 YES 2 NO >> **DO NOT CONTINUE QUESTIONNAIRE**
18	Did you or did any other member of your household buy coconut sugar from another farmer in the 12 month?	1 YES 2 NO
19	How much coconut sugar did you or did any member of your household buy from another farmer in the last month?	_____ >> If more than 1 ton DO NOT CONTINUE QUESTIONNAIRE

NOTE FOR INTERVIEWER: IT IS IMPORTANT THAT THE QUESTIONNAIRE IS ANSWERED BY THE PERSON WHO KNOWS MOST ABOUT FAMILY HOUSEHOLD FINANCES.

HOUSEHOLD (RT):
is a person or group of persons who occupy a part of or an entire building and who usually live together and eat from the same kitchen. What is meant by eating from one kitchen is that the arrangement to fulfill daily necessities is jointly managed.
HEAD OF THE HOUSEHOLD (KRT): is a person among the group of householders who is responsible for satisfying daily necessities of the household or a person who is regarded/assigned as the head of the household.
HOUSEHOLDER (ART): is anyone who usually lives in the household, whether she/he is at home during the survey or is temporarily absent. A householder who has been away for 6 or more months, and a householder who has been away for less than 6 months but plans to move out/be away for 6 or more months is not regarded as a householder. A guest who has stayed in the household for 6 or more months or a guest who has stayed in the household for less than 6 months but plans to stay for 6 or more months is regarded as a householder. (THE NAME OF A HOUSEHOLDER IS TO BE WRITTEN ON ONE LINE ONLY.)

PPI

	Indicator	Response	Points	Score
1	How many household members are there?	A. Six or more	0	
		B. Five	5	
		C. Four	11	
		D. Three	18	
		E. Two	24	
		F. One	37	
2	Do all household members ages 6 to 18 go to school?	A. No members ages 6 to 18	0	
		B. No	0	
		C. Yes	2	
3	What is the highest level of education that the female head/spouse has completed?	A. None	0	
		B. SD/SDLB, Madrasah Ibidaiya or Paket A	3	
		C. SMP/SMPLB, Madrasah tsanawiyah or Paket B	4	
		D. No female head/spouse	4	
		E.SMK	4	
		F. SMA/SMLB, Madrasah Aliyah or Paket C	6	
		G. D1, D2, D3/ Sarajana Muda, D4, S1, S2, or S3	18	
4	What was the employment status of the male head/spouse in the past week in his main job ?	A. No male head/spouse	0	
		B. Not working, or unpaid worker	0	
		C. Self-employed	1	
		D. Business owner, or business owner with temporary or unpaid workers	3	
		E. Wage or salary employee	3	
		F. Business owner with permanent or paid workers	6	
5	What is the main material of the floor?	A. Earth or bamboo	0	
		B. Others	5	
6	What type of toilet arrangement does the household have?	A. None, or latrine	0	
		B. Kloset, but no septic tank	1	
		C. Flush	4	
7	What is the main cooking fuel?	A. Firewood, charcoal, or coal	0	
		B. Gas/LPG, kerosene, electricity, others, or does not cook	5	
8	Does the household have a gas cylinder of 12kg or more?	A. No	0	
		B. Yes	6	
9	Does the household have a refrigerator or freezer?	A. No	0	
		B. Yes	8	
10	Does the household have a motorcycle, scooter, or motorized boat?	A. No	0	
		B. Yes	9	
		Score:		

C: Household Members/Roster

	1	2	3	4	5	6	7	8	9	10	11
	Full NAME LIST ALL HH MEMBERS STARTING WITH THE HEAD OF HOUSEHOLD	What is the **sex** of [NAME]?	What is [NAME]'s **relationship to the head** of household?	How **old** is [NAME] (COMPLETED YEAR)? IF RESPONDENT DOESN'T KNOW, USE YEAR OF BIRTH TO CALCULATE AGE	What is [NAME]'s **marital status**?	Can [NAME] **read and write in any language**?	Has [NAME] **ever attended school**?	What is the **highest grade [NAME] completed**?	Is [NAME] **currently attending school**?	Which **grade** is [NAME] attending?	During the last 4 weeks, how many days of your primary daily activities did [NAME] miss due to poor health?
	Name:	1 male 2 female	1 HEAD 2 SPOUSE 3 SON/DAUGHTER 4 GRANDCHILD 5 FATHER/MOTHER 6 SISTER/BROTHER 7 NIECE/NEPHEW 8 UNCLE/AUNT 9 SON/DAUGHTER IN-LAW 10 FATHER/MOTHER IN-LAW 11 BROTHER/SISTER IN-LAW 12 GRANDPARENTS 13 OTHER RELATIVES 14 SERVANT 15 NON RELATIVES	YEARS	1 NEVERMARRIED 2 MARRIED (MONOGAMOUS) 3 MARRIED (POLYGAMOUS) 4 DIVORCED 5 SEPERATED 6 WIDOWED	1 YES 2 NO	1 YES 2 NO (->11)	1 No SD 2 SD 3 SMP 4 SMA 5 D1, D3, S1, S2, S3	1 YES 2 NO (-> 11)	1 No SD 2 SD 3 SMP 4 SMA 5 D1, D3, S1, S2, S3	Days:
ID(1)											
ID(2)											
ID(3)											
ID(4)											
ID(5)											
ID(6)											
ID(7)											
ID(8)											
ID(9)											
ID(10)											
ID(11)											
ID(12)											
ID(13)											
ID(14)											
ID(15)											

KS. CONSUMPTION

The following questions apply to food/products bought/consumed by all members of this household during the past week, starting on [date] last week.

	KS2TYPE	KS02	KS03
	TYPE OF FOOD ITEM	During the past week, what was the total expenditure to purchase [...]?	Approximately what was the total value of items consumed by this household that were self-produced or received from another source during the last week?
	STAPLE FOOD		
A.	Hulled, uncooked rice	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
B.	Corn	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
C.	Sago/flour	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
D.	Cassava, tapioca, dried cassava	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
E.	Other staple foods, like sweet potatoes, potatoes, yams	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
	VEGETABLES		
F.	Kangkung, cucumber, spinach, mustard greens, tomatoes,cabbage, katuk, green beans, string beans and the like.	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
G.	Beans like mung-beans, peanuts, soya-beans, and the like.	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
H.	Fruits like papaya, mango, banana and the like.	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
	DRIED FOODS		
I.	Noodles, rice noodles, macaroni, shrimp chips, other chips, and the like	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
J.	Cookies, breads, crackers	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
	MEAT AND FISH		
K.	Beef, mutton, water buffalo meat and the like	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
L.	Chicken, duck and the like	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
M.	Fresh fish, oysters, shrimp, squid and the like.	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
N.	Salted fish, smoked fish	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
	OTHER DISHES, LIKE		
OA.	Jerky, shredded beef, canned meat, sardine and the like	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
OB.	Tofu, tempe, other side dishes	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
P.	**MILK/EGGS**		
	Eggs	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.

	KS2TYPE	KS02	KS03
	TYPE OF FOOD ITEM	During the past week, what was the total expenditure to purchase [...]?	Approximately what was the total value of items consumed by this household that were self-produced or received from another source during the last week?
Q.	Fresh milk, canned milk, powdered milk and the like	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
	SPICES		
R.	Sweet and salty soy sauce	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
S.	Salt	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
T.	Shrimp paste	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
U.	Chili sauce, tomato sauce, and the like	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
V.	Shallot, garlic, chili, candle nuts, corriander, MSG and the like	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
W	Javanese (brown) sugar	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
X.	Butter	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
Y.	Cooking oil like coconut oil, peanut oil, corn oil, palm oil and the like	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
	BEVERAGES AND OTHER DRINKS/CONSUMPER PRODUCTS		
Z.	Drinking water	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
AA.	Granulated sugar	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
BA.	Coffee	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
CA.	Tea	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
DA.	Cocoa	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
EA.	Soft drinks like Fanta, Sprite, etc.	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
FA.	Alcoholic beverages like beer, palm wine, rice wine, etc.	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
GA.	Betel nut (for chewing, traditional drug, others)	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
HA.	Cigarettes, tobacco	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
IA.	Prepared food (eaten at home)	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
IB.	Prepared food (away from home)	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.

	TRANSFER OF HOUSEHOLD FOOD SUPPLY	
KS04b.	What was the rupiah value of food given to other parties outside the household during the past week?	|__||__||__| ,|__||__||__| Rp.

Now I would like to ask how much money was spent for non-food items during the past month.

	TYPE OF NON-FOOD ITEMS (KS2TYPE)	KS06. What were the total expenditures by all household members for [...] during the past month, namely since date [...] one month ago?
A1	**Electricity**	|__||__|,|__||__||__||__| ,|__||__||__| Rp.
A2	**Water**	|__||__|,|__||__||__||__| ,|__||__||__| Rp.
A3	**Fuel**	|__||__|,|__||__||__||__| ,|__||__||__| Rp.
A4	**Telephone (including vouchers and mobile starter pack)**	|__||__|,|__||__||__||__| ,|__||__||__| Rp.
B	**Personal toiletries**	
	Including soap, shaving supplies, cosmetics and the like	|__||__|,|__||__||__||__| ,|__||__||__| Rp.
	Household items	
C	Including laundry soap, cleaning supplies, anti-mosquitoes and the like	|__||__|,|__||__||__||__| ,|__||__||__| Rp.
C1	**Domestic services and servants' wages**	|__||__|,|__||__||__||__| ,|__||__||__| Rp.
D	**Recreation and Entertainment**	
	Including movies, theater, outings, sport equipment, newspapers, magazines and the like	|__||__|,|__||__||__||__| ,|__||__||__| Rp.
E	**Transportation**	
	Including bus fare, cab fare, vehicle repair costs, gasoline and the like	|__||__|,|__||__||__||__| ,|__||__||__| Rp.
F1	**Sweepstakes and the like**	|__||__|,|__||__||__||__| ,|__||__||__| Rp.
F2	**Arisan**	|__||__|,|__||__||__||__| ,|__||__||__| Rp.
G	Value of non-food items given to others/other parties outside the household on a regular basis (including debt repayment)	|__||__|,|__||__||__||__| ,|__||__||__| Rp.

KS07a.	What is the total value of these items consumed by this household that were self-produced or received from another source in the last month, namely since the date [...]?	|__||__|,|__||__||__||__| ,|__||__||__| Rp.

Now I would like to ask how much money was spent by all household members for non-food items during the past one year.

		KS08	KS09
	TYPE OF NON-FOOD ITEMS (KS3TYPE)	What were the total expenditures by all household members for [...] during the past year, namely since the month of [...] last year?	What was the total value of [...] consumed by all household members that was self-produced or received, from another source during the last year?
A.	**Clothing for children and adults** Including shoes, hats, shirts, pants, children clothing and the like	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
B.	**Household supplies and furniture** Including tables, chairs, kitchen tools, bed sheets, towels and the like	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
C.	**Medical costs** Including hospitalization costs, clinic charges, physician's fee, traditional healer's fee, medicines and the like	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
D.	**Ritual ceremonies, charities and gifts** Including weddings, circumcisions, tithe, charities, gifts and the like	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
E.	**Taxes** Including property tax, vehicle tax, income tax, sales tax and the like	|__||__|,|__||__||__| ,|__||__||__| Rp.	[redacted]
F.	**Other expenditures not specified above** Including the purchase of cars, house, television sets, handphones, beds, livestock and the like	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
G.	**Value of non-food items given to others/other parties outside the household on an irregular basis (less than twelve times per year)**	|__||__|,|__||__||__| ,|__||__||__| Rp.	[redacted]

About how much was spent on schooling in the last year for all household members?

		A	B
		Children/family members inside the household	Children/family members outside the HH
KS10a.	Approximately what was the total expenditures (e.g., tuition, PTA contribution, school committee contribution, laboratory, registration, exams, other contribution like student associations) for [...] during the past year?	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
KS11a.	Approximately what was the total of expenditures for schooling needs (like for school uniforms, school supplies) for [...] during the past year?	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
KS12a.	Approximately how much was spent on transportation and pocket money, special courses associated with [...]'s schooling in the past year?	|__||__|,|__||__||__| ,|__||__||__| Rp.	|__||__|,|__||__||__| ,|__||__||__| Rp.
KS12b.	Approximately how much was the total cost of boarding/room rent (including meals) spent for [...] during the past year?	[redacted]	|__||__|,|__||__||__| ,|__||__||__| Rp.

D. Assets & Borrowing

Code	ITEM NAME	1 Do you or does any other member of the household own [...]? PLEASE INCLUDE ONLY ELECTRIC DEVICES THAT ARE NOT BROKEN 1 YES 2 NO (->next item)	2 How many hectares [...] do you or does any other member of the household own [...]?	3 What is the total value of [...] at present?
A	House and land occupied by this household			
A2	Other house/building (incl. land)			
B	Agricultural land holdings of the household		h	
C	Car/truck			
D	Bicycle			
E	Motorbike			
F	Radio, transistor or stereo/cassette			
G	TV			
H	VCR/VCP/VCD/DVD			
I	Jewelry			
J	Stove			
K	Sewing machine			
L	Washing machine			
M	Computer			
N	Mobile phone			
O	Land-line			
P	Electricity			
Q	Grain storage container			
R	Well/Tubewell			
S	Tractor			
T	Irrigation equipment (pump, tube well, etc.)			
U	Heavy farming equipments (like farming machines, generator etc.)			
V	Small tools like saws, axes, machetes, forks, plows, hoes, etc.			
W	Savings/ certificate of deposit/stocks			Rp.|__||__||__||__|,|__||__||__|
X	Borrow money			Rp.|__||__||__||__|,|__||__||__|

Agricultual Roster

Kode	Nama: Bahasa Indonesia	Nama: Bahasa Inggris	kode	Nama: Bahasa Indonesia	Nama: Bahasa Inggris
1	Alpukat	Avocado	41	Labu siam	Gourd
2	Apel	Apple	42	Lada	Pepper
3	Bawang merah	Shallots	43	Lempuyang	Zingiber
4	Bawang putih	Garlic	44	Lengkuas	Galangal
5	Bayam	Amaranth Leaves	45	Lidah buaya	Aloe Vera
6	Buah Kelapa	Coconut: Fruit	46	Mahkota Dewa (Phaleria macrocarpa)	
7	Buah Naga	Dragon Fruit	47	Mangga	Mango
8	Buah sukun	Breadfruit	48	Manggis	Mangosteen
9	Buncis	Beantrees	49	Melinjo	Melinjo
10	Cabai besar	Chili	50	Melon	Melon
11	Cabe rawit	Chili Pepper	51	Mengkudu (Morinda citrifolia L)	Great Morinda/ Nony
12	Cengkeh	Clove	52	Mentimun	Cucumber Trees
13	Dringo (Acorus calamus L)		54	Nanas	Pineapple
14	Duku	Langsat Trees	55	Nangka	Jackfruits
15	Durian	Durians	56	Padi	Rice
16	Gula Kelapa	Coconut: Sugar	57	Pepaya	Papaya
17	Jagung	Maize	58	Petai	Stinky Bean
18	Jahe	Ginger	59	Pisang	Banana
19	Jambu air	Rose apple	60	Rambutan	Rambutan
20	Jambu batu	Guava	61	Salak	Zalacca
21	Jambu mete	Cashew	62	Sawi	Endeive trees
22	Jamur	Mushroom	63	Sawo	Chiku
23	Jeruk	Orange	64	Semangka	Watermelon
24	Jeruk besar	Pomelo	65	Singkong	Cassava
25	Jeruk siam	Tangerine	66	Sirsak	Soursop
26	Kacang hijau	Mung Bean	67	Sorgum	Shorgum
27	Kacang panjang	Long Nourishing (String bean)	68	T eh	Tea
28	Kacang Tanah	Peanut	69	Tebu	Sugar Cane
29	Kakao	Cocoa	70	Tembakau	Tobacco
30	Kangkung	Kangkung trees	71	Temu ireng (Curcuma aeruginosa Roxb.)	
31	Kapuk	Kapok Tree	72	Temu lawak	Curcuma
32	Kapulogo (Elettaria cardamomum (L.))	Cardamom	73	Terong	Eggplant
33	Karet	Rubber Tree	74	Tomat	Tomatos
34	Kedelai	Soybeans	75	Ubi	Sweetpotato
35	Kejibeling (Sericocalyx crispus)		76	Vanilla	Vanillla
36	Kencur	Lesser galangal	77	Wortel	Carrots
37	Kentang	Potatos	78	Kemiri	candlenut
38	Kopi	Coffee	79	Kayu Jati	teak wood
39	Kunci ((Boesenbergia rotunda (L.))		80	Markisa	
40	Kunyit	Turmeric	81	bambu	bamboo

E Agriculture

	1	2	3	4	5	6		7	8											
	Please list three of the most important agricultural activity (in terms of income) for your household (if less than three list less than three).	WRITE CODE AS IN AGRICULTURAL ROSTER	How often (seasons) did you or any other member of the household plant […] in the last 12 months?	Did you or any other member of the household sell any of the harvested [...] in the last 12 months?	What proportion of the […] product have you sold (or will you sell)?	Who in your household makes decisions about selling [...]? LIST UP TO 2 HOUSEHOLD MEMBERS FROM HOUSEHOLD ROSTER		Approximately how many transaction took place while selling harvested […] in the last 12 month?	When did you or any other member of the household sell harvested [...] in the last 12 month?											
	CHOOSE FROM AGRICULTURAL ROSTER	If not included in agriculture roster, porceed without taking the code.							1 YES											
	MAKE SURE YOU ASK FOR ALL AGRICULTURAL SEASONS								2 NO											
	In Sumenep: Take data of Maize, even if not mentioned																			
	In Pacitan: Take data of coconut sugar even if not mentioned.																			
				1 YES		Most important decision maker Code #1	Second most important decision maker Code #2		2014			2015								
	NAME	CODE		2 NO (->next section)	SALES (RAW OR AS BY-PRODUCT)			NUMBER OF TRANSACTIONS	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1					%															
2					%															
3					%															
4	Maize	17			%															
5	Coconut sugar	16			%															

		9	10		11	
		Approximately, what was the total value of all [...] sales in the last 12 month? ESTIMATE THE VALUE OF IN-KIND PAYMENTS in […].	Who in your household kept/decided what to do with these earnings from selling […] in the last 12 month? LIST UP TO 2 FROM HOUSEHOLD ROSTER		What was the income from selling harvested […] used for in the last 12 month? DO NOT READ ANSWERS!	
					1 Health expenditures 2 Educational expendiutes 3 Daily household needs 4 Agricultural inputs 5 Agricultural assets 6 House renovation/buying 7 Debt Repayment 8 Cash savings 9 Lifestock 10 Durable goods (eg. cloth, jewlery) 11 Other, specify	
	NAME	Rp.	Most important decision maker Code #1	Second most important decision maker Code #2	Most important use of income	Second most important use of income
1		Rp.				
2		Rp.				
3		Rp.				
4	Maize	Rp.				
5	Coconut sugar	Rp.				

F. Maize: ONLY TO BE ASKED IN D. Sumenep!

	1		2		3	4	5	6
	Approximately, how much of your household agricultural land did you or any other member of the household plant with maize in the last 12 month?		Approximately, how much land which does not belong to the household did you or any other member of the household plant with maize in the last 12 month?		Did your household use fertilizer on the household maize field in the last 12 moth?	How did your household finance this fertilizer purchase? READ RESPONSES	Did your household hire any labor (paid) to help your household with the maize business in the past 12 months?	How many labor did you hire?
						1 PAID IN FULL, WITH OWN SAVINGS		
					1 Yes	2 RECEIVED ON CREDIT	1 YES	
		UNIT		UNIT	2 No (-> 5)	3 PART OWN-SAVINGS, PART-OWN CREDIT	2 NO (->8)	Number
MAIZE (CODE: 17)	|__||__||__||__|,|__||__|	hectare	|__||__||__||__|,|__||__|	hectare				

7	8	9		10		11	12	13
How did your household finance this labor? READ RESPONSES	Did your household ever plant hybrid seed?	When did your household plant hybrid seed for the first time?		When was the last time your houshold planted hybrid seed?		Did your household plant hybrid seed in the last 12 month?	How many percent of your agricultural household land, which was planted with maize, did you plant with hybrid seed in the last 12 month?	How did your household finance the hybrid seed purchase? READ RESPONSES
1 PAID IN FULL, WITH OWN SAVINGS								1 PAID IN FULL, WITH OWN SAVINGS
2 RECEIVED ON CREDIT	1 YES					1 Yes		2 RECEIVED ON CREDIT
3 PART OWN-SAVINGS, PART-OWN CREDIT	2 NO (->21)	MONTH	YEAR	MONTH	YEAR	2 No (-> 21)	%	3 PART OWN-SAVINGS, PART-OWN CREDIT

14	15	16	17	18	19	20	21
What hybrid seed did your household plant the last time you planted hybrid seed? 1 Asia Gold 2 Nusantara 1 3 Nusantara Baru 4 P-21 5 P-27 6 DK999 7 NK66 8 BISI 1 9 BISI 2 10 Other	Did your household use another hybrid seed before? 1 YES 2 NO	Do you or any other member of the household sell the harvest from hybrid seed? 1 YES 2 NO(->21)	How did the price of selling harvested maize change after using hybrid seed? 1 increased 2 stayed the same 3 decreased	The last time you or any other member of the household sold maize, what was the price per kg? Price/kg in Rp.	How did your yearly household income of selling maize change after using hybrid seed? 1 increased 2 stayed the same (->21) 3 decreased	By how much did your household income increase/decrease? 1 moderately (ca. 1-20%) 2 middle (ca.21-40%) 3 a lot (+40%)	How many percent of your total household income did your household earn with maize in the last 12 month? %
				Rp.			%

Maize 2

	22	23	24	25
	Is [NAME] involved in maize activities?	How many weeks in the last 12 month did [NAME] work on maize?	During those weeks, on average, how many days did [NAME] work on maize per week?	During those days, on average, how many hours did [NAME] work on maize per day?
	1 YES			
	2 NO (->next hh member)	TOTAL # OF WEEKS	AVERAGE DAYS / WEEK	AVERAGE HOURS / DAY
ID(1)				
ID(2)				
ID(3)				
ID(4)				
ID(5)				
ID(6)				
ID(7)				
ID(8)				
ID(9)				
ID(10)				
ID(11)				
ID(12)				
ID(13)				
ID(14)				
ID(15)				

G. COCONUT SUGAR: ONLY TO BE ASKED IN PACITAN

	1	**2**	2a	3	4	5	6	7	8
	How many coconut trees are owned by this household? NUMBER	How many coconut trees do you or does any other member of the household tap which are owned by this household? NUMBER	How many coconut trees owned by this household are taped by someone else? NUMBER	How many coconut trees do you or does any other member of the household tap which do not belong to this household (sistem bagi hasil)? If Question 2, 2a and 3 are 0 ->25 NUMBER	Did your household buy a new **knife** used for coconut sugar production in the last 12 month? 1 YES 2 NO	Did your household buy a new **laru** used for coconut sugar production in the last 12 month? 1 YES 2 NO	Did your household buy a new **bucket/ pot** used for coconut sugar production in the last 12 month? 1 YES 2 NO	Did your household buy a new **sieve** used for coconut sugar production in the last 12 month? 1 YES 2 NO	Did your household buy a new **stiring instruments** used for coconut sugar production in the last 12 month? 1 YES 2 NO
Coconut Sugar (CODE:16)									

9	10	11	12	13	14
Did your household buy a new **Irus/ethok-ethok** used for coconut sugar production in the last 12 month?	Did your household buy a new **stove** used for coconut sugar production in the last 12 month?	Did your household build a new **stove** used for coconut sugar production in the last 12 month?	How did your household finance those asset purchase/raw material ? READ RESPONSES; IF QUESTIONS 4-10 NO ->13)	Did your household use organic fertilizers for your coconut trees in the last 12 month?	How did your household finance those fertilizer purchase? READ RESPONSES
			1 PAID IN FULL, WITH OWN SAVINGS		1 PAID IN FULL, WITH OWN SAVINGS
1 YES	1 YES	1 YES	2 RECEIVED ON CREDIT	1 YES	2 RECEIVED ON CREDIT
			PART OWN-SAVINGS, PART-OWN		PART OWN-SAVINGS, PART-OWN
2 NO	2 NO	2 NO	3 CREDIT	2 NO (->24)	3 CREDIT

24	25	26
How many percent of your total household income did your household earn with coconut sugar in the last 12 month?	How many percent of your total household income did your household earn with **coconut fruit** in the last 12 month?	Approximately, what was the total value of all **coconut fruit** sales in the last 12 month? ESTIMATE THE VALUE OF IN-KIND PAYMENTS in […].
		do only fill out if tot yet asekd for coocnut fruit (p.12)
	if no-> next section	
%	%	Rp.
%	%	

Coconut

	28	29	30	31	32	
	Is [NAME] involved in coconut sugar activities? 1 YES 2 NO (->next hh member)	How many weeks in the last 12 month did [NAME] work on coconut sugar activities? TOTAL # OF WEEKS	During those weeks, on average, how many days did [NAME] work on coconut sugar activities per week? AVERAGE DAYS / WEEK	During those days, on average, how many hours did [NAME] on cocnut sugar activities per day? AVERAGE HOURS / DAY	How many hours and minutes did [NAME] spend yesterday collecting firewood (or other fuel materials) for coconut production? Hours:	Minutes:
ID(1)						
ID(2)						
ID(3)						
ID(4)						
ID(5)						
ID(6)						
ID(7)						
ID(8)						
ID(9)						
ID(10)						
ID(11)						
ID(12)						
ID(13)						
ID(14)						
ID(15)						

H. Livestock

	1	2	2		3		4	5												
	What is the grand total of [LIVESTOCK] owned by the household?	Did you or any other member of the household sell/slaughter (for sale) any of [...] in the last 12 months?	Who in your household has the right to sell/slaughter (for sale) [LIVESTOCK]? INSTRUCTION: LIST UP TO 2 HOUSEHOLD MEMBERS FROM THE HOUSEHOLD ROSTER		Who in your household is responsible for negotiating the sale/slaughter (for sale) of [LIVESTOCK] in the market? INSTRUCTION: LIST UP TO 2 HOUSEHOLD MEMBERS FROM THE HOUSEHOLD ROSTER		Approximately how many transactions took place while selling/slaughtering (for sale)[LIVESTOCK] in the last 12 month?	When did you or any other member of the household sell/slaughter (for sale) [...] in the last 12 month? 1 YES 2 NO											
			A	B	A	B		2014			2015									
LIVESTOCK	TOTAL	1 YES 2 NO (->next section)	Most important decision maker Code #1	Second most important decision maker Code #2	Most responsible Code #1	Second most responsible Code #2	NUMBER OF TRANSACTIONS	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Cow																				
Buffalo																				
Horse																				
Goat and sheeps																				
Pig																				
Chicken																				
Duck																				
Fish																				

	6	7		8	
	Approximately, what was the total value of sales (including slaughtering) of [LIVESTOCK] in the last 12 months? RECORD ZERO IF NO SALES	Who in your household controlled/decided what to do with earnings from [LIVESTOCK] sales in the last 12 months? INSTRUCTION: LIST UP TO 2 HOUSEHOLD MEMBERS FROM THE HOUSEHOLD ROSTER		What was the income from selling harvested […] used for in the last 12 month? DO NOT READ ANSWERS!	
		A	**B**	1 Health expenditures 2 Educational expendiutes 3 Daily household needs 4 Agricultural inputs 5 Agricultural assets 6 House renovation/buying	7 Debt Repayment 8 Cash savings 9 Lifestock 10 Durable goods (eg. cloth, jewlery) 11 Other, specify
LIVESTOCK	RP.	Most important decision maker Code #1	Second most important decision maker Code #2	Most important use of income	Second most important use of income
Cow					
Buffalo					
Horse					
Goat and sheeps					
Pig					
Chicken					
Duck					
Fish					

I. pigs: ONLY TO BE ASKED IN D.NGADA/D. NAGEKEO

	1		2	3	4	5	6	7
	Who in your household is responsible for herding/feeding/taking care of pigs that are owned by the household? INSTRUCTION: LIST UP TO 2 HOUSEHOLD MEMBERS FROM THE HOUSEHOLD ROSTER		How many pigs less than 6 months are owned by the household?	How many pigs 6 months and less than 1 year are owned by the household?	How many pigs 1 year and older are owned by the household?	How many pigs for meat are owned by the household?	How many pigs for breeding are owned by the household?	What is the number of deceased pigs during the last 12 months?
	Most responsible Code #1	Second most responsible Code #2	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
pigs								

8	9	10	12	13	14	15
What is the number of pigs purchased during the last 12 months?	What is the number of pigs sold during the last 12 months?	What is the number of slaughtered pigs for sale during the last 12 months?	Apart from offering, what is the number of pigs that was consumed by the household at celebrations during the last 12 months?	Apart from celebrations, what is the number of pigs consumed by the household during the last 12 month?	What is the total of local breed pigs owned by the household?	What is the total of hybrid pigs owned by the household?
NUMBER	NUMBER	NUMBER	NUMBER		Total	NUMBER

16	17	18	19	20	21
What is the total of exotic /improved pigs owned by the household?	Where did you buy improved piglets?	How did your household finance buying improved piglets? READ RESPONSES	Where did you or any other member of the household get the information of the improved piglets?	Are you or any other member of the household on a waiting list to buy improved piglests?	Does your household have a pig pan for the pigs with cement floor?
		1 PAID IN FULL, WITH OWN SAVINGS	1 socialisation		
if 0 ->21	1 PT SIM	2 RECEIVED ON CREDIT	2 neighbours	1 YES	1 YES
Total	2 Other, specify	3 PART OWN-SAVINGS, PART-OWN CREDIT	3 other, specify	2 NO	2 NO ->23

22	23	24	25
How did your household finance this pan purchase? READ RESPONSES	How many percent of the pigs fooder was improved feed during the last 12 month?	How did your household finance this fodder purchase? READ RESPONSES	What is the name of the brand of the improved feed?
1 PAID IN FULL, WITH OWN SAVINGS	if 0% ->27	1 PAID IN FULL, WITH OWN SAVINGS	
2 RECEIVED ON CREDIT		2 RECEIVED ON CREDIT	1 PT Charoen Pokphand
3 PART OWN-SAVINGS, PART-OWN CREDIT	%	3 PART OWN-SAVINGS, PART-OWN CREDIT	2 Other, specify
	%		

26	27	28	29	30	31
Where did you or any other member of the household get the information of the improved feed?	Are your household's pigs suppervised by a veterinarian?	How did your household finance this veterinary service? READ RESPONSES	Do you or does any other member of the household sell improved fattened pigs and/or pigs that were fattened with improved feed?	How did the price of selling pigs change after starting to use improved pigsnd/or pigs that were fattened with improved feed?	The last time you sold a pigs, what was the price per kg?
1 socialisation		1 PAID IN FULL, WITH OWN SAVINGS		1 increased	
2 neighbours	1 YES	2 RECEIVED ON CREDIT	1 YES	2 stayed the same	
3 other, specify	2 NO (->29)	3 PART OWN-SAVINGS, PART-OWN CREDIT	2 NO (->34)	3 decreased	Price/kg in Rp.

32	33	34
How did your yearly household income of selling pigs change after starting to use improved pigs and/or pigs that were fattened with improved feed?	By how many percent did your household income increase/decrease?	How many percent of your total household income did your household earn with pigs in the last 12 month?
1 increased	1 moderately (ca. 1-20%)	
2 stayed the same (->29)	2 middle (ca.21-40%)	
3 decreased	3 a lot (+40%)	%
		%

Pigs

	35	36	37	38	39		40	
	Is [NAME] involved in pig fattening activities? 1 YES 2 NO (->next hh member)	How many weeks in the last 12 month did [NAME] work on pigs? TOTAL # OF WEEKS	During those weeks, on average, how many days did [NAME] work on pigs per week? AVERAGE DAYS / WEEK	During those days, on average, how many hours did [NAME] work on pigs per day? AVERAGE HOURS / DAY	How many hours and minutes did [NAME] spend yesterday collecting water for the pigs? Hours:	Minutes:	How many hours and minutes did [NAME] spend yesterday collecting and cooking food for the pigs? Hours:	Minutes:
ID(1)								
ID(2)								
ID(3)								
ID(4)								
ID(5)								
ID(6)								
ID(7)								
ID(8)								
ID(9)								
ID(10)								
ID(11)								
ID(12)								
ID(13)								
ID(14)								
ID(15)								

J. AGRICULTURAL AND OVERALL INCOME DEVELOPMENT

1	2	3	4a	
What proportion of your overall household income comes from agriculture (including livestock and fishery)?	How did your agricultural household income (including livestock and fishery) from the last 12 month change compared to the 12 month before?	By how much did your agricultural household income (including livestock and fishery) increase/decrease?	Which crop or animal stock did contribute most to your household income increase? Write ID from AGRICULTURAL OR LIVESTOCK ROSTER. WRITE ONLY ONE	
1 minority (less than 50%)	1 increased	1 moderately (ca. 1-20%)	First most important: CODE AGRIC. OR LIVESTOCK	Second most important: CODE AGRIC. OR LIVESTOCK
2 half (around 50%)	2 stayed the same (->6)	2 middle (ca.21-40%)		
3 majority (more than 50%)	3 decreased	3 a lot (+40%)		
		%		

6	7	8	9
How did your non-agricultural household income from the last 12 month change compared to the 12 month before?	By how much did your non-agricultural household income increase/decrease?	How did your overall household income from the last 12 month change compared to the 12 month before?	By how much did your overall household income increase/decrease?
1 increased	1 moderately (ca. 1-20%)	1 increased	1 moderately (ca. 1-20%)
2 stayed the same (->8)	2 middle (ca.21-40%)	stayed the same (->next 2 section)	2 middle (ca.21-40%)
3 decreased	3 a lot (+40%)	3 decreased	3 a lot (+40%)
	%		%

K. Financing Expenditures

		1	2		3
		During the last 12 months, did your household have significant expenditures in the form of [...]?	When did your household have this expenditure?		How did your household finance [...] in the last 12 month? DO NOT READ THE ANSWERS
		Please read one by one 1 YES 2 NO (-> next expenditure)			1 RELIE ON OWN SAVINGS 2 RECEIVE UNCONDITIONAL HELP FROM RELATIVES/FRIENDS 3 RECEIVE UNCONDITIONAL HELP FROM GOVERNMENT 4 RECEIVE UNCONDITIONAL HELP FROM NGO/RELIGIOUS INSTITUTION 5 CHANGE EATING PATTERNS (RELIED ON LESS PREFERRED FOOD OPTIONS, REDUCED THE PROPORTION OR NUMBER OF MEALS PER DAY, OR HOUSEHOLD MEMBERS SKIPPED DAYS OF EATING, ETC.) 6 EMPLOYED HOUSEHOLD MEMBERS TOOK ON MORE EMPLOYMENT 7 ADULT HOUSEHOLD MEMBERS WHO WERE PREVIOUSLY NOT WORKING HAD TO FIND WORK 8 HOUSEHOLD MEMBERS MIGRATE 9 REDUCE EXPENDITURES ON HEALTH AND/OR EDUCATION 10 OBTAINE CREDIT 11 SELL AGRICULTURAL ASSETS 12 SELL DURABLE ASSETS 13 SELL LAND/BUILDING 14 SELL CROP STOCK 15 SELL LIVESTOCK 16 INTENSIFY FISHING 17 SEND CHILDREN TO LIVE ELSEWHERE 18 ENGAGE IN SPIRITUAL EFFORTS-PRAYER, SACRIFICES, DIVINER CONSULTATIONS 19 RELY ON CURRENT INCOME 20 DID NOT DO ANYTHING 21 OTHER (SPECIFY)
TYPE OF	OF USE OF INCOME		MONTH	YEAR	
A	Health expenditures				
B	Educational expenditures				
C	Funeral costs				
D	Marirage (celebration and payment of bride price)				
E	Naik haji or Umroh (going to Mekka)				
F	Other adat/ religious/ village celebration				
G	Repaying debts				
H	Buying animal stock				
I	Opening a business				
J	Buying a house				
K	Renovation of House				
L	Agricultural Inputs				
M	Agricultural Assets				

L. Food Security

1	2								3	
In the past 7 days, did you worry that your household would not have enough food?	In the past 7 days, how many days have you or someone in your household had to:								How many meals, including breakfast are taken on average per day in your household?	
	A	B	C	D	E	F	G	H	A	B
1 YES 2 NO (->6)	Rely on less preferred foods? DAYS	Limit the variety of foods eaten? DAYS	Limit portion size at meal-times? DAYS	Reduce number of meals eaten in a day? DAYS	Restrict consumption by adults for small children to eat? DAYS	Borrow food, or rely on help from a friend or relative? DAYS	Have no food of any kind in your house-hold? DAYS	Go a whole day and night without eating anything? DAYS	Adults (5 yrs and above) NUMBER	Children (6-59 months) LEAVE BLANK IF NO CHILDREN NUMBER

4	5			6	7							8		
Do all household members eat roughly the same diet?	Who in the household usually eats a more diverse variety of foods or a less diverse variety of foods?			In the last 12 months, have you been faced with a situation when you did not have enough food to feed the household?	In which months of the last 12 months did you experience this incident ?							What was the cause of this situation? LIST UP TO 3 IN ORDER OF IMPORTANCE, USE CODES ON THE BOTTOM		
1 YES (->6) 2 NO	1 MORE DIVERSE 2 LESS DIVERSE				1 YES 2 NO							DO NOT READ ANSWERS		
	A	B	C	1 YES 2 NO (-> next section)	2014			2015				A	B	C
					Oct.	Nov.	Dec.	Jan.	Feb.	Mar.				
					2015									
	Men	Women	Children (6-59 months)		Apr.	May	Jun.	Jul.	Aug.	Sep		1ST	2nd	3rd

Codes Question 8:

1 INADEQUATE HOUSEHOLD STOCKS DUE TO DROUGHT/POOR RAINS
2 INADEQUATE HOUSEHOLD FOOD STOCKS DUE TO CROP PEST DAMAGE
3 INADEQUATE HOUSEHOLD FOOD STOCKS DUE TO SMALL LAND SIZE
4 INADEQUATE HOUSEHOLD FOOD STOCKS DUE TO LACK OF FARM INPUTS
5 INADEQUATE HOUSEHOLD FOOD STOCKS DUE TO LACK OF FARM TOOLS/DROUGHT ANIMALS, PLOUGH ETC.
6 FOOD IN THE MARKET WAS VERY EXPENSIVE
7 NOT ABLE TO REACH THE MARKET DUE TO HIGH TRANSPORTATION COSTS
8 MARKET VERY FAR FROM THE VILLAGE
9 NO FOOD IN THE MARKET
10 FLOODS/WATER LOGGING/HAILSTORM
11 OTHER, SPECIFY

M. Shocks and Vulnerability

		1	2		3		
		During the last 12 months, was your household affected by [SHOCK]?	Rank the three most significant shocks you experienced.		What did your household do in response to this [SHOCK] to try to regain your former welfare level?		
	please read one by one	Codes: 1 YES 2 NO (-> next shock)	Codes: 1 Most Severe 2 Second Most Severe 3 Third Most Severe		DO NOT READ ANSWERS LIST UP TO 3 ANSWERS BY ORDER OF IMPORTANCE. USE CODES ON THE RIGHT.		
	SHOCK			THE QUESTIONS TO THE RIGHT SHOULD ONLYBE ASKED CONCERNING THE THREE MOST SEVERE SHOCKS, AS NOTED IN Q2. LEAVE ALL OTHER ROWS BLANK.	1ST	2ND	3RD
1	Death of household member (Main bread earner)						
2	Death of other household member						
3	Illness of household member						
4	Loss of non-farm jobs of household member						
5	Drought						
6	Flood						
7	Landslides						
8	Heavy rains preventing work						
9	Other crop damage						
10	Price fall of food items you sell						
11	Price rise of food items you buy						
12	Increase in price of inputs (seed, fertilizer)						
13	Great loss/death of livestock						
14	Fire						
15	Theft/Robbery and other violence						
16	Involuntary loss of house/land						
17	Displacement						
18	Local Unrest/Violence						
19	Other (Specify)						

Codes Question 3:

1	RELIED ON OWN SAVINGS	11	SOLD AGRICULTURAL ASSETS
2	RECEIVED UNCONDITIONAL HELP FROM RELATIVES/FRIENDS	12	SOLD DURABLE ASSETS
3	RECEIVED UNCONDITIONAL HELP FROM GOVERNMENT	13	SOLD LAND/BUILDING
4	RECEIVED UNCONDITIONAL HELP FROM NGO/RELIGIOUS INSTITUTION	14	SOLD CROP STOCK
5	CHANGED EATING PATTERNS (RELIED ON LESS PREFERRED FOOD OPTIONS, REDUCED THE PROPORTION OR NUMBER OF MEALS PER DAY, OR HOUSEHOLD MEMBERS SKIPPED DAYS OF EATING, ETC.)	15	SOLD LIVESTOCK
6	EMPLOYED HOUSEHOLD MEMBERS TOOK ON MORE EMPLOYMENT	16	INTENSIFY FISHING
7	ADULT HOUSEHOLD MEMBERS WHO WERE PREVIOUSLY NOT WORKING HAD TO FIND WORK	17	SENT CHILDREN TO LIVE ELSEWHERE
8	HOUSEHOLD MEMBERS MIGRATED	18	ENGAGED IN SPIRITUAL EFFORTS-PRAYER, SACRIFICES, DIVINER CONSULTATIONS
9	REDUCED EXPENDITURES ON HEALTH AND/OR EDUCATION	19	DID NOT DO ANYTHING
10	OBTAINED CREDIT	20	OTHER (SPECIFY)

O. Subjective and Wellbeing

1	Concerning your current standard of living, which of the following is true?	1	It is less than adequate for my needs
		2	It is just adequate for my needs
		3	It is more than adequate for my needs
		8	DON'T KNOW
2	Concerning your healthcare, which of the following is true?	1	It is less than adequate for my needs
		2	It is just adequate for my needs
		3	It is more than adequate for my needs
		8	DON'T KNOW
3	Concerning your children's food consumption, which of the following is true?	1	It is less than adequate for my needs
		2	It is just adequate for my needs
		3	It is more than adequate for my needs
		8	DON'T KNOW
4	Concerning your children's healthcare, which of the following is true?	1	It is less than adequate for their needs
		2	It is just adequate for their needs
		3	It is more than adequate for their needs
		8	DON'T KNOW
5	Concerning your children's education, which of the following is true?	1	It is less than adequate for my needs
		2	It is just adequate for my needs
		3	It is more than adequate for their needs
		6	Children not yet in school
		8	DON'T KNOW

p. Contact Information

In order for us to be able to contact the household in the future, could you kindly provide us with telephone numbers?

PHONE NUMBER FOR HOUSEHOLD HEAD:

1 a) NAME : _____

b) LANDLINE: _____

c) PHONE (cell): _____

In case we are not able to make contact with the household head, could you kindly provide us with the telephone numbers of some other adult members of this household ?

PHONE NUMBERS FOR OTHER HOUSEHOLD MEMBERS:

2 a) NAME : _____ b) ID (FROM ROSTER): _____ c) PHONE : _____

3 a) NAME : _____ b) ID (FROM ROSTER): _____ c) PHONE : _____

4 a) NAME : _____ c) ID (FROM ROSTER): _____ c) PHONE : _____

If you were to move in the next two years, who are the people in this village/town/city who would be most likely to know your new address?

CONTACT INFORMATION FOR REFERENCE PERSON 1

5 a) NAME: _____

b) RELATION TO HEAD : _____

c) PHONE (LANDLINE) : _____

d) PHONE (CELL): _____

e) ADDRESS/DESCRIPTION OF LOCATION

_____

_____

_____

CONTACT INFORMATION FOR REFERENCE PERSON 2

6 a) NAME: _____

b) RELATION TO HEAD : _____

c) PHONE (LANDLINE) : _____

d) PHONE (CELL): _____

e) ADDRESS/DESCRIPTION OF LOCATION

_____

_____

_____

GO BACK TO THE FIRST PAGE AND FILL OUT THE MISSING VALUES!!!



Longitudinal Livelihood Study (LLS)

Baseline Report on Coconut Sugar Sub-Sector in Pacitan

Document name: Longitudinal Livelihood Study (LLS): Baseline Report on Coconut Sugar Sub Sector in Pacitan
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The Australia-Indonesia Partnership for Promoting Rural Income through Support for Markets in Agriculture (PRISMA) is a multi-year program that is part of the Indonesian Government's long term strategy to encourage economic growth. With the support of the Australian Government, the program aims to achieve a 30% increase in the net incomes of 300,000 male and female eastern Indonesian farmers by the program's end by providing innovative solutions to increase productivity and market access.

PRISMA focuses on agriculture sectors that are the main source of income for a large number of smallholder farmers and have strong growth potential in areas of East Java, West Nusa Tenggara, East Nusa Tenggara, Papua and West Papua. Partnering with key market stakeholders, the program help spur growth along the value chain by reducing barriers and constraints within the agriculture sector.

PRISMA is supported by the Australian Government and Bappenas - implemented by Palladium with the technical assistance of Swisscontact