Horticultural Farming and Development Outcomes: Examining Human and Social Capital Investment Among Horticultural Households in Rural Indonesia

By

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Declaration

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text.

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Abstract

Increasing demand for fruits and vegetables among the Indonesian population has transformed the agri-food industry of Indonesia to move beyond traditional staple crop farming. Relative to traditional staple food crops, horticultural crop production usually generates higher returns to land, creates more on-farm and off-farm employment and leads to higher real wages in local economies. This thesis aims to examine human capital and social capital investment among households focusing on horticultural crop production in rural Indonesia.

The first analytical chapter aims to examine to what extent households cultivating horticultural crops as their main crops have better child education outcomes than households with traditional staple crops as their main crops. This study assesses the socioeconomic impacts of horticultural farming on household education investment among agricultural households in rural Indonesia. The study utilised a comprehensive household survey from Eastern Indonesia (IFLS EAST 2012) and applied econometric modelling that controls for the possible endogeneity of households' horticultural farming participation with instrumental variable estimation. The sample in the current study consists of 1,246 children from 791 households. It is found that horticultural crop farming has a positive association with child education spending of the household, especially for boys and primary school children. It is also associated with increased amount of time spent in school for certain subgroups of children, namely girls and junior high school students.

The second analytical chapter explores the risk preference among households having horticultural crops as their main crops and how it is associated with diversification toward non-farm income and education spending. The study conducted an empirical investigation using three-stages least squares regression (3SLS) to estimate simultaneous equations and further employed GMM 3SLS which extends the 3SLS estimator by allowing for heteroskedasticity. Moreover, the study also incorporates gender perspectives as it analyses both husbands' and

wives' risk preference which have heterogeneous effects. The sample in the current study consists of 392 children from 284 horticultural farming households in East Java, Indonesia. The survey and framed risk experiment were conducted in September 2017 among 500 households of citrus cultivators located in Malang, Jembre, and Banyuwangi districts. It is found that wives' lower risk aversion leads to higher non-farm income which is positively associated with child education spending. Moreover, non-farm income is found to have a larger positive association with education spending than income from citrus farming and other crops. These results, therefore, imply that the risks associated with horticultural farming could influence education spending through increasing income diversification toward non-farm source.

The third analytical chapter aims to examine social capital investment among horticultural farmers through understanding the relationship between different types of agricultural social networks and farm productivity through technical efficiency analysis. Social capital accumulation is an important mechanism to overcome production and marketing constraints commonly faced by farmers. The study employed stochastic production frontier (SPF) analysis which accounts for productivity shifts due to induced changes in efficiency. The sample of the current study is 408 small-scale citrus farmers in rural Indonesia from a recent survey in September 2017. The survey covers one of the main citrus growing areas in Indonesia, including Malang, Jembre, and Banyuwangi districts. The findings are consistent with the previous research documenting positive effects of cooperative membership and farmer group membership on technical efficiency among smallholder farmers. However, there is no effect from having direct access to government authority for production-related information. The probit estimation suggests that, unlike cooperatives, farmer groups appeal to farmers regardless of their education and citrus farming experience. These results can, therefore, assist

policy and program design to further promote agricultural social networks among rural households that help achieve higher agricultural productivity and rural development outcomes.

Table of Contents

Chapter 1: Introduction

1.1 Background and motivation

With the population of more than 250 million people, Indonesia is one of the most populated countries in the world. Dietary patterns in Indonesia continue to shift due to lifestyle changes, rapidly growing per capita incomes and increasing tastes and preferences for protein, fruits and vegetables. As the domestic supply cannot match the domestic demand, Indonesia still imports many fruits and vegetables which are otherwise easily produced in the country. In 2018, Indonesia imports citrus valued at more than 135 million USD, 39% of the import is from Pakistan, 29% from China and 12% from Australia (ITC, 2018). These demand-driven factors are transforming the country's agri-food industry. To help support expanding consumption for fruits and vegetables, and to offset rapidly rising imports, Indonesia's Ministry of Agriculture prioritised and addressed horticultural crops as strategic commodities. The Indonesian Center for Horticulture Research and Development provides support and research to help improve citrus production in Indonesia. Citrus production areas cover approximately 70,000 ha with an estimated production of 1.5 million tons annually. Government plant researcher developed a virus free-citrus seedlings certification program and produced over 10 million viruses free- citrus seedlings to help boost the production.

However, as the Indonesian government continues to focus on domestic rice production to achieve self-sufficiency in rice supply, less attention has been paid toward supporting farmers' adoption of horticultural crops relative to staple crops in the past decades. For smallholder producers, the economic benefits of shifting from stable crops to higher value, more profitable horticultural crops are many. Past research consistently documents how horticultural crop adoption is associated with important welfare outcomes, including higher farm income, better nutrition outcomes, and improved food security (Ali & Abedullah, 2002;

Barrón & Rello, 2000; Hichaambwa, Chamberlin, & Kabwe, 2015; Minot & Roy, 2007; Weinberger & Lumpkin, 2007). However, much less literature focuses on other important welfare indicators of farm household adoption of horticultural crops. In particular, the literature neglects how the adoption of higher value crops influences human capital and social capital investment among horticultural households.

Human capital investment through education is one of the most sustainable pathways to reduce poverty, increase the wellbeing of households, and act as a key driver for economic development (Becker, Murphy, & Tamura, 1990; Psacharopoulos & Schultz, 1984; Schultz, 1992). Similarly, social capital investment through agricultural social networks also benefits farmers in reducing farm constraints and increasing yield particularly among smallholder farmers who face a higher barrier to the market and constraints of production (Abebaw & Haile, 2013; Ainembabazi et al., 2017; Ito, Bao, & Su, 2012; Ma, Renwick, Yuan, & Ratna, 2018; Mojo, Fischer, & Degefa, 2017; Wossen et al., 2017).

This thesis primarily aims to examine household welfare outcomes among agricultural households with horticultural crops as the main crops, particularly on human capital and social capital investment. We hypothesise that households involved in horticultural farming as the main activity gain more income and related benefits from producing higher value crops. The higher returns per unit of land could improve the wellbeing of households by allowing more cash to spend more on child education The study specifically focuses on farm households in rural Indonesia which is a unique case study to understand how horticultural crop production helps shift households' behaviour toward more education investments for children.

The Indonesian government has implemented substantial education reform since the mid-2000s; examples include school system decentralisation, teaching standards improvement and a higher share of education spending in the national budget with more than 18% of government spending resulted in education spending. The government also imposed

regulations requiring children to enrol in primary and junior high school (age 7-15). However, despite the substantial government efforts, Indonesia still has not achieved universal enrolment. Possible explanations might be that there is still inconsistent implementation of free education policies across provinces. Even though the formal fees for primary education have been prohibited since 1977 and the formal fees for junior secondary schools have been prohibited since 1994, there are still other fees commonly charged by schools (Rosser & Joshi, 2013). For example, schools charge fees to cover uniforms, teaching materials, building renovations, and other activities, thus, basic free education policies are not actually enforced (Widoyoko, 2010). The remaining costs associated with education are not much burden for parents with professional jobs, however, they are especially difficult for households with lower or inconsistent income, especially agricultural households. As most households involved in agriculture are located in rural areas, many farmers are bearing the
extra transportation and boarding costs of sending their children to study in urban areas. Moreover, agricultural households face higher opportunity costs once children become teenagers; as they become reliable source of farm labour, however, they are no longer able to help in farming activities if they are in school.

Apart from human capital investment, this thesis aims to explore social capital investment among horticultural producers, as new technology adoption generally encourages participation in various types of agricultural social networks which helps reduce information asymmetry and support farmers to overcome production and marketing constraints. In addition to human capital accumulation, the livelihoods of agricultural households also depend on social capital accumulation. Social capital investment is an important factor in success and achievement during one's lifetime (Woolcock & Narayan, 2000). The benefits of social capital investment also extend beyond individuals toward the collective members of the society;

communities with diverse and strong social networks are found to be in a better position when facing with poverty and vulnerability (Moser, 1996).

Agricultural social networks play a significant role in enhancing farmers' capacity to increase farm profitability. In Indonesia, agricultural social networks are predominantly in the form of farmer groups and agricultural cooperatives. Each of these social networks has its own advantages and disadvantages. The Indonesian Ministry of Agriculture supports all these forms of agricultural social networks to boost crop production and productivity and to increase efficiency through economies of scale.

Cooperatives are one of the predominant forms of agricultural social networks in Indonesia. They are developed according to the principles of Law 25/1992 on cooperatives which states that cooperatives are intended to boost economies of scale, enhance production efficiency and improve bargaining positions of members. Cooperatives usually provide credits and help farmers purchase inputs. The law requires that a cooperative must be established with at least 20 individuals who contribute a certain amount of assets to the initial capital of the cooperative. The agreement of cooperative establishment must be drawn up by a notary and legalised by the Indonesian Ministry of Cooperatives and Small and Medium Enterprise. Income generated by cooperatives is required to be equally distributed among all members. Cooperatives are legal entities with entitlement to increase their assets or capital by acquiring loans from other sources. Therefore, cooperatives usually have more assets and capital more than other types of farmer organisations.

Farmer groups are another prevalent type of agricultural social networks which farmers can receive government support such as farm equipment, and input and also participate in government programs. Farmer groups are initiated by the government in 1979 aiming to facilitate the distribution of government aid to farmers. They are regulated by the Ministry of agriculture according to the Law 82/2013 on farmer group. As stated in the ministry's

regulation, a farmer group is a group of farmers formed based on mutual interest, the similarity in commodities, and geographic proximity. Farmer groups average around 30 members who live in the same village.

Farmer groups are intended for boosting cooperation among members, facilitating training and organising distribution of farming equipment, inputs, and credit. Furthermore, cooperation among farmers within the group potentially leads to economies of scale and improved yield quality. It additionally provides members with shared access to equipment. Participation of smallholder farmers, the village leader, community leaders, and agricultural extension officers are required to form a farmer group. A formal agreement needs to be developed and signed by representatives of the different member groups. Farmers are not required to contribute individual assets to a farmer group; however, some financial contributions are required. A farmer group is a non-legal entity; therefore, it largely depends on government support to increase its assets and capital.

Investing in social capital through engaging in these agricultural social networks has a significant role in supporting farmers with horticultural crops to increase farm yields and farm economic performance. Higher farm income would be beneficial for these farm households to use it for education investments which generate human capital accumulation in the long run.

1.2 Research objectives

This study examines how horticultural households invest in their human capital and social capital in rural Indonesia. Specific objectives of this study are to:

1. investigate to what extent households cultivating horticultural crops as their main crops have better child education outcomes than households with traditional staple crops;
2. understand horticultural households' risk preference and how it is associated with diversification toward non-farm income and education spending; and

3. examine different types of agricultural social networks among horticultural households and how it contributes to production efficiency.

This study is novel in offering an analysis of human capital and social capital investment among horticultural households in rural Indonesia.

1.3 Key literature

The agricultural development literature documents the pathways from adoption of horticultural crop production to improvements in farm household members' nutritional status, per capita income and expanded employment for agriculture and non-agriculture sectors (Ali & Abedullah, 2002; Barrón & Rello, 2000; Hichaambwa, Chamberlin, & Kabwe, 2015; Minot & Roy, 2007). Horticultural producers demand more labour relative to staple crops for input applications, weeding and harvesting activities, creating more jobs within the community and potentially driving up real wages (Weinberger & Lumpkin, 2007).

Crop diversification toward horticulture crops can be especially beneficial for smallholders. Horticultural crops including fruits, vegetables, spices and flowers generate higher net returns per unit of land than staple crops. Although horticultural crops in general result in higher average returns per hectare than staple crops, profits vary over time and across farmers depending on farm size, environmental conditions, labour availability, land and soil quality, farmers' skills and market infrastructure. Moreover, the competitiveness of smallholder farmers relative to large holder farmers also varies over time depending on physical, human, or social capital (Minot & Roy, 2007).

Smallholders and lower income farm households are often excluded from participating in horticultural value chains that require scale to meet the quality and quantities demanded from modernising retail markets and export chains, as they often have lower resources and production capacities compared to large farms. Consistent patterns observed in Asia and Africa

show that the profitability of horticultural crop production is high compared to staple crop production in terms of cropping days and cropped area. Moreover, economies of scale are less important for profit generation than staple crop production. Smallholders usually generate higher profits per unit of land from growing high-value horticultural crops (Weinberger & Lumpkin, 2007). Horticultural crop production has a comparative advantage under conditions where arable land is scarce, and labour is abundant.

An important reason why many smallholders who diversify into horticultural crops move out of poverty is related to the inverse size-productivity relationship for horticultural crops when producers match the proportion of area dedicated to horticulture with their labour availability. In lower income rural areas with abundant labour, horticultural producers tend to rely on hiring labour over capital equipment investments or renting machinery (Birthal, Roy, & Negi, 2015).

In addition to increasing income and expanding local community employment opportunities, the evidence suggests that horticultural crops adoption leads to better food security outcomes for household members. A study in Nepal indicates more than 50% of the surveyed households overcame food shortages after adopting and earning income from selling vegetables (Tiwari, Nyborg, Sitaula, & Paudel, 2008). Another study finds that the increase in vegetable production is significantly associated with a lower probability of stunting in children younger than 24 months; and the increase in root vegetable production is associated with a lower probability of stunting in children older than 24 months (Shively & Sununtnasuk, 2015). Diversification into horticulture is found to be associated with HAZ scores and lower probability of stunting in children over the age of 24 months among semi-subsistence households in Zambia (Kumar, Harris, & Rawat, 2015).

1.3.1 Horticultural crop production and education investment

One potentially important welfare contribution to farm households that shift to higher value horticultural production, which is still neglected in the literature, is educational outcomes. Several pathways of this significant welfare contribution are possible.

First, child education spending could result from greater profits earned from producing higher value crops, as these crops usually generate higher returns per unit of land. Second, it could be through the incentives to use hired labour instead of family labour induced by the intensive farming nature of horticultural production, thus, allowing families to keep their children in school for longer periods and even enrolling more of their children.

A few studies explore how changes in agricultural policies or programs influence child education outcomes in developing countries. However, the literature appears to ignore the contributions of producing or adopting higher value crops like horticulture. A study in Burkina Faso investigates how cotton adoption affects child school enrolment using pooled cross-sectional data (Kazianga & Makamu, 2016). The study finds that the expansion of cotton adoption from the cotton policy reform increased school enrolment and lowered involvement as farm labour for girls. The study explains that as girls are less productive on cotton farms compared to boys, they benefit from the lower demand for their labour in cotton farms. Consequently, girls' enrolment rates and years of educational attainment are found to be higher.

A study in Indonesia examines how the rice intensification program (SRI) affects child school enrolment (Takahashi & Barrett, 2013). The authors hypothesised that the increased labour demand from SRI would increase child labour hours and affect child educational progress. The effects on child school enrolment were measured between SRI users and non-users, and the results indicate no significant effects of SRI's labour demands on child school enrolment. The proportion of children enrolled in school is not statistically different between SRI users and non-users for both genders. It is plausible that the income effects of increased

productivity offset the substitution effects caused by the increasing opportunity cost of child time due to improved labour productivity from SRI.

Both the cotton and rice studies show how incentives work in both directions. In some cases, households may wish to keep their children out of school and on the farm for their labour contributions. In other cases, incentives lead to an increase in education investment of their children. There is a need for research to identify these outcomes for horticultural crop production. As horticultural crops are labour intensive, it is still unclear and resulting in mixed signals concerning how parents allocate farming and school time for their children. Moreover, horticultural crops usually generate higher profit per hectare for households, thus, there are increased opportunity costs for children to remain in school especially once children are old enough to be relied upon as family labour.

1.3.2 Horticultural crop production and risk management

High-value horticultural crops tend to be riskier than traditional staple crops. In many emerging and middle-income economies, for example, staple food prices are controlled through government programs. Horticultural crop prices are also more volatile than staple crops due to the yield variation that leads to market supply fluctuations (Key & Runsten, 1999).

Farmers rarely completely abandon staple crops to produce horticultural crops. A more common outcome is to combine staple food crops with horticultural crops and concentrate their resources on the more profitable crops (Minot & Roy, 2007). Risk coping strategies remain an essential part of farm management, not only the risks associated with horticultural crops, but the inherent risks associated with agriculture in general. Production and price uncertainty are the two main risks as yields are subject to unpredictable weather, pests, and diseases (Musser & Patrick, 2002). Farmers need to rely on risk managing strategies to overcome the uncertainty between the production and sale of their crops. Earlier research finds that particularly in developing countries, farmers lack access to crop insurance and consumption credit, therefore

farmers tend to rely on off-farm income diversification to cope with risks (Barrett, Reardon, & Webb, 2001; Reardon, Delgado, & Matlon, 1992).

In addition to diversification toward non-farm income, social networks have a vital role in enhancing farmers' capacities to manage risk. Previous research consistently documents how agricultural social networks help farmers overcome production constraints and support marketing activities. Social networks are found to improve farm productivity through increasing production efficiency among farmers (Abdul-Rahaman & Abdulai, 2018; Gedara, Wilson, Pascoe, & Robinson, 2012; Ma et al., 2018). Moreover, social networks improve farm productivity through the adoption of productivity-enhancing technologies (Francesconi & Heerink, 2011; Spielman, Byerlee, Alemu, & Kelemework, 2010).

Evidence suggests agricultural social networks are involved in distributing farm inputs such as chemical fertilisers (Matsumoto & Yamano, 2010). Agricultural social networks help reduce financial constraints by providing credit services (Tefera, Bijman, & Slingerland, 2017). They also help reduce transaction costs and information asymmetries by enhancing the bargaining power of farmers (Hellin, Lundy, & Meijer, 2009; Trebbin, 2014). Apart from production enhancing activities, agricultural social networks also help promote commercialisation behavior among smallholder farmers (Bernard & Spielman, 2009) which leads to better farm productivity and farm economic performance.

Positive effects of agricultural social networks are found among many types of crops such as staple, cash crop, and horticultural crops. For traditional food crops such as rice, one study evaluates the determinants of technical efficiency among rice farmers in village reservoir irrigation systems in Sri Lanka (Gedara et al., 2012). Research finds that farmer organisation membership positively contributes to agricultural technical efficiency. A recent research investigating the impacts of farmer groups on-farm yield and technical efficiency among rice farmers in northern Ghana found that farmer group participation contributes to higher yields

and technical efficiency, and the estimated impacts are larger when possible selection bias is accounted for (Abdul-Rahaman & Abdulai, 2018).

A study focusing on understanding the determinants of production efficiency among coffee farmers in Costa Rica suggests one of the most important factors influencing farm-specific efficiency level is cooperative membership (Wollni & Brümmer, 2012). The effects of agricultural social networks on farm technical efficiency are also found among horticultural crop producers. One recent study examining how agricultural cooperative membership affects the technical efficiency of apple farmers in China indicates that the average technical efficiency is higher among cooperative members than non-members. The estimated impacts are larger when accounted for selection bias, suggesting the positive impact of cooperative membership on efficient usage of production inputs (Ma et al., 2018).

Research also demonstrates how agricultural social networks benefit farm income and enhance poverty reduction. A study examining the impact of agricultural cooperatives on poverty reduction among rural households in Rwanda suggests cooperative membership has a positive effect on income and reduce poverty, where the impacts are largest among larger farms and in remote areas (Verhofstadt & Maertens, 2014). Another important study focusing on watermelon farmers in China demonstrates the agricultural cooperative's effects on farm income are substantially large and heterogeneous, the greatest impacts are found among small-scale farms. On the other hand, government extension services only have a slight effect on farm income (Ito et al., 2012).

The main contributions of the thesis are both in academic and applied contributions. The academic contribution includes contributing to the existing literature by addressing welfare implications of horticultural crops adoption particularly for human and social capital investment. The applied contribution is that our study provides an empirical evidence and

recommendations for supporting policy and program design to enhance agricultural households' human and social capital investment in Indonesia.

1.4 Methods and research approach

To address the research objectives, this thesis utilises both primary and secondary data to conduct empirical research. In addition to using a comprehensive dataset of the Indonesian Family Life Survey Eastern Indonesia to understand the implications of horticultural farming for rural households in remote areas, a field survey of 500 horticultural households was conducted to further understand this mechanism. Prior to the questionnaire design, in-depth interviews and focus group discussion were conducted among citrus farmers in Indonesia to gain the first-hand information which is helpful for understanding human and social capital investment among horticultural households.

Our first empirical study provides an analysis of the first objective which is to explore the extent to which households with horticultural crops have better child education outcomes than traditional staple crop households. The study assesses the socioeconomic impacts of horticultural farming on household education investments among agricultural households in the remote rural areas of Indonesia.

It is hypothesised that horticultural farming can affect child education in two conflicting ways. On the one hand, it may encourage education investments due to its positive income effects. On the other hand, substitutional effects may also exist as horticultural farming is more labour-intensive, and this may crowd out the school time of children due to farm labour needs. Our study uses econometric modeling to carefully control for the possible endogeneity of household horticultural farming participation with instrumental variable estimation. The empirical analysis uses secondary data from the Indonesian Family Life Survey Eastern Indonesia (IFLS EAST 2012), which surveyed remote geographical areas of the Eastern part

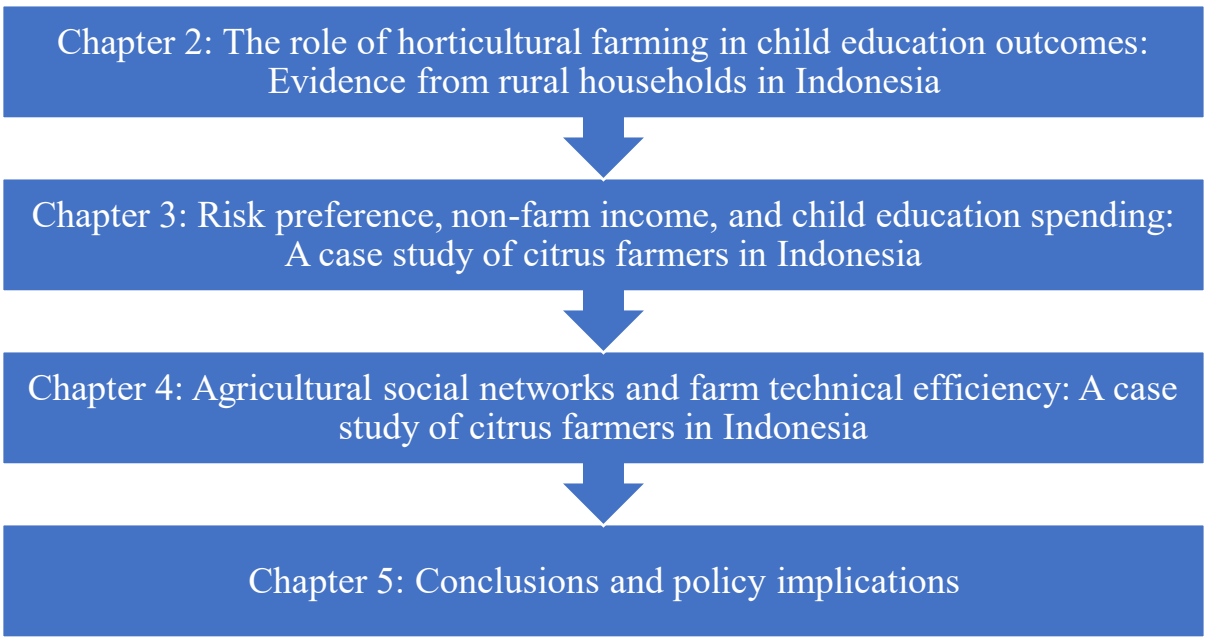
of Indonesia. The data were collected through the cooperation between SurveyMETER, RAND Corporation and the Australian Agency for International Development (AusAid). Our study analyses a sample of 1,246 children from 791 households. The survey covers seven provinces in Eastern Indonesia including East Kalimantan, Southeast Sulawesi, East Nusa Tengara, Maluku, North Maluku, Papua, and West Papua.

The second empirical study provides a robust analysis of the second objective. The purpose of this study is to examine how risk preference influences income diversification toward non-farm activities and to what extent the increasing amount of non-farm income helps with child education spending compared to agricultural income. Our study employs three-stage least squares regression (3SLS) to estimate simultaneous equations. The study analyses a sample of 392 children from 284 citrus farming households in East Java, Indonesia. This study uses primary data from a recent survey covering one of the main citrus growing areas in East Java province in Indonesia, including Malang, Jembre, and Banyuwangi districts. The survey was conducted in September 2017 with the help of 11 Indonesian enumerators. The survey period is approximately one month; the enumerators took approximately 3 hours with each household. The team utilised tablets with the CommCare software application to gather response from the households (Please refer to appendices for the survey questionnaire.) Apart from the household survey, the study also conducted a framed risk experiment to elicit risk preference among farmers and their spouses. Both husbands' and wives' risk preferences were analysed to understand the relationship between risk preference and income-generating activities to uncover heterogeneous effects.

The third empirical study provides an analysis of the third objective. The purpose of this study is to examine the role of agricultural social networks in increasing agricultural productivity in rural Indonesia. It is hypothesised that agricultural social networks potentially lead to higher farm productivity. Specifically, the study focuses on technical efficiency

outcome which measures the optimal use of farm input. This study uses a recent household survey of small-scale citrus farmers in rural Indonesia. The agricultural social network is measured by several complementing indicators, including farmer group membership, cooperative membership, and having direct access to government officials to enquire about citrus information. The study analyses a sample of 408 small-scale citrus farmers in East Java, the main citrus production area of Indonesia. It employed stochastic production frontier (SPF) analysis which accounts for productivity shifts due to induced changes in technical efficiency. Our findings are intended for improving policy and program design to further promote agricultural social networks among rural households to achieve higher agricultural productivity and rural development outcomes.

The thesis is organised into five chapters. Chapter 2 presents the analysis of the role of horticultural farming in child education outcomes among rural households in Indonesia. Chapter 3 examines the relationship of risk preference, diversification toward non-farm income and education spending among horticultural households. Chapter 4 discusses the role of social capital investment through different types of agricultural social networks in increasing farm productivity. Chapter 5 presents the conclusions and policy implications of our research.



1.5 References

Abdul-Rahaman, A., & Abdulai, A. (2018). Do farmer groups impact on farm yield and efficiency of smallholder farmers? Evidence from rice farmers in northern Ghana. *Food Policy, 81*, 95-105.

Abebaw, D., & Haile, M. G. (2013). The impact of cooperatives on agricultural technology adoption: Empirical evidence from Ethiopia. *Food policy, 38*, 82-91.

Ainembabazi, J. H., van Asten, P., Vanlauwe, B., Ouma, E., Blomme, G., Birachi, E. A., . . . Manyong, V. M. (2017). Improving the speed of adoption of agricultural technologies and farm performance through farmer groups: evidence from the Great Lakes region of Africa. *Agricultural economics, 48*(2), 241-259.

Ali, M., & Abedullah, D. (2002). Nutritional and economic benefits of enhanced vegetable production and consumption. *Journal of Crop Production, 6*(1-2), 145-176.

Barrett, C. B., Reardon, T., & Webb, P. (2001). Nonfarm income diversification and household livelihood strategies in rural Africa: concepts, dynamics, and policy implications. *Food policy, 26*(4), 315-331.

Barrón, M. A., & Rello, F. (2000). The impact of the tomato agroindustry on the rural poor in Mexico. *Agricultural Economics, 23*(3), 289-297.

Becker, G. S., Murphy, K. M., & Tamura, R. (1990). Human capital, fertility, and economic growth. *Journal of political economy, 98*(5, Part 2), S12-S37.

Bernard, T., & Spielman, D. J. (2009). Reaching the rural poor through rural producer organizations? A study of agricultural marketing cooperatives in Ethiopia. *Food policy, 34*(1), 60-69.

Birthal, P. S., Roy, D., & Negi, D. S. (2015). Assessing the impact of crop diversification on farm poverty in India. *World Development, 72*, 70-92.

Francesconi, G. N., & Heerink, N. (2011). Ethiopian agricultural cooperatives in an era of global commodity exchange: does organisational form matter? *Journal of African Economies, 20*(1), 153-177.

Gedara, K. M., Wilson, C., Pascoe, S., & Robinson, T. (2012). Factors affecting technical efficiency of rice farmers in village reservoir irrigation systems of Sri Lanka. *Journal of Agricultural Economics, 63*(3), 627-638.

Hellin, J., Lundy, M., & Meijer, M. (2009). Farmer organization, collective action and market access in Meso-America. *Food policy, 34*(1), 16-22.

Hichaambwa, M., Chamberlin, J., & Kabwe, S. (2015). *Is Smallholder Horticulture the Unfunded Poverty Reduction Option in Zambia?: A Comparative Assessment of Welfare Effects of Participation in Horticultural and Maize Markets*: Indaba Agricultural Policy Research Institute (IAPRI).

ITC. (2018). Trade statistics for international business development.

Ito, J., Bao, Z., & Su, Q. (2012). Distributional effects of agricultural cooperatives in China: Exclusion of smallholders and potential gains on participation. *Food policy, 37*(6), 700-709.

Kazianga, H., & Makamu, F. (2016). Crop Choice, School Participation, and Child Labor in Developing Countries: Cotton Expansion in Burkina Faso. *American Journal of Agricultural Economics, 99*(1), 34-54.

Key, N., & Runsten, D. (1999). Contract farming, smallholders, and rural development in Latin America: the organization of agroprocessing firms and the scale of outgrower production. *World Development, 27*(2), 381-401.

Kumar, N., Harris, J., & Rawat, R. (2015). If they grow it, will they eat and grow? Evidence from Zambia on agricultural diversity and child undernutrition. *The Journal of Development Studies, 51*(8), 1060-1077.

Ma, W., Renwick, A., Yuan, P., & Ratna, N. (2018). Agricultural cooperative membership and technical efficiency of apple farmers in China: An analysis accounting for selectivity bias. *Food Policy, 81*, 122-132.

Matsumoto, T., & Yamano, T. (2010). *The impacts of fertilizer credit on crop production and income in Ethiopia*.

Minot, N., & Roy, D. (2007). Impact of high-value agriculture and modern marketing channels on poverty: An analytical framework. *International Food Policy Research Institute, Washington, DC*.

Mojo, D., Fischer, C., & Degefa, T. (2017). The determinants and economic impacts of membership in coffee farmer cooperatives: recent evidence from rural Ethiopia. *Journal of Rural Studies, 50*, 84-94.

Moser, C. O. (1996). *Confronting crisis: a comparative study of household responses to poverty and vulnerability in four poor urban communities*: The World Bank.

Musser, W. N., & Patrick, G. F. (2002). How much does risk really matter to farmers? In *A comprehensive assessment of the role of risk in US Agriculture* (pp. 537-556): Springer.

Psacharopoulos, G., & Schultz, T. W. (1984). *The contribution of education to economic growth: International comparisons*: World Bank Washington, DC.

Reardon, T., Delgado, C., & Matlon, P. (1992). Determinants and effects of income diversification amongst farm households in Burkina Faso. *The Journal of Development Studies, 28*(2), 264-296.

Rosser, A., & Joshi, A. (2013). From user fees to fee free: The politics of realising universal free basic education in Indonesia. *The Journal of Development Studies, 49*(2), 175-189.

Schultz, T. P. (1992). The role of education and human capital in economic development: An empirical assessment. In: Center Discussion Paper.

Shively, G., & Sununtnasuk, C. (2015). Agricultural diversity and child stunting in Nepal. *The Journal of Development Studies, 51*(8), 1078-1096.

Spielman, D. J., Byerlee, D., Alemu, D., & Kelemework, D. (2010). Policies to promote cereal intensification in Ethiopia: The search for appropriate public and private roles. *Food Policy, 35*(3), 185-194.

Takahashi, K., & Barrett, C. B. (2013). The system of rice intensification and its impacts on household income and child schooling: evidence from rural Indonesia. *American Journal of Agricultural Economics, 96*(1), 269-289.

Tefera, D. A., Bijman, J., & Slingerland, M. A. (2017). Agricultural co-operatives in Ethiopia: evolution, functions and impact. *Journal of International Development, 29*(4), 431-453.

Tiwari, K. R., Nyborg, I. L., Sitaula, B. K., & Paudel, G. S. (2008). Analysis of the sustainability of upland farming systems in the Middle Mountains region of Nepal. *International Journal of Agricultural Sustainability, 6*(4), 289-306.

Trebbin, A. (2014). Linking small farmers to modern retail through producer organizations–Experiences with producer companies in India. *Food policy, 45*, 35-44.

Verhofstadt, E., & Maertens, M. (2014). Can agricultural cooperatives reduce poverty? Heterogeneous impact of cooperative membership on farmers' welfare in Rwanda. *Applied Economic Perspectives and Policy, 37*(1), 86-106.

Weinberger, K., & Lumpkin, T. A. (2007). Diversification into Horticulture and Poverty Reduction: A Research Agenda. *World Development, 35*(8), 1464-1480. doi:https://doi.org/10.1016/j.worlddev.2007.05.002

Widoyoko, J. D. (2010). The education sector: the fragmentation and adaptability of corruption. In *The state and illegality in Indonesia* (pp. 165-187): Brill.

Wollni, M., & Brümmer, B. (2012). Productive efficiency of specialty and conventional coffee farmers in Costa Rica: Accounting for technological heterogeneity and self-selection. *Food Policy, 37*(1), 67-76.

Woolcock, M., & Narayan, D. (2000). Social capital: Implications for development theory, research, and policy. *The world bank research observer, 15*(2), 225-249.

Wossen, T., Abdoulaye, T., Alene, A., Haile, M. G., Feleke, S., Olanrewaju, A., & Manyong, V. (2017). Impacts of extension access and cooperative membership on technology adoption and household welfare. *Journal of rural studies, 54*, 223-233.

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Chapter 2: Examining the role of horticultural farming in child education outcomes: Evidence from rural households in Indonesia

2.1 Abstract

Promoting horticultural farming is a widespread rural development strategy in agrarian economies. Previous research indicates horticultural farming leverages income for farmers, generates employment and efficiently utilises farm resources. However, whether and how shifting to higher value crops influences child education investments relative to lower value staple producing households are less well investigated. The current study aims to examine the relationship between horticultural farming and child education outcomes compared to traditional staple crop farming. Child education outcomes are measured by household child education spending, grade repetition, and the number of hours spent in school. Possible endogeneity of horticultural farming is accounted for using instrumental variable regressions. Empirical results consistently suggest a positive relationship between horticultural farming and child education spending, especially for boys and primary school children. It is also positively associated with the amount of time spent in school for certain subgroups of children, including girls and junior high school students. The positive effects on household education investment complements the existing literature on income augmentation and provides evidence for the positive welfare impacts of horticultural farming in another dimension. Findings from our research potentially address policy implications to further promote horticultural crop adoption as a sustainable development strategy with favourable long-term socioeconomic impacts of human capital accumulation.

Keywords: crop choice; child education; rural Indonesia; horticulture

2.2 Introduction

Human capital accumulation through education is considered a key driver of economic development (Becker, Murphy, & Tamura, 1990; Psacharopoulos & Schultz, 1984; Schultz, 1992). In most developing countries, promoting education is a major strategy used to alleviate poverty and increase household welfare in the long run. However, rural-urban education gaps are widely observed (Hill, Resosudarmo, & Vidyattama*, 2008; Sahn & Stifel, 2003; Sicular, Ximing, Gustafsson, & Shi, 2007). Too often, rural children are precluded from completing basic education, inequalities largely intertwined with the socioeconomic disadvantages of rural areas, especially poverty (Engle & Black, 2008). A common rural development strategy includes policy and program interventions that encourage small farmers to shift from staples to higher value crops. The aim is to accelerate and sustain rural economic growth in ways that contribute to food security, poverty reduction, wealth creation and higher spending on children's education.

Relative to traditional, staple food agricultural systems, horticultural farming usually generates higher returns to land, creates more on-farm and off-farm employment and leads to higher real wages in local economies (Weinberger & Lumpkin, 2007). The empirical literature consistently documents the income-generating impacts related to the adoption of horticultural crops (Mubarik Ali & Abedullah, 2002; Barrón & Rello, 2000; Hichaambwa, Chamberlin, & Kabwe, 2015; Minot & Roy, 2007; Weinberger & Lumpkin, 2007). However, whether and how shifting to higher value crops influences child education investments relative to lower value staple producing households are less well investigated.

This study assesses the socioeconomic impacts of horticultural farming on household education investments among agricultural households in rural Indonesia. We hypothesise that horticultural farming can influence child education in two conflicting ways. On the one hand, it may encourage education investments due to its positive income effects. On the other hand,

substitutional effects may also exist as horticultural farming is more labour-intensive (Birthal, Joshi, Roy, & Thorat, 2013; Joshi, Joshi, & Birthal, 2006; Minot & Roy, 2007) and this may crowd out the school time of children due to farm labour needs. The current study therefore aims to test these conflicting mechanisms and examine the relationship between horticultural farming and child education investment. Facilitated by a comprehensive household survey of the remote areas of Eastern Indonesia, we apply rigorous econometric modelling that controls for the possible endogeneity of households' horticultural farming participation with instrumental variable estimation. It is found that horticultural crop farming has a positive association with child education spending of the household, especially for boys and primary school children. It also increases the amount of time spent in school for certain subgroups of children, including girls and junior high school students.

2.3 Literature review

Previous research indicates that horticultural farming leverages income for farmers, generates employment and better utilises farm resources (M Ali, 2002; Barrón & Rello, 2000; Hichaambwa et al., 2015; Minot & Roy, 2007; Weinberger & Lumpkin, 2007). Horticultural producers demand more labour than staple crops in input application, weeding, and harvesting activities (Mubarik Ali & Abedullah, 2002), thereby increasing rural employment opportunities. Crop diversification toward horticulture crops can be especially beneficial for smallholders. Horticultural crops such as fruits, vegetables, spices, and flowers usually generate higher net returns per unit of land than staple crops such as rice or maize (Weinberger & Lumpkin, 2007). Moreover, economies of scale are less of a vital factor in profit generation as they are to staple crop farming. Smallholders can usually generate higher profits per unit of land from growing high-value horticultural crops. Birthal, Roy & Negi (2015) find the biggest

impact of horticultural farming on poverty is found among smallholders with land no more than two hectares.

Considerable research examines factors affecting child education in developing countries to understand household decision making regarding child education investment (Al-Samarrai & Reilly, 2000; Dancer & Rammohan, 2007; Glick & Sahn, 2000; Kabubo-mariara & Mwabu, 2007). One of the most important determinants of child schooling is household wealth and income (Filmer & Pritchett, 1999; Gibson & Sear, 2010). As horticultural farming generally contributes to higher household income, it may have an impact on education investment. On the other hand, since horticultural farming is more profitable and is labour-intensive (Weinberger & Lumpkin, 2007), it might also increase the opportunity cost of children's time in school and cause children to spend more time doing farm work other than staying in school. Neither of these possible impacts, however, has been investigated in recent literature, yet understanding such linkages is important to assist the design of interventions that aim to maximize the welfare impacts of horticultural farming.

Recent research also assesses the possible impacts of farming on child education outcome. For instance, an investigation of rice intensification systems indicates no significant impact on child school enrolment in either gender (Takahashi & Barrett, 2013). In terms of cash crops, one recent article studies the impacts of cotton farming on child school enrolment in Burkina Faso using pooled cross-sectional data (Kazianga & Makamu, 2016). The results show that cotton farming induces an increase in school enrolment for girls but no significant impact on boys, as girls are less suitable to perform labour intensive tasks in cotton farms. In terms of horticultural farming, a positive impact is found on primary school enrolment through female wage employment in the horticultural export industry in Senegal (Maertens & Verhofstadt, 2013). Admittedly, a binary school enrolment indicator, though important, may not be able to effectively capture education outcomes due to limited data variation. This is

specifically the case among younger children in a country like Indonesia for whom dropping out of school at early stages is relatively rare.

These mixed findings are inconclusive in what direction horticultural farming affects child education outcomes. Moreover, alternative education outcome measures are needed to capture finer-scale data variations and meaningfully assess the true impacts of horticultural farming.

2.4 Methodology

To examine the relationship between horticultural farming and child education outcomes, horticultural farmers in this study are defined as households who grow vegetable/fruit/spice as their most or second most valuable crop. We further define staple households as households who grow staple crops as their most valuable crop and do not have horticultural crops as their second most valuable crop.

To overcome the limitations of school enrolment measure, the current study uses three alternative education outcome measures: 1) household child education spending in the past academic year, 2) the number of hours a child spent in school in the previous week, and 3) whether a child has repeated a grade. The first two measures are continuous, aiming to evaluate education outcomes from two different aspects and at finer scales. The last measure is dichotomous, which further reflects education quality that can be easily overlooked. In the empirical analysis, the main regression equation of our interest can be specified as below:

$$y_{ij} = \beta_0 + HORT_j\beta_1 + X_{ij}\beta_2 + HH_j\beta_3 + \epsilon_{ij} \quad (1)$$

where y_{ij} denotes the educational outcome of child i in household j; $HORT_j$ is a dummy variable which takes a value of either one if the household is classified as a horticultural farmer according to our criteria outlined above, or zero otherwise; X_{ij} is a vector of child

characteristics; HH_j is a vector of household characteristics; β_0, β_1 ,β_2 and β_3 are coefficients to be estimated, and ϵ_{ij} is the random disturbance.

While equation (1) can be easily estimated with ordinary least squares (OLS, for continuous education outcomes) or logit regression (for discrete education outcomes), the estimates could be inconsistent given the potential endogeneity of $HORT_j$, a self-made decision on horticultural farming participation. Therefore, instrumental variable regression is employed as our main identification strategy. Specifically, horticultural farming decision is specified as a function of all covariates ($X_{ij}$and HH_j) plus the excluded instrument, Z_j where u_{ij} is the random disturbance:

$$HORT_j = X_{ij}\gamma_1 + HH_j\gamma_2 + Z_j\gamma_3 + u_{ij} \quad (2)$$

Equations (1) and (2) therefore can be estimated with two-stage least squares (2SLS). To compare and contrast the relationship between horticultural farming and education outcomes, we would like to further understand the child education outcomes among staple farmers - households growing staple crop as their most valuable crop and do not have horticultural crop as their second most valuable crop. Similar to the specification above, the empirical model is specified as:

$$y_{ij} = \beta_0 + STAPLE_j\beta_1 + X_{ij}\beta_2 + HH_j\beta_3 + \epsilon_{ij} \quad (3)$$

$$STAPLE_j = X_{ij}\gamma_1 + HH_j\gamma_2 + Z_j\gamma_3 + u_{ij} \quad (4)$$

where y_{ij} again denotes the educational outcome of child i in household j; $STAPLE_j$ is a dummy variable which takes a value of one if the household is a staple farmer (that grows staple crop as their most valuable crop and does not have horticultural crop as their second most valuable crop), or zero otherwise; X_{ij} is a vector of child characteristics; HH_j is a vector of household characteristics and Z_j is the excluded instrument.

The child characteristics include child information regarding gender, age, academic performance, education level, work, health, birth order, aid and book received, the type of

school. Household features include the age, gender, education level, marital status of the household head, the number of household member in each age group as well as household income, assets, borrowing. The number of primary and junior high school inside the village are also incorporated as indicators of education supply. Province fixed effects are finally included to capture any unobserved regional-level heterogeneity.

In both models, Z_j is a binary variable which takes a value of one if the village has horticultural crop as their main production, or zero otherwise. The variable is obtained from the separate village questionnaire that has the information of the main crops cultivated in the village in the last 12 months. On the one hand, it should be correlated with the endogenous explanatory variable given the likely existence of peer effects and learning in crop choices among villagers. On the other hand, it should not have a direct causal relationship with the child education outcome variables except through horticultural farming participation decision. The possibility that the instrumental variable might affect education outcomes through its correlation with the error term such as characteristics of the village is partially captured though the use of province fixed effects. The Pearson correlation shows a minor correlation between the instrumental variable and the education outcome variables; 0.0936 for education spending, 0.0731 for school hours, and -0.0455 for grade repetition (see Table A1 for details). Moreover, the instrument has sufficient explanatory power of the household level horticultural decision. The first stage regression shows that it is correlated with the endogenous variables, *F*-statistic = 20.32; $p < 0.01$ in equation (2), and *F*-statistic = 35.64; $p < 0.01$ in equation (4) (see Table A3 for details). Hence, concerns over possible weakness of the instrument should be minimized.

In the empirical analysis, 2SLS estimation is implemented with the multiple child education outcomes measures discussed above (child education spending in the past academic year, the number of hours a child spent in school in the previous week, and whether a child has

repeated a grade). The application of 2SLS with continuous outcomes is intuitive, while we also opt to estimate a linear probability model with grade repetition as a binary outcome. Although one may consider instrumental variable probit model, linear probability model estimation with 2SLS has a clear advantage as the latter is robust against possible first-stage misspecification that can challenge the distributional assumption of the former and result in inconsistent estimates (Joshua D. Angrist, 2001; Lewbel, Dong, & Yang, 2012). Moreover, from an empirical perspective, linear probability model generally yields very similar estimates with those from instrumental variable probit model, where, the difference in terms of marginal effects is usually indistinguishable (Joshua D Angrist & Pischke, 2009). This is also our case as seen from backstage estimation of the instrumental variable probit model and comparison of marginal effects. Therefore, 2SLS estimation of the linear probability is suitable in our analysis and is therefore implemented and reported below.

2.5 Data and descriptive statistics

This study is facilitated by the Indonesian Family Life Survey Eastern Indonesia (IFLS East 2012) which surveyed remote geographical area of Eastern part of Indonesia. The data were collected through the cooperation between SurveyMETER, RAND Corporation and the Australian Agency for International Development (AusAid). IFLS East 2012 is the first wave of the household longitudinal surveys conducted particularly in Eastern Indonesia, as there exist no comparable data available in this region (Bondan, Witoelar, Strauss, Meijer, & Suriastini, 2013). Multi-stage sampling strategy was used. Seven provinces in Eastern Indonesia were selected in the first stage, including East Kalimantan, Southeast Sulawesi, East Nusa Tengara, Maluku, North Maluku, Papua, and West Papua. In the next stage, 14 villages (Kelurahan) from each province were randomly drawn with equal probability and without replacement. A few villages were dropped by the survey team due to safety issues, and a total

of 99 villages were included in the survey. Subsequently, the enumerators visited the 99 villages and developed the smallest local area unit (satuan lingkungan setempat or SLS) to obtain representative samples of households from each village. Finally, 20 to 30 households were selected out of 100 to 150 households in each SLS with simple random sampling. Consequently, 2,547 out of 3,159 selected households participated in the survey, suggesting an overall response rate of 80.6%.

The sample in the current study consists of 1,246 children from 791 households selected using the following criteria: (1) their households own farm business; (2) they are enrolled in primary school or junior high school; and (3) they are up to 15 years old. We intentionally focus on younger children because senior high school enrolment rate in rural area are generally low in Indonesia (Suryadarma & Jones, 2013), as youngsters are becoming adults at this age and the opportunity cost of education becomes clear with emerging employment opportunities.

Table 1 reports the descriptive statistics of the key variables. The average child education spending of horticultural households (670.411 thousand Indonesian Rupiah) is higher than that of other types of households (585.451 thousand Indonesian Rupiah). The amount of time spent in school for children from horticultural households is also slightly higher than that of other types of households. Moreover, grade repetition rate is lower among children from horticultural households (22.6%) as compared with that among staple households (28.4%). It is also observed that child work participation rates are roughly the same across all types of household, with 18.0% and 18.8% for horticultural households and staple households, respectively. There are no meaningful differences in terms of household head education and household head age. However, income, assets and borrowing of horticultural households are higher than those of other types of households, whereas those of staple households are substantially lower than other farm households. Finally, the number of primary and junior high

schools in the village is roughly the same across all farm households: approximately between one and two schools in each village.

Table 1 Descriptive statistics of dependent and independent variables

	Children of all farm households (n = 1,246)	Children of horticulture households (n = 450)	Children of non-horticulture households (n = 796)	Children of staple farming households (n = 419)	Children of non-staple farming households (n = 827)
Education spending per child (thousand IDR)	616.1 (824.699)	670.411 (689.295)*	585.451 (670.411)*	486.06(565.09)***	682.03 (922.28)***
Time spent in school last week (hours)	23.996 (7.452)	24.528 (7.473)*	23.695 (7.428)*	23.596 (6.924)	24.199(7.701)
Grade repetition (yes=1; no=0)	.245 (.430)	.226 (.419)	.256(.436)	.284 (.451)	.226 (.418)
School level (primary=0; junior high=1)	.182 (.386)	0.180 (.384)	.183 (.387)	.181 (.385)	.182 (.386)
Gender (male=1; female=0)	.501 (.500)	.486 (.500)	.510 (.500)	.503 (.500)	0.500 (.500)
Age	10.364 (2.233)	10.111 (2.243)***	10.507 (2.216)***	10.525 (2.220)*	10.282 (2.237)*
Child work (yes=1; no=0)	0.178 (.383)	.18 (.384)	.178 (.383)	.188 (.391)	.174 (.379)
Child health (good=1; other=0)	.997 (.049)	.995 (.066)	.998 (.035)	1 (0)	.996 (.060)
Firstborn (yes=1; no=0)	.343 (.475)	.328 (.470)	.351 (.477)	.377 (.485)*	.326 (.469)*
Lastborn (yes=1; no=0)	.148 (.355)	.164 (.371)	.139 (.346)	.140 (.348)	0.152 (.359)
Only child (yes=1; no=0)	.073 (.261)	.068 (.253)	.076 (.266)	.083 (.277)	.068 (.253)
Aid received (yes=1; no=0)	.882 (.322)	.928 (.257)***	.855 (.351)***	.847 (.360)***	.899 (.300)***
Book received (yes=1; no=0)	.616 (.486)	.602 (.489)	.624 (.484)	.630 (.483)	.609 (.488)
Religious school (yes=1; no=0)	.053 (.225)	.088 (.284)***	.033 (.181)***	.007 (.084)***	.077 (.267)***
Household head education (years)	6.963 (3.927)	7.097 (4.042)	6.886 (3.862)	6.474 (3.648)***	7.210 (4.041)***
Household head age	44.398 (10.500)	44.231 (10.602)	44.492 (10.447)	44.291 (10.378)	44.452 (10.567)
Household head divorced/separated/widowed (yes=1; no=0)	.073 (.260)	.073 (.260)	.072 (.260)	.076 (.265)	.071 (.257)
Female Household head	.112 (.315)	0.104 (.306)	0.116 (.321)	.162 (.369)***	.087 (.282)***
Mother education (years)	6.654 (4.221)	6.911 (4.376)	6.510 (4.127)	6.145 (4.069)***	6.912 (4.276)***
Mother living at home (yes=1; no=0)	.886 (.316)	.875 (.330)	.893 (.309)	.904 (.294)	.877 (.327)
Number of household member aged 66 and over	.130 (.382)	.122 (.366)	.135 (.390)	.143(.395)	.124 (.375)
No. of household member aged 18-65	2.405 (1.046)	2.400 (.983)	2.408 (1.081)	2.372 (1.042)	2.422 (1.049)
No. of household member aged 13-17	.757 (.847)	.731 (.918)	.772 (.805)	.718 (.749)	.777 (.893)
No. of household member aged 6-12	1.821(.987)	1.811(.984)	1.826 (.989)	1.770 (.978)	1.846 (.991)
No. of household member aged 0-5	.760 (.826)	.751 (.847)	.766 (.815)	.763 (.820)	.759 (.830)
Household income (million IDR)	19.991 (32.714)	23.298 (43.057)***	18.122 (24.884)***	15.09 (22.39)***	22.475 (36.621)***
Household assets (million IDR)	125.97 (183.11)	140.336(178.593)**	117.851(185.234)**	103.04(157.17)***	137.59 (193.1)***
Household borrowing (million IDR)	1.656 (18.343)	2.034 (24.172)	1.443 (14.028)	.573 (3.806)	2.205 (22.336)
No. of primary schools in the village	1.724 (1.343)	1.724 (1.208)	1.724 (1.414)	1.914 (1.587)***	1.628 (1.190)***
No. of junior high schools in the village	1.714 (.948)	1.886 (1.097)***	1.616 (.837)***	1.467 (.681)***	1.839 (1.036)***
Horticultural crops as the village's main crops(yes=1; no=0)	.510 (.500)	.702 (.457)***	.402 (.490)***	.269 (.444)***	.632 (.482)***

Standard errors are in parentheses. *, ** and *** indicate statistical significance at 10%, 5% and 1% levels, respectively.

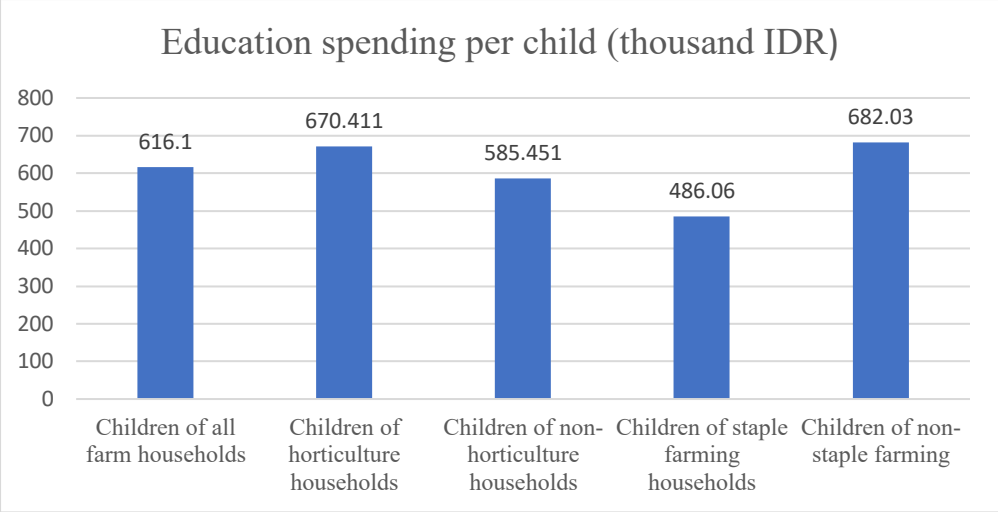

Figure 1 Average education spending per child (thousand IDR)

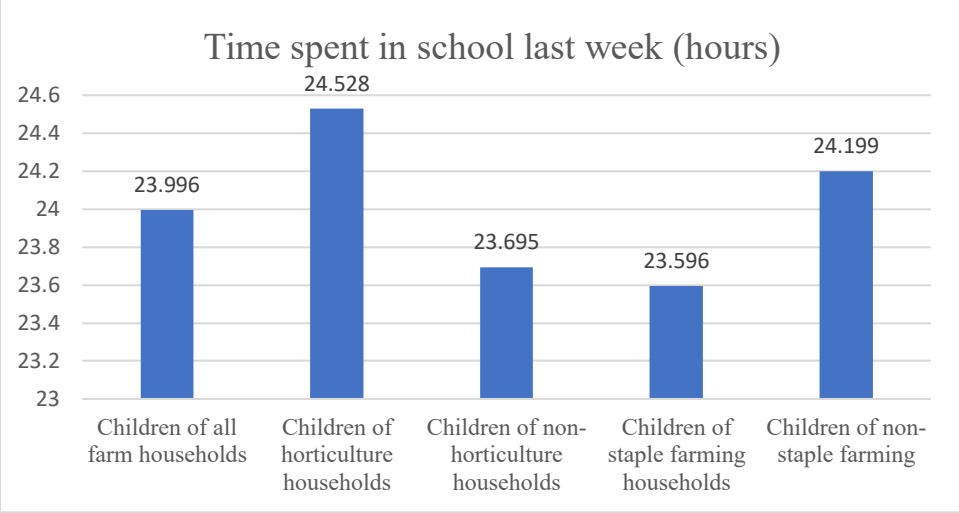

Figure 2 Average time spent in school for children (hours)

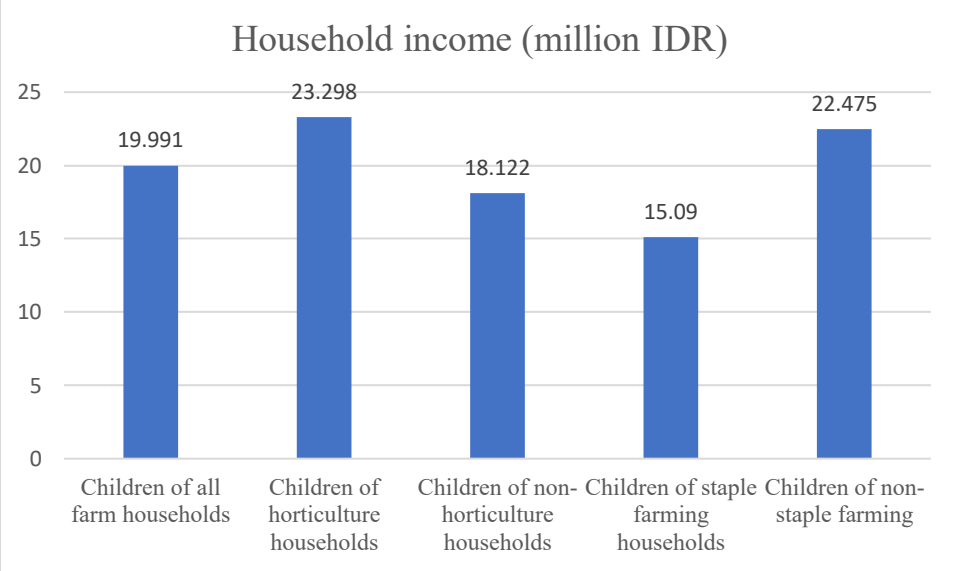

Figure 3 Average household income (million IDR)

2.6 Results and discussion

Table 2 reports the estimation of the relationship between horticultural/staple farming and child education spending. The 2SLS results suggest that horticultural farming is positively associated with child education spending of the household. The effect is noticeable (1288.812 thousand Indonesia Rupiah, or 141.77 US dollars as evaluated using daily average exchange rate of 2012), which equals 6.4% of the yearly income of an average household, or 5.5% of the yearly income of an average horticultural household. In other words, 24.9% of the income difference of 5,176 thousand Indonesia Rupiah between horticultural and non-horticultural households have been spent on child education by the former. Moreover, positive selection is observed as the OLS estimate is of a much smaller magnitude and is statistically insignificant. It is therefore implied that certain unobservable factors that discourage child education investment would have masked the true effects of horticultural farming were such endogeneity not appropriately accounted for. While this direction of selection is not typically assumed in literature, it is consistent with the data pattern that the observed difference in child education spending between horticultural and non-horticultural households (84.96 thousand Indonesia Rupiah, computed from Table 1) is much smaller than the estimate. Hence, the effect of horticultural farming on child education spending is more than enough to have offset the negative effects from unobservable factors, which has rich policy meaning for interventions that aim to improve child education and build human capital in rural Indonesia.

This positive relationship between horticultural farming as the main crops and education spending might be explained through an increased household income from horticultural farming, which echoes the estimated positive income effects of horticultural farming (Mubarik Ali & Abedullah, 2002; Barrón & Rello, 2000; Hichaambwa et al., 2015; Minot & Roy, 2007; Weinberger & Lumpkin, 2007). In contrast, staple farming is found to be negatively associated with child education spending, estimated as 1108.251 thousand

Indonesian Rupiah (or 121.91 US dollars). The negative relationship between staple crop farming and child education spending could be possibly explained by the lower income associated with staple farming. Comparison of the OLS and 2SLS estimates further suggest that certain unobservables tend to partly compensate the lacked child education spending of staple households, suggesting that true negative effect of staple farming on child education spending is even larger.

Among the covariates, most coefficient estimates have expected signs. More child education spending is seen among children who are in junior high school, older, having better educated household head, having higher household income and household borrowing, and having more household members aged 66 and over. It is lower among those who have failed a grade, have participated in farm work and have received aid. The disadvantages of girls and those engaged in farm work may be meaningful, while most of these significant correlations are relatively small as compared with the effect of horticultural farming.

Table 2. Horticultural/staple farming and education spending (n=1,246)

	Horticultural farming		Staple farming	
	OLS	2SLS	OLS	2SLS
Treatment effect (thousand IDR)	68.974 (47.763)	1288.812 (454.677)***	-138.024 (53.968) **	-1108.251(354.107)***
School level (primary=0; junior high=1)	374.549 (72.389)***	327.138 (90.217)***	383.031 (72.268)***	423.814 (81.497)***
Gender (male=1; female=0)	101.806 (42.803)**	131.990 (53.505)**	100.148 (42.708)**	100.486 (47.376)**
Age	18.896 (13.531)	44.592 (19.075)**	17.774 (13.469)	20.104 (14.964)
Ever fail (yes=1; no=0)	-85.184 (52.759)	-141.105 (67.731)**	-85.903 (52.639)	-113.183 (59.210)*
Child work (yes=1; no=0)	-155.986 (58.740)***	-191.843 (73.025)***	-160.140 (58.666) ***	-203.595 (66.927)***
Child health (good=1; other=0)	-22.380 (433.162)	456.314 (558.336)	21.247 (432.847)	518.189 (512.344)
Firstborn (yes=1; no=0)	27.180 (61.061)	34.972 (74.705)	30.374 (60.965)	55.922 (68.248)
Lastborn (yes=1; no=0)	-4.972 (70.424)	-18.095 (86.232)	-.657 (70.307)	24.452 (78.512)
Only child (yes=1; no=0)	-46.649 (98.545)	31.707 (123.908)	-45.038 (98.345)	-2.570 (110.157)
Aid received (yes=1; no=0)	-99.422 (67.769)	-203.469 (91.342)**	-97.473 (67.540)	-125.131 (75.579)*
Book received (yes=1; no=0)	3.311 (45.529)	85.532 (63.418)	2.425 (45.356)	28.875 (51.204)
Religious school (yes=1; no=0)	-98.876 (102.021)	-228.411 (133.599)*	-97.808 (101.738)	-141.783 (113.958)
Household head education (years)	14.539 (6.531)**	18.118 (8.094)**	14.101 (6.518)**	12.448 (7.255)*
Household head age	-3.988 (2.455)	-1.955 (3.094)	-4.031 (2.449)	-3.526 (2.723)
Household head divorced/separated/widowed (yes=1; no=0)	146.175 (107.399)	125.727 (131.516)	116.390 (107.879)	-101.106 (142.974)
Female Household head	-101.415 (89.377)	-101.781 (109.267)	-68.709 (90.124)	161.047 (129.712)
Mother education (years)	10.552 (5.996)*	8.090 (7.387)	9.860 (5.993)	4.020 (6.972)
Mother living at home (yes=1; no=0)	17.311 (77.588)	59.855 (96.149)	19.659 (77.450)	53.076 (86.751)
Number of household member aged 66 and over	204.317 (59.526)***	227.728 (73.285)***	202.511 (59.410)***	199.119 (65.914)***
No. of household member aged 18-65	1.311 (23.488)	26.488 (30.185)	4.054 (23.481)	33.342 (28.097)
No. of household member aged 13-17	41.978 (30.447)	60.673 (37.859)	38.226 (30.401)	19.285 (34.404)
No. of household member aged 6-12	-61.115 (25.445)**	-21.246 (34.422)	-59.870 (25.387)**	-35.274 (29.519)
No. of household member aged 0-5	-48.511 (29.654)	-18.373 (37.926)	-48.218 (29.586)	-34.181 (33.206)
Household income (million IDR)	4.245 (.922)***	3.569 (1.155)***	4.312 (.920)***	4.513 (1.023)***
Household assets (million IDR)	-.393 (.139)***	-.716 (.208)***	-.416 (.139)***	-.712 (.188)***
Household borrowing (million IDR)	8.679 (1.517)***	10.191 (1.937)***	8.660 (1.513)***	9.127 (1.687)***
No. of primary schools in the village	16.667 (18.180)	8.389 (22.436)	19.414 (18.166)	35.434 (20.959)*
No. of junior high schools in the village	-5.449 (26.803)	-36.058 (34.666)	-16.611 (27.198)	-107.239 (44.419)**
Provincial fixed effects	yes	yes	yes	yes
Constant	479.976 (490.482)	-868.490 (779.755)	513.676 (487.022)	214.592 (550.851)
F (35, 1210)	9.68		9.84	
Wald $\chi_2(35)$		233.25		284.36
First-stage F statistic		20.291		35.601

Standard errors are in parentheses. *, ** and *** indicate statistical significance at 10%, 5% and 1% levels, respectively.

The association between better education outcomes and horticultural farming reported in Table 2 adds to the welfare implication of horticultural farming from another aspect, yet the possible cost of horticultural farming in this regard needs to be prudently investigated. One possibility is that, given that horticultural cultivation is more labour-intensive (Birthal et al., 2013; Joshi et al., 2006), a child's participation in farm work may crowd out his/her time available/spent in school. In the extreme, the delayed education progress may even lead to grade repetition. To formally test this hypothesis, we proceed to estimate similarly specified regression models with alternative education outcome measures.

Table 3 reports the full estimation results where the outcome variable is the child's hours spent in school in the past week. It is seen that horticultural farming does not have any significant negative effect on hours spent in school, thereby minimizing the concern over possible substitutional effect between schooling and farm work participation associated with horticultural cropping. Possible explanations may include that hired labour could be more efficient than child labour, and that parents could be well aware of the importance of education throughout the child's lifetime. On the other hand, neither is the effect of staple farming on hours spent in school significant. Meaningful findings among the covariates include that older children and those who have siblings close in age (6-12) spend more time in school, while those who were the last born in the family spend less. These patterns are consistent among horticultural, non-horticultural, staple and non-staple households.

Table 4 further reports the estimation of horticultural/staple farming effects on grade repetition. Again, there is no significant effects from either. Rather, the probability of grade repetition is more frequent among primary schoolchildren, yet it increases with age. It is further seen to be positively associated with grandparent presence and number of primary schools in the village, and negatively associated with mother's education and the number of junior high schools in the village. It is further seen that boys are more likely to repeat a grade than girls.

The relations between grade repetition and school numbers are interesting. It could have been speculated that more primary schools might offer a more flexible schooling environment at early stages which could have lowered the opportunity cost of grade repetition, yet older children might be more likely competing for better junior high schools and in general less likely to repeat a grade.

Table 3. Horticultural/staple farming and hours spent in school (n=1,246)

	Horticultural farming		Staple farming	
	OLS	**2SLS**	**OLS**	**2SLS**
Treatment effect (time spent in school in the past week)	.818 (.444)*	3.768 (3.470)	-.070 (.503)	-3.240 (2.983)
School level (primary=0; junior high=1)	.550 (.673)	.436 (.688)	.585 (.674)	.718 (.686)
Gender (male=1; female=0)	.228 (.398)	.301 (.408)	.208 (.398)	.209 (.399)
Age	1.023 (.125)***	1.085 (.145)***	1.006 (.125)***	1.013 (.126)***
Ever fail (yes=1; no=0)	-.758 (.490)	-.893 (.517)*	-.722 (.491)	-.811 (.498)
Child work (yes=1; no=0)	-.377 (.546)	-.464 (.557)	-.356 (.547)	-.498 (.563)
Child health (good=1; other=0)	4.455 (4.029)	5.612 (4.262)	4.169 (4.039)	5.793 (4.316)
Firstborn (yes=1; no=0)	.260 (.567)	.278 (.570)	.256 (.568)	.340 (.574)
Lastborn (yes=1; no=0)	-1.312 (.655)**	-1.344 (.658)**	-1.301 (.656)**	-1.219 (.661)*
Only child (yes=1; no=0)	-1.397 (.916)	-1.208 (.945)	-1.447 (.917)	-1.308 (.928)
Aid received (yes=1; no=0)	.947 (.630)	.695 (.697)	1.015 (.630)	.924 (.636)
Book received (yes=1; no=0)	.391 (.423)	.589 (.484)	.337 (.423)	.424 (.431)
Religious school (yes=1; no=0)	-1.291 (.949)	-1.604 (1.019)	-1.207 (.949)	-1.351 (.960)
Household head education (years)	.106 (.060)*	.115 (.061)*	.103 (.060)*	.098 (.061)
Household head age	.019 (.022)	.023 (.023)	.017 (.022)	.019 (.022)
Household head divorced/separated/widowed (yes=1; no=0)	.339 (.999)	.289(1.003)	.337 (1.006)	-.373 (1.204)
Female Household head	-.753 (.831)	-.754 (.834)	-.736 (.841)	.013 (1.092)
Mother education (years)	.048 (.055)	.042 (.056)	.049 (.055)	.030 (.058)
Mother living at home (yes=1; no=0)	-.205 (.721)	-.102 (.733)	-.231 (.722)	-.122 (.730)
Number of household member aged 66 and over	.721(.553)	.778 (.559)	.705 (.554)	.694 (.555)
No. of household member aged 18-65	-.058 (.218)	.002 (.230)	-.073 (.219)	.022 (.236)
No. of household member aged 13-17	-.314 (.283)	-.269 (.288)	-.328 (.283)	-.390 (.289)
No. of household member aged 6-12	.532 (.236)**	.288 (.262)**	.507 (.236)**	.587 (.248)**
No. of household member aged 0-5	-.235 (.275)	.262 (.289)	-.254 (.276)	-.208 (.279)
Household income (million IDR)	.004 (.008)	.003 (.008)	.005 (.008)	.005 (.008)
Household assets (million IDR)	-.000 (.001)	-.001 (.001)	-.000 (.001)	-.001 (.001)
Household borrowing (million IDR)	.004 (.014)	.008 (.014)	.003 (.014)	.005 (.014)
No. of primary schools in the village	-.312 (.169)*	-.332 (.171)*	-.305 (.169)*	-.253 (.176)*
No. of junior high schools in the village	.361 (.249)	.287 (.264)	.375 (.253)	.079 (.374)
Provincial fixed effects	yes	yes	yes	yes
Constant	4.360 (4.562)	1.099 (5.952)	5.244 (4.544)	4.266 (4.640)
F (35, 1210)	7.18		7.07	
Wald $\chi_2(35)$		247.61		247.80
First-stage F statistic		20.291		35.601

Standard errors are in parentheses. *, ** and *** indicate statistical significance at 10%, 5% and 1% levels, respectively.

Table 4. Horticultural/staple farming and grade repetition (n=1,246)

	Horticultural farming		Staple farming	
	Logit (marginal effects)	2SLS	Logit (marginal effects)	2SLS
Treatment effect (grade repetition)	.032 (.027)	.022 (.199)	-.031 (.028)	-.019 (.171)
School level (primary=0; junior high=1)	-.148 (.024)***	-.209 (.038)***	-.147(.024)***	-.207 (.039)***
Gender (male=1; female=0)	.097 (.023)***	.099 (.023)***	.097 (.023)***	.099 (.022)***
Age	.050 (.007)***	.050 (.008)***	.050 (.007) ***	.050 (.007)***
Child work (yes=1; no=0)	.020 (.031)	.027 (.032)	.019 (.031)	.027 (.032)
Child health (good=1; other=0)	-.025 (.259)	-.044 (.245)	-.017 (.256)	-.043 (.248)
Firstborn (yes=1; no=0)	-.022 (.032)	-.021 (.032)	-.022 (.032)	-.021 (.033)
Lastborn (yes=1; no=0)	-.013 (.039)	-.013 (.037)	-.011 (.039)	-.013 (.038)
Only child (yes=1; no=0)	.045 (.062)	.042 (.054)	.043 (.062)	.041 (.053)
Aid received (yes=1; no=0)	-.025 (.038)	-.036 (.039)	-.023 (.037)	-.034 (.036)
Book received (yes=1; no=0)	.017 (.025)	.020 (.027)	.015 (.025)	.019 (.024)
Religious school (yes=1; no=0)	-.002 (.069)	.012 (.058)	-.000 (.069)	.014 (.055)
Household head education (years)	.000 (.003)	.000 (.003)	.000 (.003)	-.000 (.003)
Household head age	.000 (.001)	.000 (.001)	.000 (.001)	.000 (.001)
Household head divorced/separated/widowed (yes=1; no=0)	-.016 (.057)	-.021 (.057)	-.022 (.056)	-.025 (.069)
Female Household head	.005 (.049)	.011 (.047)	.013 (.051)	.016 (.062)
Mother education (years)	-.010 (.003)***	-.009 (.003)***	-.010 (.003)***	-.009 (.003)***
Mother living at home (yes=1; no=0)	.022 (.039)	.022 (.042)	.023 (.039)	.022 (.042)
Number of household member aged 66 and over	.083 (.030)***	.087 (.032)***	.082 (.030)***	.086 (.031)***
No. of household member aged 18-65	-.002 (.013)	-.003 (.013)	-.001 (.013)	-.003 (.013)
No. of household member aged 13-17	.011 (.016)	.014 (.016)	.010 (.016)	.014 (.016)
No. of household member aged 6-12	.028 (.013)**	.023 (.015)	.028 (.013)**	.023 (.014)*
No. of household member aged 0-5	.021 (.015)	.020 (.016)	.021 (.015)	.020 (.016)
Household income (million IDR)	-.000 (.000)	-.000 (.000)	-.000 (.000)	-.000 (.000)
Household assets (million IDR)	-.000 (.000)	-.000 (.000)	-.000 (.000)	-.000 (.000)
Household borrowing (million IDR)	-.003 (.003)	-.000 (.000)	-.003 (.003)	-.000 (.000)
No. of primary schools in the village	.028 (.009)***	.025 (.009)***	.029 (.009)***	.026 (.010)***
No. of junior high schools in the village	-.047 (.016)***	-.040 (.015)***	-.050 (.016)***	-.041 (.021)*
Provincial fixed effects	yes	yes	yes	yes
Constant	-	-.250 (.340)	-	-.231 (.266)
LR χ_2 (34)	198.62		198.37	
Wald χ_2(34)		216.20		216.05
First-stage F statistic		20.315		35.640

Standard errors are in parentheses. *, ** and *** indicate statistical significance at 10%, 5% and 1% levels, respectively

The results suggest that horticultural farming is positively associated with child education spending, and even though horticultural farming is labour-intensive, there is no negative relationship between horticultural farming and hours spent in school or grade repetition. As our study uses instrumental variable estimation, the estimates are only the local average treatment effect of the compliers; horticultural households living in the village cultivating horticultural crop as the main crop. In our sample, 70.5% of the children living in households with horticulture as the main crops comes from the villages with horticultural crops as the main crops.

Empirical findings further point to possible gender and school level disparities in child education spending as well as grade repetition. Therefore, we further analyse subsamples broken down by gender and school level to test this possibility. Again, inference is based on 2SLS estimates and provincial fixed effects are included in all models.

Table 5 reports the results that instrumental variable regression indicates a positive relationship between horticultural farming and education spending for both genders. However, the effects on boys (2170.5 thousand Indonesian Rupiah) is fourfold that felt by girls (559.4 thousand Indonesia Rupiah). It therefore appears that horticultural households prioritise investing in boys' schooling than girls. Gender as the covariate also shows households tend to spend more if the child is a boy (Table 2). On the other hand, the negative relationship between staple farming and education spending is also much larger in magnitude for boys than for girls. In other words, boys' human capital accumulation is more income-elastic than girls'. An increase or decrease in income leads to a larger effect on spending changes of boys' schooling than girls. The gender difference in the amount of spending could be explained by the value placed toward boys in a patriarchal society. It implies that boys are the primary beneficiaries of horticultural farming in terms of education spending, and it also points to the need to place

an increased focus on improving girls' education spending accordingly in hope of building up human capital gender-equally and realising women's empowerment in the long run.

School level is another interesting perspective to understand the relationship between crop choice on human capital investment, as primary school children and junior high school children tend to bear different opportunity cost of schooling. Older children could have higher opportunity cost due to higher physical strength and capability of farm labour. The subsample results suggest a positive relationship between horticultural farming and education spending only among primary school children but not junior high school children. On the other hand, results suggest cultivating staple crops without horticulture has a negative association with education spending among both primary and junior high school children. Moreover, the negative coefficient of junior high school children's education spending is approximately 4 times higher than primary school children though it is only marginally significant. Referring to the descriptive statistics in Table 1, staple crop households generate less income, and obtain less amount of borrowing which is vital for financing child education (Chandrasekhar & Mukhopadhyay, 2006). The findings also indicate junior high school children from staple crop households appear to spend less amount of time in school than other types of households. It is plausible that staple crop farming households potentially rely on older children's labour and time to maintain the livelihood of the households. Especially once children reach the age of junior high school students, they are more productive and capable of assisting with household income through farm labour and off-farm work. This negative effect may also demand appropriate policy attention.

Table 5. Subsample results; horticultural farming and child education

Subsample	Child education outcome	Horticultural farming		Staple farming	
		OLS/Logit	2SLS	OLS/Logit	2SLS
Boys (n=625)	Education spending (thousand IDR)	40.692 (84.398)	2108.091(1020.281)**	-171.122(92.864)*	-1639.952(665.126)**
	Hours spent in school in the past week	.152 (.627)	4.731 (5.579)	.725 (.691)	-3.680(4.293)
	Grade repetition (yes=1; no=0)	.028 (.042)	.274 (.337)	-.051(.043)	-.213(.257)
Girls (n=621)	Education spending (thousand IDR)	83.550(46.770)*	561.634(293.930)*	-76.669 (53.886)	-598.598(311.152)*
	Hours spent in school in the past week	1.624(.657)**	3.703(3.838)	-1.133(.759)	-3.947(4.117)
	Grade repetition (yes=1; no=0)	.030 (.035)	-.034(.210)	.011(.040)	.037(.223)
Primary schoolchildren (n=1,019)	Education spending (thousand IDR)	52.916(32.786)	636.758(267.515)**	-70.546(37.575)*	-636.972(258.077)**
	Hours spent in school in the past week	.654(.487)	.513(3.456)	.325(.558)	-.514(3.464)
	Grade repetition (yes=1; no=0)	.032 (.030)	-.078(.210)	-.020 (.033)	.078(.209)
Junior high schoolchildren (n=227)	Education spending (thousand IDR)	-206.923(243.188)	7488.721(8141.852)	-194.090 (257.025)	-2697.952(1440.687)*
	Hours spent in school in the past week	2.718(1.189)**	48.304(46.971)	-2.895(1.256)**	-17.402(7.496)**
	Grade repetition (yes=1; no=0)	.033 (.059)	.902(1.186)	-.077 (.048)	-.324(.315)

OLS estimation is implemented with education spending and hours spent in school in the past week, while logit estimation is used with grade repetition. Provincial fixed effects are included in all regressions. Standard errors are in parentheses. *, ** and *** indicate statistical significance at 10%, 5% and 1% levels, respectively.

2.7 Conclusion

Our study provides understanding of how having horticultural crops as the main crop influences household welfare and human capital investment. Findings from instrumental variable regression indicate a positive effect of horticultural farming particularly on education spending for both genders, while the effect is much larger on boys. Even though horticultural farming is labour-intensive, results show no effects of horticultural effect on hours spent in school or grade repetition. On the other hand, we found a consistent negative effect of staple crop farming without horticulture on education spending on both genders as well as negative effect on hours spent in school for junior high school children.

Understanding the effect of crop choice on household education investment could provide policy recommendation to address the implications of horticultural crop adoption in Indonesia. This research analyses the potential benefits of having horticultural crops as the main crop that it would not only increase household income but also household education spending. These implications are associated with the long-term impact of poverty reduction and human capital development. As results indicate consistent negative impacts on child education outcomes among staple crop farming households, further attention and policy implementation should be directed to support these types of households, particularly rice farming which are a significant part of rural economy (McCulloch & Peter Timmer, 2008). Furthermore, these results would potentially address the socio-economic implications of heavily promoting rice production in Indonesia, for instance, the self-sufficiency policy (Simatupang & Peter Timmer, 2008).

One of the limitations of this study is the use of cross-sectional data which limits the ability to infer causality. The research is based on observational data in Eastern part of Indonesia and it still has limitation in terms of external validity in different settings. The use of survey which gathers information reported by households might suffer some bias, as the respondents might not have accurate information due to the lack of proper records. Nevertheless, we did provide some first evidence on the positive effect of horticultural farming on child education spending, and further break down the

heterogeneity from both gender and school level perspectives. Further research may utilize better data once they become available to test the external validity of our study and therefore strengthen inferred causality.

2.8 References

Al-Samarrai, S., & Reilly, B. (2000). Urban and rural differences in primary school attendance: an empirical study for Tanzania. *Journal of African Economies, 9*(4), 430-474.

Ali, M. (2002). The vegetable sector in Indochina: a synthesis. *The vegetable sector in Indochina countries: farm and household perspectives on poverty alleviation. Technical Bulletin, 27*, 1-30.

Ali, M., & Abedullah, D. (2002). Nutritional and economic benefits of enhanced vegetable production and consumption. *Journal of Crop Production, 6*(1-2), 145-176.

Angrist, J. D. (2001). Estimation of Limited Dependent Variable Models With Dummy Endogenous Regressors. *Journal of Business & Economic Statistics, 19*(1), 2-28. doi:10.1198/07350010152472571

Angrist, J. D., & Pischke, J.-S. (2009). Instrumental variables in action: sometimes you get what you need. *Mostly harmless econometrics: an empiricist's companion*, 113-220.

Barrón, M. A., & Rello, F. (2000). The impact of the tomato agroindustry on the rural poor in Mexico. *Agricultural Economics, 23*(3), 289-297.

Becker, G. S., Murphy, K. M., & Tamura, R. (1990). Human capital, fertility, and economic growth. *Journal of political economy, 98*(5, Part 2), S12-S37.

Birthal, P. S., Joshi, P. K., Roy, D., & Thorat, A. (2013). Diversification in Indian agriculture toward high-value crops: The role of small farmers. *Canadian Journal of Agricultural Economics/Revue canadienne d'agroeconomie, 61*(1), 61-91.

Bondan, S., Witoelar, F., Strauss, J., Meijer, E., & Suriastini, W. (2013). *IFLS East User's Guide and Field Report*. Retrieved from Jogjakarta.

Chandrasekhar, S., & Mukhopadhyay, A. (2006). Primary education as a fundamental right: cost implications. *Economic and Political Weekly*, 3797-3804.

Dancer, D., & Rammohan, A. (2007). Determinants of schooling in Egypt: The role of gender and rural/urban residence. *Oxford Development Studies, 35*(2), 171-195.

Engle, P. L., & Black, M. M. (2008). The effect of poverty on child development and educational outcomes. *Annals of the New York Academy of Sciences, 1136*(1), 243-256.

Filmer, D., & Pritchett, L. (1999). The effect of household wealth on educational attainment: evidence from 35 countries. *Population and development review, 25*(1), 85-120.

Gibson, M. A., & Sear, R. (2010). Does wealth increase parental investment biases in child education? Evidence from two African populations on the cusp of the fertility transition. *Current Anthropology, 51*(5), 693-701.

Glick, P., & Sahn, D. E. (2000). Schooling of girls and boys in a West African country: the effects of parental education, income, and household structure. *Economics of education review, 19*(1), 63-87.

Hichaambwa, M., Chamberlin, J., & Kabwe, S. (2015). *Is Smallholder Horticulture the Unfunded Poverty Reduction Option in Zambia?: A Comparative Assessment of Welfare Effects of Participation in Horticultural and Maize Markets*: Indaba Agricultural Policy Research Institute (IAPRI).

Hill, H., Resosudarmo, B. P., & Vidyattama*, Y. (2008). Indonesia's changing economic geography. *Bulletin of Indonesian Economic Studies, 44*(3), 407-435. doi:10.1080/00074910802395344

Joshi, P., Joshi, L., & Birthal, P. S. (2006). Diversification and its impact on smallholders: Evidence from a study on vegetable production. *Agricultural Economics Research Review, 19*(2), 219-236.

Kabubo-mariara, J., & Mwabu, D. K. (2007). Determinants of school enrolment and education attainment: empirical evidence from Kenya. *South African Journal of Economics, 75*(3), 572-593.

Kazianga, H., & Makamu, F. (2016). Crop Choice, School Participation, and Child Labor in Developing Countries: Cotton Expansion in Burkina Faso. *American Journal of Agricultural Economics, 99*(1), 34-54.

Lewbel, A., Dong, Y., & Yang, T. T. (2012). Comparing features of convenient estimators for binary choice models with endogenous regressors. *Canadian Journal of Economics/Revue canadienne d'économique, 45*(3), 809-829.

Maertens, M., & Verhofstadt, E. (2013). Horticultural exports, female wage employment and primary school enrolment: Theory and evidence from Senegal. *Food Policy, 43*(Supplement C), 118-131. doi:https://doi.org/10.1016/j.foodpol.2013.07.006

McCulloch, N., & Peter Timmer, C. (2008). Rice policy in indonesia: a special issue. *Bulletin of Indonesian Economic Studies, 44*(1), 33-44. doi:10.1080/00074910802001561

Minot, N., & Roy, D. (2007). Impact of high-value agriculture and modern marketing channels on poverty: An analytical framework. *International Food Policy Research Institute, Washington, DC*.

Psacharopoulos, G., & Schultz, T. W. (1984). *The contribution of education to economic growth: International comparisons*: World Bank Washington, DC.

Sahn, D. E., & Stifel, D. C. (2003). Urban–rural inequality in living standards in Africa. *Journal of African Economies, 12*(4), 564-597.

Schultz, T. P. (1992). The role of education and human capital in economic development: An empirical assessment. In: Center Discussion Paper.

Sicular, T., Ximing, Y., Gustafsson, B., & Shi, L. (2007). The urban–rural income gap and inequality in China. *Review of Income and Wealth, 53*(1), 93-126.

Simatupang, P., & Peter Timmer, C. (2008). Indonesian rice production: policies and realities. *Bulletin of Indonesian Economic Studies, 44*(1), 65-80. doi:10.1080/00074910802001587

Suryadarma, D., & Jones, G. W. (2013). *Education in Indonesia*: Institute of Southeast Asian Studies.

Takahashi, K., & Barrett, C. B. (2013). The system of rice intensification and its impacts on household income and child schooling: evidence from rural Indonesia. *American Journal of Agricultural Economics, 96*(1), 269-289.

Weinberger, K., & Lumpkin, T. A. (2007). Diversification into Horticulture and Poverty Reduction: A Research Agenda. *World Development, 35*(8), 1464-1480. doi:https://doi.org/10.1016/j.worlddev.2007.05.002

2.9 Appendices

Table A1 Pearson correlation between the instrumental variable and outcome variables

Variables		Village having horticultural crop as the main crop	Education spending	School hours	Grade repetition
Village having horticultural crop as the main crop	Pearson correlation	1	0.0936	0.0731	-0.0455
	Sig.		0.0009	0.0099	0.1086

Table A2 Pearson correlation between the instrumental variable and the endogenous variable

Variables		Village having horticultural crop as the main crop	Household having horticultural crop as the main crop
Village having horticultural crop as the main crop	Pearson correlation	1	0.2885
	Sig.		0.0000

Table A3 First stage test of Instrumental variable (village having horticultural crop as the main crop)

Variables	R-Square	F-statistics	Prob>F
HORT (education spending)	0.1801	20.291	0.000
STAPLE (education spending)	0.3467	35.601	0.000
HORT (school hours)	0.1801	20.291	0.000
STAPLE (school hours)	0.3467	35.601	0.000
HORT (grade repetition)	0.1787	20.315	0.000
STAPLE (grade repetition)	0.3461	35.640	0.000

Statement of Authorship

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Chapter 3: Risk preference, non-farm income, and child education spending: A case study of citrus farmers in Indonesia

3.1 Abstract

High-value horticultural crops can generate higher returns but with increased risks. Consequently, income diversification toward non-farm source is often used by farmers to cope with risks. While it is evident how off-farm employment increases agricultural production by removing capital constraints, enhances food security, and helps households cope with environmental changes, little is known how it may affect child education spending. This, however, is crucial to rural development in terms of long-term human capital accumulation. We aim to narrow this knowledge gap through an empirical investigation of how risk preference influences income diversification toward non-farm source, and how it translates into education spending among citrus farm households in Indonesia. We also incorporate gender perspectives as we analyze both husbands and wives' risk preference which may have heterogeneous impacts. It is found that wives' lower risk aversion leads to higher off-farm income which is positively associated with child education spending. Moreover, off-farm income is found to have a larger positive effect on education spending than income from citrus farming and other crops. These results therefore imply that risks associated with horticultural farming could influence education spending through increasing off-farm diversification.

Keywords: Risk preference; Non-farm income; Education; Horticulture; Rural development; Indonesia

3.2 Introduction

Promoting high-value horticultural crop farming is an increasingly common development strategy used to promote livelihoods among agricultural households in developing countries (Sonko, Njue et al. 2005, Ali 2008, Maertens, Minten et al. 2012, Pingali 2015). Existing empirical research provides strong evidence that links adoption of horticultural crops with improved income, diet and related welfare improvements (Barron and Rello 2000, Ali and Abedullah 2002, Minot and Roy 2007, Weinberger and Lumpkin 2007, Hichaambwa, Chamberlin et al. 2015, Pingali 2015).

Potential barriers to adopting higher-value crops include additional risks related to higher production costs, credit access and the necessary specific value-chain knowledge (Key and Runsten 1999, Ali and Hau 2001, Ali 2002). Prices for horticultural crops are usually more volatile than staples, due to the yield variations that fluctuate market supply (Key and Runsten 1999) and lack of support programs that influence production costs and output prices like staple crops'. For these reasons, horticultural crops generally involve higher risks than staples (Weinberger and Lumpkin 2007). This is especially true for perennial horticultural crops that require several years of intensive labour and investment until production begins.

The purpose of this study is to examine how risk preference influences income diversification toward non-farm activities and whether the increasing amount of non-farm income helps with child education spending among rural households. Diversifying income sources of both on- and off-farm activities has long been recognized as a common household strategy to cope with risks (Reardon, Delgado et al. 1992, Dercon 1996). Previous research demonstrates how diversification enhances food security, increases agricultural production by removing capital constraints and helps households cope with negative environmental changes (Barrett, Reardon et al. 2001, Liu, Golding et al. 2008, Babatunde and Qaim 2010, Bezu, Barrett et al. 2012, Hoang, Pham et al. 2014).

However, little is known about how non-farm income impacts education spending among farm households. An important reason to address this knowledge gap is because numerous studies demonstrate that human capital accumulation through education provides a long-lasting impact on household income growth, poverty reduction and broader development benefits for rural communities (Psacharopoulos and Schultz 1984, Becker, Murphy et al. 1990, Schultz 1992, Paul Schultz 2002). It also improves financial security after retirement, as it is easier for better educated children to find waged employment with stable income to support parents and the education of younger siblings (Edmondson 1992).

Risk preference is a key factor affecting farmers' coping strategies and income generating activities (Meraner and Finger 2017). Previous research shows how risk preference affects the probability of farmers' undertaking off-farm risk management strategies (de Mey, Wauters et al. 2016). Specifically, risk aversion is found to have a positive relationship with off-farm employment (van Winsen, de Mey et al. 2016).

This study tests the hypothesis that the higher risks associated with horticultural farming results in greater non-farm income diversification which leads to higher educational spending. In addition to understanding the relationship between risk preference and non-agricultural income, this paper explores how this pathway translates into education spending by farm households. The empirical analysis draws on a recent household survey of citrus farmers in Indonesia. The findings are intended for improving policy and program design to further stimulate horticultural crop adoption as a sustainable development strategy with favourable long-term socioeconomic impacts including human capital accumulation through child education spending.

The remainder of this paper is organized as follows. The subsequent section discusses the previous studies relevant to our research question. This is followed by presentation of the empirical strategy of the analysis. Subsequently, we describe the data and their observed

patterns. Empirical results are then presented and discussed in the following section. We finally conclude the paper with policy implications.

3.3 Literature review

Risk coping strategies remain an essential part of farm management, as agriculture is inherently exposed to various types of risk. Production and price uncertainty are two of the main risks as yields are subject to unpredictable weather, pests and diseases (Musser and Patrick 2002). Particularly in developing countries, where farmers lack access to crop insurance and consumption credit, off-farm income diversification strategies plays an important role in risk management (Reardon, Delgado et al. 1992, Barrett, Reardon et al. 2001).

Among the factors that influence diversification towards non-farm activities identified in previous research includes households exposed to higher financial risks (de Mey, Wauters et al. 2016). Households with relatively larger farms also demonstrate a positive relationship with wealth, a greater ability to tolerate risks and are more specialised, resulting in larger farm households focusing more on on-farm risk management strategies rather than off-farm diversification (Velandia, Rejesus et al. 2009). Larger household size also has a positive relationship with on-farm diversification strategies, as large household size usually implies more availability of farm labour (Benjamin and Kimhi 2006, Meraner, Heijman et al. 2015).

Individual farmer characteristics also plays a significant role in non-farm income diversification. Risk aversion is positively correlated with diversification toward non-farm income (van Winsen, de Mey et al. 2016). Farmers with higher levels of education tend to have more opportunities to work off-farm as education increases employment opportunities (De Janvry and Sadoulet 2001, Velandia, Rejesus et al. 2009). Other evidence suggest that higher education levels influence individuals to become less risk averse (Dohmen, Falk et al. 2011). Increasing age is negatively associated with the share of non-farm diversification income as

older farmers tend to have less non-farm employment opportunities (de Mey, Wauters et al. 2016).

Existing studies indicate how income diversification towards non-farm source benefit household well-being in a number of ways. For example, non-farm income is an important source of funding for agricultural inputs (Ruben 2001). Non-farm income supports food consumption and generates stable income for households in the long run (Reardon, Delgado et al. 1992, Block and Webb 2001). Households with higher shares of non-farm income tend to have higher purchasing power (Anderson 2002). Moreover, it also helps farm households to cope better with environmental uncertainty (Liu, Golding et al. 2008). Even though, non-farm work is found to reduce hours of farm work, it does not negatively affect agricultural income (Hoang, Pham et al. 2014).

This study complements this literature by investigating the relationship between individual farmer risk preference, non-farm income diversification and child education spending. The paper analyses households cultivating citrus, a perennial horticultural crop which is one of the priortitised horticultural crops by The Indonesian Ministry of Agriculture. The paper aims to contribute to the existing research exploring the welfare impacts of off-farm risk management strategies among rural households using a crop requiring a long-term investment.

3.4 Methodology

As we seek to understand the relationship between risk preference, non- farm income, and education spending among horticultural households, three-stages least squares regression (3SLS) is used to estimate simultaneous equations. 3SLS is appropriate to analyse the mechanism which risk preference is associated with non-farm income, and how non-farm income influences education spending in regard to other types of income. 3SLS estimates are asymptotically more efficient than estimates from single equation estimators as it accounts for correlated errors across equations.

The main regression equations can be specified as:

$$OFFFARM_i = \beta_0 + RISKHEAD_i\beta_1 + RISKSPOUSE_i\beta_2 + X_i\beta_3 + \epsilon_i \quad (1)$$

$$EDUSPENDING_{ij} = \gamma_0 + OFFFARM_i\gamma_1 + CITRUS_i\gamma_2 + OTHERAGRI_i\gamma_3 + Z_{ij}\gamma_4 + u_{ij} \quad (2)$$

In equation (1), $OFFFARM_i$ denotes the non-farm income level of household i; $RISKHEAD_i$ is the risk preference of household head i; $RISKSPOUSE_i$ is the risk preference of spouse; X_i is a vector of covariates; β_0, β_1 , β_2 and β_3 are coefficients to be estimated, and ϵ_{ij} is the disturbance. In equation (2), $EDUSPENDING_{ij}$ is the education spending outcome in the past academic year of child j in household i; $OFFFARM_i$ denotes non-farm income level of household i; $CITRUS_i$ denotes citrus farming income level of household i; $OTHERAGRI_i$ is farming income from other crops; Z_i is a vector of covariates; γ_0 , γ_1 , γ_2 , γ_3 and γ_4 are coefficients to be estimated, and u_{ij} is the disturbance. Equations (1) and (2) therefore are jointly estimated with three-stage least squares (3SLS).

As compared to literature that usually uses child enrolment as the measure of education outcome, our use of education spending is a better measure as it captures finer effects of education investment. Even though Indonesia has a 9-year compulsory education and school fees were formally abolished, households still have to cover multiple other costs associated

with schooling (Kristiansen 2006). In this case, a binary child enrolment indicator cannot capture the variation of education spending among households.

Equation (1) aims to assess the relationship between risk preference of husbands and wives and their non-farm income. Risk preference possibly plays an important role in determining income diversification as a risk-coping mechanism. We simultaneously estimate the impacts of non-farm income level on education spending as well as those from citrus farming income and other agricultural income.

In equation (1), we included household characteristics that likely affect non-farm income; house value, mobile and computer ownership, internet access, motorcycle and car/truck ownership, household head's age and education level, number of household member in each age group. We also incorporated variables related to farming including citrus farming experience, citrus training and extension participation, government assistance, credit/borrowing for citrus farming, number of productive citrus trees and non-productive citrus trees, farm size, and farmland selling into the model.

In equation (2), covariates include only variables which directly influence decision of households' education spending; number of household member in each age group, household head and spouse risk preference, household head age and education, spouse's education, child gender, child education level, education financial aid, and whether a child is involved in citrus farming, and whether household sold farmland in the past 5 years. For each equation we selected the covariates which directly influence that particular outcome.

To check the robustness of our model, we further employed GMM 3SLS estimator which extends the 3SLS estimator by allowing for heteroskedasticity (Wooldridge 2010). The homoskedasticity assumption can be relaxed by considering different weight matrices. In this case, we obtain a weight matrix that allows for heteroskedasticity.

3.5 Data and descriptive statistics

We analyse a sample of 392 children from 284 horticultural farming households in East Java, Indonesia. The survey and framed risk experiment were conducted among 500 households of citrus cultivators in September 2017. Citrus is an appropriate choice for this study as citrus farmers are exposed to risks such as diseases and price volatility. Also, citrus trees demand intensive use of input, capital, and labour and takes around 3-5 years for the trees to bear fruits for harvesting.

The survey covers one of the main citrus growing areas in Indonesia, including Malang, Jembre, and Banyuwangi districts. Citrus farming households in this study refer to households which grow citrus for commercial purposes. The 500 citrus farming households were surveyed based on a multi-stage sampling method. In the first stage, sub-districts were drawn from three strata which are the largest citrus production districts in East Java Province based on production volume in 2015. Banyuwangi, Jember and Malang districts exhibit differences in citrus farming methods, agro-ecosystems and infrastructure. Subsequently, we ranked all sub-districts from the three chosen districts based on production volume. We selected the sub-districts which accounts for more than 5% of district production volume. Two sub-districts were selected in Malang; nine sub-districts were selected in Banyuwangi, and four sub-districts were selected in Jember. In the second stage, we randomly drew 14 villages from each district. The enumerators conducted a census of citrus farming households in each village and 12 citrus farming households were randomly drawn from each village.

Table 1 Number of households surveyed from each district

Malang	Jembre	Banyuwangi
166	166	168

Data collected contain information on household farming practices, marketing channels, agricultural technology adoption, climate risks perception and a specific module focusing on child education. Apart from the household survey, we also conducted a framed risk experiment to elicit risk preference among farmers and their spouses. The risk experiment employed a multiple price list method adjusted from "The Preference Survey Module: A Validated Instrument for Measuring Risk, Time, and Social Preferences" (Falk, Becker et al. 2016) . The risk elicitation experiment procedure is detailed in appendices.

The descriptive statistics of variables are reported in Table 1. Our sample consists of 392 children from 284 citrus farming households. Household heads in our sample have an average of eight years of education which equals to junior high school and have an average age of 49. In terms of risk preference, most household heads and spouses in our sample are highly risk averse. The average citrus farming experience of the household head is approximately 15 years, showing that the majority of our surveyed household are experienced citrus farmers. We further report descriptive statistics by median household income (refer to Table 1). In terms of education spending, it shows that households within the high-income group (higher than the median, N=196) spend on education approximately 47% more than the low-income group (lower than the median, N=196). Data indicate higher years of education among household heads in the high-income group (approximately 10 years for the high-income group and 7 years for the low-income group). The average experience of citrus farming across both income groups is also similar (approximately between 14-15 years), while households in the high-income group has a larger farm size on average (1.7 hectare for the high-income group and 0.7 hectare for the low-income group).

In terms of income, households in the high-income group have approximately 5 times higher off-farm income level than the low-income group. As of citrus income, the high-income group has approximately 4 times higher of citrus income level than the low-income group. In

addition, the high-income group has significantly higher amount of other agricultural income, approximately 8 times more income than the low-income group, which may be due to larger landholdings.

Table 1 Descriptive statistics

	Mean (N = 392)	Lower income group (lower than the median, N=196)	Higher income group (higher than the median, N = 196)
Total Household income (million IDR)	74.491 (78.981)	24.844 (12.079)	124.139 (86.064)
Education spending per child (thousand IDR)	6938.1 (8156.024)	5595.65 (6537.95)	8280.54 (9328.18)
Head HH risk preference (1 = extremely risk averse; 11 = extremely risk tolerant)	2.459 (2.694)	2.357 (2.584)	2.561 (2.803)
Spouse risk preference (1 = extremely risk averse; 11 = extremely risk tolerant)	2.339 (2.612)	2.326 (2.620)	2.352 (2.610)
Mobile ownership (quantity)	2.466 (1.143)	2.112 (1.006)	2.821 (1.165)
Internet access (yes=1; no=0)	.770 (.421)	.709 (.455)	.831 (.375)
Computer (quantity)	.461 (.745)	.260 (.562)	.663 (.846)
Motorcycle (quantity)	2.214 (.993)	1.954 (.818)	.178 (.445)
Car/truck (quantity)	.354 (.622)	.178 (.445)	.530 (.719)
Head HH education (years)	8.867 (4.013)	7.596 (3.561)	10.137 (4.045)
Head HH age (years)	49.678 (9.2765)	50.852 (10.004)	48.505 (8.348)
Spouse education (years)	8.943 (3.448)	7.984 (3.090)	9.903 (3.526)
Number of household member aged 0-5	.278 (.492)	.316 (.528)	.239 (.451)
Number of household member aged 6-12	.7040 (.654)	.673 (.668)	.734 (.641)
Number of household member aged 13-17	.446 (.537)	.408 (.532)	.484 (.540)
Number of household member aged 18-65	2.647 (.833)	2.617 (.8111)	2.678 (.855)
Number of household member aged 66 and over	.178 (.421)	.209 (.466)	.147 (.370)
Citrus farming experience (years)	15.056 (9.805)	15.545 (9.647)	14.566 (9.961)
Citrus training participation in the 5 years (quantity)	.377 (2.139)	.448 (2.700)	.306 (1.369)
Citrus extension participation in the past 5 years (quantity)	1.660 (6.262)	1.214 (4.409)	2.107 (7.667)
Government assistance for farming (million IDR)	.055 (.322)	.047 (.219)	.062 (.399)
Credit/borrowing for citrus farming	.278 (.448)	.229 (.421)	.326 (.470)
Productive citrus trees (quantity)	293.885 (316.780)	222.137 (187.338)	365.632 (394.677)
Non-productive citrus trees (quantity)	107.221(200.150)	106.816 (220.879)	107.627 (177.588)
Farm size (hectare)	1.246 (2.689)	.743 (.869)	1.749 (3.638)
Sell farmland in the past 5 years (yes=1; no =0)	.053 (.225)	.030 (.172)	.076 (.266)
House value (million IDR)	353.747 (357.216)	263.040 (229.941)	444.454 (431.797)
Non-farm income (million IDR)	9.301(19.784)	3.596 (7.207)	15.006 (25.835)
Citrus farming income (million IDR)	19.369 (31.900)	8.482 (10.155)	30.256 (41.220)
Other agricultural income (million IDR)	17.704 (47.557)	3.950 (6.825)	31.457 (64.094)
Child gender (female=1; male=0)	.525 (.499)	.540 (.499)	.510 (.501)
Child age	12.933 (4.740)	12.790 (4.643)	13.076 (4.843)
Child working in citrus farming	.066 (.249)	.091 (.289)	.040 (.198)
Secondary education level (yes=1; no=0)	.380 (.486)	.397 (.490)	.362 (.481)
Tertiary education level (yes=1; no=0)	.119 (.325)	.096 (.296)	.142 (.350)
Education aid (thousand IDR)	171.364 (750.258)	223.469 (918.505)	119.260 (528.728)

Standard deviations are in parentheses for means.

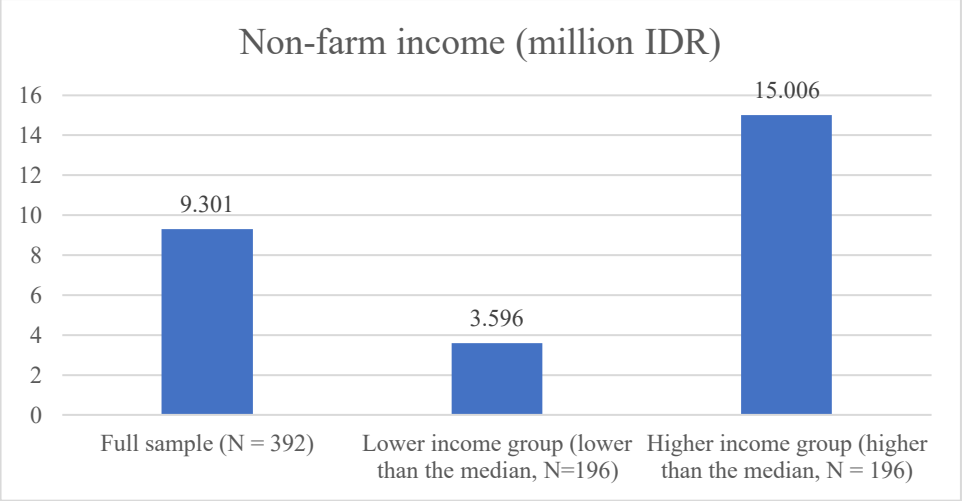

Figure 1 Average non-farm income (million IDR)

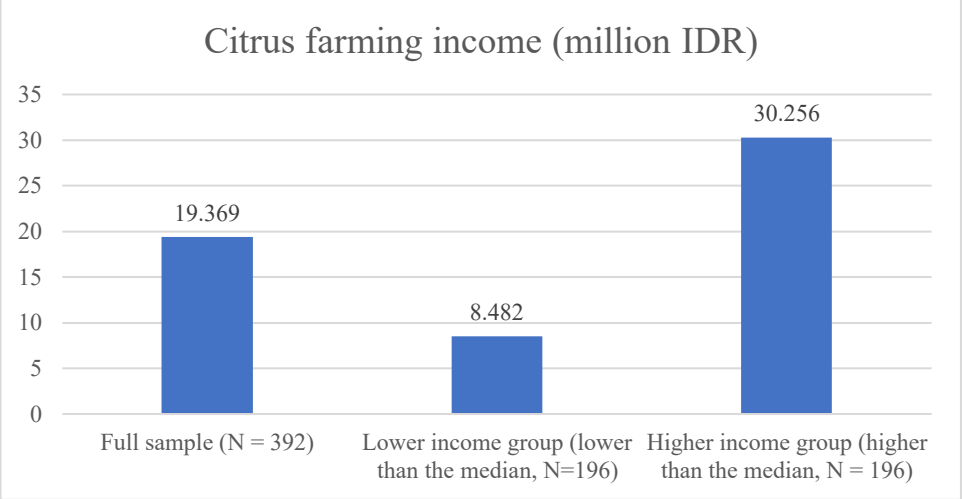

Figure 2 Average citrus farming income (million IDR)

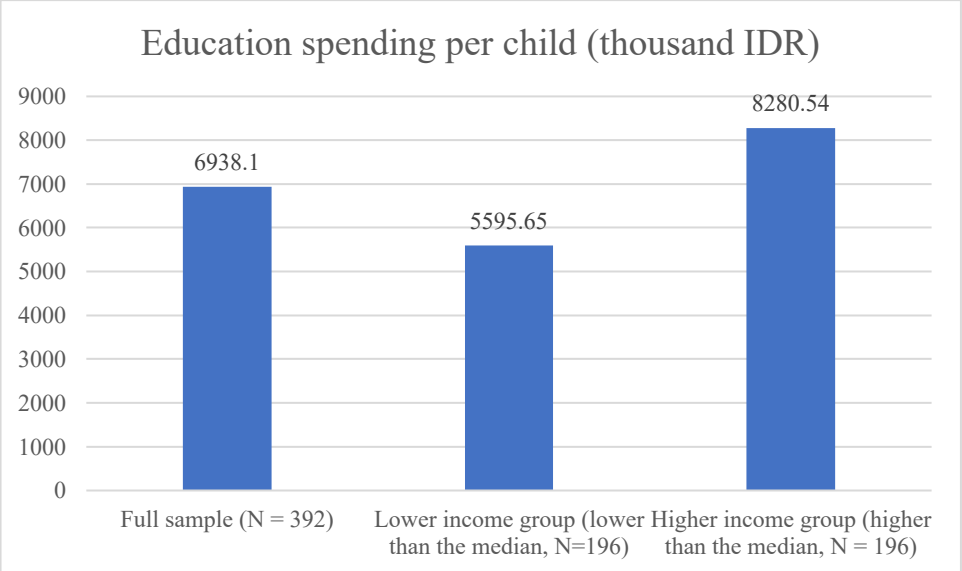

Figure 3 Average education spending per child (thousand IDR)

3.6 Results and discussion

Table 2 reports the baseline estimation results. One of the most interesting finding is the perplexing results of how husbands and wives' risk preference are having conflicting effects on non-farm income level. Specifically, husbands' risk aversion is positively associated with non-farm income level, whereas wives' risk aversion is negatively associated with non-farm income level. It is plausible that risk preference between husbands and wives play different roles in determining income diversification toward non-farm source. Husbands' higher risk tolerance could induce more concentration of family labour in citrus and other crops to maximise farm profit rather than diverting labour to non-farm income. This is consistent with previous research that also shows risk aversion has a positive relationship with income diversification toward non-farm source (van Winsen, de Mey et al. 2016). Husbands who are more risk averse would seek to diversify their income to non-farm source to cope with risks from citrus farming. Within crop portfolio, citrus is a long-term growth investment that demands intensive use of capital, labour and needs 3-5 years to first harvest. Moreover, if citrus trees experience disease or environmental damages, it would mean a significant loss of an investment over the years. Given the positively correlated profits and risks, it is plausible that risk seeking husbands could tolerate the loss better and are less likely to seek non-farm employment.

In contrast, wives' higher risk tolerance induces more income diversification toward non-farm source. It is plausible that risk-seeking wives tend to earn off-farm income themselves as studies in the past decades consistently indicate women's off-farm work is used as a household livelihood strategy (Fuller 1984, Blekesaune, Haney et al. 1993, Gasson and Errington 1993, Blekesaune 1997). Another possibility could be that they can cope well with household member(s) working off-farm. In rural areas, working off-farm might be taking up projects such as construction work. Getting skilled non-farm wage employment tend to have a

high barrier of entry due to education constraints among farmers (De Janvry and Sadoulet 2001). Moreover, risk seeking wives tend to cope better with uncertainty and changes. Having a higher share of non-farm income means more cash for households to spend on a regular basis. On the contrary, risk-averse wives might be reluctant to diversify their income to non-farm source. They would prefer to concentrate their household labour on farming, as they generally have lower ability to tolerate risks and changes that might come with household member(s) working off-farm.

Economic theory suggests households' decision making tends to maximize their utility. However, according to prospect theory, human decision-making is context-specific, where losing money has a larger amount of impact on people than gaining potential money (Tversky and Kahneman 1992). Husbands and wives' decision makings are based on different contexts, as they have different roles in the livelihood system, where men and women tend to deal with risk differently (Niehof 2004). A risk-averse wife might think that income diversification towards non-farm source might lead to loss of efficiency in their farm management, leading to losing profit, whereas risk averse husbands think non-farm income can help add liquidity to their household and make their income more secure.

In terms of education spending, non-farm income level is positively associated with higher spending on children's education. More cash income on a regular basis means households have more liquidity in education spending. Citrus income and other farm income also have a similar effect, households tend to spend more on education when they gain more income. Results show that out of one million IDR (75.08 USD)[1] gain from off-farm income, households tend to spend averagely 134,289 IDR (10.08 USD) more on education. For every million IDR (75.08 USD) from citrus income, households tend to spend averagely 24,769 IDR (1.86 USD) more. For income from other crops, households tend to spend averagely 10,354

[1] The IDR/USD exchange rate during the data collection (Sep 2017)

IDR (0.78 USD) more for every million IDR (75.08 USD). It seems that income from non-farm source has a larger effect on education spending than other two sources. Putting in the context of conventional investment, non-farm employment is similar to cash whereas citrus and other types of crop farming are more like equity. There is higher uncertainty involved in income from farming, farmers cannot know the exact amounts of money they will make from their farm produce as it is dependent on multiple factors such as the price at the time of selling as well as the quality and the quantity of their produce. Decision making in terms of education spending, therefore, needs to be put in the context that their income is uncertain. They need to weigh between spending and saving their money to make sure they have enough liquidity to sustain household livelihoods. Results also indicate that income from citrus farming also has a larger effect on education spending than that from other crops. As farmers in this sample grow citrus as their main crops and grow other crops to diversify their income, it is plausible that income generated from citrus is more reliable for them.

Table 2 Estimated regression coefficients (N=392)

	Non-farm income (million IDR)	Education spending (thousand IDR)
R-sq	0.2826	0.6133
Household head risk preference (1 = extremely risk averse; 11 = extremely risk tolerant)	-.688(.331)**	-44.638 (106.043)
Spouse risk preference (1 = extremely risk averse; 11 = extremely risk tolerant)	1.084(.344)***	-62.573 (119.073)
Non-farm income (million IDR)	-	134.289 (50.913)***
Citrus farming income (million IDR)	-	24.769 (7.811)***
Other agricultural income (million IDR)	-	10.354 (5.602)*
Head HH education (years)	1.446 (.303)***	-162.218 (125.257)
Head HH age (years)	.194 (.115)*	-44.513 (36.013)
Spouse education (years)	.094 (.356)	27.967 (106.371)
Number of household member aged 0-5	-.243 (1.848)	-518.670 (569.296)
Number of household member aged 6-12	.229 (1.425)	-395.909 (487.959)
Number of household member aged 13-17	-1.857 (1.867)	-1511.52 (551.84)***
Number of household member aged 18-65	.904 (1.235)	-383.652 (359.010)
Number of household member aged 66 and over	-5.837 (2.188)***	1192.51 (711.587)*
Sell farmland in the past 5 years (yes=1; no=0)	4.468 (4.317)	2352.20 (1223.176)*
Mobile ownership (quantity)	.943 (.984)	-
Internet access (yes=1; no=0)	-1.927 (2.173)	-
Computer (quantity)	4.727 (1.387)***	-
Motorcycle (quantity)	2.124 (1.062)**	-
Car/truck (quantity)	-1.543 (1.491)	-
Farm size (hectare)	-.862 (.367)**	-
House value (million IDR)	.005 (.002)**	-
Citrus farming experience (years)	.056 (.089)	-
Citrus training participation in the past 5 years (quantity)	-.117 (.393)	-
Citrus extension participation in the past 5 years (quantity)	-.055 (.136)	-
Government assistance (million IDR)	5.234 (2.645)	-
Credit/borrowing for citrus farming (yes=1; no=0)	-2.399 (1.931)	-
Productive citrus trees (quantity)	.000 (.002)	-
Non- productive citrus trees (quantity)	.005 (.004)	
Child gender (female=1; male=0)	-	-56.880 (508.766)
Child working in citrus farming (yes=1; no=0)	-	-1284.12 (1088.37)
Secondary education level (yes=1; no=0)	-	5627.567 (616.889)***
Tertiary education level (yes=1; no=0)	-	20007.7 (913.81)***
Education aid (thousand IDR)	-	-1.296 (.341)***
Constant	-24.891 (7.765)***	6255.72 (2764.37)**

Standard errors are in parentheses. *, ** and *** indicate statistical significance at 10%, 5% and 1% levels, respectively.

Furthermore, we used the same procedure to analyse two subsamples grouped by income to further uncover any possible impact heterogeneity (Table 3). The first group consists of lower income group (lower than the median, N=196), and the second group consists of higher income group (higher than the median, N=196). Husbands' risk seeking characteristics is found to have a negative association with non-farm income only among the higher income group. We found no statistically significant relationship between the husbands' risk preference and non-farm income level among the lower income group. Wives' risk seeking characteristics is positively associated with more non-farm income level in both groups, on average 420,000 IDR (31.54 USD) more for lower income group, and 1.417 million IDR (106.4 USD) more for the higher income group.

In terms of education spending, we found no statistically significant relationship between non-farm income level and education spending. The conflicting results with the full-sample might be due to an insufficient variation of non-farm income level within each subsample. However, we found conflicting relationship between citrus farming income and education spending between income groups. For the lower income group, results show a negative association of citrus farming income and education spending. It implies that farmers in this income group tend to spend averagely 67,740 IDR (5.09 USD) less on education spending for every million IDR (75.08 USD) they gain from citrus farming. Contrastingly, for the higher income group, results show a positive association of citrus farming income and education spending, with 29,794 IDR more (2.24 USD) for every million (75.08 USD) gained from citrus farming.

These contrasting results show a different pattern of household spending on child education. Lower-income group seems to invest less in child education if they gain more money from citrus income. It is plausible that farmers with lower income place less value on education investment, as they can gain a reasonable amount of income from citrus farming.

Hence, farmers in this income group prefer to divert family labour to citrus farming, as descriptive statistics show the highest percentage of children working in citrus farming is in the lower income group.

This, however, does not imply that farmers from the lower income group are worse parents than the higher income group. Their decision making is based on different contexts. Poorer households tend to have high time discount rate than wealthier households (Hausman 1979, Lawrance 1991, Harrison, Lau et al. 2002); they place a higher value on having money now to help increase their liquidity than to invest in education which takes decades to generate payoff. When they see citrus farming as a way of improving their socioeconomic welfare, they prefer to invest their resources into citrus farming and train their children these money-making skills. In the case of wealthier households (higher income group), the more they earn from citrus farming, the more they are spending on education. It shows that farmers in better socioeconomic status place a higher value on education. It is plausible that when financial constraint is less of a hurdle, they have higher financial liquidity to invest in their children's education. Wealthier households are also associated with lower time discounting rate (Hausman 1979, Lawrance 1991, Harrison, Lau et al. 2002); which means they are willing to wait for their investment to pay off. Education is such a long- term investment that it needs more patience and lower time discount rate. Moreover, it is also plausible that these farm households are fully aware of the uncertainty which farm income possesses; pest and disease, price volatility, and environmental stress could influence their income. Therefore, they might prefer to invest more in child education to increase the opportunity of their children to get into skilled-wage sectors.

Among the covariates, results show government assistance payment has a positive association with higher non-farm income level for the lower income group, 5.246 million IDR (393.89 USD) higher for every million IDR (75.08 USD) of payment. On the contrary,

formal credit or borrowing for citrus farming has a negative association with non-farm income level for the lower income group. If households use formal credit for citrus farming, results indicate they earn averagely 3.333 million IDR (250.26 USD) less from non-farm source. It is plausible that having formal credit makes farmers concentrate their labour in farming and less rely on non-farm income source.

Moreover, the higher quantity of non-productive citrus trees is positively associated with higher non-farm income among the lower income group, with 8,000 IDR (0.6 USD) more for every non-productive citrus tree owned. It is plausible that poorer households need to seek non-farm income to sustain their livelihood and care for non-productive citrus trees. Farm size is found to have a negative association with non-farm income level among the higher income group, with 1.190 million IDR (89.35 USD) less for every hectare. It is plausible that a higher amount of labour and time is required to manage a larger farm or non-farm income is less required once farmers gain a competitive advantage in farming. Previous research indicates larger farm size is positively correlated with greater wealth, resulting in more risk-bearing capacity on the farm and lower necessity to divert resource toward non-farm diversification (Velandia, Rejesus et al. 2009). Moreover, some households among the higher income group depends on selling farmland to fund their children's education. Results within this income group indicate if the child lives in a household that sold farmland in the past 5 years, households tend to spend on average 4.231 million IDR (317.68 USD) more on education spending.

In terms of robustness testing, the estimation by GMM 3SLS estimator which allows for heteroskedasticity (Table 4) shows consistent results with the estimation by 3SLS estimator. However, the magnitude of the effects is slightly different. The non-farm income effect on education spending is found to have lower estimates compared to the estimates of 3SLS; 115.881 thousand IDR (8.7 USD) for every million IDR (75.08 USD). On the other

hand, the effect of citrus farming income on education spending is found to have higher estimates compared to the estimates of 3SLS; 45.562 thousand IDR (3.42 USD) for every million IDR (75.08 USD).

Table 3 Subsample results by income groups

	Lower income group (N = 196)		Higher income group (N= 196)	
	Non-farm income (million IDR)	Education spending (thousand IDR)	Non-farm income (million IDR)	Education spending (thousand IDR)
R-sq	0.2896	0.6889	0.3252	0.6509
Household head risk preference (1 = extremely risk averse; 11 = extremely risk tolerant)	-.080 (.202)	-124.468 (116.288)	-.955 (.580)	-99.028 (167.001)
Spouse risk preference (1 = extremely risk averse; 11 = extremely risk tolerant)	.420** (.195)	48.658(120.185)	1.417** (.661)	84.866 (189.969)
Non-farm income (million IDR)	-	-79.704 86.365)	-	86.853 (61.206)
Citrus farming income (million IDR)	-	-67.74** (29.007)	-	29.794*** (9.934)
Other agricultural income (million IDR)	-	-13.296 (44.417)	-	9.374 (7.482)
Head HH education (years)	.442** (.179)	14.757 (113.462)	1.974 (.530)	-110.023 (183.039)
Head HH age (years)	-.095 (.062)	-47.402 (34.671)	.260 (.224)	29.559 (60.809)
Spouse education (years)	-.467** (.205)	123.144 (123.410)	.189 (.665)	-98.518 (163.833)
Number of household member aged 0-5	-.080 (.937)	28.891 (556.402)	-1.798 (3.721)	-1600.817 (983.729)
Number of household member aged 6-12	.064 (.817)	282.856 (539.674)	2.358 (2.683)	-465.096 (817.742)
Number of household member aged 13-17	-.210 (1.069)	-1113.52* (630.837)	-3.542 (3.688)	-2074.42** (900.012)
Number of household member aged 18-65	1.875** (.750)	-341.656 (421.979)	-.492 (2.243)	-266.586 (511.664)
Number of household member aged 66 and over	-1.659 (1.173)	664.348 (654.957)	-5.698 (4.884)	1416.63 (1300.782)
Sell farmland in the past 5 years (yes=1; no=0)	5.584* (2.890)	789.087 (1638.036)	4.231 (7.292)	4685.05*** (1635.09)
Mobile ownership (quantity)	1.916*** (.676)	-	1.218 (1.744)	-
Internet access (yes=1; no=0)	3.694*** (1.129)	-	-9.023 (5.022)	-
Computer (quantity)	-.694 (.927)	-	5.478** (2.498)	-
Motorcycle (quantity)	-.781 (.701)	-	3.669* (1.946)	-
Car/truck (quantity)	-3.784*** (1.134)	-	-2.422 (2.419)	-
Farm size (hectare)	-1.386* (.792)	-	-1.190** (.566)	-
House value (million IDR)	-.003 (.002)	-	.004 (.004)	-
Citrus farming experience (years)	.030 (.053)	-	.204 (.170)	-
Citrus training participation in the past 5 years (quantity)	-.213 (.198)	-	-.319 (1.181)	-
Citrus extension participation in the past 5 years (quantity)	.123 (.124)	-	-.102 (.207)	-
Government assistance (million IDR)	5.246** (2.096)	-	5.682 (4.197)	-
Credit/borrowing for citrus farming (yes=1; no=0)	-3.333*** (1.188)	-	-1.002 (3.584)	-
Productive citrus trees (quantity)	.003 (.003)	-	-.001 (.004)	-
Non- productive citrus trees (quantity)	.008*** (.003)	-	.003 (.011)	-
Child gender (female=1; male=0)	-	-585.482 (540.938)	-	536.289 (945.499)
Child working in citrus farming (yes=1; no=0)	-	-880.895 (1035.002)	-	-1698.91 (2101.05)
Secondary education level (yes=1; no=0)	-	5128.32*** (669.187)	-	6142.90*** (1031.43)
Tertiary education level (yes=1; no=0)	-	19367.8*** (1100.61)	-	20288.3*** (1418.34)
Education aid (thousand IDR)	-	-.926*** (.309)	-	-1.544* (.869)
Constant	-.652 (4.434)	5677.10** (2457.03)	-27.924* (14.587)	3225.303 (4218.66)

Standard errors are in parentheses. *, ** and *** indicate statistical significance at 10%, 5% and 1% levels, respectively.

Table 4 Robustness check by GMM 3SLS (N=392)

	Non-farm income (million IDR)	Education spending (thousand IDR)
GMM weight matrix: Robust		
Household head risk preference	-.762(.321)**	-93.804(92.251)
(1 = extremely risk averse; 11 = extremely risk tolerant)		
Spouse risk preference	.844(.399)**	78.680(153.966)
(1 = extremely risk averse; 11 = extremely risk tolerant)		
Non-farm income (million IDR)	-	115.881(69.211)*
Citrus farming income (million IDR)	-	45.562(15.779)***
Other agricultural income (million IDR)	-	-3.556(9.927)
Head HH education (years)	1.387(.346)***	-196.385(135.902)
Head HH age (years)	.148(.103)	-51.055(32.377)
Spouse education (years)	-.279(.643)	97.645(120.747)
Number of household member aged 0-5	-.469(1.584)	-701.781(470.691)
Number of household member aged 6-12	2.927(3.120)	-850.197(542.764)
Number of household member aged 13-17	.220(4.998)	-1692.50(500.23)***
Number of household member aged 18-65	.784(1.206)	-218.738(304.005)
Number of household member aged 66 and over	-6.208(2.363)***	1158.988(581.779)**
Sell farmland in the past 5 years (yes=1; no=0)	9.303(4.980)*	2317.8(1615.72)
Mobile ownership (quantity)	1.115(2.180)	-
Internet access (yes=1; no=0)	-1.199(2.724)	-
Computer (quantity)	4.479(1.727)**	-
Motorcycle (quantity)	1.227(1.337)	-
Car/truck (quantity)	-2.380(1.792)	-
Farm size (hectare)	-.755(.294)**	-
House value (million IDR)	.005(.004)	-
Citrus farming experience (years)	.028(.084)	-
Citrus training participation in the past 5 years (quantity)	-.246(.538)	-
Citrus extension participation in the past 5 years (quantity)	.026(.329)	-
Government assistance (million IDR)	-8.550(36.639)	-
Credit/borrowing for citrus farming (yes=1; no=0)	-2.397(1.585)	-
Productive citrus trees (quantity)	-.003(.004)	-
Non- productive citrus trees (quantity)	.006(.003)*	-
Child gender (female=1; male=0)	-	286.145(507.893)
Child working in citrus farming (yes=1; no=0)	-	-953.738(1128.392)
Secondary education level (yes=1; no=0)	-	5684.353(561.529)***
Tertiary education level (yes=1; no=0)	-	20306.11(2046.799)***
Education aid (thousand IDR)	-	-3.047(2.127)
Constant	-17.992(14.568)	6124.052(2620.399)**

Standard errors are in parentheses. *, ** and *** indicate statistical significance at 10%, 5% and 1% levels, respectively.

3.7 Conclusion

Our study provides an understanding of how risk preference could influence non-farm diversification and education spending among citrus farmers in Indonesia by analysing data from a recent household survey. It shows how risk preference of husbands and wives could lead to different risk-coping income diversification strategy. Results indicate wives' risk seeking characteristics leads to higher non-farm income level which is positively associated with child education spending. Citrus farming income also plays an important role in funding child education especially among households in the higher income group. Further policy attention should be directed toward giving more education aid to help farmers in the lower income group invest in their children's education.

Moreover, as wives' higher risk tolerance leads to more non-farm income and education spending, further policy attention should be directed toward women's empowerment such as promoting education and training not only to male farmers but also their wives, as past research suggests that more education is associated with higher risk tolerance (Shapiro and Brorsen 1988, Velandia, Rejesus et al. 2009). Equipping women with more education and training to earn more non-farm income or manage the farm could support them to become more independent and risk tolerant, potentially leading to higher non-farm income for households. Consequently, non-farm income would help provide cash income on a regular basis which increases education spending, promoting education investment among farm households.

The research is based on observational data from citrus farming households in East Java, Indonesia, and it still has limitations in terms of external validity in different settings. One of the limitations of this study is the use of cross-sectional data which limits the ability to infer causality. The use of survey which records information reported by households might suffer some bias, as the respondents might not have accurate information due to the lack of proper records. However, our empirical research provides useful policy implications regarding

horticultural farming and its influence on human capital investment, uncovering the mechanism of risk preference and non-farm diversification among high-value horticultural farmers. Further research may utilize better data once they become available to test the external validity of our findings.

3.8 References

Ali, M. (2002). "The vegetable sector in Indochina: a synthesis." The vegetable sector in Indochina countries: farm and household perspectives on poverty alleviation. Technical Bulletin **27**: 1-30.

Ali, M. (2008). "Horticulture Revolution for the Poor: Nature, Challenges, and Opportunities. A background paper prepared for IAAST." World Development Report/World Bank.

Ali, M. and D. Abedullah (2002). "Nutritional and economic benefits of enhanced vegetable production and consumption." Journal of Crop Production **6**(1-2): 145-176.

Ali, M. and V. Hau (2001). Vegetables in Bangladesh: Economic and Nutritional Impact of New Varieties and Technologies (Shanhua, Taiwan: Asian Vegetable Research and Development Center (AVRDC), Technical Bulletin No. 25).

Anderson, A. (2002). "The effect of cash cropping, credit and household composition on household food security in southern Malawi." African Studies Quarterly **6**(1-2): 175-202.

Babatunde, R. O. and M. Qaim (2010). "Impact of off-farm income on food security and nutrition in Nigeria." Food Policy **35**(4): 303-311.

Barrett, C. B., et al. (2001). "Nonfarm income diversification and household livelihood strategies in rural Africa: concepts, dynamics, and policy implications." Food policy **26**(4): 315-331.

Barron, M. a. A. and F. Rello (2000). "The impact of the tomato agroindustry on the rural poor in Mexico." Agricultural Economics **23**(3): 289-297.

Becker, G. S., et al. (1990). "Human capital, fertility, and economic growth." Journal of political economy **98**(5, Part 2): S12-S37.

Benjamin, C. and A. Kimhi (2006). "Farm work, off-farm work, and hired farm labour: estimating a discrete-choice model of French farm couples' labour decisions." European Review of Agricultural Economics **33**(2): 149-171.

Bezu, S., et al. (2012). "Does the nonfarm economy offer pathways for upward mobility? Evidence from a panel data study in Ethiopia." World Development **40**(8): 1634-1646.

Blekesaune, A. (1997). "Family Farming in Norway. An analysis of structural changes within farm households between 1975 and 1990." Rapport-Senter for Bygdeforskning (Norway).

Blekesaune, A., et al. (1993). "On the Question of the Feminization of Production on Part-time Farms: Evidence from Norway 1." Rural Sociology **58**(1): 111-129.

Block, S. and P. Webb (2001). "The dynamics of livelihood diversification in post-famine Ethiopia." Food policy **26**(4): 333-350.

De Janvry, A. and E. Sadoulet (2001). "Income strategies among rural households in Mexico: The role of off-farm activities." World development **29**(3): 467-480.

de Mey, Y., et al. (2016). "Farm household risk balancing: empirical evidence from Switzerland." European Review of Agricultural Economics **43**(4): 637-662.

Dercon, S. (1996). "Risk, crop choice, and savings: Evidence from Tanzania." Economic Development and Cultural Change **44**(3): 485-513.

Dohmen, T., et al. (2011). "Individual risk attitudes: Measurement, determinants, and behavioral consequences." Journal of the European Economic Association **9**(3): 522-550.

Edmondson, J. C. (1992). Bali Revisited: Rural Economy Intergenerational Exchanges, and the Transition to Smaller Family Sizes, 1977-90, Pusat Kajian Budaya, Universitas Udayana.

Falk, A., et al. (2016). "The Preference Survey Module: A Validated Instrument for Measuring Risk, Time, and Social Preferences (IZA Discussion Paper No. 9674)." Institute for the Study of Labor (IZA).

Fuller, A. M. (1984). "Part-time farming: the enigmas and the realities." Focus on Agriculture.

Gasson, R. and A. J. Errington (1993). The farm family business, Cab International.

Harrison, G. W., et al. (2002). "Estimating individual discount rates in Denmark: A field experiment." American Economic Review **92**(5): 1606-1617.

Hausman, J. A. (1979). "Individual discount rates and the purchase and utilization of energy-using durables." The Bell Journal of Economics: 33-54.

Hichaambwa, M., et al. (2015). Is Smallholder Horticulture the Unfunded Poverty Reduction Option in Zambia?: A Comparative Assessment of Welfare Effects of Participation in Horticultural and Maize Markets, Indaba Agricultural Policy Research Institute (IAPRI).

Hoang, T. X., et al. (2014). "Non-farm activity, household expenditure, and poverty reduction in rural Vietnam: 2002–2008." World Development **64**: 554-568.

Key, N. and D. Runsten (1999). "Contract farming, smallholders, and rural development in Latin America: the organization of agroprocessing firms and the scale of outgrower production." World Development **27**(2): 381-401.

Kristiansen, S. (2006). "Decentralising education in Indonesia." International Journal of Educational Development **26**(5): 513-531.

Lawrance, E. C. (1991). "Poverty and the rate of time preference: evidence from panel data." Journal of political economy **99**(1): 54-77.

Liu, C., et al. (2008). "Farmers' coping response to the low flows in the lower Yellow River: a case study of temporal dimensions of vulnerability." Global Environmental Change **18**(4): 543-553.

Maertens, M., et al. (2012). "Modern Food Supply Chains and Development: Evidence from Horticulture Export Sectors in Sub-Saharan Africa." Development Policy Review **30**(4): 473-497.

Meraner, M. and R. Finger (2017). "Risk perceptions, preferences and management strategies: evidence from a case study using German livestock farmers." Journal of Risk Research: 1-26.

Meraner, M., et al. (2015). "Determinants of farm diversification in the Netherlands." Land Use Policy **42**: 767-780.

Minot, N. and D. Roy (2007). "Impact of high-value agriculture and modern marketing channels on poverty: An analytical framework." International Food Policy Research Institute, Washington, DC.

Musser, W. N. and G. F. Patrick (2002). How much does risk really matter to farmers? A comprehensive assessment of the role of risk in US Agriculture, Springer**:** 537-556.

Niehof, A. (2004). "The significance of diversification for rural livelihood systems." Food Policy **29**(4): 321-338.

Paul Schultz, T. (2002). "Why Governments Should Invest More to Educate Girls." World Development **30**(2): 207-225.

Pingali, P. (2015). "Agricultural policy and nutrition outcomes–getting beyond the preoccupation with staple grains." Food Security **7**(3): 583-591.

Psacharopoulos, G. and T. W. Schultz (1984). The contribution of education to economic growth: International comparisons, World Bank Washington, DC.

Reardon, T., et al. (1992). "Determinants and effects of income diversification amongst farm households in Burkina Faso." The Journal of Development Studies **28**(2): 264-296.

Ruben, R. (2001). "Nonfarm employment and poverty alleviation of rural farm households in Honduras." World development **29**(3): 549-560.

Schultz, T. P. (1992). The role of education and human capital in economic development: An empirical assessment, Center Discussion Paper.

Shapiro, B. and B. W. Brorsen (1988). "Factors affecting farmers' hedging decisions." North Central Journal of Agricultural Economics **10**(2): 145-153.

Sonko, R., et al. (2005). "Pro-poor horticulture in East Africa and South East Asia: the horticultural sector in Uganda." Pro-poor horticulture in East Africa and South East Asia: the horticultural sector in Uganda.

Tversky, A. and D. Kahneman (1992). "Advances in prospect theory: Cumulative representation of uncertainty." Journal of Risk and uncertainty **5**(4): 297-323.

van Winsen, F., et al. (2016). "Determinants of risk behaviour: effects of perceived risks and risk attitude on farmer's adoption of risk management strategies." Journal of Risk Research **19**(1): 56-78.

Velandia, M., et al. (2009). "Factors affecting farmers' utilization of agricultural risk management tools: the case of crop insurance, forward contracting, and spreading sales." Journal of agricultural and applied economics **41**(1): 107-123.

Weinberger, K. and T. A. Lumpkin (2007). "Diversification into Horticulture and Poverty Reduction: A Research Agenda." World Development **35**(8): 1464-1480.

Wooldridge, J. M. (2010). Econometric analysis of cross section and panel data, MIT press.

3.9 Appendices

A. Risk Preference Experiment Procedure

The elicitation of farmers' risk preference employed staircase procedure that contains a sequence of choices of hypothetical financial situation. The available choices in the experiment consist of safe and risky options. The selection of each alternative will determine the next question in the sequence. We emphasised to the respondents that this experiment was not a gambling activity, but a scientific method to measure farmers' risk preference. There was no real money used in the experiment. Respondents were instructed as follows:

Please have a look at the following situation: You can choose between option A and option B envelopes. Option A envelope contains a sure certain amount of hypothetical money as shown in the poster. However, option B consists of 2 envelopes which one of them is empty and another one contains a sure certain amount of hypothetical money as shown in the poster. You do not know which envelope in Option B has money. So, your possibility to receive money in option B is 50 per cent. Now, imagine you have to choose between option A and B. We will present you with a number of situations. The value of money in Option A is different in each situation, but Option B will be the same.

1. Please have a look poster at poster number 6 (see Figure 1). Which option would you choose: Option A which has an envelope with IDR 100,000.- as a sure payment, or option B which has a 50 per cent chance to win IDR 200,000.-, at the same time, there is a 50 per cent chance to receive nothing.

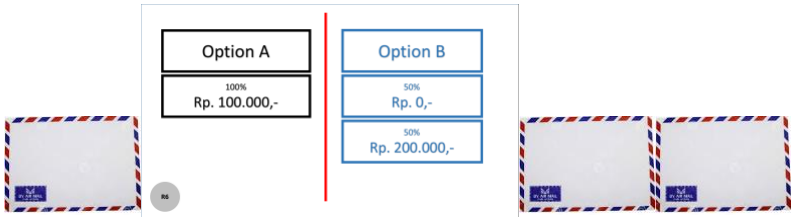

Figure 1. Poster for question number 6

- If respondent choose option A → go to question number 3
- If respondent choose option B → go to question number 9

2. Question number 3. Please have a look poster number 3 (see Figure 2). Which option would you choose: Option A which has an envelope with IDR 40,000.- as a sure payment, or option B which has a 50 per cent chance to win IDR 200,000.-, at the same time, there is a 50 per cent chance to receive nothing.

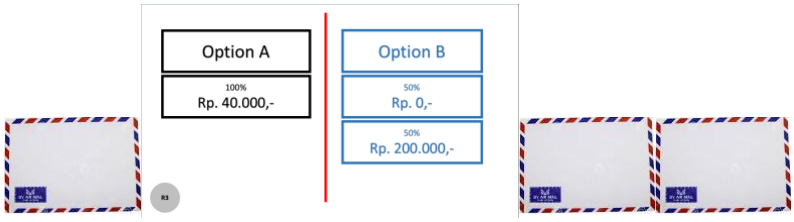

Figure 2. Poster for question number 3

- If respondent choose option A → go to question number 2
- If respondent choose option B → go to question number 4

3. Question number 9. Please have a look poster number 9 (see Figure 3). Which option would you choose: Option A which has an envelope with IDR 160,000.- as a sure payment, or option B which has a 50 per cent chance to win IDR 200,000.-, at the same time, there is a 50 per cent chance to receive nothing.

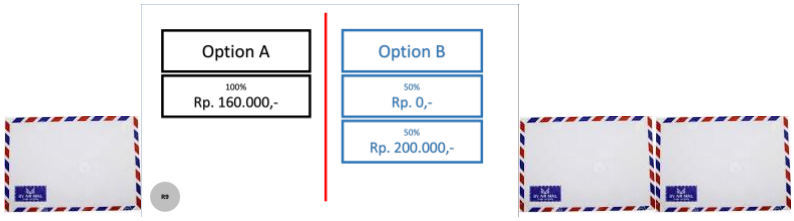

Figure 3. Poster for question number 9

- If respondent choose option A → go to question number 8
- If respondent choose option B → go to question number 10

4. Question number 2. Please have a look poster number 2 (see Figure 4). Which option would you choose: Option A which has an envelope with IDR 20,000.- as a sure payment, or option B which has a 50 per cent chance to win IDR 200,000.-, at the same time, there is a 50 per cent chance to receive nothing.

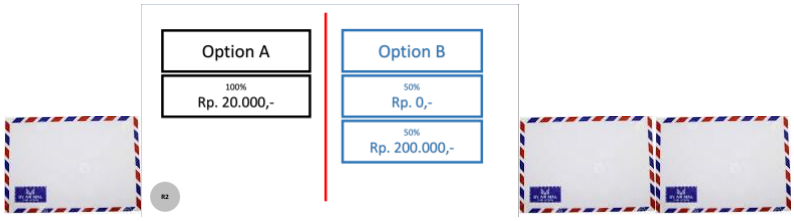

Figure 4. Poster for question number 2

- If respondent choose option A → go to question number 1
- If respondent choose option B → STOP, put the respondent answers as STEP 2

5. Question number 4. Please have a look poster number 4 (see Figure 5). Which option would you choose: Option A which has an envelope with IDR 60,000.- as a sure payment, or option B which has a 50 per cent chance to win IDR 200,000.-, at the same time, there is a 50 per cent chance to receive nothing.

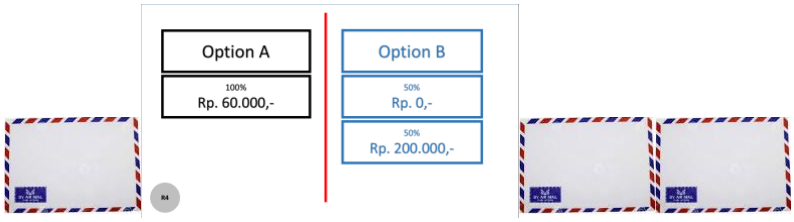

Figure 5. Poster for question number 4

- If respondent choose option A → STOP, put the respondent answers as STEP 3
- If respondent choose option B, go to question number 5

6. Question number 8. Please have a look poster number 8 (see Figure 6). Which option would you choose: Option A which has an envelope with IDR 140,000.- as a sure payment, or option B which has a 50 per cent chance to win IDR 200,000.-, at the same time, there is a 50 per cent chance to receive nothing.

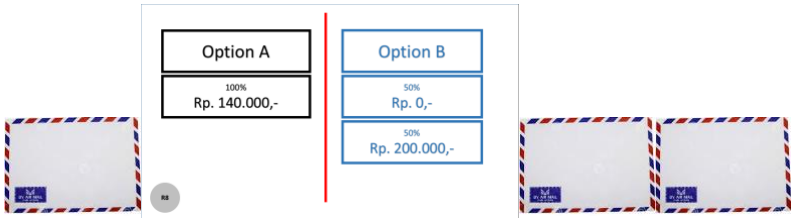

Figure 6. Poster for question number 8

- If respondent choose option A → go to question number 7
- If respondent choose option B → STOP, put the respondent answers as STEP 8

7. Question number 10. Please have a look poster number 10 (see Figure 7). Which option would you choose: Option A which has an envelope with IDR 180,000.- as a sure payment, or option B which has a 50 per cent chance to win IDR 200,000.-, at the same time, there is a 50 per cent chance to receive nothing.

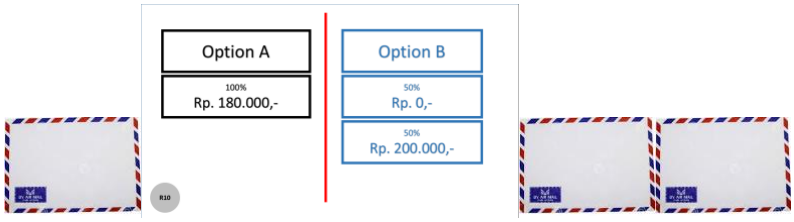

Figure 7. Poster for question number 10

- If respondent choose option A → STOP, put the respondent answers as STEP 9
- If respondent choose option B → to go to question number 11

8. Question number 1. Please have a look poster number 1 (see Figure 8). Which option would you choose: Option A which has an envelope with IDR 0.- as a sure

payment, or option B which has a 50 per cent chance to win IDR 200,000.-, at the same time, there is a 50 per cent chance to receive nothing.

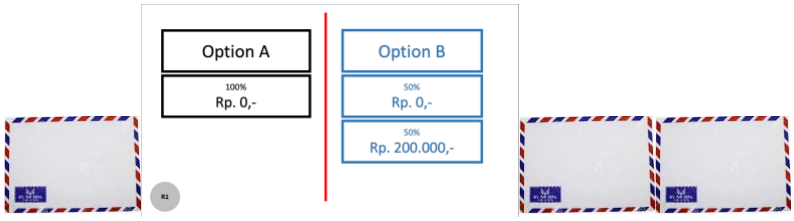

Figure 8. Poster for question number 1

- If respondent choose option A → STOP, put the respondent answers as ALWAYS A
- If respondent choose option B → STOP, put the respondent answers as STEP 1

9. Question number 5. Please have a look poster number 5 (see Figure 9). Which option would you choose: Option A which has an envelope with IDR 80,000.- as a sure payment, or option B which has a 50 per cent chance to win IDR 200,000.-, at the same time, there is a 50 per cent chance to receive nothing.

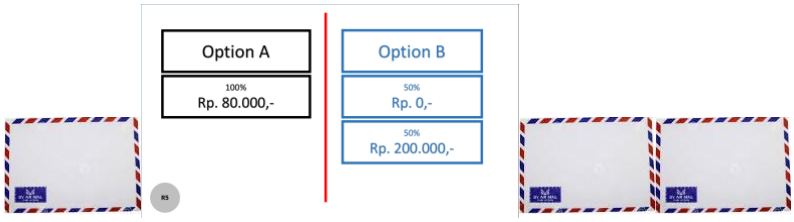

Figure 9. Poster for question number 5

- If respondent choose option A → STOP, put the respondent answers as STEP 4
- If respondent choose option B → STOP, put the respondent answers as STEP 5

10. Question number 7. Please have a look poster number 7 (see Figure 10). Which option would you choose: Option A which has an envelope with IDR 120,000.- as a sure payment, or option B which has a 50 per cent chance to win IDR 200,000.-, at the same time, there is a 50 per cent chance to receive nothing.

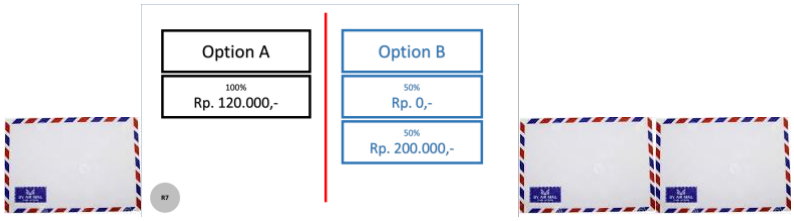

Figure 10. Poster for question number 7

- If respondent choose option A → STOP, put the respondent answers as STEP 6

- If respondent choose option B → STOP, put the respondent answers as STEP 7

11. Question number 11. Please have a look poster number 11 (see Figure 11). Which option would you choose: Option A which has an envelope with IDR 200,000.- as a sure payment, or option B which has a 50 per cent chance to win IDR 200,000.-, at the same time, there is a 50 per cent chance to receive nothing.

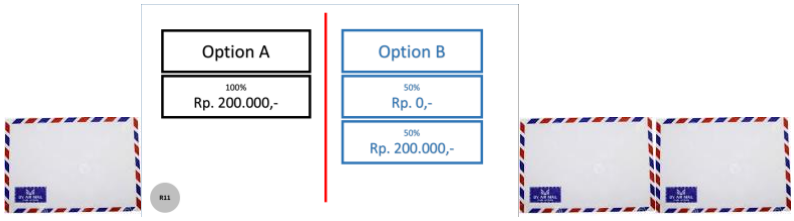

Figure 11. Poster for question number 11

- If respondent choose option A → STOP, put the respondent answers as STEP 10
- If respondent choose option B → STOP, put the respondent answers as ALWAYS B

The staircase procedure for risk preference is illustrated in Figure 1

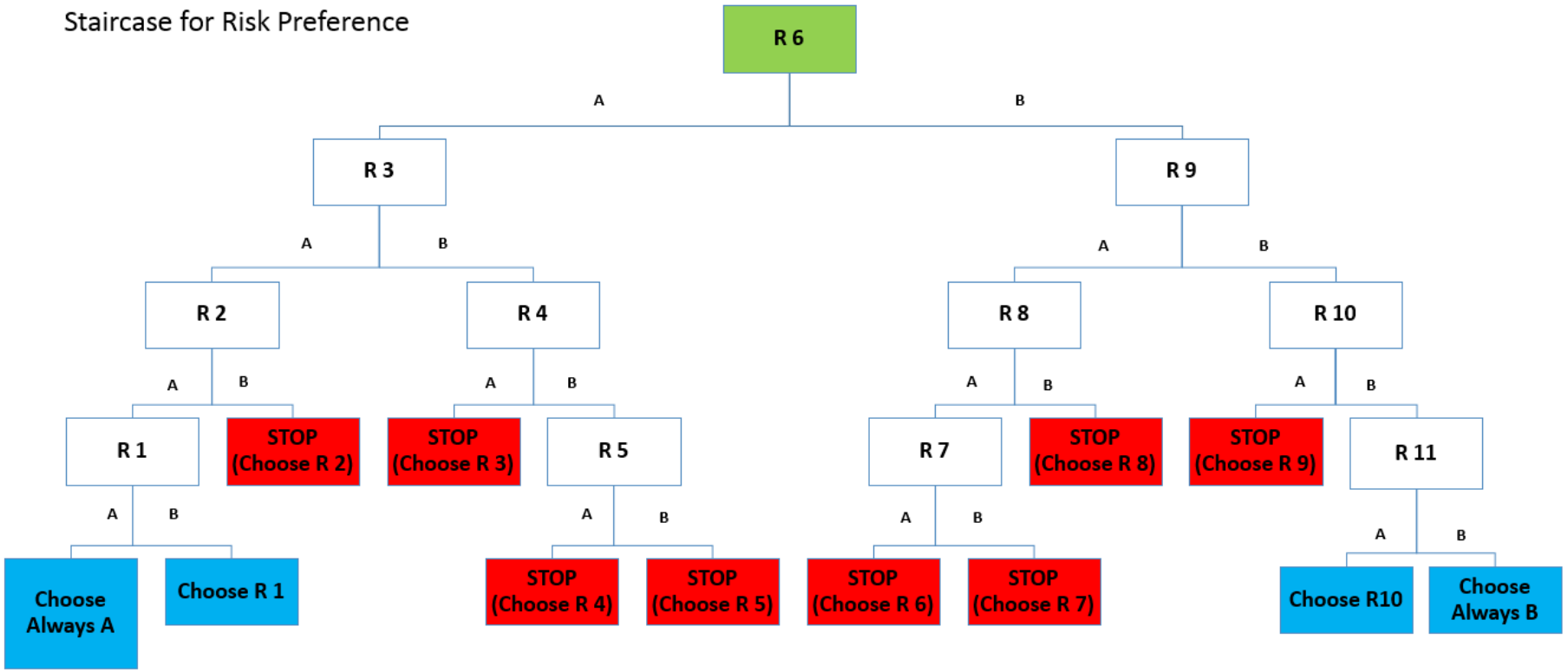

Figure 12. Staircase procedure for risk preference

Statement of Authorship

Title of Paper	Agricultural social networks and farm technical efficiency: a case study of citrus farmers in Indonesia
Publication Status	☐ Published ☐ Accepted for Publication ☐ Submitted for Publication ☒ Unpublished and Unsubmitted work written in manuscript style
Publication Details	

Principal Author

Name of Principal Author (Candidate)	Phassara Khamthara
Contribution to the Paper	Formulated research plan and methodology, conducted data collection, data analysis and wrote manuscript
Overall percentage (%)	70%
Certification:	This paper reports on original research I conducted during the period of my Higher Degree by Research candidature and is not subject to any obligations or contractual agreements with a third party that would constrain its inclusion in this thesis. I am the primary author of this paper.
Signature	Date 24/02/20

Co-Author Contributions

By signing the Statement of Authorship, each author certifies that:

i. the candidate's stated contribution to the publication is accurate (as detailed above);

ii. permission is granted for the candidate in include the publication in the thesis; and

iii. the sum of all co-author contributions is equal to 100% less the candidate's stated contribution.

Name of Co-Author	Dr. Di Zeng
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Signature	Date 24/02/2020

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Contribution to the Paper	Supervised the development of research project, evaluated and edited the manuscript
Signature	Date 24/02/2020

Chapter 4: Agricultural social networks and farm technical efficiency: A case study of citrus farmers in Indonesia

4.1 Abstract

Social capital accumulation is an important mechanism to overcome production and marketing constraints commonly faced by farmers. Previous research indicates social networks such as agricultural cooperative and farmer organisation can not only stimulate agricultural technologies adoption but also increase farm productivity. The current study examines the role of agricultural social networks in farm productivity among small-scale farmers in rural Indonesia. We hypothesise that agricultural social networks increase farm productivity through better access to agricultural technologies, inputs and information. Empirical analysis employs stochastic production frontier (SPF) to estimate technical efficiency in small-scale citrus farming in rural Indonesia. The findings are consistent with previous research documenting positive effects of cooperative membership and farmer group membership on technical efficiency among smallholders. However, there is no effect from having direct access to government authority for production-related information. These results can therefore assist policy and program design to further promote agricultural social networks among rural households that help achieve higher agricultural productivity and rural development outcomes.

Keywords: Agricultural social networks; Technical efficiency; Horticulture; Indonesia; Rural development

4.2 Introduction

Agricultural productivity plays a significant role in improving rural livelihoods and reducing poverty. It is found that higher agricultural productivity increases income for agricultural rural households and creates the demand for goods and services produced by non-farm households (Mellor 1999), thereby increasing employment in non-farm sectors (Hanmer and Naschold 2003). It also lowers urban poverty by slowing down migration to urban areas (Mellor 1999). Moreover, increased farm income from higher productivity potentially contributes to better nutritional outcomes and higher investment in health and education (Timmer 1995). Increasing agricultural productivity is therefore at the centre of policy considerations that aim at rural welfare improvement (Irz, Lin et al. 2001).

While agricultural production usually faces constraints in developing countries, social capital accumulation through increased interactions between farmers and other agents in the agricultural supply chain is an important mechanism to overcome production and marketing constraints. Previous research indicates agricultural social networks in terms of agricultural cooperative and farmer organisation contributes to not only agricultural technologies adoption but also farm economic performance regarding farm productivity and income (Ito, Bao et al. 2012, Abebaw and Haile 2013, Ainembabazi, van Asten et al. 2017, Mojo, Fischer et al. 2017, Wossen, Abdoulaye et al. 2017, Ma, Renwick et al. 2018). Agricultural social network helps facilitate access to inputs and contribute to higher adoption of input-enhancing technologies such as chemicals and fertilisers (Abebaw and Haile 2013). It also promotes efficient use of production input to achieve higher yields (González-Flores, Bravo-Ureta et al. 2014).

The purpose of our study is to examine the role of agricultural social networks on agricultural productivity in rural Indonesia. We hypothesise that agricultural social networks potentially lead to higher farm productivity. Specifically, we focus on technical efficiency outcome which measures optimal use of farm input. The empirical analysis draws on a recent

household survey of small-scale citrus farmers in rural Indonesia. Agricultural social network is measured by several complementing indicators, including farmer group membership, cooperative membership, and having direct access to government officer to enquire about citrus information. Our findings are intended for improving policy and program design to further promote agricultural social networks among rural households to achieve higher agricultural productivity and rural development outcomes.

Citrus farmers in Indonesia are chosen to be the sample of our study, as citrus is a very important commodity for Indonesian agriculture. Currently, citrus is one of the prioritised strategic horticultural commodities identified by the government along with chilli, onion, and garlic. The Indonesian Ministry of Agriculture aims to promote domestic citrus production for export orientation and import substitution, as currently there is still a large gap between domestic supply and demand (Ministry of Agriculture of Indonesia 2015).

The remainder of this paper is organized as follows. The subsequent section discusses previous studies relevant to our research question. This is followed by presentation of the empirical strategy of the analysis. Subsequently, we describe the data and their observed patterns. Empirical results are then presented and discussed in the next section. We finally conclude the paper with policy implications.

4.3 Literature review

Existing research consistently documents how joining organisations and programs such as agricultural cooperatives and farmer organisations positively affects farm economic performance and productivity. A study evaluating the impacts of cooperative membership among rural households in Rwanda found that cooperative membership in general has a positive effect on farm performance by promoting the adoption of modern inputs, increasing intensification, higher commercialisation of farm produce and increased revenue (Verhofstadt

and Maertens 2014). Another research evaluates the impact of agricultural cooperative on smallholders' technical efficiency using data from Ethiopia (Abate, Francesconi et al. 2014). Results suggest cooperative membership increases technical efficiency among smallholders, potentially by facilitating access to productive inputs and extension services.

Positive effects of agricultural social networks are found among many types of crops such as staple, cash crop and horticultural crops. One study evaluates the determinants of technical efficiency among rice farmers in village reservoir irrigation systems in Sri Lanka (Gedara, Wilson et al. 2012). It is found that farmer organisation membership positively contributes to agricultural technical efficiency. A recent research investigating the impacts of farmer groups on farm yield and technical efficiency among rice farmers in northern Ghana found farmer group participation contributes to higher yield and technical efficiency, and the estimated impacts are larger when possible selection bias is accounted for (Abdul-Rahaman and Abdulai 2018).

In terms of cash crop, a study focusing on understanding the determinants of production efficiency among coffee farmers in Costa Rica suggests one of most important factors influencing farm-specific efficiency level is cooperative membership (Wollni and Brümmer 2012). The effects of agricultural social network on farm technical efficiency are also found among horticultural crops producers; recent research examining how agricultural cooperative membership affects technical efficiency of apple farmers in China indicates that the average technical efficiency is higher among cooperative members than non-members. The estimated impacts are larger when accounted for selection bias, suggesting the positive impact of cooperative membership on efficient usage of production inputs (Ma, Renwick et al. 2018).

Not only farm economic performance and productivity, research also demonstrates how agricultural social networks benefit farm income and enhance poverty reduction. A study looking at the impact of agricultural cooperatives on poverty reduction among rural households

in Rwanda suggests cooperative membership has a positive effect on income and reduce poverty, where the impacts are largest among larger farms and in remote areas (Verhofstadt and Maertens 2014). Another important study focusing on watermelon farmers in China also suggests the agricultural cooperative's effects on farm income are substantially large and heterogeneous, the greatest impacts are found among small-scale farms. On the other hand, government extension services only have a slight effect on farm income (Ito, Bao et al. 2012).

Agricultural social networks are also found to have positive impacts toward adoption of technologies and practices. A study evaluates the impacts of extension access and cooperative membership on technology adoption and household welfare (Wossen, Abdoulaye et al. 2017). Results show a positive impact of extension access and cooperative membership on technology adoption. Both also enhances asset ownership and welfare among rural household in Nigeria. The impacts are particularly larger among smallholders with access to formal credits. Another important study investigates social network effects on the adoption of sustainable natural resource management practices in Ethiopia (Wossen, Berger et al. 2013). It is found that extension provision is one of the crucial factors enhancing adoption of resource management practices.

While important research has been done to study the effects of agricultural social networks on household welfare and farm productivity in various cases, there is generally a lack of focus on horticultural farmers in Indonesia. With population over 250 million, Indonesia is one of the largest markets in the world; the country still needs to import fruits such as citrus from other countries as the domestic supply cannot meet the increasing domestic demand (Ministry of Agriculture of Indonesia 2015). Moreover, our study also uses multiple social network measures which is different from other previous research where generally one social network measure is included. The advantages of having multiple social network measures is that we can compare and contrast the available social networks in the sample and see the real

effects of each social network while controlling for other social network measures in the econometric model.

4.4 Methodology

In the present study, we define social capital investment as having agricultural social networks associated with citrus farming. Three social capital investment indicators are used, including farmer group membership, cooperative membership, and having direct access to government authority to enquire about citrus farming. We assume that farmers make binary decision on whether to invest in their social capital through gaining agricultural social networks by comparing the expected utility gain. Based on the utility maximization framework, we assume that a farmer will decide to join a farmer group, approach government authority to enquire about citrus farming, or join an agricultural cooperative if the utility obtained from having these social networks are larger than utility without them. The decision to gain these social networks can be partially explained by demographic and social characteristics. The sample selection model for the social capital investment decision above can be expressed as:

$$S_i^* = \gamma' Z_i + \varepsilon_i, S_i = \begin{cases} 1 \; if \; U_i^S - U_i^N > 0 \\ 0 \; if \; U_i^S - U_i^N \leq 0 \end{cases} \quad (1)$$

where S_i^* is a latent variable representing the propensity that a farmer (i) decides to gain agricultural social network; S_i is the observed outcome variable which is farmers' having ($S_i = 1$); or not having agricultural social networks ($S_i = 0$); U_i^S is the expected utility gain of a farmer having agricultural social networks and U_i^N represents the expected utility from not having the agricultural social networks; Z_i is a vector of demographic and social characteristics explaining the decision of farmers to gain social networks; γ' are parameters to be estimated and ε_i is an error term assumed to have zero mean and normal distribution.

The purpose of our study aims to measure the impact of having agricultural social networks on agricultural technical efficiency. We employed stochastic production frontier

(SPF) analysis which accounts for productivity shifts due to induced changes in technical efficiency. The stochastic production frontier is specified as:

$$Y_i = f(X_i) + v_i - u_i,\ u_i \geq 0 \quad (2)$$

where Y_i is the yield output of a farmer (i); X_i is a vector of input variables; ε_i represents an error term, consisting of v_i which is a stochastic term capturing statistical noise that are separate from efficiency shocks and u_i which is a stochastic term that accounts for inefficiency in production. The effects of variables influencing output (apart from input variables) are captured in v_i and u_i.

Empirical estimation is facilitated by taking the natural logarithm of the equation (2) and specify the deterministic part of the model:

$$Y_i = ln(L_i K_i) + v_i - u_i,\ u_i \geq 0 \quad (3)$$

For the deterministic part of the production function $ln(L_i K_i)$, we evaluated both Cobb-Douglas and translog models which are the most common used parametric models. A likelihood ratio test led to the rejection of the Cobb-Douglas in favour of the translog functional form at 5% level of significance. The input variables include labour (L_i) which is the number of labour days per tree and capital (K_i) which includes fertilisers, chemical, irrigation and other input costs per tree. The output variable is citrus yield per tree (Y_i). All the measures are per tree instead of controlling for land, because it is possible to measure tree crop production regarding the use of input and the amount of output per tree.

We specify half-normal distribution for the inefficiency term and estimate the normal-half-normal model. The translog production function (Christensen, Jorgenson et al. 1973) takes the following form in our models:

$$lnY_i = \beta_0 + \beta_1 ln(L_i) + \beta_2 ln(K_i) + \beta_3 ln(L_i L_i) + \beta_4 ln(K_i K_i) + \beta_5 ln(L_i K_i) + v_i - u_i, u_i \geq 0 \quad (4)$$

The alternative to the translog specification is the Cobb-Douglas specification (Douglas and Cobb 1928) which takes the following form:

$$lnY_i = \beta_0 + \beta_1 ln(L_i) + \beta_2 ln(K_i) + v_i - u_i, u_i \geq 0 \quad (5)$$

The effects of factors other than input variables (L_i, K_i) on productivity are captured in u_i and v_i. Household and other observed characteristics as well as agricultural social network variables are included in the inefficiency variance equation ($\boldsymbol{\sigma_u^2}$), which is expected to affect productivity through efficiency change. We assume heteroscedasticity among error variances which is common among the existing studies (Reifschneider and Stevenson 1991, Hadri, Guermat et al. 2003, Xu, Amacher et al. 2017). The inefficiency variance equation (σ_u^2) can be expressed as:

$$\sigma_u^2 = exp(\gamma_{1i} E_u + \gamma_{2i} S) \quad (6)$$

Where S represents agricultural social network dummies (farmer group membership, cooperative membership, and having direct access to government authority to enquire about citrus farming), E_u includes households and other observable characteristics; household head age, gender and years of education, household size, citrus farming experience, off-farm income, internet access, and a dummy variable indicating whether a farmer having other farmers/neighbours as the main source of citrus information or not. γ_{1i} and γ_{2i} are the parameters to be estimated.

Second, the stochastic variance equation ($\boldsymbol{\sigma_v^2}$) is expected to affect productivity though unobserved random disturbances. The previous literature suggests a set of dummies that capture systematic differences across time and space (Hadri, Guermat et al. 2003). The stochastic variance equation ($\boldsymbol{\sigma_v^2}$) can be expressed as:

$$\sigma_v^2 = exp(\delta_i E_v) \quad (7)$$

Where E_v includes two district dummies (Banyuwangi and Jembre), and δ_i is the parameter to be estimated.

4.5 Data and descriptive statistics

Our study examines the relationship between agricultural social networks and technical efficiency using a sample of 408 small-scale citrus farmers in rural Indonesia from a recent survey conducted among 500 households of citrus producers in September 2017. The survey covers one of the main citrus growing areas in Indonesia, including Malang, Jembre, and Banyuwangi districts. Citrus farming households in this study refer to households which grow citrus for commercial purposes. The 500 citrus farming households were surveyed based on a multi-stage stratified sampling method. In the first stage, sub-districts were drawn from three strata which are the largest citrus production districts in East Java Province based on production volume in 2015. Banyuwangi, Jember and Malang districts exhibit differences in citrus farming methods, agro-ecosystems and infrastructure. Subsequently, we ranked all sub-districts from the three chosen districts based on production volume. We selected the sub-districts which accounts for more than 5% of district production volume. Two sub-districts were selected in Malang; nine sub-districts were selected in Banyuwangi, and four sub-districts were selected in Jember. In the second stage, we randomly drew 14 villages from each district. The enumerators conducted a census of citrus farming households in each village and 12 citrus farming households were randomly drawn from each village.

The final sample used in our study is only citrus farmers who have citrus yield in the past year. The remaining 92 citrus farming households have been excluded from our analysis as they have young citrus trees which still do not produce citrus fruits. Citrus is an appropriate choice for our study, as it involves long-term investment and is exposed to risks such as pest and disease. Intuitively, this will lead farmers to gain more knowledge and expertise potentially through joining agricultural social networks. We further analysed sub-sample by citrus plot area to understand the heterogeneity between “smallholders “(lower than the median) and

"large holders" (higher than the median). We divided farmers by the size of citrus plot area because it also accounts for the size of land which is an important asset in Indonesia.

Table 1 reports descriptive statistics of our sample including 408 farmers and our subsample which are divided by citrus plot areas. The average citrus plot area for large holders (1.77 ha) are approximately 5 times larger than the smallholders (.337 ha). The average yield in the past year of the smallholder group is approximately 32% higher than the large holder group. The majority of farmers in our sample (74.5%) have neighbours or other farmers as their main source of citrus information; higher proportion of farmers from smallholder group (78.4%) depends on neighbours/other farmers for information compared to farmers from large holder group (70.5%). Higher proportion of farmers with larger citrus plots are members of citrus farmer group, cooperative, and having direct access to government authority than the smallholder group. Among the three social capital investment indicators in our study, having direct access to government authority to enquire about citrus information is the most popular form of social capital investment, with 23.5% compared to 15.6% for farmer group and 6.1% for cooperative membership. Farmers in our sample have an average of 15-16 years of citrus farming experience, the number of years is similar among both groups. Household head from the large holder group has slightly higher years of education with 8 years compared to around 7 years for smallholder group. Both groups have similar level of non-farm income in the past year, which means there is no significant difference in non-farm income diversification. In terms of input use, farmers from smallholder group spend more on fertilisers and chemical per tree approximately 3% higher than the large holder group, smallholders also spend 26% more on irrigation cost per tree. Both groups primarily use family labour as the main source of labour, however smallholders spend approximately twice more days in the farm than the larger holder group, whereas large holder farmers hired additional labour to spend approximately twice more time on the farm than the smallholders' hired labour.

Table 1 Descriptive statistics (N=408)

	Mean (N= 408)	**Smallholders (having citrus plot area lower than the median, N=204)**	**Large holders (having citrus plot area higher than the median, N = 204)**
Citrus plot area (Hectares)	1.056 (2.214)	.337 (.149)	1.774 (2.962)
Yield per tree (kg)	17.100 (16.036)	19.483 (18.470)	14.716 (12.768)
Citrus Farmer group membership (yes=1; no=0)	.156 (.364)	.142 (.350)	.171 (.377)
Having direct access to government authority to enquire about citrus (yes=1; no=0)	.235 (.424)	.196 (.398)	.274 (.447)
Cooperative membership (yes=1; no=0)	.061 (.240)	.044 (.205)	.078 (.269)
Head HH age (years)	53.144 (10.837)	52.740 (10.656)	53.549 (11.026)
Head HH education (years)	7.696 (4.074)	7.230 (3.774)	8.161 (4.313)
Head HH gender (male =1; female =0)	.980(.138)	.980(.138)	.980(.138)
HHsize (person)	3.833 (1.379)	3.735 (1.270)	3.931 (1.477)
Non-farm income (million IDR)	7.601 (16.169)	7.574 (14.927)	7.628 (17.360)
Citrus farming experience (years)	16.041 (9.468)	15.916 (9.177)	16.166 (9.771)
Having other farmers/neighbours as the main source of citrus technology information (yes=1; no=0)	.745 (.436)	.784(.412)	.705(.456)
Internet access (yes=1; no=0)	.671 (.470)	.632 (.483)	.710 (.454)
Having formal citrus credit (yes=1; no=0)	.289(.453)	.220(.415)	.357(.480)
Having extension services in the past 5 years (yes=1; no=0)	.223(.416)	.205(.405)	.240(.428)
Tractor (quantity)	.029(.183)	.019(.138)	.039(.218)
Computer (quantity)	.294(.583)	.156(.415)	431(.687)
Fertilisers and chemicals per tree (thousand IDR)	36.447 (27.247)	37.014 (25.739)	35.880 (28.729)
Other input per tree (thousand IDR)	4.405 (6.783)	4.363 (6.679)	4.447 (6.902)
Irrigation per tree (thousand IDR)	.541 (.824)	.604 (.953)	.479 (.666)
Family labour per tree (labour days)	1.159 (1.384)	1.636 (1.661)	.681 (.789)
Hired labour per tree (labour days)	.086 (.277)	.046 (.094)	.127 (.377)
Banyuwangi	.372 (.484)	.431 (.496)	.313 (.465)
Jember	.370 (.483)	.323 (.468)	.416 (.494)

Standard deviations are in parentheses for means

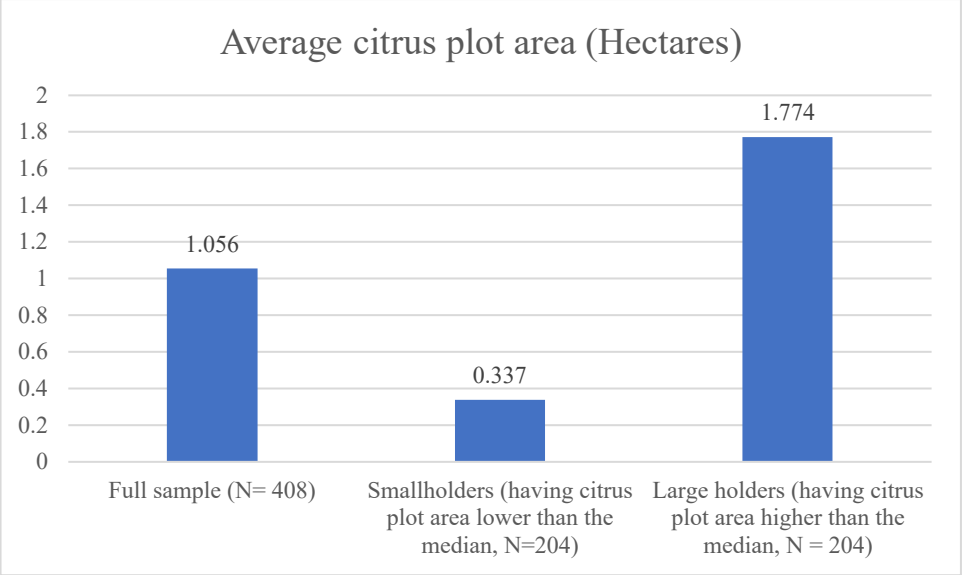

Figure 1 Average citrus plot area (Hectares)

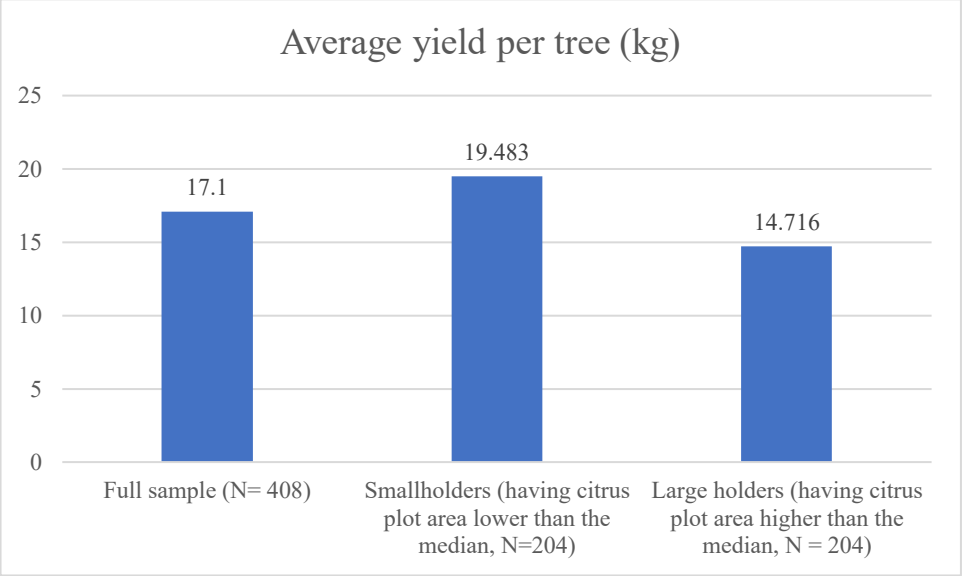

Figure 2 Average yield per tree (kg)

4.6 Results and discussion

Table 2 presents the probit model estimates of factors influencing social capital investment outcomes among the full sample (N=408). Additional year of household head education is associated with approximately 0.5% higher probability of joining cooperative membership and 2.1% higher probability of having direct access to government authority. However, household head education has no statistical relationship with farmer group participation, suggesting farmer group does not exclusively appeal to farmers with higher education. This means there is no educational barrier preventing farmers with low education from accessing farmer group membership.

Furthermore, citrus plot size has no statistically significant relationship with the three social capital investment outcomes. On the other hand, having formal credit for citrus farming is associated with about 7.3% higher probability of being a member of farmer group, as also found in existing research (Abdul-Rahaman and Abdulai 2018). Extension service participation is associated with 40.6% higher probability of being in a farmer group and 12.6% higher probability of having direct access to government authority but not cooperative membership. It is plausible that farmers obtain information about farmer group and government authority through participating in extension services. Citrus farming experience is associated with 0.2% higher probability of joining cooperative membership but not with farmer group membership and having direct access to government authority. The results suggest farmers with more experience is likely agricultural cooperative members than those of other social networks. Having other farmers/neighbours as the main source of citrus information is associated with 9.4% lower probability of gaining access to government authority for citrus information. It is plausible that farmers lacking access to government authority tend to rely on neighbours or other farmers for information.

Table 2 Probit model estimates of factors influencing social capital investment (N=408)

	Farmer group membership (N= 408)	**Marginal effects**	**Cooperative membership (N=408)**	**Marginal effects**	**Direct access to gov authority (N=408)**	**Marginal effects**
Head HH age (years)	.015(.010)	.002(.001)	.015(.012)	.001(.000)	.009(.008)	.002(.002)
Head HH education (years)	.019(.028)	.003(.004)	.088(.035)**	.005(.002)**	.073(.022)***	.021(.006)***
Citrus plot area (hectares)	-.139(.125)	-.021(.018)	-.141(.128)	-.009(.008)	.006(.032)	.001(.009)
Off-farm income (million IDR)	-.003(.006)	-.000(.000)	.010(.005)*	.000(.000)	.000(.004)	.000(.001)
Computer (quantity)	.137(.191)	.021(.029)	.372(.185)**	.024(.012)*	.047(.133)	.013(.039)
Tractor (quantity)	-.133(.465)	-.020(.072)	-.243(.541)	-.015(.035)	-.118(.383)	-.034(.112)
Internet access (yes=1; no=0)	.130(.232)	.019(.034)	-.066(.312)	-.004(.021)	.248(.178)	.070(.048)
Having formal citrus credit (yes=1; no=0)	.417(.206)**	.073(.040)*	.269(.261)	.019(.021)	.059(.16)	.017(.048)
Having extension services in the past 5 years (yes=1; no=0)	1.599(.193)***	.406(.059)***	.097(.266)	.006(.019)	.399(.168)**	.126(.056)**
Citrus farming experience (years)	.015(.011)	.002(.001)	.040(.014)***	.002(.000)***	-.011(.008)	-.003(.002)
Having other farmers/neighbours as the main source of citrus technology information (yes=1; no=0)	-.385(.206)*	-.068(.041)	-.164(.266)	-.011 (.020)	-.305(.167)*	-.094(.054)*
Banyuwangi	-.696(.253)***	-.097(.033)***	-.126(.322)	-.007(.019)	.196(.199)	.059(.060)
Jember	-.799(.258)***	-.110(.034)***	-.325(.325)	-.019(.018)	.052(.204)	.015(.060)
Constant	-2.195(.715)***		-3.870(.923)***		-1.795(.541)***	

Standard errors are in parentheses. *, ** and *** indicate statistical significance at 10%, 5% and 1% levels, respectively.

Table 3 reports the stochastic production frontier estimates of the whole sample using translog specification (N = 408). Models (1) and (4) indicate no statistically significant relationship between farmer group participation and technical efficiency among the full sample. Neither do Models (2) and (4) suggest a relationship between cooperative membership and technical efficiency. It implies the impact of farmer group and cooperative membership does not apply to the full sample. However, we found that having direct access to government authority is associated with higher inefficiency variance in model (3), and in model (4) where all measures are included. The results suggest a negative relationship between having direct access to government authority to enquire about citrus farming and technical efficiency. It is plausible that farmers with lower technical efficiency tend to enquire about citrus farming from government authority. We subsequently found from the sub-sample analysis in Table 4 that the effects come from the large holder farmer group (having citrus plot area higher than the median).

Among linear input variables, results show no statistically significant effect on technical efficiency. However, squared capital and squared labour coefficient are positively correlated with technical efficiency suggesting increasing returns to scale. Among the covariates, household head education displays a consistent positive relationship with technical efficiency. Moreover, a number of years involved in citrus farming is also associated with lower inefficiency variance across four models, suggesting citrus farming experience contributes to efficient usage of production inputs. Higher non-farm income level shows no effects on inefficiency variance term, indicating non-farm income doesn't negatively affect farm technical efficiency. In terms of information source, having internet access is not associated with lower inefficiency variance. Having other neighbours or farmers as the main source of citrus information also does not affect technical efficiency. The mean technical efficiency among the full sample is between 0.472 - 0.484.

Table 3 Stochastic production frontier estimation (Translog specification, N=408)

Citrus yield per tree (ln)	**Farmer group membership**	**Cooperative membership**	**Direct access to gov authority**	**All**
	(1)	**(2)**	**(3)**	**(4)**
ln(*L*)	.780(1.50)	.859(1.500)	.799(1.493)	.672(1.497)
ln(*K*)	-.329(.242)	-.348(.241)	-.321(.231)	-.293(.232)
ln(*L*) x ln(*L*)	.297(.141)**	.295(.141)**	.280(.140)**	.280(.141)**
ln(*K)* x ln(*K)*	.043(.016)***	.044(.016)***	.043(.015)***	.040(.015)***
ln(*L*) x ln(*K)*	-.109(.151)	-.116(.151)	-.107(.150)	-.095(.150)
Constant	2.280(.960)**	2.313(.960)**	2.157(.923)**	2.106(.921)**
Inefficiency variance equation: $\ln(\sigma_u^2)$				
Citrus Farmer group membership (yes=1; no=0)	-.174(.250)			-.302(.274)
Cooperative membership (yes=1; no=0)		.024(.356)		.001(.385)
Having direct access to government authority to enquire about citrus (yes=1; no=0)			.542(.212)**	.582(.217)***
Head HH age (years)	.004(.009)	.004(.009)	.004(.009)	.004(.009)
Head HH education (years)	-.046(.024)*	-.047(.024)*	-.064(.025)**	-.063(.025)**
Head HH gender (male =1; female =0)	.576(.620)	.578(.619)	.449(.631)	.437(.632)
HHsize (person)	-.024(.069)	-.032(.068)	-.019(.070)	-.005(.072)
Citrus farming experience (years)	-.017(.009)*	-.017(.009)**	-.018(.009)*	-.017(.009)*
Non-farm income (million IDR)	-.002(.005)	-.001(.005)	-.001(.005)	-.002(.005)
Internet access (yes=1; no=0)	.267(.214)	.264(.213)	.212(.220)	.216(.222)
Having other farmers/neighbours as the main source of citrus technology information (yes=1; no=0)	-.133(.199)	-.106(.195)	-.051(.204)	-.094(.209)
Constant	.224(.833)	.268(.833)	.269(.854)	.222(.861
Stochastic variance equation: $\ln(\sigma_v^2)$ base = Malang				
Banyuwangi	-1.081(.523)**	-1.068(.530)**	-1.186(.465)**	-1.202(.460)***
Jember	-1.176(.510)**	-1.161(.516)**	-1.288(.464)***	-1.304(.459)***
Constant	-.734(.488)	-.748(.498)	-.584(.427)	-.568(.421)
Mean Technical Efficiency (std.)	.473(.214)	.472(.214)	.483(.210)	.484(.210)

Standard errors are in parentheses. *, ** and *** indicate statistical significance at 10%, 5% and 1% levels, respectively.

Table 4 presents the stochastic production frontier estimates of the sub-sample. As we further divided farmers into two groups by the size of citrus plot area, we found heterogeneity impacts among two groups. Results for smallholder farmers indicate farmer group and cooperative membership are associated with higher technical efficiency. Models (1) and (4) suggest farmer group participation is associated with higher technical efficiency among smallholder farmers group but not in the large holder farmers group. Similarly, models (2) and (4) indicate that cooperative membership has a positive relationship with technical efficiency among smallholder farmer group. We found that the magnitude of cooperative membership effects is larger than of farmer group membership. The results suggest the impacts of farmer group and cooperative membership are found primarily among smallholder citrus farmers in our sample.

Among linear input variables, we found a positive relationship between labour and technical efficiency among smallholder farmers, however only with marginal significance in models (2) and (4). Squared labour shows no statistically significant relationship with technical efficiency among both groups. Capital is found to be associated with lower technical efficiency among smallholder farmers, suggesting overuse of input such as chemicals and fertilisers or potentially higher costs of input among smallholder citrus producers.

On the other hand, labour has no significant statistical relationship with technical efficiency among larger farms and capital is associated with higher technical efficiency across the four models. However, squared capital displays a statistically significant negative relationship with technical efficiency suggesting decreasing returns to scale. For smallholder farmers, labour is an important factor for farm productivity because small farms generally use family labour unlike larger farms where hired labour are used. The yield would depend on the amount of time family labour spent in the farm which might be inconsistent. On the other hand, capital is shown to be associated with higher technical efficiency for larger farms. It is plausible that large farms

usually have sufficient amount of hired labour and the yield would depend on how much input such as chemical and fertilisers are used, and larger farms might also benefit from the economy of scale.

Among farmers with larger citrus plots, the only social capital measure which has a statistically significant coefficient is having direct access to government authority to enquire about citrus farming. It is found to be negatively correlated with technical efficiency in models (3) and (4). It is unlikely that having direct access to government authority causes lower farm productivity. However, it is plausible that large holder citrus producers who have problems affecting farm productivity such as pests and diseases tend to seek support from government authority, which the results suggest the negative association with technical efficiency. Among the covariates, household head education and citrus farming experience are found to help with technical efficiency only among smallholder farmers across four models. The absence of farmer characteristics effects on efficiency among large holder farmers could result from the dominant effects of economy of scale that large farms have. Other covariates show no statistically significant relationship with technical efficiency in both groups. The mean technical efficiency among smallholder farmers is between 0.460 and 0.483. Citrus farmers in the larger holders show higher technical efficiency with the mean ranging between 0.483 and 0.500.

Overall, the estimates produced from our stochastic production frontier estimation are in alignment with the previous research documenting the positive effects of cooperative membership and farmer group membership on technical efficiency, particularly among smallholders. We found no statistically significant positive effects from having direct access to government authority on improving production efficiency.

For robustness testing, we further report stochastic production frontier estimation using Cobb-Douglas functional form (Table 5 and 6). The estimation produces similar results to the

translog functional form regarding farmer group membership, as it is found to be positively associated with lower inefficiency variance among smallholder farmers subsample. Results also consistently indicate the negative relationship between direct access to government authority and technical efficiency. However, the effects of cooperative membership and technical efficiency becomes statistically insignificant in Cobb-Douglas model. As the likelihood ratio test suggests the translog specification is more appropriate than the Cobb-Douglas at 5% significance, therefore, we decided to present the main results with the translog functional form.

Table 4 Subsample results by citrus plot area (Translog specification, N=408)

Citrus yield per tree (ln)	**Smallholder farmers group (having citrus plot area lower than the median; N=204)**				**Large holder farmers group (having citrus plot area higher than the median; N= 204)**			
	Farmer group membership (1)	**Cooperative membership (2)**	**Direct access to gov authority (3)**	**All (4)**	**Farmer group membership (1)**	**Cooperative membership (2)**	**Direct access to gov authority (3)**	**All (4)**
ln(*L*)	2.739(1.910)	3.616(1.902)*	2.954(1.93)	3.321(1.886)*	.964(3.064)	.867(2.998)	1.190(3.001)	1.072(3.023)
ln(*K*)	-.751(.307)**	-.910(.303)***	-.768(.311)**	-.839(.306)***	5.089(1.92)***	5.054(1.91)***	4.582(2.00)**	4.611(2.001)**
ln(*L*) x ln(*L*)	.261(.185)	.302(.186)	.271(.188)	.276(.183)	-.125(.299)	-.139(.297)	-.131(.302)	-.134(.304)
ln(*K*) x ln(*K*)	.072(.023)***	.085(.023)***	.074(.023)***	.079(.023)***	-.220(.094)**	-.218(.093)**	-.195(.097)**	-.196(.097)**
ln(*L*) x ln(*K*)	-.276(.196)	-.366(.198)*	-.298(.199)	-.332(.196)*	-.114(.289)	-.102(.283)	-.132(.284)	-.120(.286)
Constant	3.400(.852)***	3.679(.816)***	3.399(.852)***	3.527(.837)***	-25.47(9.85)**	-25.30(9.78)**	-22.99(10.2)**	-23.11(10.2)**
Inefficiency variance equation: $\ln(\sigma_u^2)$								
Citrus Farmer group membership (yes=1; no=0)	-.869(.363)**			-.777(.369)**	.033(.350)			-.083(.377)
Cooperative membership (yes=1; no=0)		-1.982(.898)**		-1.761(.892)**		.280(.450)		.154(.487)
Having direct access to government authority to enquire about citrus (yes=1; no=0)			.240(.277)	.295(.286)			.548(.316)*	.535(.322)*
Head HH age (years)	.000(.012)	-.001(.012)	-.001(.012)	-.000(.012)	.001(.012)	.000(.013)	.002(.013)	.001(.013)
Head HH education (years)	-.087(.037)**	-.085(.037)**	-.098(.037)***	-.083(.037)**	-.009(.034)	-.010(.034)	-.027(.036)	-.027(.036)
Head HH gender (male =1; female =0)	1.390(.971)	1.506(.997)	1.365(.965)	1.378(.988)	.001(.837)	-.003(.836)	-.214(.864)	-.209(.863)
HH (size (person)	-.096(.097)	-.114(.096)	-.099(.096)	-.092(.098)	.053(.100)	.056(.098)	.065(.102)	.071(.104)
Citrus farming experience (years)	-.033(.012)***	-.029(.012)**	-.031(.012)**	-.030(.012)**	-.009(.013)	-.011(.013)	-.008(.014)	-.009(.014)
Non-farm income (million IDR)	-.009(.008)	-.006(.009)	-.009(.008)	-.007(.009)	-.004(.007)	-.005(.008)	-.005(.008)	-.005(.008)
Internet access (yes=1; no=0)	.433(.273)	.438(.272)	.385(.272)	.410(.278)	-.024(.329)	-.026(.328)	.025(.347)	.025(.346)
Having other farmers/neighbours as the main source of citrus technology information (yes=1; no=0)	-.360(.302)	-.205(.285)	-.133(.279)	-.428(.305)	.135(.289)	.127(.284)	.266(.323)	.250(.324)
Constant	.723(1.238)	.481(1.262)	.636(1.227)	.695(1.250)	.184(1.126)	.245(1.130)	.045(1.173)	.079(1.178)
Stochastic variance equation: $\ln(\sigma_v^2)$								
base = Malang								
Banyuwangi	-.051(.773)	.123(.711)	-.055(.782)	.035(.727)	-1.550(.684)**	-1.527(.674)**	-1.656(.58)***	-1.637(.59)***
Jember	-.638(.853)	-.485(.817)	-.675(.897)	-.564(.811)	-1.490(.651)**	-1.462(.647)**	-1.654(.56)***	-1.626(.57)***
Constant	-1.94(.727)***	-2.103(.64)***	-1.969(.73)***	-2.026(.66)***	-.478(.584)	-.494(.568)	-.262(.469)	-.289(.490)
Mean Technical Efficiency (std.)	.466(.243)	.468(.247)	.460(.243)	.472(.247)	.483(.209)	.484(.209)	.500(.201)	.499(.202)

Standard errors are in parentheses. *, ** and *** indicate statistical significance at 10%, 5% and 1% levels, respectively

Table 5 Stochastic production frontier estimation (Cobb Douglas specification, N=408)

Citrus yield per tree (ln)	**Farmer group membership**	**Cooperative membership**	**Direct access to gov authority**	**All**
	(1)	**(2)**	**(3)**	**(4)**
ln(*L*)	.190(.088)**	.186(.088)**	.193(.087)**	.199(.087)**
ln(*K*)	.359 (.052)***	.365(.053)**	.372(.053)***	.366(.053)***
Constant	-.411(.552)	-.466(.554)	-.569(.556)	-.510(.555)
Inefficiency variance equation: $\ln(\sigma_u^2)$				
Citrus Farmer group membership (yes=1; no=0)	-.280(.271)			-.435(.299)
Cooperative membership (yes=1; no=0)		.053(.376)		.082(.405)
Having direct access to government authority to enquire about citrus (yes=1; no=0)			.597(.222)***	.645(.229)***
Head HH age (years)	.007(.009)	.006(.009)	.006(.009)	.007(.010)
Head HH education (years)	-.043(.025)*	-.045(.026)*	-.064(.027)**	-.063(.027)**
Head HH gender (male =1; female =0)	.556(.630)	.555(.628)	.414(.641)	.400(.645)
HHsize (person)	-.027(.073)	-.037(.072)	-.018(.074)	-.003(.075)
Citrus farming experience (years)	-.018(.009)*	-.019(.009)*	-.018(.009)*	-.018(.010)*
Non-farm income (million IDR)	-.003(.006)	-.003(.006)	-.003(.006)	-.004(.006)
Internet access (yes=1; no=0)	.176(.221)	.169(.220)	.109(.226)	.118(.228)
Having other farmers/neighbours as the main source of citrus technology information (yes=1; no=0)	-.091(.213)	-.050(.208)	.008(.216)	-.046(.222)
Constant	.040(.875)	.092(.874)	.074(.896)	.040(.905)
Stochastic variance equation: $\ln(\sigma_v^2)$ base = Malang				
Banyuwangi	-1.566(.376)***	-1.573(.376)***	-1.597(.357)***	-1.598(.355)***
Jember	-1.484(.397)***	-1.488(.397)***	-1.546(.383)***	-1.544(.381)***
Constant	-.205(.286)	-.201(.287)	-.131(.267)	-.127(.265)
Mean Technical Efficiency (std.)	.488(.200)	.487(.200)	.498(.198)	.501(.198)

Standard errors are in parentheses. *, ** and *** indicate statistical significance at 10%, 5% and 1% levels, respectively.

Table 6 Stochastic production frontier estimation (Cobb Douglas specification, N=408)

Citrus yield per tree (ln)	Smallholder farmers group (having citrus plot area lower than the median; N=204)				Large holder farmers group (having citrus plot area higher than the median; N= 204)			
	Farmer group membership (1)	**Cooperative membership (2)**	**Direct access to gov authority (3)**	**All (4)**	**Farmer group membership (1)**	**Cooperative membership (2)**	**Direct access to gov authority (3)**	**All (4)**
ln(*L*)	.375(.115)***	.395(.118)***	.386(.120)***	.391(.115)***	-.386(.158)**	-.388 (.157)**	-.350(.160)**	-.350(.161)**
ln(*K*)	.299(.067)***	.284(.062)***	.284(.065)***	.298(.065)***	.496(.095)***	.497(.093)***	.502(.091)***	.504(.093)***
Constant	.087(.719)	.281(.664)	.292(.697)	.083(.704)	-1.575(1.005)	-1.589(.988)	-1.701(.971)*	-1.714(.993)*
Inefficiency variance equation: $\ln(\sigma_u^2)$								
Citrus Farmer group membership (yes=1; no=0)	-1.350(.670)**			-1.275(.637)**	.119(.346)			-.030(.374)
Cooperative membership (yes=1; no=0)		-1.664(1.073)		-1.397(1.115)		.305(.446)		.133(.483)
Having direct access to government authority to enquire about citrus (yes=1; no=0)			.409(.307)	.505(.333)			.647(.314)**	.634(.320)**
Head HH age (years)	-.001(.015)	-.003(.013	-.004(.013)	-.002(.014)	.001(.012)	.000(.013)	.003(.013)	.002(.013)
Head HH education (years)	-.100(.047)**	-.096(.043)**	-.112(.044)**	-.106(.048)**	-.011(.034)	-.012(.034)	-.031(.036)	-.032(.036)
Head HH gender (male =1; female =0)	1.121(1.041)	1.213(.972)	1.067(.967)	1.003(1.043)	-.050(.841)	-.053(.841)	-.286(.869)	-.284(.868)
HH size (person)	-.134(.111)	-.139(.104)	-.112(.104)	-.115(.111)	.034(.100)	.043(.098)	.054(.102)	.056(.105)
Citrus farming experience (years)	-.023(.015)	-.023(.014)	-.023(.015)	-.018(.016)	-.007(.012)	-.009(.013)	-.007(.013)	-.008(.013)
Non-farm income (million IDR)	-.009(.010)	-.004(.010)	-.008(.009)	-.006(.010)	-.002(.007)	-.003(.008)	-.003(.008)	-.003(.008)
Internet access (yes=1; no=0)	.316(.296)	.297(.279)	.206(.288)	.224(.305)	.081(.327)	.079(.326)	.139(.346)	.137(.346)
Having other farmers/neighbours as the main source of citrus technology information (yes=1; no=0)	-.338(.355)	-.156(.312)	-.132(.306)	-.395(.354)	.035(.276)	.026(.273)	.177(.308)	.170(.310)
Constant	1.008(1.413)	.869(1.303)	-.132(.306)	1.069(1.411)	.273(1.139)	.337(1.144)	.099(1.193)	.138(1.201)
Stochastic variance equation: $\ln(\sigma_v^2)$								
base = Malang								
Banyuwangi	-1.505(.56)***	-1.222(.641)*	-1.338(.668)**	-1.507(.57)***	-1.481(.680)**	-1.461(.678)**	-1.58(.577)***	-1.57(.579)***
Jember	-1.529(.654)**	-1.365(.739)*	-1.438(.782)*	-1.572(.668)**	-1.423(.638)**	-1.398(.639)**	-1.60(.554)***	-1.59(.559)***
Constant	-.373(.538)	-.708(.583)	-.614 (.621)	-.385(.538)	-.491(.551)	-.510(.548)	-.271(.443)	-.279(.450)
Mean Technical Efficiency (std.)	.504 (.218)	.484(.226)	.481(.222)	.509(.222)	.477(.210)	.477(.210)	.496(.202)	.496(.202)

Standard errors are in parentheses. *, ** and *** indicate statistical significance at 10%, 5% and 1% levels, respectively.

4.7 Conclusion

The findings of this study suggest a positive relationship of farmer group and cooperative membership on technical efficiency among smallholder citrus producers. The findings of our research align with the previous studies suggesting the contribution of farmer group and cooperative membership toward farm productivity. It shows how investing in agricultural social networks leverage efficient usage of production inputs among farmers with smaller farms who do not have the benefit of economy of scale. Social networks in the rural areas are found to be a source of support when farmers face with agricultural uncertainty. Particularly among citrus farmers with horticultural crop which requires long term investment of resources, agricultural social networks would be a vital platform for farmers to exchange knowledge and discuss solutions to increase productivity.

In terms of policy implications, the results of our research suggest promoting farmer group and agricultural cooperative membership especially among smallholder farmers. Even though our stochastic production frontier estimation indicates farmer group membership has lower magnitude on technical efficiency than cooperative membership among smallholders, farmer group participation still remains an important platform for farmers regardless of their education levels as suggested by our probit estimation. On the other hand, cooperative membership tends to be the choice for farmers with higher education and more years of citrus farming experience. Therefore, farmer group membership is a better tool to help increasing farm productivity among smallholder citrus farmers, as it will benefit farmers who have lower education and less citrus farming experience.

The limitation of our study is the ability to infer causality, as the results are observed from cross-sectional data. The use of survey which gathers information reported by households might suffer some bias, as the respondents might not have accurate information due to the lack of proper records. It also has limitations in terms of external validity, as we draw conclusions

exclusively from a sample of citrus farmer in East Java, Indonesia. Moreover, our analysis might be affected by selection bias. Our results should be rigorously treated as suggestive.

4.8 References

Abate, G. T., G. N. Francesconi and K. Getnet (2014). "IMPACT OF AGRICULTURAL COOPERATIVES ON SMALLHOLDERS'TECHNICAL EFFICIENCY: EMPIRICAL EVIDENCE FROM ETHIOPIA." Annals of Public and Cooperative Economics **85**(2): 257-286.

Abdul-Rahaman, A. and A. Abdulai (2018). "Do farmer groups impact on farm yield and efficiency of smallholder farmers? Evidence from rice farmers in northern Ghana." Food Policy **81**: 95-105.

Abebaw, D. and M. G. Haile (2013). "The impact of cooperatives on agricultural technology adoption: Empirical evidence from Ethiopia." Food policy **38**: 82-91.

Ainembabazi, J. H., P. van Asten, B. Vanlauwe, E. Ouma, G. Blomme, E. A. Birachi, P. M. D. Nguezet, D. B. Mignouna and V. M. Manyong (2017). "Improving the speed of adoption of agricultural technologies and farm performance through farmer groups: evidence from the Great Lakes region of Africa." Agricultural economics **48**(2): 241-259.

Christensen, L. R., D. W. Jorgenson and L. J. Lau (1973). "Transcendental logarithmic production frontiers." The review of economics and statistics: 28-45.
Douglas, P. and C. W. Cobb (1928). "A theory of production." The American Economic Review **18**(1): 139-165.

Gedara, K. M., C. Wilson, S. Pascoe and T. Robinson (2012). "Factors affecting technical efficiency of rice farmers in village reservoir irrigation systems of Sri Lanka." Journal of Agricultural Economics **63**(3): 627-638.

González-Flores, M., B. E. Bravo-Ureta, D. Solís and P. Winters (2014). "The impact of high value markets on smallholder productivity in the Ecuadorean Sierra: A Stochastic Production Frontier approach correcting for selectivity bias." Food Policy **44**: 237-247.

Hadri, K., C. Guermat and J. Whittaker (2003). "Estimation of technical inefficiency effects using panel data and doubly heteroscedastic stochastic production frontiers." Empirical Economics **28**(1): 203-222.

Hanmer, L. and F. Naschold (2003). Attaining the international development targets: will growth be enough? The New Poverty Strategies, Springer**:** 253-279.

Ministry of Agriculture of Indonesia. (2015). Strategic Plan of Ministry of Agriculture 2015-2019, Ministry of Agriculture of Indonesia**:** 140.

Irz, X., L. Lin, C. Thirtle and S. Wiggins (2001). "Agricultural productivity growth and poverty alleviation." Development policy review **19**(4): 449-466.

Ito, J., Z. Bao and Q. Su (2012). "Distributional effects of agricultural cooperatives in China: Exclusion of smallholders and potential gains on participation." Food policy **37**(6): 700-709.

Ma, W., A. Renwick, P. Yuan and N. Ratna (2018). "Agricultural cooperative membership and technical efficiency of apple farmers in China: An analysis accounting for selectivity bias." Food Policy **81**: 122-132.

Mellor, J. W. (1999). "Faster, more equitable growth-the relation between growth in agriculture and poverty reduction agricultural policy." Development project research report **4**.

Mojo, D., C. Fischer and T. Degefa (2017). "The determinants and economic impacts of membership in coffee farmer cooperatives: recent evidence from rural Ethiopia." Journal of Rural Studies **50**: 84-94.

Reifschneider, D. and R. Stevenson (1991). "Systematic departures from the frontier: a framework for the analysis of firm inefficiency." International economic review: 715-723.

Timmer, C. P. (1995). "Getting agriculture moving: do markets provide the right signals?" Food Policy **20**(5): 455-472.

Verhofstadt, E. and M. Maertens (2014). "Can agricultural cooperatives reduce poverty? Heterogeneous impact of cooperative membership on farmers' welfare in Rwanda." Applied Economic Perspectives and Policy **37**(1): 86-106.

Verhofstadt, E. and M. Maertens (2014). "Smallholder cooperatives and agricultural performance in Rwanda: do organizational differences matter?" Agricultural Economics **45**(S1): 39-52.

Wollni, M. and B. Brümmer (2012). "Productive efficiency of specialty and conventional coffee farmers in Costa Rica: Accounting for technological heterogeneity and self-selection." Food Policy **37**(1): 67-76.

Wossen, T., T. Abdoulaye, A. Alene, M. G. Haile, S. Feleke, A. Olanrewaju and V. Manyong (2017). "Impacts of extension access and cooperative membership on technology adoption and household welfare." Journal of rural studies **54**: 223-233.

Wossen, T., T. Berger, T. Mequaninte and B. Alamirew (2013). "Social network effects on the adoption of sustainable natural resource management practices in Ethiopia." International Journal of Sustainable Development & World Ecology **20**(6): 477-483.

Xu, Y., G. S. Amacher and J. Xu (2017). "Village democracy and household welfare: Evidence from rural China." Environment and Development Economics **22**(4): 351-372.

Chapter 5: Conclusions and Policy Implications

Relative to traditional staple crops, horticultural farming not only benefits farm economic performance due to its higher return to land but also improve households' socioeconomic welfare. The findings from our first analytical suggest households having horticultural crops as their main crops are found to be better off in terms of farm income and they tend to invest more in education spending than households having staple crops as the main crops. However, as the study further examined in the second analytical chapter, it was found that increased education investments among horticultural households were not only through increased income from horticultural crops. The increased education spending is also potentially from the increased non-farm income, which is stimulated by farmers using off-farm diversification as a risk management strategy to mitigate risks from horticultural farming. As farmers usually rely on income diversification toward non-farm source to help mitigate their risks, non-farm income also benefits farm households as it increases cash and liquidity which helps in everyday expenses such as child education. The findings of our study suggest that higher non-farm income is associated with higher education spending. This aligns with the previous studies documenting the benefit of non-farm income activities, as additional income outside the farm is found to improve households' socioeconomic welfare, such as food security, and helps smoothing income constraints from farming (Babatunde & Qaim, 2010; De Janvry & Sadoulet, 2001; Hoang, Pham, & Ulubaşoğlu, 2014).

In addition to risk-mitigation strategy by farmers such as income diversification toward non-farm source, government could help farmers manage risks associated with horticultural crops and increase farm economic performance by supporting farmers through agricultural social networks. The third analytical chapter demonstrates findings which are consistent with the previous studies that cooperative and farmer group membership contribute to higher technical efficiency among smallholders (Abate, Francesconi, & Getnet, 2014; Abdul-

Rahaman & Abdulai, 2018; Ma, Renwick, Yuan, & Ratna, 2018). These agricultural social networks are found to help farmers in adoption of horticultural crops and removing constraints from market access and information asymmetry. As horticultural farmers face increased risks from price fluctuation and higher demand for intensive use of input, capital and labour, agricultural social networks are vital platforms for farmers to access support from government and learn from other farmers to achieve higher farm productivity. Increased farm productivity often leads to higher income for agricultural households (Mellor, 1999), which potentially induces better nutritional outcomes and higher investment in health and education (Timmer, 1995). Accordingly, higher education investments among agricultural households could be achieved through promoting horticultural crop adoption, supporting households to diversify their income toward non-farm source, and encouraging participation in agricultural social networks to increase agricultural productivity.

Specifically, the first analytical chapter consistently indicates a positive association between households growing horticultural crops as the main crops and child education spending especially for boys and primary school children. However, our study found consistent negative relationship between having staple crops as the main crops and education spending as well as time spent in school especially for junior high school students. It is plausible that households with staple crops as the main crops usually have lower income than horticultural households. Even though horticultural crops are more labour intensive than staple crops, it does not induce more farm work for children. It is plausible that households with horticultural crops as their main crops tend to rely on hired labour to maintain their crops more than family labour and there is no substitutional effect between child education and farm work participation. However, results suggest households with staple crops as their main crops are still lagged behind in terms of education investments. At present, Indonesia is trying to achieve self-sufficiency for rice production by reducing imports from other countries and promoting the use

of land for rice production. As households with rice production as their main activity might not have the same level of child education investments compared to households with horticultural crops as their main crops, more policy attention should be directed toward households with traditional staple crop farming to promote child education investments and help reduce barriers toward horticultural crop adoption. Furthermore, our study indicates the magnitude of education spending is much larger on boys among horticultural households. It is plausible that in our sample, boys are more favourable in terms of education investments. Accordingly, further policy attention should be directed toward encouraging girls' education investments to improve gender equity.

Our second analytical chapter further suggests that apart from increased farm income among horticultural households, higher non-farm income is also associated with more education spending for children. As we incorporated both husband and wife risk preference to understand its effects on non-farm income, our results suggest that wives' lower risk aversion is associated with higher non-farm income level. However, for husbands, lower risk aversion is associated with lower non-farm income level and this is consistent with the previous findings that risk aversion is found to have a positive relationship with off-farm employment (van Winsen et al., 2016). Moreover, non-farm income is found to have a larger magnitude of positive association with education spending than income from citrus farming and other crops. Our empirical results suggest that risks associated with horticultural farming could potentially influence education spending through increasing income diversification toward non-farm source. This implies that horticultural households with higher non-farm income level would spend more on education as they potentially have more liquidity and constant cash flow. As our study suggests wives' risk seeking characteristics leads to higher non-farm income level which is positively associated with child education spending, further policy attention should be directed toward women's empowerment such as promoting education and training not only

to male farmers but also their wives. Results from our analysis show that citrus farming income is also associated with more child education spending among households in the higher income group. However, it was found that citrus farmers in the lower income group tend to spend less on child education when they receive higher income from citrus production. Accordingly, further policy attention should be directed toward encouraging child education investments or providing education aid among citrus farmers with lower farm income.

The findings from the third analytical chapter suggest important pathways to help horticultural farmers increase their farm yield and productivity through promoting social capital investment through agricultural social networks. Our study adds to the existing literature that it analyses multiple agricultural social networks among high-value perennial horticultural farmers. The research specifically provides a case study of small-scale citrus producers in rural Indonesia. The findings suggest farmer groups should be prioritised as it appeals to farmers regardless their education and citrus farming experience. Farmer group participation is shown to have no barrier of entry for farmers with low education and less citrus farming experience. On the other hand, cooperative membership tends to appeal to farmers with more education and citrus farming experience. Moreover, the study found no positive relationship between having direct access to government authority for production-related information and farm productivity. Moreover, farmers who lack access to government authority tend to rely on neighbours or other farmers as the main source of information which is not found to help increase production efficiency. Accordingly, the most effective pathway for the government to enhance farm productivity and provide citrus farmers with information and support is through cooperative and farmer groups. These social networks could potentially help reduce market barriers and increase production efficiency particularly among smallholders who do not have the benefit of economies of scale.

Overall, our study suggests human and social capital investment among horticultural farmers are increasing and bringing better welfare outcomes for households. Using horticultural crop adoption as a rural development strategy is a vital pathway to improve human capital and social capital accumulation among rural households. Horticultural crops often generate higher income than traditional staple crops which also benefits education spending through various pathways. Moreover, horticultural farming also constantly needs training and information to improve yield and productivity, therefore, it also encourages farmers to seek participation in agricultural social networks, which enhances farmers' position in the agricultural value chains and increases farm productivity.

The first analytical chapter of our thesis is based on observational data from agricultural households in East Kalimantan, Southeast Sulawesi, East Nusa Tengara, Maluku, North Maluku, Papua, and West Papua. The second and third analytical chapters of our thesis are based on citrus farming households in East Java, Indonesia. Therefore, our empirical analysis still has limitations in terms of external validity in different settings. Further research may utilise better data once they become available to test the external validity of our findings in other parts of Indonesia. Another limitation of this study is the use of cross-sectional data which limits the ability to infer causality. Therefore, our results should be interpreted as suggestive. Further research may use panel data to test the causality of our findings. The use of survey which records information reported by households might suffer some bias, as the respondents might not have accurate information due to the lack of proper records. Also, the challenge of the survey is that the information relies only from the perspectives of the respondents which may be subjective. However, our empirical research provides useful policy implications regarding horticultural farming and the implications for human and social capital investment among horticultural households.

5.1 References

Abate, G. T., Francesconi, G. N., & Getnet, K. (2014). Impact of agricultural cooperatives on smallholders'technical efficiency: empirical evidence from ethiopia. *Annals of Public and Cooperative Economics, 85*(2), 257-286.

Abdul-Rahaman, A., & Abdulai, A. (2018). Do farmer groups impact on farm yield and efficiency of smallholder farmers? Evidence from rice farmers in northern Ghana. *Food Policy, 81*, 95-105.

Babatunde, R. O., & Qaim, M. (2010). Impact of off-farm income on food security and nutrition in Nigeria. *Food policy, 35*(4), 303-311.

De Janvry, A., & Sadoulet, E. (2001). Income strategies among rural households in Mexico: The role of off-farm activities. *World development, 29*(3), 467-480.

Hoang, T. X., Pham, C. S., & Ulubaşoğlu, M. A. (2014). Non-farm activity, household expenditure, and poverty reduction in rural Vietnam: 2002–2008. *World Development, 64*, 554-568.

Ma, W., Renwick, A., Yuan, P., & Ratna, N. (2018). Agricultural cooperative membership and technical efficiency of apple farmers in China: An analysis accounting for selectivity bias. *Food Policy, 81*, 122-132.

Mellor, J. W. (1999). Faster, more equitable growth-the relation between growth in agriculture and poverty reduction agricultural policy. *Development project research report, 4*.

Timmer, C. P. (1995). Getting agriculture moving: do markets provide the right signals? *Food Policy, 20*(5), 455-472.

van Winsen, F., de Mey, Y., Lauwers, L., Van Passel, S., Vancauteren, M., & Wauters, E. (2016). Determinants of risk behaviour: effects of perceived risks and risk attitude on farmer's adoption of risk management strategies. *Journal of Risk Research, 19*(1), 56-7

Appendices

1. **Indonesian Family Life Survey EAST questionnaire Book K**
2. **Indonesian Family Life Survey EAST questionnaire Book 2**
3. **Indonesian Family Life Survey EAST questionnaire Book 3A**
4. **Indonesian Family Life Survey EAST questionnaire Book 5**
5. **Survey questionnaire of citrus producers in East Java Indonesia**

INTERVIEWER : _____ ⌊_⌊_⌊_⌋

EDITOR : _____ ⌊_⌊_⌊_⌋

(IDIVWR)

CONFIDENTIAL

HHID : ⌊_⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌋

INDONESIA FAMILY LIFE SURVEY EAST 2012

BOOK K

SECTIONS: SC, AR, KRK, IK, FP, CP

Respondent is a HH Member 18 Years or Older who is Knowledgeable About Characteristics of Household Members

NAME OF RESPONDENT: _____ ⌊_⌊_⌋ **AR00 (PID)**

COV 1: RESPONDENT IS: .....1. HEAD OF HOUSEHOLD
2. SPOUSE OF HEAD OF HOUSEHOLD
3. OTHER HOUSEHOLD MEMBER
4. NON-HOUSEHOLD MEMBER

R2. CODE OF FINAL INTERVIEW OUTCOME:
1. COMPLETED ALL BOOKS K - 5
2. COMPLETED SOME OF BOOKS K - 5
4. BOOK K ONLY, REASON .....

INTERVIEW LANGUAGE CODES

00. Indonesian
01. Javanese
02. Sundanese
03. Balinese
04. Batak
05. Bugis
06. Chinese
07. Maduranese
08. Sasak
09. Minang
10. Banjar
11. Bima
12. Makassar
13. Nias
14. Palembang
15. Sumbawa
16. Toraja
17. Lahat
18. Other South Sumatra
19. Betawi
20. Lampung
96. NONE
95. Other_____

INTERVIEW	1	2	3
DATE:	⌊_⌊_⌋ / ⌊_⌊_⌋ / ⌊_⌊_⌊_⌊_⌋ DAY/MONTH/YEAR	⌊_⌊_⌋ / ⌊_⌊_⌋ / ⌊_⌊_⌊_⌊_⌋ DAY/MONTH/YEAR	⌊_⌊_⌋ / ⌊_⌊_⌋ / ⌊_⌊_⌊_⌊_⌋ DAY/MONTH/YEAR
TIME STARTED:	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR/MINUTE	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR/MINUTE	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR/MINUTE
TIME END:	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR/MINUTE	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR/MINUTE	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR/MINUTE

CK1. Interview was entirely/mostly conducted in what language?

⌊_⌊_⌋ Other: _____

CK2. Other language used (if any):

⌊_⌊_⌋ Other: _____

RESULT OF BOOK K INTERVIEWER	REASON	EDIT_CK. REVIEW BY EDITOR	SUP. LOCAL SUPERVISOR MONITORING
1. Completed➔**EDIT_CK** 2. Partially completed 3. Not completed	1. Respondent was not at home/not available 2. Respondent was seriously ill 3. Respondent refused (to be interviewed) 5. Other: _____	1. Entered, no corrections necessary 2. Entered AND corrected 4. Manual edit without CAFÉ 3. Entered, but not corrected, explain: _____	Yes / No a. Observed 1 3 b. Edited 1 3 c. Verified 1 3

Survey Participation Consent
INDONESIA FAMILY LIFE SURVEY EAST 2012
(SAKERTIM)

Good morning/afternoon/evening,

My name is … and my colleague … We are from Survey Meter, a research institution with its head office in Yogyakarta. We are presently carrying out a study on Aspects of Family Life in the Eastren part of Indonesia. We would like to interview you and other members of your household about your health and family life.

The purpose of this study is to measure the living conditions in easern part of Indonesia, how they are changing over time for different people. We are also concerned with knowing how to improve education, health care services and other aspect of family well being in the area.

Your household is one of the many households selected in in this study randomly and we are going to ask a number of questions to every member of your household. The questions relate to education, income, occupation, migration and other aspects of family life. If you have children less than 25 years old and are living with you in the same household, we would also like to have them take a cognitive test.

Later on our health team of 2 nurses will also visit. If you agree, they will measure your height, weight, take your waist and hip circumference (if you are over 40 years old), take your blood pressure and pulse and take a small blood sample from your fingers using a finger prick to know whether you or any member of your family suffered from anemia or high cholesterol.

We must assure you that the data is mainly for research purposes and not related to politics, taxation or other purposes, which will be detrimental to you or your family. Your identity and the identity of any member of your family will be kept secret and we will use the information given to us strictly in accordance with the purpose of this study. We will release data for Indonesian and other scientists to analyze, but these data will not have your names, address or any other information that could be used to identify you. All private identifying information will be removed from the data before it is released to the scientific community. In this way, people will be able to learn about the way government policies work here, but not what you personally said. You do not have to answer any questions you do not want to answer, or participate in any test in which you do not want to participate.

Will you allow my colleague and I to interview you and members of your household?

Thank you

_____ _____

Enumerator Signature Date

SECTION SC (SAMPLING DESCRIPTION AND ENUMERATION NOTES)

SAMPLING INFORMATION	CODE
SC01. PROVINCE: _____	⌊__⌋⌊__⌋
SC02. DISTRICT/KABUPATEN: _____	⌊__⌋⌊__⌋
SC03. SUBDISTRICT (KECAMATAN): _____	⌊__⌋⌊__⌋⌊__⌋
SC04. VILLAGE (DESA/KELURAHAN/NAGARI/KAMPUNG) _____	⌊__⌋⌊__⌋⌊__⌋
SC05. AREA: 1. URBAN 2. RURAL	⌊__⌋
SC10. NAME OF FIELD COORDINATOR: _____	⌊__⌋⌊__⌋⌊__⌋
SC12. NAME OF LOCAL SUPERVISOR : _____	⌊__⌋⌊__⌋⌊__⌋
SC14. NAME OF INTERVIEWER 1: _____ **SC15.** NAME OF INTERVIEWER 2: _____	⌊__⌋⌊__⌋⌊__⌋ ⌊__⌋⌊__⌋⌊__⌋
SC17. Number of Householders IFLS EAST 2012 **SC18.** Name of Head of the Household: _____	⌊__⌋⌊__⌋
SC19. Household Address: _____	
SC19a. RW	⌊__⌋⌊__⌋⌊__⌋
SC19b. TELEPHONE NUMBER	A. Home ⌊__⌋⌊__⌋⌊__⌋⌊__⌋ . ⌊__⌋⌊__⌋⌊__⌋⌊__⌋⌊__⌋⌊__⌋⌊__⌋ B. Cellphone ⌊__⌋⌊__⌋⌊__⌋⌊__⌋⌊__⌋⌊__⌋⌊__⌋⌊__⌋⌊__⌋⌊__⌋⌊__⌋⌊__⌋, belongs to _____ W. NA Y. DK
SC20. Special notes on household address/location (distance, building on the same street): _____	

1

SC22. INTERVIEWER NOTES, ROUTE TO THE LOCATION AND SKETCH OF LOCATION

HHID ⌊_⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌋

PROVINCE : _____ ⌊_⌊_⌋

KABUPATEN/DISTRICT _: _____ ⌊_⌊_⌋

KECAMATAN/SUBDISTRICT :_____ ⌊_⌊_⌊_⌋

VILLAGE/KELURAHAN/KAMPUNG : _____ ⌊_⌊_⌊_⌋

NORTH

ROUTE TO THE LOCATION :

_____

_____

_____

_____

SECTION AR (LIST OF HOUSEHOLD MEMBERS)

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**.)

AR00b. I would like to know the names of all the people who live in this household. Please list all the people that stay here, eat and cook together in the household.

(NOTE WITH REFERENCE TO THE ROSTER: THE NAMES THAT ARE RECORDED HERE ARE ONLY THE PEOPLE WHO USUALLY STAY IN THIS HOUSEHOLD: ADULTS, CHILDREN, AND INFANTS. LIST THE HOUSEHOLD HEAD, THE SPOUSE (HUSBAND OR WIFE) OF THE HOUSEHOLD HEAD, THEIR CHILDREN (BIRTH, STEP, ADOPTED), PARENTS, IN-LAWS, SIBLINGS, SIBLINGS IN-LAW, GRANDCHILDREN, GRANDPARENTS, AUNTS AND UNCLES, NIECES AND NEPHEWS, COUSINS, BOARDERS, AND SERVANTS (NON-FAMILY MEMBERS).

AR03.	Is there any child/infant who lives here who has not been listed?	Yes ..... 1 ➔ No 3	**PUT IN ROSTER, AR01**
AR04.	Is there any other person like a servant, friend or boarder who has not been listed?	Yes ..... 1 ➔ No 3	**PUT IN ROSTER, AR01**
AR05.	Is there another person who usually lives here, but is away for less than 6 months?	Yes ..... 1 ➔ No 3	**PUT IN ROSTER, AR01**
AR06.	Is there another person who has stayed for at least 6 months or less than 6 months but intended to stay here for at least 6 months?	Yes ..... 1 ➔ No 3	**PUT IN ROSTER, AR01**

SECTION AR (HOUSEHOLD ROSTER)

AR00	AR10.	AR11.	AR12.	AR13.	AR14.	AR15.	AR15d.	AR15a.	AR15b.	AR15c.
No. of HHM (PID)	Line No. Birth Father	Line No. Birth Mother	Line No. of Caretaker (HHM<15)	Marital Status	Line No. of Spouse	Religion	Ethnicity	Did [...] work in the last 12 months? (≥5 years)	What were the total earnings of [...] in the last 12 months?	What was […]'s primary activity during the past week?
01	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	1, 3, 4, 5 →**AR15** 2	⌊_⌋⌊_⌋	01 02 03 04 05 07 95	⌊_⌋⌊_⌋ _____	3. No→**AR15c** 1. Yes 6. <5Years→**AR16**	1. ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp. 6. UNPAID FAMILY WORKER 8.DON'T KNOW	⌊_⌋⌊_⌋
02	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	1, 3, 4, 5 →**AR15** 2	⌊_⌋⌊_⌋	01 02 03 04 05 07 95	⌊_⌋⌊_⌋ _____	3. No→**AR15c** 1. Yes 6. <5Years→**AR16**	1. ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp. 6. UNPAID FAMILY WORKER 8.DON'T KNOW	⌊_⌋⌊_⌋
03	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	1, 3, 4, 5 →**AR15** 2	⌊_⌋⌊_⌋	01 02 03 04 05 07 95	⌊_⌋⌊_⌋ _____	3. No→**AR15c** 1. Yes 6. <5Years→**AR16**	1. ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp. 6. UNPAID FAMILY WORKER 8.DON'T KNOW	⌊_⌋⌊_⌋
04	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	1, 3, 4, 5 →**AR15** 2	⌊_⌋⌊_⌋	01 02 03 04 05 07 95	⌊_⌋⌊_⌋ _____	3. No→**AR15c** 1. Yes 6. <5Years→**AR16**	1. ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp. 6. UNPAID FAMILY WORKER 8.DON'T KNOW	⌊_⌋⌊_⌋
05	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	1, 3, 4, 5 →**AR15** 2	⌊_⌋⌊_⌋	01 02 03 04 05 07 95	⌊_⌋⌊_⌋ _____	3. No→**AR15c** 1. Yes 6. <5Years→**AR16**	1. ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp. 6. UNPAID FAMILY WORKER 8.DON'T KNOW	⌊_⌋⌊_⌋
06	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	1, 3, 4, 5 →**AR15** 2	⌊_⌋⌊_⌋	01 02 03 04 05 07 95	⌊_⌋⌊_⌋ _____	3. No→**AR15c** 1. Yes 6. <5Years→**AR16**	1. ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp. 6. UNPAID FAMILY WORKER 8.DON'T KNOW	⌊_⌋⌊_⌋
07	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	1, 3, 4, 5 →**AR15** 2	⌊_⌋⌊_⌋	01 02 03 04 05 07 95	⌊_⌋⌊_⌋ _____	3. No→**AR15c** 1. Yes 6. <5Years→**AR16**	1. ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp. 6. UNPAID FAMILY WORKER 8.DON'T KNOW	⌊_⌋⌊_⌋
08	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	1, 3, 4, 5 →**AR15** 2	⌊_⌋⌊_⌋	01 02 03 04 05 07 95	⌊_⌋⌊_⌋ _____	3. No→**AR15c** 1. Yes 6. <5Years→**AR16**	1. ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp. 6. UNPAID FAMILY WORKER 8.DON'T KNOW	⌊_⌋⌊_⌋
09	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	1, 3, 4, 5 →**AR15** 2	⌊_⌋⌊_⌋	01 02 03 04 05 07 95	⌊_⌋⌊_⌋ _____	3. No→**AR15c** 1. Yes 6. <5Years→**AR16**	1. ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp. 6. UNPAID FAMILY WORKER 8.DON'T KNOW	⌊_⌋⌊_⌋
10	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	1, 3, 4, 5 →**AR15** 2	⌊_⌋⌊_⌋	01 02 03 04 05 07 95	⌊_⌋⌊_⌋ _____	3. No→**AR15c** 1. Yes 6. <5Years→**AR16**	1. ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp. 6. UNPAID FAMILY WORKER 8.DON'T KNOW	⌊_⌋⌊_⌋

AR10, AR11
51. Not live in this HH
52. Died 98. DK

AR12
96. HHM >=15 years old
51. Not live in this HH

AR14
51. Not live in this HH

AR13
1. Not married
2. Married
3. Separated
4. Divorced
5. Widow/er

AR15d

01. Javanese	08. Sasak	15. Sumbawa	22. Manado
02. Sundanese	09. Minang	16. Toraja	23. Acehnese
03. Bali	10. Banjar	17. Betawi	25. Other Southern Sumatrans
04. Batak	11. Bima-Dompu	18. Dayak	26. Banten
05. Bugis	12. Makasar	19. Melayu	27. Cirebon
06. Chinese	13. Nias	20. Komering	28. Gorontalo
07. Maduranese	14. Palembang	21. Ambonese	29. Kutai
			95. Others_____

AR15
01. Islam
02. Protestant
03. Catholic
04. Hindu
05. Budha
07. Confucians
95. Others

AR15c
01. Working/helping to earn income
02. Job searching
03. Attending school
04. Housekeeping
05. Retired
06. At home /don't work
07. Sick/disabled
98. DON'T KNOW

SECTION AR (HOUSEHOLD ROSTER)

AR00	AR16.	AR17.	AR18a.	AR18c.
No. of HHM (PID)	Highest Level of Schooling Attended by HHM	Highest grade ever completed by HHM	**INTERVIEWER CHECK: AR09 AGE < 25**	Is [...] in school this year?
01	⌊_⌊_⌋	⌊_⌊_⌋	1. Yes ➔ 3. No↓	1. Yes ➔ **SCHOOL LIST** 3. No 6. Not yet in school
02	⌊_⌊_⌋	⌊_⌊_⌋	1. Yes ➔ 3. No↓	1. Yes ➔ **SCHOOL LIST** 3. No 6. Not yet in school
03	⌊_⌊_⌋	⌊_⌊_⌋	1. Yes ➔ 3. No↓	1. Yes ➔ **SCHOOL LIST** 3. No 6. Not yet in school
04	⌊_⌊_⌋	⌊_⌊_⌋	1. Yes ➔ 3. No↓	1. Yes ➔ **SCHOOL LIST** 3. No 6. Not yet in school
05	⌊_⌊_⌋	⌊_⌊_⌋	1. Yes ➔ 3. No↓	1. Yes ➔ **SCHOOL LIST** 3. No 6. Not yet in school
06	⌊_⌊_⌋	⌊_⌊_⌋	1. Yes ➔ 3. No↓	1. Yes ➔ **SCHOOL LIST** 3. No 6. Not yet in school
07	⌊_⌊_⌋	⌊_⌊_⌋	1. Yes ➔ 3. No↓	1. Yes ➔ **SCHOOL LIST** 3. No 6. Not yet in school
08	⌊_⌊_⌋	⌊_⌊_⌋	1. Yes ➔ 3. No↓	1. Yes ➔ **SCHOOL LIST** 3. No 6. Not yet in school
09	⌊_⌊_⌋	⌊_⌊_⌋	1. Yes ➔ 3. No↓	1. Yes ➔ **SCHOOL LIST** 3. No 6. Not yet in school
10	⌊_⌊_⌋	⌊_⌊_⌋	1. Yes ➔ 3. No↓	1. Yes ➔ **SCHOOL LIST** 3. No 6. Not yet in school

AR16

01.	No/Not yet in school	17.	School for the disabled
02.	Elementary school	60.	College D1, D2, D3
03.	Junior high - general	61.	University S1
04.	Junior high - vocational	62.	University S2
05.	Senior high - general	63.	University S3
06.	Senior high - vocational	72.	Islamic Elementary School (Madrasah Ibtidaiyah)
11.	Adult Education A	73.	Islamic Junior High School (Madrasah Tsanawiyah)
12.	Adult Education B	74.	Islamic Senior High School (Madrasah Aliyah)
13.	Open University	90.	Kindergarten
14.	Pesantren	98.	DON'T KNOW
15.	Adult Education C	95.	OTHERS

AR17

00.	DIDN'T COMPLETE 1ST CLASS AT THAT LEVEL
01.	1
02.	2
03.	3
04.	4
05.	5
06.	6
07.	GRADUATED
96.	NO/ NOT YET IN SCHOOL
98.	DON"T KNOW

INTERVIEWER CHECK:
SCHOOL LIST IN
PAGE. K-8

SECTION AR (HOUSEHOLD ROSTER)

EA : ⌊_⌊_⌊_⌋ **HHID:** ⌊_⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌋ **Name of Household Head:** _____ **RANDOM CO KRT :** _____

AR00. No. of HHM (PID)	AR01. NAME OF HOUSEHOLD MEMBER	AR07. Sex	AR01d Random CO	AR08. Birth date	AR09. Age now	AR02b. Relationship to household head now
01		⌊_⌋		5. ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌊_⌋ Day / Month / Year	⌊_⌊_⌋	⌊_⌊_⌋
02		⌊_⌋		5. ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌊_⌋ Day / Month / Year	⌊_⌊_⌋	⌊_⌊_⌋
03		⌊_⌋		5. ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌊_⌋ Day / Month / Year	⌊_⌊_⌋	⌊_⌊_⌋
04		⌊_⌋		5. ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌊_⌋ Day / Month / Year	⌊_⌊_⌋	⌊_⌊_⌋
05		⌊_⌋		5. ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌊_⌋ Day / Month / Year	⌊_⌊_⌋	⌊_⌊_⌋
06		⌊_⌋		5. ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌊_⌋ Day / Month / Year	⌊_⌊_⌋	⌊_⌊_⌋
07		⌊_⌋		5. ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌊_⌋ Day / Month / Year	⌊_⌊_⌋	⌊_⌊_⌋
08		⌊_⌋		5. ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌊_⌋ Day / Month / Year	⌊_⌊_⌋	⌊_⌊_⌋
09		⌊_⌋		5. ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌊_⌋ Day / Month / Year	⌊_⌊_⌋	⌊_⌊_⌋
10		⌊_⌋		5. ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌊_⌋ Day / Month / Year	⌊_⌊_⌋	⌊_⌊_⌋

NOTE TO INTERVIEWER:
WHILE FILLING OUT AR01
DON'T FORGET TO ASK
AR03-AR06.

AR00d: TOTAL NUMBER OF LINES USED ⌊_⌊_⌋

AR07
1. Male 3. Girl

AR02b

01.	Household head	07.	Parent-in-law	13.	Nephew/Niece
02.	Husband/Wife	08.	Sibiling	14.	Cousin
03.	Child (biological)	09.	Brother/Sister-in-law	15.	Servant
04.	Child (non-biological)	10.	Grandchild	16.	Other family
05.	Son/daughter-in-law	11.	Grandparent	17.	Non-family
06.	Parents	12.	Uncle/Aunt		

SCHOOL LIST

FOR RESPONDENT LESS THAN 25 WHO IS STILL IN SCHOOL (AR18C=1)

AR00 Line # HHM (PID)	AR01 NAME OF HOUSEHOLD MEMBER	AR16 HIGHEST LEVEL OF EDUCATION (WRITE CATEGORY)	AR19 What is the name of the school and where is it? (Don't forget to write the number of the school)	AR20a In what village, kecamatan, Kabupatan, and province is the school located?
└─┴─┘		└─┴─┘	Name : 1. ______ 8. DK Address: 1. ______ 8. DK Loc.: 1. ______ 8. DK COMFAS CODE └─┴─┴─┘ └─┘ └─┴─┴─┘	A. Vill: 1. ______ 3. Same 8. DON'T KNOW B. Kec: 1. ______ 3. Same 8. DON'T KNOW C. Kab: 1. ______ 3. Same 8. DON'T KNOW D. Prov: 1. ______ 3. Same 8. DON'T KNOW **➔AR10 NEXT HOUSEHOLD MEMBER**
└─┴─┘		└─┴─┘	Name : 1. ______ 8. DK Address: 1. ______ 8. DK Loc.: 1. ______ 8. DK COMFAS CODE └─┴─┴─┘ └─┘ └─┴─┴─┘	A. Vill: 1. ______ 3. Same 8. DON'T KNOW B. Kec: 1. ______ 3. Same 8. DON'T KNOW C. Kab: 1. ______ 3. Same 8. DON'T KNOW D. Prov: 1. ______ 3. Same 8. DON'T KNOW **➔AR10 NEXT HOUSEHOLD MEMBER**
└─┴─┘		└─┴─┘	Name : 1. ______ 8. DK Address: 1. ______ 8. DK Loc.: 1. ______ 8. DK COMFAS CODE └─┴─┴─┘ └─┘ └─┴─┴─┘	A. Vill: 1. ______ 3. Same 8. DON'T KNOW B. Kec: 1. ______ 3. Same 8. DON'T KNOW C. Kab: 1. ______ 3. Same 8. DON'T KNOW D. Prov: 1. ______ 3. Same 8. DON'T KNOW **➔AR10 NEXT HOUSEHOLD MEMBER**
└─┴─┘		└─┴─┘	Name : 1. ______ 8. DK Address: 1. ______ 8. DK Loc.: 1. ______ 8. DK COMFAS CODE └─┴─┴─┘ └─┘ └─┴─┴─┘	A. Vill: 1. ______ 3. Same 8. DON'T KNOW B. Kec: 1. ______ 3. Same 8. DON'T KNOW C. Kab: 1. ______ 3. Same 8. DON'T KNOW D. Prov: 1. ______ 3. Same 8. DON'T KNOW **➔AR10 NEXT HOUSEHOLD MEMBER**
└─┴─┘		└─┴─┘	Name : 1. ______ 8. DK Address: 1. ______ 8. DK Loc.: 1. ______ 8. DK COMFAS CODE └─┴─┴─┘ └─┘ └─┴─┴─┘	A. Vill: 1. ______ 3. Same 8. DON'T KNOW B. Kec: 1. ______ 3. Same 8. DON'T KNOW C. Kab: 1. ______ 3. Same 8. DON'T KNOW D. Prov: 1. ______ 3. Same 8. DON'T KNOW **➔AR10 NEXT HOUSEHOLD MEMBER**

HHID: └─┴─┴─┘ └─┴─┘ └─┴─┘ └─┴─┘

SECTION KRK (INTERVIEWER OBSERVATION)

KRK01.	**TYPE OF RESIDENTIAL DWELLING**	SINGLE UNIT SINGLE LEVEL ..... 01 SINGLE UNIT MULTIPLE LEVELS..... 02 DUPLEX SINGLE LEVEL ..... 03 DUPLEX MULTIPLE LEVELS ..... 04 MULTIPLE UNIT SINGLE LEVEL ..... 05 MULTIPLE UNIT MULTIPLE LEVELS ..... 06 HOUSE ON STILTS ..... 08 HIGH RISE/APARTMENT BUILDINGS..... 09 HOUSE-STORE UNITS..... 10 OTHER..... 95
KRK02.	**GENERAL SANITARY CONDITIONS, CIRCLE ALL THAT APPLY**	YES NO A. HOUSE IS SURROUNDED BY HUMAN AND ANIMAL WASTE..... 1 3 B. HOUSE IS SURROUNDED BY PILES OF TRASH..... 1 3 C. HOUSE IS SURROUNDED BY STAGNANT WATER..... 1 3 D. THERE IS A STABLE UNDER/ NEXT TO THE HOUSE..... 1 3 E. HOUSE HAS SUFFICIENT VENTILATION ..... 1 3 F. YARD IS WELL MAINTAINED AND CLEANED-UP ..... 1 3 G. HOUSE HAS A MODERATELY - SIZED YARD..... 1 3 H. HOUSE HAS KITCHEN OUTSIDE..... 1 3 I. COOKING ROOM AND SLEEPING ROOM ARE SAME..... 1 3
KRK05a.	**ESTIMATE THE SIZE OF THE HOUSE IN SQUARE METERS**	⌊_⌋ . ⌊_⌋⌊_⌋⌊_⌋ Square meters
KRK06.	**ESTIMATE HOW MANY ROOMS (BEDROOMS, LIVING ROOM, DINING ROOM, KITCHEN, BATHROOM, ETC.) ARE IN THIS HOUSE**	⌊_⌋⌊_⌋ Rooms
KRK08.	**MAIN FLOORING TYPE USED IN THIS HOUSE**	CERAMIC / MARBLE / GRANITE / STONE..... 01 TILES / TERRAZZO ..... 02 CEMENT / BRICKS ..... 03 LUMBER / BOARD..... 04 BAMBOO..... 05 DIRT..... 06 OTHER..... 95

KRK09.	**MAIN MATERIAL USED IN THE OUTER WALL OF THIS HOUSE**	MASONRY (CEMENT/PREFABRICATED BRICKS)..... 01 LUMBER/BOARD/PLYWOOD..... 02 BAMBOO/WOVEN/MAT..... 03 OTHER..... 95
KRK09a.	HOW WALL CONDITION OCCUPIED HOMES?	GOOD / HIGH QUALITY..... 1 BAD / LOW QUALITY.....2
KRK10.	**MAIN ROOFING TYPE OF THIS HOUSE**	CONCRETE ..... 01 WOOD..... 02 METAL PLATES..... 03 ROOF TILES/SHINGLES ..... 04 ASBESTOS ..... 05 FOLIAGE / PALM LEAVES/GRASS/BAMBOO..... 06 OTHER..... 95
KRK10a.	HOW TO CONDITION ROOF OCCUPIED HOMES?	GOOD / HIGH QUALITY..... 1 BAD / LOW QUALITY.....2

SECTION IK (INFORMATION ON REPEAT VISIT)

IK1. In the future, we will visit this household again. You might not be here at that time. Could you tell us name of friend/family member who can tell us where you are?

Name : _____

Address: _____

Telephone number: **A.** Home |_|_|_|_| – |_|_|_|_|_|_|_|_| **B.** Cellphone number: |_|_|_|_|_|_|_|_|_|_|_| **W. NA** **Y.DK**

IK2. If you move, where do you move to?

	1. Move ↓	**6. NOT MOVE → CP**	**8. DON'T KNOW → CP**
1. Village:	1 _____	3. Same → **CP**	8. DON'T KNOW
2. Subdistrict:	1 _____	3. Same → **CP**	8. DON'T KNOW
3. District:	1 _____	3. Same → **CP**	8. DON'T KNOW
4. Province:	1 _____	3. Same → **CP**	8. DON'T KNOW
5. Country:	1 _____	3. Same → **CP**	8. DON'T KNOW

SECTION FP (FORM OF BOOK NUMBER CHECKING FOR SELECTED HOUSEHOLD)
EVALUATION FORM, BOOK K

FP01	FP02	FP03		
Book	Total	Householder (ART) about whom information was obtained?		
K	[1]	☐☐		
I	☐	☐☐		
II	☐	☐☐		
III A	☐☐	**A.** ☐☐	**E.** ☐☐	**I.** ☐☐
		B. ☐☐	**F.** ☐☐	**J.** ☐☐
		C. ☐☐	**G.** ☐☐	**K.** ☐☐
		D. ☐☐	**H.** ☐☐	**L.** ☐☐
III B	☐☐	**A.** ☐☐	**E.** ☐☐	**I.** ☐☐
		B. ☐☐	**F.** ☐☐	**J.** ☐☐
		C. ☐☐	**G.** ☐☐	**K.** ☐☐
		D. ☐☐	**H.** ☐☐	**L.** ☐☐
IV	☐☐	**A.** ☐☐	**C.** ☐☐	**E.** ☐☐
		B. ☐☐	**D.** ☐☐	**F.** ☐☐
V	☐☐	**A.** ☐☐	**E.** ☐☐	**I.** ☐☐
		B. ☐☐	**F.** ☐☐	**J.** ☐☐
		C. ☐☐	**G.** ☐☐	**K.** ☐☐
		D. ☐☐	**H.** ☐☐	**L.** ☐☐

FP01	FP02	FP03		
US	☐☐	Completed ☐☐	Partially completed ☐☐	Not filled ☐☐
EK1	☐☐	**A.** ☐☐	**C.** ☐☐	**E.** ☐☐
		B. ☐☐	**D.** ☐☐	**F.** ☐☐
EK2	☐☐	**A.** ☐☐	**E.** ☐☐	**I.** ☐☐
		B. ☐☐	**F.** ☐☐	**J.** ☐☐
		C. ☐☐	**G.** ☐☐	**K.** ☐☐
		D. ☐☐	**H.** ☐☐	**L.** ☐☐
PROXY	☐☐	**A.** ☐☐	**B.** ☐☐	**C.** ☐☐

SECTION CP (INTERVIEW SESSION NOTES)

CP1. WHO ELSE (OTHER PERSONS) BESIDES RESPONDENT WAS PRESENT DURING THE INTERVIEW?
ANSWER MAY BE MORE THAN ONE.

A. NO ONE
B. A CHILD 5 YEARS OLD OR UNDER
C. A CHILD OLDER THAN 5 YEARS OLD
D. HUSBAND/WIFE
E. AN ADULT, A HOUSEHOLDER
F. AN ADULT, NOT A HOUSEHOLDER

CP2. WHAT IS YOUR EVALUATION OF THE ACCURACY OF RESPONDENT'S ANSWERS?

1. EXCELLENT
2. GOOD
3. FAIR
4. NOT SO GOOD
5. VERY BAD

CP3. WHAT IS YOUR EVALUATION ON THE SERIOUSNESS AND ATTENTIVENESS OF THE RESPONDENT?

1. EXCELLENT
2. GOOD
3. FAIR
4. NOT SO GOOD
5. VERY BAD

CP4. WHAT QUESTIONS DID RESPONDENT FIND DIFFICULT, EMBARRASSING, OR CONFUSING?

_____

_____

_____

CP5. WHAT QUESTIONS DID INTERVIEWER FIND DIFFICULT, EMBARRASSING, OR CONFUSING?

_____

_____

_____

CP6. WHAT QUESTIONS DID RESPONDENT SEEM INTERESTED IN?

_____

_____

_____

NOTES:

_____

_____

_____

_____

_____

_____

_____

EDITOR : _____ ⌊_⌊_⌊_⌋

INTERVIEWER : _____ ⌊_⌊_⌊_⌋

(IDIVWR)

CONFIDENTIAL

HHID : ⌊_⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌋

INDONESIA FAMILY LIFE SURVEY EAST 2012

BOOK II

(HOUSEHOLD ECONOMY)

SECTIONS: KR, UT, NT, HR, HI, ND, BH, CP

Primary Respondent is the Head of the Household or Person 18 years or older who is able to answer the questions

PID

NAME OF HOUSEHOLDER_____ ⌊_⌊_⌋

COV 1: RESPONDENT IS:
1. HEAD OF HOUSEHOLD (HH)
2. SPOUSE OF HEAD OF HOUSEHOLD
3. OTHER HOUSEHOLD MEMBER

INTERVIEW	1	2	3
DATE:	⌊_⌊_⌋/⌊_⌊_⌋/⌊_⌊_⌊_⌊_⌋ DAY / MONTH / Y EAR	⌊_⌊_⌋/⌊_⌊_⌋/⌊_⌊_⌊_⌊_⌋ DAY / MONTH / Y EAR	⌊_⌊_⌋/⌊_⌊_⌋/⌊_⌊_⌊_⌊_⌋ DAY / MONTH / Y EAR
TIME STARTED:	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR / MINUTE	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR / MINUTE	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR / MINUTE
TIME FINISHED:	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR / MINUTE	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR / MINUTE	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR / MINUTE

CK1. Interview was entirely/mostly conducted in what language?

⌊_⌊_⌋ Other _____

CK2. Other language used (if any):

⌊_⌊_⌋ Other _____

INTERVIEW LANGUAGE CODES

00. Indonesian
01. Javanese
02. Sundanese
03. Balinese
04. Batak
05. Bugis
06. Chinese
07. Maduranese
08. Sasak
09. Minang
10. Banjar
11. Bima
12. Makassar
13. Nias
14. Palembang
15. Sumbawa
16. Toraja
17. Lahat
18. Other South Sumatra
19. Betawi
20. Lampung
96. NONE
95. Other

C1.RESULT OF INTERVIEW OF BOOK II	C2. CODE REASON FOR ANSWER"3"/"2" ON C1	C3. REVIEW BY EDITOR	C4. SUPERVISOR MONITORING
1. Completed ➔**C3** 2. Partially completed 3. Not completed	1. Respondent was not at home/not available 2. Respondent was seriously ill 3. Respondent refused (to be interviewed) 5. Other: _____	1. Entered, no corrections necessary 2. Entered and corrected 4. Manual edit without CAFÉ 3. Entered, but not corrected, explain: _____	Yes No a. Observed ..... 1 3 b. Edited ..... 1 3 c. Verified 1 3

SECTION KR (HOUSEHOLD CHARACTERISTICS)

The following questions pertain to your household features.

KR03.	What is the status of this house?	Self-owned ..... 01➔**KR05a** Occupying ..... 02➔**KR05a** Other: ..... 95➔**KR05a** Rented/contracted 05
KR04a.	What is the rent of this house?	⌊⌊⌊⌊⌋, ⌊⌊⌊⌋, ⌊⌊⌊⌋ Rp. yearly ..... 1➔ **KR11** ⌊⌊⌊⌋, ⌊⌊⌊⌋, ⌊⌊⌊⌋ Rp. monthly .....2➔ **KR11** DON'T KNOW .....8➔ **KR11**
KR05a.	How much monthly/yearly rent would you pay if you were renting this house?	⌊⌊⌊⌊⌋, ⌊⌊⌊⌋, ⌊⌊⌊⌋ Rp. yearly ..... 1 ⌊⌊⌊⌋, ⌊⌊⌊⌋, ⌊⌊⌊⌋ Rp. Monthly .... 2 DON'T KNOW 8
KR11.	Is the Household using electricity?	Yes..... 1 No ..... 3➔**KR13**
KR11a.	Is the electricity comes from PLN (State Electricity Company)	Yes..... 1 No ..... 3➔**KR13**
KR11b.	How much power in the household ?	450 Volt Ampere (VA).....01 900 Volt Ampere (VA).....02 1.300 Volt Ampere (VA) .....03 2.200Volt Ampere (VA).....04 >2.200 Volt Ampere (VA).....05 connect FROM OUTSIDE HOUSEHOLD (WITHOUT MEASURER) 96
KR13.	What is the main water source for drinking for this household?	aqua/air mineral, etc. ..... 10 ➔**KR13b** pipe water ..... 01 well/pump (electric, hand)..... 02 well water..... 03 spring water ..... 04 rain water..... 05 river/creek water ..... 06 pond/fishpond ..... 07 water collection basin ..... 08 other:..... 95
KR13a.	Before the water is used for drinking, is it boiled?	Yes.....1 No 3
KR13b.	Do you purchase water?	YES, DELIVERED TO THE HOUSE.....1 ➔**KR16** YES, SELF-SERVICE .....2 NO 3

KR14.	Where is the main water source located?	inside the house .....1 ➔**KR16** outside the house.....3
KR15.	What is the distance (from this house) to the main water source?	⌊⌋,⌊⌊⌊⌋ **Meters**
KR16.	Is water used for other necessities, like bathing and laundry, also drawn from the same source as drinking water?	Yes .....1 ➔**KR20** No 3
KR17.	What is the main source of water for other necessities like bathing and laundry?	Pipe water ..... 01 Well/pump (electric, hand)..... 02 Well water..... 03 Spring water..... 04 Rain water..... 05 River/creek water..... 06 Pond/fishpond..... 07 Collection basin ..... 08 Other:..... 95
KR17b.	Do you purchase the water?	Yes, delivered .....1 ➔**KR20** Yes, self-service .....2 No 3
KR18.	Where is the main water source located?	Inside the house .....1 ➔**KR20** Outside the house 3
KR19.	What is the distance (from this house) to the main water source?	⌊⌋,⌊⌊⌊⌋ **Meters**
KR20.	Where do the majority of householders go to the toilet?	Own toilet with septic tank ..... 01 Own toilet without septic tank ..... 02 Shared toilet..... 03 Public toilet ..... 04 Creek/river/ditch (without toilet) ..... 05 Yard/field (without toilet) ..... 06 Sewer..... 07 Pond/fishpond..... 09 Animal stable ..... 10 Sea/lake..... 11 Other:..... 95

SECTION KR (HOUSEHOLD CHARACTERISTICS)

KR21.	Where does this household drain its sewage?	Drainage ditch (flowing) ..... 01 Drainage ditch (stagnant) ..... 02 Permanent pit ..... 03 Disposed into river ..... 04 Disposed in side/back yard/garden ..... 05 Pond/fishpond/lake/pool ..... 07 Hole (without permanent lining) ..... 08 Paddy field/other field ..... 09 Sea, beach ..... 11 Other 95
KR22.	How does this household dispose of its garbage?	Disposed in trash can, collected by sanitation service ..... 01 Burned ..... 02 Disposed into river/creek/sewer ..... 03 Disposed in yard and let decompose ..... 04 Disposed in pit ..... 05 Forest, mountain ..... 07 Sea, lake, beach ..... 08 Paddy field/other field ..... 09 Other 95
KR23.	Do you store your perishable food in a refrigerator?	Yes ..... 1 No ..... 3 Don't have refrigerator 6
KR24.	What is the main kind of fire/stove used for cooking?	Electricity ..... 01 Gas ..... 02 Kerosene stove ..... 03 Firewood ..... 04 Charcoal ..... 05 Do not cook ..... 07 Other 95
KR24a.	Does this household have a television?	Yes ..... 1 No 3
KR24b.	Since 2007, has this household renovated/had major repair done on the house ? **1. Yes, because of disaster** **2. Yes, renovated** **3. No**	1. Built a new house. ..... 1 2 3 2. Built a new room ..... 1 2 3 3. Installed a new roof . ..... 1 2 3 4. Installed/replaced the floortiles/terrazzo ..... 1 2 3 5. Painted the whole house . ..... 1 2 3 6. Built a new kitchen or expanded the kitchen. ..... 1 2 3 7. Replaced/installed plumbing system ..... 1 2 3 8. Installed sewerage/sanitation system. ..... 1 2 3 9. Increased electricity voltage 1 2 3

KR24c.	How much did you spend for the renovation ?	⌊_⌊_⌊_⌊ , ⌊_⌊_⌊_⌊ , ⌊_⌊_⌊_⌊ ..... 1 NO RENOVATION/MAJOR REPAIR ..... 6 DON'T KNOW 8
KR25.	What language is most often used in this household, other than Indonesian?	01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 96 95 .....
KR26.	Does this household have a Health Card (*Kartu Sehat)*, or JAMKESMAS card?	No ..... 3➔**KR27** Yes 1
KR26a.	Who in the household has a Health Card/JAMKESMAS card?	All household members ..... 1 Only head of household ..... 2 ⌊_⌊_⌊ persons 3
KR27.	Does this household participate in the Health Fund (*Dana Sehat Program)*?	Yes ..... 1 No ..... 3 No program 6
KR27a.	Does this household have or ever utilized "letter of poor" (*Surat Keterangan Tidak Mampu*)?	Yes ..... 1 No ..... 3 DON'T KNOW 8
KR27b.	Did this household have PKPS BBM BLT card?	Yes ..... 1 No ..... 3 DON'T KNOW 8
KR27c.	Does this Household has BLSM card (The Direct Aid to Public)?	Yes ..... 1 No ..... 3 DON'T KNOW 8
KR27d.	Whether household is getting BSM (Help Poor Students) ?	Yes ..... 1 No ..... 3 DON'T KNOW 8

CODE for KR25

Javanese 01	Minang 09	Lahat 17
Sundanese 02	Banjar 10	Other South Sumatera 18
Balinese 03	Bima-Dompu 11	Betawi 19
Batak 04	Makassar 12	Lampung 20
Bugis 05	Nias 13	NONE 96
Chinese 06	Palembang 14	Other 95
Maduranese 07	Sumbawa 15	
Sasak 08	Toraja 16	

SECTION KR (HOUSEHOLD CHARACTERISTICS)

KR27e.	Is the household is getting a JSLU Program (Elderly Social Security)?	Yes .....1 No .....3 DON'T KNOW 8
KR27f.	Is the household is getting Social Security Disability Program?	Yes .....1 No .....3 DON'T KNOW 8
KR27g.	Is the household is getting a Child Welfare Program (PKSA)?	Yes .....1 No .....3 DON'T KNOW 8
KR27h.	Is the household getting a Compensation Program help troubled youth?	Yes .....1 No .....3 DON'T KNOW 8
KR27i.	Does this household have a habit of saving?	Yes .....1 No .....3➔**KR28**
KR27j.	Where ordinary household saving?	In his own house..... A In the Government Bank..... B In the Private Bank ..... C In Cooperative ..... D In Group Savings and Loans ..... E Others..... V

KR28TYPE	**KR28**
	Does this household have a [...]?
1. Car	1. Yes 3. No ↓
2. Motor ship	1. Yes 3. No ↓
3. Motorboat	1. Yes 3. No ↓
4. Motorcycle	1. Yes 3. No ↓
5. Bicycle	1. Yes 3. No ↓
6. Boat	1. Yes 3. No ↓
7. Refrigerator	1. Yes 3. No ↓
8. 12 kg gas cylinders or more	1. Yes 3. No ↓
9. Handphone	1. Yes 3. No ↓

SECTION UT (FARM BUSINESS)

Now we would like to ask about any farm business that might be owned by this household.

UT00a.	Do you have land for farming?	No ..... 3➔ **UT01** Yes 1
UT00b.	What size is the land for farming that you own?	1. ⌊_⌋⌊_⌋⌊_⌋.⌊_⌋⌊_⌋ Hectare 2. ⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Square meter 8. DON'T KNOW
UT00c.	How many plots of land farm do you have?	⌊_⌋⌊_⌋ plots
UT00d.	What is the size of the largest plot of your farm land?	1. ⌊_⌋⌊_⌋⌊_⌋.⌊_⌋⌊_⌋ Hectare 2. ⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Square meter 8. DON'T KNOW
UT00e.	What is the legal status of ownership of the largest plot of your farm land?	No document ..... 6 ➔**UT00g** Patok D ..... 1 ➔**UT00g** Letter C ..... 2 ➔**UT00g** Other ..... 5 ➔**UT00g** Title of ownership (*Sertifikat Hak Milik*) 3
UT00f.	When did you obtain the title/document?	1. ⌊_⌋⌊_⌋ / ⌊_⌋⌊_⌋ Month / Year 8. DON"T KNOW
UT00g.	How much of *Bengkok* land do you have?	1. ⌊_⌋⌊_⌋⌊_⌋.⌊_⌋⌊_⌋ Hectare 2. ⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Square meter 6. N/A 8. DON'T KNOW
UT00h.	How much of the land/*Bengkok* land for farming is rented out?	1. ⌊_⌋⌊_⌋⌊_⌋.⌊_⌋⌊_⌋ Hectare 2. ⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Square meter 6. N/A 8. DON'T KNOW
UT01.	During the past 12 months, namely since the month of [...] one year ago, is there a householder who has worked in a farm business?	No ..... 3 ➔**UT01c** Yes 1
UT01a.	What size is the farm land cultivated by you or members of the household in the last 12 months?	1. ⌊_⌋⌊_⌋⌊_⌋.⌊_⌋⌊_⌋ Hectare 2. ⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Square meter 6. N/A 8. DON'T KNOW
UT01b.	Out of the farm land cultivated in the last 12 months, what size is rented or share-cropped?	1. ⌊_⌋⌊_⌋⌊_⌋.⌊_⌋⌊_⌋ Hectare 2. ⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Square meter 6. N/A 8. DON'T KNOW
UT01e.	How much of the land cultivated is owned?	1. ⌊_⌋⌊_⌋⌊_⌋.⌊_⌋⌊_⌋ Hectare 2. ⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Square meter 6. N/A 8. DON'T KNOW

UT01f.	How much of the *Bengkok* land cultivated ?	1. ⌊_⌋⌊_⌋⌊_⌋.⌊_⌋⌊_⌋ Hectare 2. ⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Square meter 6. N/A 8. DON'T KNOW
UT01c.	**INTERVIEWER CHECK:**	**UT01=3 and UT00a=1** ..... **1 ➔ UT10** **UT01=3 and UT00a=3** ..... **2 ➔ SECTION NT** **UT01=1** **3**
UT05a.	Over the last 5 years, how many times you can harvest the results of the main farm in a normal year?	⌊_⌋ times ..... 1 NOT APPLICABLE 6
UT05b.	How many TOTAL main farming results in a normal year	⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋⌊_⌋ Kg ..... 1 Ton ..... 2 Cubic ..... 3 Tail 4
UT07a.	What is the most valuable crop or livestock that the household farm produced for the market or for home consumption?	1. ⌊_⌋⌊_⌋ Other:_____ 8. DON'T KNOW
UT07b.	What is the next most valuable crop or livestock that the household farm provided?	1. ⌊_⌋⌊_⌋ Other:_____ 8. DON'T KNOW
UT07c.	Please list all other crops or livestock that the household farm produced. **CIRCLE ALL THAT APPLY**	A B C D E F G H I J K L M N O P Q R S T U A1 A2 X W Y V
UT07c1	Do you or your household member uses cell-phone for the farm business?	No ..... 3 Yes 1
UT07d.	**INTERVIEWER CHECK UT07a, UT07b, UT07c:**	**IF UT07a≠90 AND UT07b≠90 AND UT07c≠Y ..... 3➔UT07aa** **IF UT07a=90 OR UT07b=0 OR UT07c=Y 1**
UT07xa.	How many harvest per season can you crop on the land you use to plant paddy?	⌊_⌋⌊_⌋ times
UT07xb.	**In the last 12 months, how many times did you harvest your paddy crop? (including crop failures)**	⌊_⌋⌊_⌋ **times**

UT07a AND UT07b Codes:				**UT07c Codes:**			
01.	Cassava	14.	Tobacco	A.	Cassava	N.	Tobacco
02.	Other tuber	15.	Rubber	B.	Other tuber	O.	Rubber
03.	Groundnuts	16.	Wood	C.	Groundnuts	P.	Wood
04.	Cashews and other nuts	17.	Chickens	D.	Cashews and other nuts	Q.	Chickens
05.	Soybean	18.	Fish	E.	Soybean	R.	Fish
06.	Corn	19.	Pigs	F.	Corn	S.	Pigs
07.	Chili	20.	Goats	G.	Chili	T.	Goats
08.	Red Onion	21.	Cattle	H.	Red Onion	U.	Cattle
09.	Coconut	22.	Other vegetables	I.	Coconut	A1.	Other vegetables
10.	Bananas	23.	Other fruits	J.	Bananas	A2.	Other fruits
11.	Spice	96.	NO OTHER CROP	K.	Spice	W.	NO OTHER CROP
12.	Coffee	90.	Rice	L.	Coffee	Y.	Rice
13.	Sugarcane	95.	Other	M.	Sugarcane	V.	Other

SECTION UT (FARM BUSINESS)

UT07aa.	Are you or any of your household members engage in fishing (non-fishery)?	No .....3➔**UT07** Yes 1
UT07ab	Are you or your household member use a boat in the fishing activities?	No .....3➔**UT07ag** Yes 1
UT07ac	Do you or your household member own the boat used in fishing ?	No .....3 Yes 1
UT07ad.	Type of boat used in fishing:	In-board powered boat > 100 GT .....1 In-board powered boat 30-100 GT .....2 In-board powered boat 5-30 GT .....3 In-board powered boat < 5 GT .....4 Out-board powered boat.....5 Non-powered boat – small (*jukong*).....6 Non-powered boat – medium .....7 Non-powered boat - large 8
UT07ae	How many fishermen and crew are usually in one boat?	⌊_⌋⌊_⌋ people
UT07af.	How many fishing trips did you or your household member do in one month in [....]?	1. The last month: ⌊_⌋⌊_⌋ times 2. Two months ago: ⌊_⌋⌊_⌋ times 3. Three months ago: ⌊_⌋⌊_⌋ times

UT07ag	How much (in kg) is the total catch in the last month?	⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ kg
UT07 ah.	In the last month, what is the percentage of the catch that are…	A. consumed during fishing ⌊_⌋⌊_⌋⌊_⌋ % B. shared with the other crew ⌊_⌋⌊_⌋⌊_⌋ % C. sold directly to consumer ⌊_⌋⌊_⌋⌊_⌋ % D. sold to dealer/distributor ⌊_⌋⌊_⌋⌊_⌋ % E. sold at Auction (*TPI*) ⌊_⌋⌊_⌋⌊_⌋ % F. stored to be processed. ⌊_⌋⌊_⌋⌊_⌋ %
UT07 ai.	Do you or your household member use cell-phone for this fishing activities?	No .....3 Yes 1

SECTION UT (FARM BUSINESS)

UT07. What is the approximate amount in rupiah of total production by the household from the farm business (including produce for own consumption or giving the others) during the past 12 month?	1. ⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp ➔**UT08** 7. UNWILLING TO ANSWER 8. DON'T KNOW
UT07p. PROBING	98. DK ➔**UT09** 1. ≥ 4 million — 11. ≥ 8 million; 12. < 8 million; 18. DK 2. < 4 million — 21. ≥ 2 million; 22. < 2 million; 28. DK
UT08. What is the approximate amount in rupiah of total expenses spent by the household for the farm business during the past 12 months?	1. ⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp ➔**UT09q** 7. UNWILLING TO ANSWER 8. DON'T KNOW
UT08p. PROBING	1. ≥ 4 million — 11. ≥ 8 million ➔**UT09q**; 12. < 8 million ➔**UT09q**; 18. DK ➔**UT09q** 2. < 4 million — 21. ≥ 2 million ➔ **UT09q**; 22. < 2 million ➔**UT09q**; 28. DK ➔**UT09q** 98. DK
UT09. What is the approximate amount in rupiah of net profit generated by the farm business during the past 12 months?	1. **+**⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. ➔**UT09q** 3. **-**⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. ➔**UT09q** 7. UNWILLING TO ANSWER 8. DON'T KNOW
UT09p. PROBING	1. ≥ 4 million — 11. ≥ 8 million; 12. < 8 million; 18. DK 2. < 4 million — 21. ≥ 2 million; 22. < 2 million; 28. DK 98. DK

SECTION UT (FARM BUSINESS)

Now we would like to raise some questions about crop loss that may affected this household's farm business in the last 12 months.

UT09q. Did this household experienced crop loss in the past 12 months?	NO CROPS/NOT YET HARVESTED ....6→ **UT10** No...3→ **UT10** Yes 1

CROP LOSS (UT3TYPE)	UT09r. Has this household experienced crop loss because of […] within the past 12 months?	UT09s. When did […] happen or start?	UT09t. What is the approximate cost of […]?
C1. Drought/lack of water	3. No ↓ 1. Yes→	1. ⊔⊔ / ⊔⊔⊔⊔ 8. DON'T KNOW Month / Year	1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 8. DON'T KNOW
C2. Flood	3. No ↓ 1. Yes→	1. ⊔⊔ / ⊔⊔⊔⊔ 8. DON'T KNOW Month / Year	1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 8. DON'T KNOW
C3. Pestilence/Rodents	3. No ↓ 1. Yes→	1. ⊔⊔ / ⊔⊔⊔⊔ 8. DON'T KNOW Month / Year	1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 8. DON'T KNOW
C4. Disease	3. No ↓ 1. Yes→	1. ⊔⊔ / ⊔⊔⊔⊔ 8. DON'T KNOW Month / Year	1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 8. DON'T KNOW
C5. Other ____________________	3. No ↓ UT10 1. Yes→	1. ⊔⊔ / ⊔⊔⊔⊔ 8. DON'T KNOW Month / Year	1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 8. DON'T KNOW

Now we would like to ask some questions about assets owned by this household that were used for farm business in the last 12 months.

TYPE OF ASSETS (UTTYPE)	UT10. Does the household farm business own […]?	UT11. What is the total (market) value of[…]?	UT11p. PROBING	UT12. What is the total value in rupiah of any […] purchased in the past 12 months?	UT13. What is the total value in rupiah of any […] sold in the past 12 months?	UT14. What is the total income from the rent/lease/profit-sharing of […] in the past 12 months?
A. Farm land	3. No→**UT12** 1. Yes	1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. →**UT12** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ≥ 20 mil → 11. ≥ 40 mil; 12. < 40 mil; 18. DK 2. < 20 mil → 21. ≥ 10 mil; 22. < 10 mil; 28. DK 98. DK	1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW
D1. Poultry	3. No→**UT12** 1. Yes	1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW		1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW
D2. Livestock /fish pond	3. No→**UT12** 1. Yes	1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW		1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⊔⊔⊔,⊔⊔⊔,⊔⊔⊔ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW

SECTION UT (FARM BUSINESS)

TYPE OF ASSETS (UTTYPE)	UT10. Does the household farm business own [...]?	UT11. What is the total (market) value of[...]?	UT11p. PROBING	UT12. What is the total value in rupiah of any [...] purchased in the past 12 months?	UT13. What is the total value in rupiah of any [...] sold in the past 12 months?	UT14. What is the total income from the rent/lease/profit-sharing of [...] in the past 12 months?
B. Hard stem plants (coconut, coffee, cloves, rubber, etc.)	1. Yes ➔ 3. No ↓	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. ➔**ROW C** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ≥ 20 mil → 11. ≥ 40 mil; 12. < 40 mil 18. DK 2. < 20 mil → 21. ≥ 10 mil; 22. < 10 mil 28. DK 98. DK			
C. House or building used for the farm business	1. Yes ➔ 3. No ↓	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. ➔**ROW E** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ≥ 20 mil → 11. ≥ 40 mil; 12. < 40 mil 18. DK 2. < 20 mil → 21. ≥ 10 mil; 22. < 10 mil 28. DK 98. DK			
E. Vehicles (bicycles, motor bikes, car/truck and water vehicles)	1. Yes ➔ 3. No ↓	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW				
E1. Boat (non-powered, out-board powered, in-board powered)	1. Yes ➔ 3. No ↓	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW				
F. Tractor	1. Yes ➔ 3. No ↓	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW				
F1. Irrigation equipment (pump, tube well, etc.)	1. Yes ➔ 3. No ↓	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW				
G. Heavy equipments (like farming machines, generator, etc.)	1. Yes ➔ 3. No ↓	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW				
H. Small tools like saws, axes, machetes, forks, plows, hoes, etc.)	1. Yes ➔ 3. No ↓	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW				
H1 Fishing equipmen (gill net, beach seine, long lines, buoy)	1. Yes ➔ 3. No ↓	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW				

SECTION UT (FARM BUSINESS)

TYPE OF ASSETS (UTTYPE)	UT10. Does the household farm business own [...]?	UT11. What is the total (market) value of[...]?	UT11p. PROBING	UT12. What is the total value in rupiah of any [...] purchased in the past 12 months?	UT13. What is the total value in rupiah of any [...] sold in the past 12 months?	UT14. What is the total income from the rent/lease/profit-sharing of [...] in the past 12 months?
I. Other (other than A-H1):	1. Yes ➔ 3. No ↓	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW				
J. Other than Farm land (A) , Poultry & Livestock /fish pond (D1, D2)				1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW

SECTION NT (NON FARM BUSINESS)

Now we would like to ask about any non-farm business that might be owned by this household.

NT01.	During the past 12 months, namely since the month of [...] in 19[…], is there a householder who has worked in a family-owned, non-farm business like trade/retailing or been self-employed in a non-farm enterprise?	No .....3 ➔ **SECTION HR** Yes.....1
NT01a.	How many non-farm businesses did you or members of the household operate at any time in the last 12 months?	1. ⌊_⌋⌊_⌋ Types

INTERVIEWER NOTE: COMPLETE ONE COLUMN FOR EACH BUSINESS REPORTED IN NT01a. STARTING WITH THE MOST IMPORTANT BUSINESS.

		1. Business I	2. Business II	3. Business III	4. Business IV
NT01b.	What type of business was this?	_____ _____	_____ _____	_____ _____	_____ _____
NT02.	Is this business owned entirely by this household?	Yes .....1 ➔ **NT05** No.....3	Yes.....1 ➔ **NT05** No 3	Yes.....1 ➔ **NT05** No 3	Yes .....1 ➔ **NT05** No 3
NT03.	What is the percentage share of this business owned by householders of this household?	⌊_⌋⌊_⌋ Percentage	⌊_⌋⌊_⌋ Percentage	⌊_⌋⌊_⌋ Percentage	⌊_⌋⌊_⌋ Percentage
NT04.	Who outside this household owns the business? **(CIRCLE ALL THAT APPLY)**	B C D E F G I J K L M P Q R U V	B C D E F G I J K L M P Q R U V	B C D E F G I J K L M P Q R U V	B C D E F G I J K L M P Q R U V .....
NT05.	Which householders own the business? **(CIRCLE ALL THAT APPLY)**	A B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V .....
NT05a.	Which household members were primarily responsible for this business? **RECORD THE NAME AND AR00 FOR UP TO TWO PERSONS**	A. _____ ⌊_⌋⌊_⌋ B. _____ ⌊_⌋⌊_⌋	A._____ ⌊_⌋⌊_⌋ B._____ ⌊_⌋⌊_⌋	A. _____ ⌊_⌋⌊_⌋ B. _____ ⌊_⌋⌊_⌋	A. _____ ⌊_⌋⌊_⌋ B. _____ ⌊_⌋⌊_⌋
NT05b.	Is/was this business operated outside your home?	Yes, all outside ..... 1 Yes, partially outside ..... 2 No..... 3	Yes, all outside..... 1 Yes, partially outside..... 2 No 3	Yes, all outside .....1 Yes, partially outside..... 2 No 3	Yes, all outside .....1 Yes, partially outside ..... 2 No..... 3

NT04 and NT05 Codes:

A.	Respondent	G.	Respondent's brother/sister-in-law	M.	Cousin
B.	Respondent's wife/husband	I.	Grandchild	P.	Non family
C.	Respondent's child/child-in-law	J.	Grandparent	Q.	Step/adopted child
D.	Respondent's parents	K.	Uncle/aunt	R.	Family of spouse
E.	Respondent's parents-in-law	L.	Nephew/niece	U.	Ex spouse
F.	Respondent's sibling			V.	Other

SECTION NT (NON FARM BUSINESS)

		1. Business I	2. Business II	3. Business III	4. Business IV
NT05c.	In what field of work is this business? (CODE OF BUSINESS FIELD)	└─┴─┘	└─┴─┘	└─┴─┘	└─┴─┘
NT15.	When did this business begin/start?	1. └─┴─┘ / └─┴─┴─┴─┘ 8. DK Month / Year	1. └─┴─┘ / └─┴─┴─┴─┘ 8. DK Month / Year	1. └─┴─┘ / └─┴─┴─┴─┘ 8. DK Month / Year	1. └─┴─┘ / └─┴─┴─┴─┘ 8. DK Month / Year
NT16.	How many household members/paid workers, worked when the business started?	└─┴─┘ Persons .... 1 DON'T KNOW 8	└─┴─┘ Persons .... 1 DON'T KNOW 8	└─┴─┘ Persons .... 1 DON'T KNOW 8	└─┴─┘ Persons .... 1 DON'T KNOW 8
NT17.	How many paid workers, worked when the business started?	└─┴─┴─┴─┘ Persons .... 1 DON'T KNOW 8	└─┴─┴─┴─┘ Persons .... 1 DON'T KNOW 8	└─┴─┴─┴─┘ Persons .... 1 DON'T KNOW 8	└─┴─┴─┴─┘ Persons .... 1 DON'T KNOW 8
NT17a.	When this business first started, how much was the start-up capital?	NONE ....6➔**NT18** └─┴─┘.└─┴─┴─┘.└─┴─┴─┘ Rp..... 1 DON'T KNOW 8	NONE ....6➔**NT18** └─┴─┘.└─┴─┴─┘.└─┴─┴─┘ Rp..... 1 DON'T KNOW 8	NONE ....6➔**NT18** └─┴─┘.└─┴─┴─┘.└─┴─┴─┘ Rp..... 1 DON'T KNOW 8	NONE ....6➔**NT18** └─┴─┘.└─┴─┴─┘.└─┴─┴─┘ Rp..... 1 DON'T KNOW 8
NT17b.	Where did the capital come from?	Household saving .... A Family .... B Other owners/partners .... C Loans from bank .... D Loans from others .... E	Household saving .... A Family .... B Other owners/partners .... C Loans from bank .... D Loans from others .... E	Household saving .... A Family .... B Other owners/partners .... C Loans from bank .... D Loans from others .... E	Household saving .... A Family .... B Other owners/partners .... C Loans from bank .... D Loans from others .... E
NT18.	Is the business still producing?	Yes .... 1 No 3	Yes .... 1 No 3	Yes .... 1 No 3	Yes .... 1 No 3

CODES FOR NT05c

01. Agriculture, Forestry, Fishery	21. Restaurants, food sales	32. Services : Teacher
02. Mining and Quarrying	22. Industry: Food processing	33. Services : Professionals
04. Electricity, Gas and Water	23. Industry: Clothing	34. Services : Transportation (becak, ojek, taxi)
05. Construction	24. Industry: Other	35. Services : Other (tailor, hairdressing)
07. Transportation and communication	25. Sales: Non food	95. Other
08. Finance, Insurance, Real Estate	31. Services: Government	

		1. Business I	2. Business II	3. Business III	4. Business IV
NT09.	What is the approximate amount in rupiah of net profit generated by the business during the past 12 months?	1. + ___ , ___ , ___ Rp → **NT09b** 3. - ___ , ___ , ___ Rp → **NT09b** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. + ___ , ___ , ___ Rp → **NT09b** 3. - ___ , ___ , ___ Rp → **NT09b** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. + ___ , ___ , ___ Rp → **NT09b** 3. - ___ , ___ , ___ Rp → **NT09b** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. + ___ , ___ , ___ Rp → **NT09b** 3. - ___ , ___ , ___ Rp → **NT09b** 7. UNWILLING TO ANSWER 8. DON'T KNOW
NT07.	What is the approximate amount in rupiah of total revenue received by the household from the business (including produce for own consumption) during the past 12 months?	1. ___ , ___ , ___ Rp. → **NT08** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___ , ___ , ___ Rp. → **NT08** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___ , ___ , ___ Rp. → **NT08** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___ , ___ , ___ Rp. → **NT08** 7. UNWILLING TO ANSWER 8. DON'T KNOW
NT07a.	**PROBING**	1. ≥ 4 mil → 11. ≥ 8 mil / 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil / 22. < 2 mil 98. DK 28. DK	1. ≥ 4 mil → 11. ≥ 8 mil / 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil / 22. < 2 mil 98. DK 28. DK	1. ≥ 4 mil → 11. ≥ 8 mil / 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil / 22. < 2 mil 98. DK 28. DK	1. ≥ 4 mil → 11. ≥ 8 mil / 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil / 22. < 2 mil 98. DK 28. DK
NT08.	What was the approximate amount in rupiah of total expenses spent by the household for the business during the past 12 months?	1. ___ , ___ , ___ Rp. → **NT09b** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___ , ___ , ___ Rp. → **NT09b** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___ , ___ , ___ Rp. → **NT09b** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___ , ___ , ___ Rp. → **NT09b** 7. UNWILLING TO ANSWER 8. DON'T KNOW
NT08a.	**PROBING**	1. ≥ 4 mil → 11. ≥ 8 mil / 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil / 22. < 2 mil 98. DK 28. DK	1. ≥ 4 mil → 11. ≥ 8 mil / 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil / 22. < 2 mil 98. DK 28. DK	1. ≥ 4 mil → 11. ≥ 8 mil / 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil / 22. < 2 mil 98. DK 28. DK	1. ≥ 4 mil → 11. ≥ 8 mil / 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil / 22. < 2 mil 98. DK 28. DK

		1. Business I	2. Business II	3. Business III	4. Business IV
NT09b.	What is the approximate amount in rupiah of products from your business consumed by the household in the last 12 months?	1. ___,___,___ Rp.→**NT09d** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp.→**NT09d** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp.→**NT09d** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp.→**NT09d** 7. UNWILLING TO ANSWER 8. DON'T KNOW
NT09c.	**PROBING**	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil 98. DK 28. DK	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil 98. DK 28. DK	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil 98. DK 28. DK	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil 98. DK 28. DK
NT09d.	What is the approximate amount of money out of the business enterprise that you used for the household in the last 12 months?	1. ___,___,___ Rp.→**NT09f** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp.→**NT09f** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp.→**NT09f** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp.→**NT09f** 7. UNWILLING TO ANSWER 8. DON'T KNOW
NT09e.	**PROBING**	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil 98. DK 28. DK	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil 98. DK 28. DK	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil 98. DK 28. DK	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil 98. DK 28. DK
NT09f.	What was the approximate amount of money left over (money or saving) in the last 12 months?	1. ___,___,___ Rp.→**NT10** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp.→**NT10** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp.→**NT10** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp.→**NT10** 7. UNWILLING TO ANSWER 8. DON'T KNOW
NT09g.	**PROBING**	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil 98. DK 28. DK	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil 98. DK 28. DK	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil 98. DK 28. DK	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil 98. DK 28. DK

SECTION NT (NON FARM BUSINESS)

Now, we would like to ask your HH about assets that are being used for non-farm business only.

		1. Business I	2. Business II	3. Business III	4. Business IV
NT10.	Does this household own the following assets for this non-farm business? **INTERVIEWER'S NOTE: IF YES, ASK:** HOW MUCH IS THE VALUE OF […]				
A.	Land	1. ___,___,___ Rp. ➔**ROW B** 3. NONE ➔**ROW B** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. ➔**ROW B** 3. NONE ➔**ROW B** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. ➔**ROW B** 3. NONE ➔**ROW B** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. ➔**ROW B** 3. NONE ➔**ROW B** 7. UNWILLING TO ANSWER 8. DON'T KNOW
NT10Ap.	**PROBING**	1. ≥ 20 mil → 11. ≥ 40 mil; 12. < 40 mil; 18. DK 2. < 20 mil → 21. ≥ 10 mil; 22. < 10 mil; 28. DK 98. DK	1. ≥ 20 mil → 11. ≥ 40 mil; 12. < 40 mil; 18. DK 2. < 20 mil → 21. ≥ 10 mil; 22. < 10 mil; 28. DK 98. DK	1. ≥ 20 mil → 11. ≥ 40 mil; 12. < 40 mil; 18. DK 2. < 20 mil → 21. ≥ 10 mil; 22. < 10 mil; 28. DK 98. DK	1. ≥ 20 mil → 11. ≥ 40 mil; 12. < 40 mil; 18. DK 2. < 20 mil → 21. ≥ 10 mil; 22. < 10 mil; 28. DK 98. DK
B.	Building	1. ___,___,___ Rp. ➔**ROW C1** 3. NONE ➔**ROW C1** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. ➔**ROW C1** 3. NONE ➔**ROW C1** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. ➔**ROW C1** 3. NONE ➔**ROW C1** 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. ➔**ROW C1** 3. NONE ➔**ROW C1** 7. UNWILLING TO ANSWER 8. DON'T KNOW
NT10Bp.	**PROBING**	1. ≥ 20 mil → 11. ≥ 40 mil; 12. < 40 mil; 18. DK 2. < 20 mil → 21. ≥ 10 mil; 22. < 10 mil; 28. DK 98. DK	1. ≥ 20 mil → 11. ≥ 40 mil; 12. < 40 mil; 18. DK 2. < 20 mil → 21. ≥ 10 mil; 22. < 10 mil; 28. DK 98. DK	1. ≥ 20 mil → 11. ≥ 40 mil; 12. < 40 mil; 18. DK 2. < 20 mil → 21. ≥ 10 mil; 22. < 10 mil; 28. DK 98. DK	1. ≥ 20 mil → 11. ≥ 40 mil; 12. < 40 mil; 18. DK 2. < 20 mil → 21. ≥ 10 mil; 22. < 10 mil; 28. DK 98. DK
C1.	Four-wheel motor vehicles	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW
C4.	Other vehicles	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW
H.	Other non-farm equipment	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW

SECTION NT (NON FARM BUSINESS)

Now we would like to ask about procurement, sale and lease/profit sharing of the equipment used for non-farm businesses in the last 12 months.

	1. Business I	2. Business II	3. Business III	4. Business IV
NT24. What rupiah was the total procurement of goods used in business in the last 12 months?	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW
NT25. What rupiah was the total sale of the business in the last 12 months?	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW
NT26. What rupiah was the total revenue of rents or shared profit of the goods used in the business in the last 12 months?	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW **➔NT01b COLUMN 2 / SECTION HR**	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW **➔NT01b COLUMN 3 / SECTION HR**	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW **➔NT01b COLUMN 4 / SECTION HR**	1. ___,___,___ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW **➔NT01b SUPLEMEN/SECTION HR**

SECTION HR (HOUSEHOLD ASSETS)

Next, we would like to know about assets owned by you or by members of the household that are not used for a farm or non-farm business. Do not report assets that are used only or mostly for a business (NOT INCLUDING RENT LAND OR CROP SHARE).

INTERVIEWER CHECK: IF YOU HAVE AN ASSET THAT IS USED MOSTLY FOR A BUSINESS (FARM OR NON-FARM) BUT WAS NOT ALREADY INCLUDED IN UT OR NT, GO BACK TO UT OR NT AND CORRECT IT.

TYPE OF ASSETS (HRTYPE)	HR01. Do you or does any other member of the household own [...]?	HR02. What is the total value of [...] at present?	HR05. What is the total income from the rent/lease/interest/ profit sharing of [...] in the past 12 months?	HR06. Is the entire [...] owned by the householders?	HR07. What is the percentage share of [...] that is owned by the house-holders?	HR08. Who outside the household also owns [...]? (CIRCLE ALL THAT APPLY)	HR10. Which householders own [...]? (CIRCLE ALL THAT APPLY)	HR11. How many householders own [...]? (REFER TO ANSWER OF HR10)	HR12. ONLY IF THE RESPONSE TO HR10 INCLUDES A OR B. You told me that members of this household own ____% (RESPONSE FROM HR07) of the [...]. Of that ____%, how much is owned by you and how much is owned by your spouse?
A. House and land occupied by this household	3. No → **ROW B** 1. Yes →	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. → 7. UNWILLING TO ANSWER → 8. DON'T KNOW → **HR02p. Is it […]?** 1. ≥ 20 mil → 11. ≥ 40 mil / 12. < 40 mil / 18. DK; 2. < 20 mil → 21. ≥ 10 mil / 22. < 10 mil / 28. DK; 98. DK → **HR05 ROW A**	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊_⌊_⌋ Percent	B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊_⌊_⌋ Persons **IF 1→ROW B**	1. A ⌊_⌊_⌋ % B ⌊_⌊_⌋ % 6. Neither A nor B owns 8. DON'T KNOW
B. Other house/ building (including land)	3. No → **ROW C** 1. Yes →	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. → 7. UNWILLING TO ANSWER → 8. DON'T KNOW → **HR02p. Is it […]?** 1. ≥ 20 mil → 11. ≥ 40 mil / 12. < 40 mil / 18. DK; 2. < 20 mil → 21. ≥ 10 mil / 22. < 10 mil / 28. DK; 98. DK → **HR05 ROW B**	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊_⌊_⌋ Percent	B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊_⌊_⌋ Persons **IF 1→ROW C**	1. A ⌊_⌊_⌋ % B ⌊_⌊_⌋ % 6. Neither A nor B owns 8. DON'T KNOW

HR08 AND HR10

A. Respondent
B. Respondent's wife/husband
C. Respondent's biological and in-law
D. Respondent's parents
E. Respondent's parents-in-law
F. Respondent's sibling
G. Respondent's brother/sister-in-law
I. Respondent's grandchild/great grandchild
J. Grandparents
K. Uncle/aunt
L. Nephew/niece
M. Cousin
P. Non family
Q. Step/adopted child
R. Family of spouse
U. Ex spouse
V. Others

HR12:

A. Respondent
B. Respondent's spouse

IF A AND B ARE THE ONLY OWNERS IN HOUSEHOLD, THEIR ANSWERS SHOULD SUM TO 100%.
IF MORE HH MEMBERS THAN A AND B ARE OWNERS, THE ANSWERS OF A AND B SHOULD SUM TO LESS THAN 100%.

SECTION HR (HOUSEHOLD ASSETS)

TYPE OF ASSETS (HRTYPE)	HR01. Do you or does any other member of the household own [...]?	HR02. What is the total value of [...] at present?	HR05. What is the total income from the rent/lease/interest/ profit sharing of [...] in the past 12 months?	HR06. Is the entire [...] owned by the householders?	HR07. What is the percentage share of [...] that is owned by the house-holders?	HR08. Who outside the household also owns [...]? (CIRCLE ALL THAT APPLY)	HR10. Which householders own [...]? (CIRCLE ALL THAT APPLY)	HR11. How many householders own [...]? (REFER TO ANSWER OF HR10)	HR12. ONLY IF THE RESPONSE TO HR10 INCLUDES A OR B. You told me that members of this household own ____% (RESPONSE FROM HR07) of the [...]. Of that ____%, how much is owned by you and how much is owned by your spouse?
C. Land (not used for farm nonfarm)	3. No → **ROW D1** 1. Yes →	1. ⌊⌊⌊⌋⌊⌊⌊⌋⌊⌊⌊⌋ Rp. → 7. UNWILLING TO ANSWER ↓ 8. DON'T KNOW ↓	1. ⌊⌊⌊⌋⌊⌊⌊⌋⌊⌊⌊⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋ Percent	A B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 1 → ROW D1**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW
		HR02p. Is it […]?							
		1. ≥ 20 mil → 11. ≥ 40 mil, 12. < 40 mil, 18. DK 2. < 20 mil → 21. ≥ 10 mil, 22. < 10 mil, 28. DK 98. DK → **HR05 ROW C**							
D1. Poultry	3. No → **ROW D2** 1. Yes →	1. ⌊⌊⌊⌋⌊⌊⌊⌋⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊⌋⌊⌊⌊⌋⌊⌊⌊⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋ Percent	A B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 1 → ROW D2**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW
D2. Livestock/ fishpond	3. No → **ROW D3** 1. Yes →	1. ⌊⌊⌊⌋⌊⌊⌊⌋⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊⌋⌊⌊⌊⌋⌊⌊⌊⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋ Percent	A B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 1 → ROW D3**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW
D3. Hard stem plant that not used for farm or non-farm business	3. No → **ROW E** 1. Yes →	1. ⌊⌊⌊⌋⌊⌊⌊⌋⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊⌋⌊⌊⌊⌋⌊⌊⌊⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋ Percent	A B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 1 → ROW E**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW
E. Vehicles (cars, boats, bicycles, motorbikes)	3. No → **ROW F** 1. Yes →	1. ⌊⌊⌊⌋⌊⌊⌊⌋⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊⌋⌊⌊⌊⌋⌊⌊⌊⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋ Percent	A B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 1 → ROW F**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW

HR08 AND HR10

A. Respondent
B. Respondent's wife/husband
C. Respondent's biological and in-law
D. Respondent's parents
E. Respondent's parents-in-law
F. Respondent's sibling
G. Respondent's brother/sister-in-law
I. Respondent's grandchild/great grandchild
J. Grandparents
K. Uncle/aunt
L. Nephew/niece
M. Cousin
P. Non family
Q. Step/adopted child
R. Family of spouse
U. Ex spouse
V. Others

HR12:

A. Respondent
B. Respondent's spouse

IF A AND B ARE THE ONLY OWNERS IN HOUSEHOLD, THEIR ANSWERS SHOULD SUM TO 100%.
IF MORE HH MEMBERS THAN A AND B ARE OWNERS, THE ANSWERS OF A AND B SHOULD SUM TO LESS THAN 100%.

SECTION HR (HOUSEHOLD ASSETS)

TYPE OF ASSETS (HRTYPE)	HR01. Do you or does any other member of the household own [...]?	HR02. What is the total value of [...] at present?	HR05. What is the total income from the rent/lease/interest/ profit sharing of [...] in the past 12 months?	HR06. Is the entire [...] owned by the householders?	HR07. What is the percentage share of [...] that is owned by the house-holders?	HR08. Who outside the household also owns [...]? (CIRCLE ALL THAT APPLY)	HR10. Which householders own [...]? (CIRCLE ALL THAT APPLY)	HR11. How many householders own [...]? (REFER TO ANSWER OF HR10)	HR12. **ONLY IF THE RESPONSE TO HR10 INCLUDES A OR B.** You told me that members of this household own ____% **(RESPONSE FROM HR07)** of the [...]. Of that ____%, how much is owned by you and how much is owned by your spouse?
F. Household appliances (radio, tape recorder, tv, fridge, sewing or washing machine, VCD player, HP, etc.)	3. No → **ROW G** 1. Yes→	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋ Percent	B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 1→ROW G**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW
G. Savings/ certificate of deposit/ stocks	3. No → **ROW H** 1. Yes→	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋ Percent	B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 1→ROW H**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW
		HR02p. Is it […]? 1. ≥ 4 mil → 11. ≥ 8 mil, 12. < 8 mil, 18. DK 2. < 4 mil → 21. ≥ 2 mil, 22. < 2 mil, 28. DK 98. DK **→ HR05 ROW G**							
H. Receivables	3. No → **ROW J** 1. Yes→	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋ Percent	B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 1→ROW J**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW

HR08 AND HR10

A. Respondent
B. Respondent's wife/husband
C. Respondent's biological and in-law
D. Respondent's parents
E. Respondent's parents-in-law
F. Respondent's sibling
G. Respondent's brother/sister-in-law
I. Respondent's grandchild/great grandchild
J. Grandparents
K. Uncle/aunt
L. Nephew/niece
M. Cousin
P. Non family
Q. Step/adopted child
R. Family of spouse
U. Ex spouse
V. Others

HR12:

A. Respondent
B. Respondent's spouse

IF A AND B ARE THE ONLY OWNERS IN HOUSEHOLD, THEIR ANSWERS SHOULD SUM TO 100%.
IF MORE HH MEMBERS THAN A AND B ARE OWNERS, THE ANSWERS OF A AND B SHOULD SUM TO LESS THAN 100%.

SECTION HR (HOUSEHOLD ASSETS)

TYPE OF ASSETS (HRTYPE)	HR01. Do you or does any other member of the household own [...]?	HR02. What is the total value of [...] at present?	HR05. What is the total income from the rent/lease/interest/ profit sharing of [...] in the past 12 months?	HR06. Is the entire [...] owned by the householders?	HR07. What is the percentage share of [...] that is owned by the house-holders?	HR08. Who outside the household also owns [...]? (CIRCLE ALL THAT APPLY)	HR10. Which householders own [...]? (CIRCLE ALL THAT APPLY)	HR11. How many householders own [...]? (REFER TO ANSWER OF HR10)	HR12. ONLY IF THE RESPONSE TO HR10 INCLUDES A OR B. You told me that members of this household own ____% (RESPONSE FROM HR07) of the [...]. Of that ____%, how much is owned by you and how much is owned by your spouse?
J. Jewelry	3. No → **ROW K1** 1. Yes →	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW		1. Yes → **HR10** 3. No	⌊⌊⌋ Percent	A B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 1 → ROW K1**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW
		HR02p. Is it […]? 1. ≥ 4 mil → 11. ≥ 8 mil, 12. < 8 mil, 18. DK 2. < 4 mil → 21. ≥ 2 mil, 22. < 2 mil, 28. DK 98. DK → **HR06 ROW J**							
K1. Household Furniture and Utensils	3. No → **ROW K2** 1. Yes →	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW		1. Yes → **HR10** 3. No	⌊⌊⌋ Percent	A B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 1 → ROW K2**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW
K2. Other assets	3. No → **HR16** 1. Yes →	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋ Percent	A B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 1 → HR16**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW

HR08 AND HR10

A. Respondent
B. Respondent's wife/husband
C. Respondent's biological and in-law
D. Respondent's parents
E. Respondent's parents-in-law
F. Respondent's sibling
G. Respondent's brother/sister-in-law
I. Respondent's grandchild/great grandchild
J. Grandparents
K. Uncle/aunt
L. Nephew/niece
M. Cousin
P. Non family
Q. Step/adopted child
R. Family of spouse
U. Ex spouse
V. Others _____

HR12:

A. Respondent
B. Respondent's spouse

IF A AND B ARE THE ONLY OWNERS IN HOUSEHOLD, THEIR ANSWERS SHOULD SUM TO 100%.
IF MORE HH MEMBERS THAN A AND B ARE OWNERS, THE ANSWERS OF A AND B SHOULD SUM TO LESS THAN 100%.

SECTION HR (HOUSEHOLD ASSETS)

TYPE OF ASSETS (HR2TYPE)	HR16. What is/was the total value in rupiah of any […] purchased in the past 12 months?	HR17. What is the total value of any […] sold in the past 12 months?
A. House occupied by this household	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NO SALES 7. UNWILLING TO ANSWER 8. DON'T KNOW
B. Other house/building	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NO SALES 7. UNWILLING TO ANSWER 8. DON'T KNOW
C. Land (not used for farm or non-farm business)	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NO SALES 7. UNWILLING TO ANSWER 8. DON'T KNOW
E. Vehicles (cars, boats, bicycles, motorbikes)	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NO SALES 7. UNWILLING TO ANSWER 8. DON'T KNOW
J. Jewelry	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW
V. Other assets, not used for farm or non-farm business:	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW

SECTION HI (NONLABOR INCOME)

Next we would like to ask about income received that all household members have received from other sources during the past 12 months.

SOURCE OF INCOME (HI2TYPE)	HI14. What is the total income you received from [...] during the past 12 months?		
A. Pension/retirement funds	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp.	3. Did not receive	8. DON'T KNOW
B1. Government scholarship (cash)	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp.	3. Did not receive	8. DON'T KNOW
B2. Private scholarship (cash)	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp.	3. Did not receive	8. DON'T KNOW
C. Insurance Money	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp.	3. Did not receive	8. DON'T KNOW
D1. Winnings/Lottery (cash)	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp.	3. Did not receive	8. DON'T KNOW

SECTION ND (NATURAL DISASTER)

Now we would like to ask about natural and disaster that your household may have experienced in the last 5 years.

ND01.	In the last 5 years, was there any natural or other disaster (including civil strife) in the area where you live? If yes, what type of disasters?	W➔ND02a A B C D E F G H I J S
ND02.	Did any of the disaster was severe enough to cause death or major injuries of a household member, cause direct financial loss to the household, or cause household member to relocate?	No .... 3 Yes 1
ND02a.	In the last 5 years, if these households have experienced the things that cause economic disruption?	K L M N O Q R W
ND03.	**INTERVIEWER CHECK ND01 , ND02 AND ND02a: FILL IN THE NUMBER OF THE TYPE OF DISASTERS EXPERIENCED BY THE HOUSEHOLD IN ND01 AND FIT TO CONDITIONS IN ND02. ASK IF THERE MORE THAN ONE DISASTER IN THE SAME TIME, WRITE THE WORST ONE.**	__ **COLUMN IF ND03=0 ➔ SECTION BH**

INTERVIEWER NOTE: FILL OUT THE COLUMN ACCORDING TO THE DISASTER CIRCLED IN ND01. ONE COLUMN SHOULD ONLY BE FILLED OUT FOR ONE TYPE OF DISASTER. MAXIMUM 4 COLUMNS.

TYPE OF DISASTER? **NDTYPE**	**1.** __ ________	**2.** __ ________	**3.** __ ________	**4.** __ ________
ND04. How many times has this household experienced […] in the last 5 years?	___ times	___ times	___ times	___ times
ND05. When was the most severe […] in the last 5 years occurred?	__ / ____ Month Year	__ / ____ Month Year	__ / ____ Month Year	__ / ____ Month Year
ND06. Beside that disaster/, what was the other disaster occurred at that time? **PEWAWANCARA PERIKSA LINGKARI W JIKA NDTYPE= K, L, M, N, O, Q, R .**	A B C D E F G H I J S W	A B C D E F G H I J S W	A B C D E F G H I J S W	A B C D E F G H I J S W
ND07. How much of the household business assets (farm and non-farm) were lost because of […]?	1. ___ , ___ , ___ Rp ➔ **ND09** 6. NO HH BUSINESS ➔ **ND09** 7. REFUSED TO ANSWER 8. DON'T KNOW	1. ___ , ___ , ___ Rp ➔ **ND09** 6. NO HH BUSINESS ➔ **ND09** 7. REFUSED TO ANSWER 8. DON'T KNOW	1. ___ , ___ , ___ Rp ➔ **ND09** 6. NO HH BUSINESS ➔ **ND09** 7. REFUSED TO ANSWER 8. DON'T KNOW	1. ___ , ___ , ___ Rp ➔ **ND09** 6. NO HH BUSINESS ➔ **ND09** 7. REFUSED TO ANSWER 8. DON'T KNOW
ND08. Was it […]?	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil; 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil; 28. DK 98. DK	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil; 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil; 28. DK 98. DK	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil; 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil; 28. DK 98. DK	1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil; 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil; 28. DK 98. DK

KODE ND01, ND02a, ND06

A. Flood	F. Tsunami	K. The death of Head of Household / main breadwinner	
B. Landslide/mudslide	G. Windstorm	L. Other Household Member Deaths	Q. failed Harvests
C. Mudflow	H. Forest fire	M. Serious illness suffered by KRT / main breadwinner who require hospital care or treatment of Periodical.	R. Reduction in income due to crop failure or a decrease in production rate
D. Volcanic eruption	I. Fire	N. Suffered Serious illnesses that require treatment or hospital care Periodic Treatment	S. drought
E. Earthquake	J. Civil Strife	O. Job loss or business failure experienced by Household Members	W. NONE

SECTION ND (NATURAL DISASTER)

ND09.	How much of the non-business assets of the household that were lost because of […]?	1. ⎵⎵⎵ , ⎵⎵⎵ , ⎵⎵⎵ Rp → **ND11** 7. REFUSED TO ANSWER 8. DON'T KNOW	1. ⎵⎵⎵ , ⎵⎵⎵ , ⎵⎵⎵ Rp → **ND11** 7. REFUSED TO ANSWER 8. DON'T KNOW	1. ⎵⎵⎵ , ⎵⎵⎵ , ⎵⎵⎵ Rp → **ND11** 7. REFUSED TO ANSWER 8. DON'T KNOW	1. ⎵⎵⎵ , ⎵⎵⎵ , ⎵⎵⎵ Rp → **ND11** 7. REFUSED TO ANSWER 8. DON'T KNOW
ND10.	Was it […]?	1. ≥ 4 mil → 11. ≥ 8 mil 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil 22. < 2 mil 28. DK 98. DK	1. ≥ 4 mil → 11. ≥ 8 mil 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil 22. < 2 mil 28. DK 98. DK	1. ≥ 4 mil → 11. ≥ 8 mil 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil 22. < 2 mil 28. DK 98. DK	1. ≥ 4 mil → 11. ≥ 8 mil 12. < 8 mil 18. DK 2. < 4 mil → 21. ≥ 2 mil 22. < 2 mil 28. DK 98. DK
ND10a	INTERVIEWER CHECK: IF THE ANSWER IN NDTYPE = K, L, M, N, O, Q, R?	No ....3 →ND11 Yes ....1→Next Coloum	No ....3 →ND11 Yes 1→Next Coloum	No ....3 →ND11 Yes 1→Next Coloum	No ....3 →ND11 Yes 1→Section BH

SECTION ND (NATURAL DISASTER)

	TYPE OF DISASTER? NDTYPE	1. ⌊⌋ _____	2. ⌊⌋ _____	3. ⌊⌋ _____	4. ⌊⌋ _____
ND11.	Was any member of the household died/killed or lost because of […]	6. No One 1. ⌊⌋⌊⌋⌊⌋ household members	6. No One 1. ⌊⌋⌊⌋⌊⌋ household members	6. No One 1. ⌊⌋⌊⌋⌊⌋ household members	6. No One 1. ⌊⌋⌊⌋⌊⌋ household members
ND12.	Did any member of the household suffer serious injury or illness because of […]	6. No One 1. ⌊⌋⌊⌋⌊⌋ household members	6. No One 1. ⌊⌋⌊⌋⌊⌋ household members	6. No One 1. ⌊⌋⌊⌋⌊⌋ household members	6. No One 1. ⌊⌋⌊⌋⌊⌋ household members
ND13.	What was the out of pocket medical cost and/or funeral cost that this household had to pay?	⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋ Rp	⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋ Rp	⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋ Rp	⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋ Rp
ND14.	Was the house where you were living at the time the […] disaster damaged or destroyed?	6. Not damaged ➔ **ND16** 1. Lightly damaged 2. Heavily damaged 3. Destroyed	6. Not damaged ➔ **ND16** 1. Lightly damaged 2. Heavily damaged 3. Destroyed	6. Not damaged ➔ **ND16** 1. Lightly damaged 2. Heavily damaged 3. Destroyed	6. Not damaged ➔ **ND16** 1. Lightly damaged 2. Heavily damaged 3. Destroyed
ND15.	Did you repair or rebuild your house?	No ..... 3 Yes..... 1	No ..... 3 Yes..... 1	No ..... 3 Yes..... 1	No ..... 3 Yes..... 1
ND16.	Did you receive any assistance from government and non-government organizations? (exclude family and friends) If yes, from whom?	W ➔ **ND18** A B C D E F G H	W ➔ **ND18** A B C D E F G H	W ➔ **ND18** A B C D E F G H	W ➔ **ND18** A B C D E F G H
ND17.	What was the amount the assistance you received?	⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋ Rp	⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋ Rp	⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋ Rp	⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋, ⌊⌋⌊⌋⌊⌋ Rp
ND18.	After the […] disaster, did any member of your household spend any time living without housing , or in temporary housing?	No ..... 3➔**ND04 NEXT COL /SECTION BH** Yes..... 1	No..... 3➔**ND04 NEXT COL /SECTION BH** Yes 1	No ..... 3➔**ND04 NEXT COL /SECTION BH** Yes..... 1	No..... 3 **/SECTION BH** Yes 1
ND19.	Was this place a […]?	A B C D E F G H I	A B C D E F G H I	A B C D E F G H I	A B C D E F G H I
ND20.	For how long did the household member(s) live in the temporary housing? **IF THERE ARE MULTIPLE HHM AND THE LENGTH OF TIME LIVING IN TEMPORARY HOUSING ARE DIFFERENT, ASK ABOUT THE ONE WHO LIVED IN TEMPORARY HOUSING FOR THE LONGEST TIME**	1. ⌊⌋⌊⌋ 01. Days 02. Weeks 03. Months 04. Years 6. Still living there	1. ⌊⌋⌊⌋ 01. Days 02. Weeks 03. Months 04. Years 6. Still living there	1. ⌊⌋⌊⌋ 01. Days 02. Weeks 03. Months 04. Years 6. Still living there	1. ⌊⌋⌊⌋ 01. Days 02. Weeks 03. Months 04. Years 6. Still living there
ND21	Have you returned or do you expect to return?	1. Yes 2. No, but plan to return 3. No, do not plan to return ➔ **ND04 KOLOM B / SECTION BH**	1. Yes 2. No, but plan to return 3. No, do not plan to return ➔ **ND04 KOLOM B / SECTION BH**	1. Yes 2. No, but plan to return 3. No, do not plan to return ➔ **ND04 KOLOM B / SECTION BH**	1. Yes 2. No, but plan to return 3. No, do not plan to return ➔ **SECTION BH**

KODE ND16:

A. Central government
B. Regional government
C. Religious groups
D. Political organizations
E. Other domestic NGOs
F. Private donors
G. Firms/corporations
H. Foreign government/NGO/donors
W. Not received assistance

KODE ND19:

A. Private home-family
B. Private home-friend or neighbor
C. Private home-Other
D. Place of worship
E. Offices/schools
F. Camp site
G. Barracks
H. Tent outside the camp site
I. Open space

SECTION BH (BORROWING)

Now we would like to ask you about your loans from non-family or friends in the last 12 months.

BH00.	Do you or any other household member know of a place where you can borrow money?	No.....3 Yes.....1
BH01.	What type of place is this? **(CIRCLE ALL THAT APPLY)**	A B C D E F G H I J K L M N O Y V
BH01a.	Do you know about the KUR (People's Business Credit)?	No.....3 ➔ **BH02** Yes.....1
BH01b.	Do you or Other household member ever get a loan from KUR?	No.....3 ➔ **BH02** Yes.....1
BH01c.	Who are getting KUR at household?	1. _____ AR00 ⌊_⌋⌊_⌋ 2. _____ AR00 ⌊_⌋⌊_⌋ 3. _____ AR00 ⌊_⌋⌊_⌋
BH01d.	Over the past 12 months, how many times you or household member get a loan from the KUR?	⌊_⌋⌊_⌋ times
BH01e.	Over the past 12 months, how many rupiahs the amount of loans obtained you or household member of KUR?	⌊_⌋⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋⌊_⌋ Rp. .....1 DON'T KNOW 8
BH01f.	When the last time you or other household member received a loan from the KUR?	⌊_⌋⌊_⌋ / ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ MONTH / Year
BH01g.	At the last moment to get a loan from the KUR, how many rupiahs the amount of loans obtained you or houshold member ?	⌊_⌋⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋⌊_⌋ Rp. .....1 DON'T KNOW 8
BH01h.	What these loans are used?	⌊_⌋⌊_⌋
BH02.	Did you or other member of the household try to borrow any money or goods from a source other than your family or friends over the past 12 months?	No.....3 ➔ **SECTION CP** Yes.....1
BH03.	Which household member tried to borrow money or goods from a source other than your family or friends over the past 12 months? **(CIRCLE ALL THAT APPLY)**	A B C C1 D D1 E E1 F F1 G G1 I I1 J J1 K K1 L L1 M M1 P P1 Q Q1 R R1 U U1 V
BH04.	Were you or other member of the household turned down in your efforts to secure a loan over the past 12 months?	No.....3 ➔ **BH07** Yes.....1
BH05.	Which household member were turned down in the efforts to secure a loan over the past 12 months?	A B C C1 D D1 E E1 F F1 G G1 I I1 J J1 K K1 L L1 M M1 P P1 Q Q1 R R1 U U1 V
BH06.	Who did turn down your/other household member efforts to secure a loan? **(CIRCLE ALL THAT APPLY)**	A B C D E F G H I J K L M N O Y V

SECTION BH (BORROWING)

BL06a.	Why you did not manage to get the loan?	The number is too large ..... 01 Still have a debt that has not paid ..... 02 Can not meet all the requirements ..... 03 Not agree with the method of payment ..... 04 Too many papers to be prepared ..... 05 Others 95
BH07.	Were you or other member of the household successful in securing a loan in the past 12 months?	No ..... 3 ➔ **SECTION CP** Yes 1
BH08.	Which member of the household were successful in securing a loan in the past 12 months? **(CIRCLE ALL THAT APPLY)**	A B C C1 D D1 E E1 F F1 G G1 I I1 J J1 K K1 L L1 M M1 P P1 Q Q1 R R1 U U1 V
BH09.	How many times did you or other member of the household borrow from a source other than your family or friends over the past 12 months?	⌊_⌋⌊_⌋ times
BH10.	How much did you or other member of the household borrow from a source other than your family or friends over the past 12 months?	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rupiah 8. DON'T KNOW

Code for BH01, BH06

A. Private commercial bank
B. Cooperative
C. Government/semi-government bank
D. Agricultural bank/SAPRODI
E. Employer
F. Landlord
G. Store Owner
H. Non-government organization
I. Neighborhood association
J. Arisan
K. Small farmers group (*kelompok petani kecil)*
L. Money lender
M. Office
N. Pawnshop
O. Non-bank financial institution
V. Other
Y. DON'T KNOW

Code for BH01h

01. Birth
02. Death
03. Marriage
04. Dowry
05. Social ceremony
06. To buy household goods
07. Medication
08. Education
09. Home renovation
10. To buy house
11. To buy agriculture inputs (seeds, pesticides, etc.)
12. To buy/repair agriculture equipment
13. To buy land
14. To buy cattle
15. To buy inputs for poultry
16. Fishing business
17. To buy/repair *Becak* (commercial tri-cycle)
18. To buy/repair Boat
19. To buy/repair Fishing nets
20. Material for cottage industry
21. Capital for other businesses
22. Daily expenses
23. Rotating credit association (*Arisan*)
24. To help HH members, family or friends
25. To buy or repair vehicle
26. Debt repayment
27. Transport/travel
95. Other

Code BH03, BH05, BH08, BH13 AND BH15

A. Respondent
B. The Spose of Respondent's
C. Respondent's biological children and wife/husband Male
C1. Respondent's biological children and wife/husband Female
D. Respondent's Father
D1 Respondent's Mother
E. Respondent's father's-in-law
E1 Respondent's mother's-in-law
F. Broters
F1. Sisters
G. Respondent's brother/
G1. Respondent's sister-in-law
I. Grandchild male
I1. Grandchild female
J. Grandfather
J1. Grandmother
K. Uncle
K1. Aaunt
L. Nephew
L1. niece
M. Cousin male
M1 Cousin female
P. Non family male
P1 Non family female
Q. Adopted child male
Q1 Adopted child female
R. Family of spouse male
R1 Family of spouse female
U. Ex-husband
U1 Ex-wife
V. Others

SECTION BH (BORROWING)

Now we would like to ask you about your largest loan in the last 12 months.

BH11.	How much was the largest loan that you or any household member received in the last 12 months?	⌊⌊⌊⌋⌊⌊⌊⌋⌊⌊⌊⌋ Rp.....1 DON'T KNOW 8
BH12.	Was this largest loan co-borrowed by more than one household member?	No.....3 ➔**BH14** Yes 1
BH13.	Which household members was co-borrowers? **(CIRCLE ALL THAT APPLY)**	A B C C1 D D1 E E1 F F1 G G1 I I1 J J1 K K1 L L1 M M1 P P1 Q Q1 R R1 U U1 V
BH14.	Was there any co-borrower from non household member?	No.....3 ➔**BH16** Yes.....1
BH15.	Which non household member was co-borrower? **(CIRCLE ALL THAT APPLY)**	A B C C1 D D1 E E1 F F1 G G1 I I1 J J1 K K1 L L1 M M1 P P1 Q Q1 R R1 U U1 V

BH16.	Where did you receive the loan?	01 02 03 04 05 06 07 08 09 10 11 13 14 15 16 95
BH16a	What is your reason by borrowing from [….]?	A. Simple administration B. Need no collateral C. Close distance D. Low interest E. Flexible time of return F. Having refence from family/friend V. Other
BH17.	How many months ago did you receive this loan?	1. ⌊⌊⌋ Months ago 2. Less than 1 month
BH18.	What was the purpose of loan?	⌊⌊⌋

KODE BH16:

01. Private commercial bank
02. Cooperative
03. Government/semi-government bank
04. Agricultural bank/SAPRODI
05. Employer
06. Landlord
07. Store Owner
08. Non-government organization
09. Neighborhood association
10. Arisan
11. Small farmers group (*kelompok petani kecil)*
13. Money lender
14. Office
15. Pawnshop
16. Non-bank financial institution
95. Lainnya

KODE BH18:

01. Birth
02. Death
03. Marriage
04. Dowry
05. Social ceremony
06. To buy household goods
07. Education
08. Pendidikan
09. Home renovation
10. To buy house
11. To buy agriculture inputs (seeds, pesticides, etc.)
12. To buy/repair agriculture equipment
13. To buy land
14. To buy cattle
15. To buy inputs for poultry
16. Fishing business
17. To buy/repair Becak (commercial tri-cycle)
18. To buy/repair Boat
19. To buy/repair Fishing nets ikan
20. Material for cottage industry
21. Capital for other businesses
22. Daily expenses
23. Rotating credit association (Arisan)
24. To help HH members, family or friends
25. To buy or repair vehicle
26. Debt repayment
27. Transport/travel
95. Other

SECTION BH (BORROWING)

BH19.	Did the loan have to be repaid by a particular date?	DON'T KNOW .....8 ➔**BH21** No .....3 ➔**BH21** Yes 1
BH20.	What was the duration (in months) of the payback period?	⌊_⌋⌊_⌋⌊_⌋ Month
BH21.	How much the amount of loan payback (including interest)?	1. ⌊_⌋⌊_⌋⌊_⌋ , ⌊_⌋⌊_⌋⌊_⌋ , ⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW
BH22.	How much of the loan have you paid up till now?	1. ⌊_⌋⌊_⌋⌊_⌋ , ⌊_⌋⌊_⌋⌊_⌋ , ⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW
BH25.	In addition to cash, what kind of in-kind payments were made to repay the loan? **(CIRCLE ALL THAT APPLY)**	None .....W Labour .....B Crops .....C Assets .....D Other V
BH26.	What was given as collateral for this loan? **(CIRCLE ALL THAT APPLY)**	Nothing .....W Land .....B Gold .....C Crops .....D Homestead .....E Valuable Certificate/Document .....F Household appliances .....G Vehicle .....H Livestock .....I Other V

SECTION CP (INTERVIEW SESSION NOTES)

EVALUATION FORM FOR BOOK 2

CP1. WHO ELSE (OTHER PERSONS) BESIDES RESPONDENT WAS PRESENT DURING THE INTERVIEW?
ANSWER MAY BE MORE THAN ONE.

A. NO ONE
B. A CHILD 5 YEARS OLD OR UNDER
C. A CHILD OLDER THAN 5 YEARS OLD
D. HUSBAND/WIFE
E. AN ADULT, A HOUSEHOLDER
F. AN ADULT, NOT A HOUSEHOLDER

CP2. WHAT IS YOUR EVALUATION OF THE ACCURACY OF RESPONDENT'S ANSWERS?

1. EXCELLENT
2. GOOD
3. FAIR
4. NOT SO GOOD
5. VERY BAD

CP3. WHAT IS YOUR EVALUATION ON THE SERIOUSNESS AND ATTENTIVENESS OF THE RESPONDENT?

1. EXCELLENT
2. GOOD
3. FAIR
4. NOT SO GOOD
5. VERY BAD

CP4. WHAT QUESTIONS DID RESPONDENT FIND DIFFICULT, EMBARRASSING, OR CONFUSING?

_____

_____

_____

CP5. WHAT QUESTIONS DID INTERVIEWER FIND DIFFICULT, EMBARRASSING, OR CONFUSING?

_____

_____

_____

CP6. WHAT QUESTIONS DID RESPONDENT SEEM INTERESTED IN?

_____

_____

_____

NOTES:

_____

_____

_____

_____

_____

_____

_____

_____

EDITOR : _____ └┴┴┘ **CONFIDENTIAL** HHID : └┴┴┘ └┴┴┘ └┴┴┘ └┴┴┘

INTERVIEWER : _____ └┴┴┘

INDONESIA FAMILY LIFE SURVEY EAST 2012

BOOK IIIA

SECTIONS: DL, SW, HR, HI, KW, PK, BR, MG, TK, RE, TR, CP

Respondent is an adult 15 years or older

TO BE FILLED OUT BY INTERVIEWER WHO COMPLETED ROSTER AR: **PID**

RESPONDENT'S NAME: _____ └┴┘

COV1. RESPONDENT IS:
Head of Household (AR02b=01).....1
Spouse of Household (AR02b=02) 2
Other Householder.....3

COV1b. Do you have a :

A. ID Card (KTP) — 1. Yes, can show ID card; 2. Yes, cannot show ID card; 3. Do not have ID

B. Driver's License (SIM) — 1. Yes 3. No

C. Passport — 1. Yes 3. No

TO BE FILLED OUT BY INTERVIEWER FOR BOOK III

QUESTIONS FOR RESPONDENT:

COV3. How old are you? ..... └┴┴┘ year

COV4. What is your marital status:
Single ..... 1 Divorced 4
Married ..... 2 Widow/er 5
Separated..... 3

COV5. Sex: Male.....1
Female 3

COV6. Date of Birth:..... └┴┘ / └┴┘ / └┴┴┴┘
Day Month Year

INDONESIAN LANGUAGE CODES

00. Indonesian
01. Javanese
02. Sundanese
03. Balinese
04. Batak
05. Bugis
06. Chinese
07. Maduranese
08. Sasak
09. Minang
10. Banjar
11. Bima
12. Makassar
13. Nias
14. Palembang
15. Sumbawa
16. Toraja
17. Lahat
18. Other South Sumatra
19. Betawi
20. Lampung
96. NO OTHER
95. Other____

 # INTERVIEW SESSIONS OF BOOK IIIA: └┘ **(NUMVIS)**

INTERVIEW	1	2	3
DATE:	└┴┘/ └┴┘/ └┴┴┴┘ DAY MONTH YEAR	└┴┘/ └┴┘/ └┴┴┴┘ DAY MONTH YEAR	└┴┘/ └┴┘/ └┴┴┴┘ DAY MONTH YEAR
TIME STARTED:	└┴┘ / └┴┘ HOUR / MINUTE	└┴┘ / └┴┘ HOUR / MINUTE	└┴┘ / └┴┘ HOUR / MINUTE
TIME FINISHED:	└┴┘ / └┴┘ HOUR / MINUTE	└┴┘ / └┴┘ HOUR / MINUTE	└┴┘ / └┴┘ HOUR / MINUTE

CK1. Interview was entirely/mostly conducted in what language?

└┴┘ Other_____

CK2. Other language used (if any):

└┴┘ Other_____

C1. INTERVIEW OF BOOK IIIA	C2.REASON CODE FOR ANSWER "3"/"2" ON C1	C3.EDITOR REVIEW	C4. SUPERVISOR MONITORING
1. Completed ➔**C3** 2. Partially completed 3. Not completed	1. Respondent was not at home/not available 2. Respondent was seriously ill 3. Respondent refused (to be interviewed) 5. Other: _____	1. Entered, no corrections necessary 2. Entered AND corrected 4. Manual edit without CAFÉ 3. Entered, but not corrected, explain: _____	Yes No a. Observed ..... 1 3 b. Edited ..... 1 3 c. Verified..... 1 3

SECTION DL (EDUCATION)

The following questions pertain to your education.

DL01a.	What languages do you speak in your daily life at home? **(CIRCLE ALL THAT APPLY)**	Indonesian ..... W Javanese ..... A Sundanese ..... B Balinese ..... D Batak ..... G Bugis ..... H Chinese ..... I Maduranese ..... C Sasak ..... E Minang ..... F Banjar ..... J Bima ..... L Makassar ..... M Nias ..... N Palembang ..... O Sumbawa ..... P Toraja ..... Q Lahat ..... R Other South Sumatra ..... S Betawi ..... T Lampung ..... U Other_____ V
DL01f.	What is your ethinicity? **(CIRCLE ALL THAT APPLY)**	A B C D E F G H I J K L M N O P Q R S T U A1 B1 C1 D1 E1 F1 G1 V_____
DL01g.	What is your father's ethinicity? **(CIRCLE ALL THAT APPLY)**	A B C D E F G H I J K L M N O P Q R S T U A1 B1 C1 D1 E1 F1 G1 V_____
DL01h.	What is you rmother's ethinicity? **(CIRCLE ALL THAT APPLY)**	A B C D E F G H I J K L M N O P Q R S T U A1 B1 C1 D1 E1 F1 G1 V_____

CODE DL01f, DL01g, DL01h

Jawa ..... A	Bima-Dompu ..... K	Ambon ..... U
Sunda ..... B	Makassar L	Manado A1
Bali C	Nias ..... M	Aceh B1
Batak ..... D	Palembang ..... N	Other South Sumatera C1
Bugis ..... E	Sumbawa ..... O	Banten D1
Tionghoa ..... F	Toraja ..... P	Cirebon E1
Madura ..... G	Betawi ..... Q	Gorontalo F1
Sasak ..... H	Dayak ..... R	Kutai G1
Minang I	Melayu ..... S	Other_____ V
Banjar ..... J	Komering ..... T	

DL01e.	Which ethnical group is primarily influential in daily activities of your household?	01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 25 26 27 28 29 95_____
DL02.	Can you read an Indonesian-language newspaper?	Yes. ..... 1 No 3
DL02a.	Can you read a newspaper in another language?	Yes. ..... 1 No 3
DL03.	Can you write a letter in Indonesian?	Yes. ..... 1 No 3
DL03a.	Can you write a letter in another language?	Yes. ..... 1 No 3
DL3b	Do you have cell phone?	Yes. ..... 1 No ..... 3 **→DL3d**
DL3c	What do you ussually use the cell phone for?	A.Private conversation B.Bussiness Conversation C.Text Message D.Email E.Social Media (chatting,facebook,Twitter) F.Mobile Banking G.Transfer phone minutes H. entertaintment/multimedia (games, ringtone, TV, Radio,MP3)
DL3d	Do you have internet access?	No ..... 3 **→DL04** Yes. 1
DL3e	Where do you get internet access?	A.Computer at home B.Computer at school C.Computer at place of work D.Computer at Internet Cafe E.Handphone V.Others
DL04.	Have you ever attended/are you attending school?	No ..... 3 **→DL05b** Yes. 1

CODE DL01e

Jawa 01	Bima-Dompu 11	Ambon 21
Sunda 02	Makassar 12	Manado 22
Bali 03	Nias 13	Aceh 23
Batak 04	Palembang 14	Other South Sumatera 24
Bugis 05	Sumbawa 15	Banten 25
Tionghoa 06	Toraja 16	Cirebon 26
Madura 07	Betawi 17	Gorontalo 27
Sasak 08	Dayak 18	Kutai 28
Minang 09	Melayu 19	Other_____ 95
Banjar 10	Komering 20	

SECTION DL (EDUCATION)

DL06.	What is the highest education level attended? **[NOTE TO INTERVIEWER: IF THEY ARE CURRENTLY ATTENDING SCHOOL, RECORD THE LEVEL THEY ARE CURRENTLY ATTENDING]**	ELEMENTARY ..... 02 JUNIOR HIGH GENERAL ..... 03 JUNIOR HIGH VOCATIONAL ..... 04 SENIOR HIGH GENERAL ..... 05 SENIOR HIGH VOCATIONAL ..... 06 COLLEGE (D1, D2, D3) ..... 60 UNIVERSITY (BACHELOR) ..... 61 UNIVERSITY (MASTER) ..... 62 UNIVERSITY (DOCTORATE) ..... 63 ADULT EDUCATION A. ..... 11 ADULT EDUCATION B ..... 12 ADULT EDUCATION C ..... 15 OPEN UNIVERSITY ..... 13 ISLAMIC SCHOOL *(PESANTREN)* ..... 14 SCHOOL FOR DISABLED ..... 17 ISLAMIC ELEMENTARY SCHOOL *(MADRASAH IBTIDAIYAH)* ..... 72 JUNIOR/HIGH SCHOOL *(MADRASAH TSANAWIYAH)* ..... 73 ISLAMIC SENIOR HIGH SCHOOL (*MADRASAH AALIYAH)* ..... 74 KINDERGARTEN ..... 90 DON'T KNOW ..... 98 OTHER: 95
DL07.	What is the highest grade completed at that school?	Did not complete first grade at that level ..... 00 1 ..... 01 5 ..... 05 2 ..... 02 6 ..... 06 3 ..... 03 Graduated ..... 07 4 ..... 04 DON'T KNOW 98
DL05a.	At what age did you first attend the elementary school?	⌊_⌊_⌋ Age
DL05b.	Did you attend a kindergarten?	No ..... 3 ➔ **DL05d** Yes. 1
DL05c.	At what age did you first attend the kindergarten?	⌊_⌊_⌋ Age
DL05d.	Did you attend a playgroup, *PAUD*?	No ..... 3 ➔ **DL05** Yes. 1

DL05e.	At what age did first you attend the playgroup?	⌊_⌊_⌋ Age
DL05.	**INTERVIEWER CHECK COV3:**	**RESPONDENT'S AGE ≥50 YEARS ..... 1 ➔ SECTION SW** **RESPONDENT'S AGE < 50 YEARS 3**
DL05f.	**INTERVIEWER CHECK DL04: (EVER /CURRENTLY ATTEND SCHOOL)**	**DL04=3 ..... 3 ➔ SECTION SW** **DL04=1 ..... 1**
DL06x.	**INTERVIEWER CHECK DL06: 14 (PESANTREN)?**	**NO ..... 3** **YES ..... 1➔ SECTION SW**
DL07a.	Are you currently attending school?	No ..... 3 ➔ **DL08b** Yes 1
DL07aa.	How many effective hours did you attend your school last week or the last week the school was in session? (**NOT INCLUDING BREAKS**)	⌊_⌊_⌋ hours
DL08b.	**INTERVIEWER CHECK DL06: HIGHEST LEVEL OF SCHOOLING ATTENDED/CURRENTLY ATTENDING**	ELEMENTARY ..... 1 JUNIOR HIGH ..... 2 SENIOR HIGH ..... 3 D1, D2, D3, UNIVERSITY 4
DL09b.	**INTERVIEWER CHECK DL08b AND WRITE DOWN THE NUMBER OFCOLUMNS ACCORDING TO THE HIGHEST LEVEL OF SCHOOLING**	⌊_⌋ columns **COMPLETE DL10-DL16j FOR EACH LEVEL OF SCHOOLING EVER ATTENDED**

SECTION DL (EDUCATION)

Now we want to ask about your education history.

School Level (DL2TYPE)	1. Elementary	2. Junior High	3. Senior High	4. D1, D2, D3//University
DL10. What is the school level you attended or you are still attending?	Elementary ....02 Adult Education A....11 School for Disabled ....17 Madrasah Elementary ....72 Other 95	Junior high general ....03 Junior high vocational ....04 Adult Education B ....12 School for Disabled....17 Madrasah Junior High School....73 Other....95	Senior high general .... 05 Senior high vocational .... 06 Adult Education C.... 15 School for Disabled.... 17 Madrasah Senior High School.... 74 Other.... 95	College (D1, D2, D3) ....60 University (BA) ....61 University (MA)....62 University (PhD) ....63 Open University....13 Other 95
DL11. Under whose administration is/was the school?	Public non-religious....01 Public religious ....02 Private non-religious ....03 Private Islam ....04 Private Catholic ....05 Private Protestant and others....06 Private Buddhist ....08 Other 95	Public non-religious....01 Public religious....02 Private non-religious ....03 Private Islam ....04 Private Catholic....05 Private Protestant and others....06 Private Buddhist....08 Other....95	Public non-religious .... 01 Public religious .... 02 Private non-religious.... 03 Private Islam.... 04 Private Catholic .... 05 Private Protestant and others .... 06 Private Buddhist .... 08 Other.... 95	Public non-religious ....01 Public religious ....02 Private non-religious....03 Private Islam....04 Private Catholic ....05 Private Protestant and others....06 Private Buddhist ....08 Other 95
DL11aa. Have you been following adult education A, B or C ?	YES....1 NO....3	YES....1 NO 3	YES .... 1 NO 3	
DL16xa. INTERVIEWER CHECK DL06 AND DL07a: CURRENTLY IN SCHOOL AT THIS [...] LEVEL?	**NO....3➔DL16j** **YES....1**	**NO ....3➔DL16j** **YES....1**	**NO .... 3➔DL16j** **YES 1**	**NO....3➔DL16j** **YES....1**
DL16f. What is the name and address of the school? 1. Specify 3. Same as current residence 8. DON'T KNOW (DK)	1. Name : 8. DK 1. ________ 1. Address: 8. DK 1. ________ 1. Loc. Note: 8. DK 1. ________ A. Vill: 1. ____ 3. Same 8. DK B. Kec: 1. ____ 3. Same 8. DK C. Kab: 1. ____ 3. Same 8. DK D. Prov: 1. ____ 3. Same 8. DK **CODE CF**	1. Name : 8. DK 1. ________ 1. Address: 8. DK 1. ________ 1. Loc. Note: 8. DK 1. ________ A. Vill: 1. ____ 3. Same 8. DK B. Kec: 1. ____ 3. Same 8. DK C. Kab: 1. ____ 3. Same 8. DK D. Prov: 1. ____ 3. Same 8. DK **CODE CF**	1. Name : 8. DK 1. ________ 1. Address: 8. DK 1. ________ 1. Loc. Note: 8. DK 1. ________ A. Vill: 1. ____ 3. Same 8. DK B. Kec: 1. ____ 3. Same 8. DK C. Kab: 1. ____ 3. Same 8. DK D. Prov: 1. ____ 3. Same 8. DK **CODE CF**	1. Name : 8. DK 1. ________ 1. Address: 8. DK 1. ________ 1. Loc. Note: 8. DK 1. ________ A. Vill: 1. ____ 3. Same 8. DK B. Kec: 1. ____ 3. Same 8. DK C. Kab: 1. ____ 3. Same 8. DK D. Prov: 1. ____ 3. Same 8. DK **CODE CF**
DL16j. Approximately how much time does it take to make a one-way trip to the school, now/in your last year of school at this level.	1. ___ Minute ....1 Hour ....2 8. DON'T KNOW **➔ DL10 NEXT COLUMN/DL16xb**	1. ___ Minute ....1 Hour....2 8. DON'T KNOW **➔ DL10 NEXT COLUMN/DL16xb**	1. ___ Minute....1 Hour....2 8. DON'T KNOW **➔ DL10 NEXT COLUMN/DL16xb**	1. ___ Minute ....1 Hour ....2 8. DON'T KNOW **➔ DL16xb**

IDRT ___ ___ ___ ___ **NO URUT ART** ___

SECTION DL (EDUCATION)

DL16xb.	**INTERVIEWER CHECK**	**RESPONDENT AGE ≥30.....2➔DL16xc** **RESPONDENT AGE <30 .....3➔COMPLETE DL16a-DL16i FOR ALL LEVELS OF SCHOOLING EVER ATTENDED**

	School Level (DL2TYPE)	1. Elementary	2. Junior High	3. Senior High	4. D1, D2, D3//University
DL16a.	Have you ever taken the EBTANAS/UAN/UN exam at [...] level?	No..... 3 ➔ **DL16g** EBTANAS ..... 1 UAN/UN 2	No ..... 3➔ **DL16g** EBTANAS ..... 1 UAN/UN 2	No..... 3 ➔ **DL16g** EBTANAS ..... 1 UAN/UN..... 2	
DL16b.	Can you show us the official record of your EBTANAS/UAN/UN score (DANEM)? **INTERVIEWER NOTE:** **EBTANAS/UAN/UN SCORES SHOULD BE COPIED FROM THE OFFICIAL RECORD (DANEM)?UAN/UN**	Yes ..... 1 No 3	Yes ..... 1 No 3	Yes ..... 1 No 3	
DL16c.	What month and year did you take the EBTANAS/UAN/UN [...]?	1. ⌊_⌋⌊_⌋ / ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ Month Year 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ / ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ Month Year 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ / ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ Month Year 8. DON'T KNOW	
DL16c1.	**INTERVIEWER CHECK DL16a: EBTANAS/UAN/UN**	EBTANAS ..... 1 UAN/UN 2	EBTANAS .....1 UAN/UN 2	EBTANAS..... 1 UAN/UN..... 2	
DL16c2	Number of subjects tested in the national exam (EBTANAS/UAN/UN) for the […] school level:	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	
DL16d.	What was your ebtanas score for the following subjects: (If the respondent shows you official record (*DANEM*) copy from danem, if you cannot see official record (*DANEM*) ask the respondent for their score).				
	A. Moral and Civic Education from the nation's five principal/*Pancasila* (PMP/PPKn)	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	
	B. Indonesian	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	
	C. English	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	
	D. Math	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	

SECTION DL (EDUCATION)

	School Level (DL2TYPE)	1. Elementary	2. Junior High	3. Senior High	4. D1, D2, D3//University
	E. Science	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW		
	I. Social studies	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW		
	F. Biology			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	
	G. Chemistry			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	
	H. Physics			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	
	J. Economics			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	
	K. Sociology			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	
	L. Anthropology			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	
	M. Government			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	
	N. Accounting			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	
	T. Total score for other subjects not listed above:	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	
DL16e.	**Total EBTANAS/UAN/UN**	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 8. DON'T KNOW	
DL16g.	How many hours on average do you attend school each day now/in your last year at school? **FILL IN '96' IF THE RESPONDENT IS COMPLETING THEIR THESIS, ETC.**	⌊_⌋⌊_⌋ Hours/Day	⌊_⌋⌊_⌋ Hours/Day	⌊_⌋⌊_⌋ Hours/Day	⌊_⌋⌊_⌋ Hours/Day
DL16i.	Approximately how many students are/were in your class now/in last year of school attended at this level?	⌊_⌋⌊_⌋ Person(s) ..... 1 DON'T KNOW ..... 8 ➔ **DL16a NEXT COLUMN/DL16xc**	⌊_⌋⌊_⌋ Person(s) ..... 1 DON'T KNOW ..... 8 ➔ **DL16a NEXT COLUMN/DL16xc**	⌊_⌋⌊_⌋ Person(s) ..... 1 DON'T KNOW ..... 8 ➔ **DL16a NEXT COLUMN/DL16xc**	⌊_⌋⌊_⌋ Person(s) ..... 1 DON'T KNOW ..... 8 ➔ **DL16xc**

SECTION DL (EDUCATION)

DL16xc.	INTERVIEWER CHECK DL06	⌊__⌋ columns	WRITE DOWN THE NUMBER OF COLUMNS ACCORDING TO LEVELS OF SCHOOLING EVER ATTENDED

	School Level (DL2TYPE)	1. Elementary	2. Junior High	3. Senior High	4. D1, D2, D3//University
DL11a.	When did you first attended schooling at this level ?	1. Year: ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ **➔DL11c** 8. DON'T KNOW	1. Year: ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ **➔DL11c** 8. DON'T KNOW	1. Year: ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ **➔DL11c** 8. DON'T KNOW	1. Year: ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ **➔DL11c** 8. DON'T KNOW
DL11b.	At what age did you first attended schooling at this level?	⌊_⌋⌊_⌋ years old	⌊_⌋⌊_⌋ years old	⌊_⌋⌊_⌋ years old	⌊_⌋⌊_⌋ years old
DL11c.	What is the highest grade you have ever/are currently enrolled in at this level?	Graduated ..... 07**➔DL11f** 1 ..... 01 2 ..... 02 3 ..... 03 4 ..... 04 5 ..... 05 6 ..... 06 DON'T KNOW 98	Graduated ..... 07**➔DL11f** 1 ..... 01 2 ..... 02 3 ..... 03 DON'T KNOW 98	Graduated ..... 07**➔DL11f** 1 ..... 01 2 ..... 02 3 ..... 03 DON'T KNOW 98	Graduated ..... 07**➔DL11f** Year 1 ..... 01 Year 2 ..... 02 Year 3 ..... 03 Year 4 ..... 02 Year 5 ..... 03 Year 6 ..... 02 DON'T KNOW 98
DL11d.	Did you completed this level of schooling […] ?	Yes ..... 1**➔DL11f** Still in school ..... 6**➔DL13** No 3	Yes ..... 1**➔DL11f** Still in school ..... 6**➔DL13** No 3	Yes ..... 1**➔DL11f** Still in school ..... 6**➔DL13** No 3	Yes ..... 1**➔DL11f** Still in school ..... 6**➔DL14a** No 3
DL11e.	Why did you leave this level of schooling?	B C D E F G H I K L M V	B C D E F G H I K L M V	B C D E F G H I K L M V	B C D E F G H I K L M V

Code DL11e

Working/helping to earn income ..... B	Not able to study ..... E	School had no teachers ..... H	Help at home L
Could not afford C	Not admitted at school ..... F	School closed/ruined I	Marriage ..... M
No schools/schools too far ..... D	Sick or disabled ..... G	Doesn't want to go ..... K	Others V

	School Level (DL2TYPE)	1. Elementary	2. Junior High	3. Senior High	4. D1, D2, D3//University
DL11f.	When did you leave/graduate from this [...] level of schooling?	1. Year ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ **➔DL13** 8. DON'T KNOW	1. Year ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ **➔DL13** 8. DON'T KNOW	1. Year ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ **➔DL13** 8. DON'T KNOW	1. Year ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ **➔DL14a** 8. DON'T KNOW
DL11g.	At what age did you leave/graduate from this […] level of schooling?	⌊_⌋⌊_⌋ years old	⌊_⌋⌊_⌋ years old	⌊_⌋⌊_⌋ years old	⌊_⌋⌊_⌋ years old
DL13.	Have you ever failed a grade at [...] school ?	No ..... 3 **➔DL14a** Yes 1	No ..... 3 **➔DL14a** Yes 1	No ..... 3 **➔DL14a** Yes 1	
DL14.	What grades have you failed and how many times did you repeat that grade? **CIRCLE ALL THAT APPLY**	Class / Number of repeats / Class / Number of repeats A. 1 ⌊_⌋ times D. 4 ⌊_⌋ times B. 2 ⌊_⌋ times E. 5 ⌊_⌋ times C. 3 ⌊_⌋ times F. 6 ⌊_⌋ times	Class / Number of repeats A. 1 ⌊_⌋ times B. 2 ⌊_⌋ times C. 3 ⌊_⌋ times	Class / Number of repeats A. 1 ⌊_⌋ times B. 2 ⌊_⌋ times C. 3 ⌊_⌋ times	

SECTION DL (EDUCATION)

	School Level (DL2TYPE)	1. Elementary	2. Junior High	3. Senior High	4. D1, D2, D3//University
DL14a.	When you are at this [...] school level, did you ever leave school for 4 consecutive weeks or more, including not enrolling in a full year?	1. Yes➔**DL14b** 3. No	1. Yes➔**DL14b** 3. No	1. Yes➔**DL14b** 3. No	1. Yes➔**DL14b** 3. No
DL14aa	When you are at this [...] school level, did you ever leave school for 2 consecutive weeks or more, including not enrolling in a full year?	3. No ➔**DL15** 1. Yes	3. No ➔**DL15** 1. Yes	3. No ➔**DL15** 1. Yes	3. No ➔**DL15** 1. Yes
DL14b.	How many times did the school disruptions occur?	Class / Number of disruptions / Class / Number odisruptions A. 1 ⌴ times D. 4 ⌴ times B. 2 ⌴ times E. 5 ⌴ times C. 3 ⌴ times F. 6 ⌴ times	Class / Number of disruptions A. 1 ⌴ times B. 2 ⌴ times C. 3 ⌴ times	Class / Number of disruptions A. 1 ⌴ times B. 2 ⌴ times C. 3 ⌴ times	Year / Number of disruptions A. 1 ⌴ times B. 2 ⌴ times C. 3 ⌴ times
DL14c.	When did the school disruptions occur? **(IF MORE THAN 3 TIMES, WRITE THE THREE LONGEST)**	A. ⌴⌴ / ⌴⌴⌴⌴ to ⌴⌴ / ⌴⌴⌴⌴ Month / Year Month / Year B. ⌴⌴ / ⌴⌴⌴⌴ to ⌴⌴ / ⌴⌴⌴⌴ Month / Year Month / Year C. ⌴⌴ / ⌴⌴⌴⌴ to ⌴⌴ / ⌴⌴⌴⌴ Month / Year Month / Year	A. ⌴⌴ / ⌴⌴⌴⌴ to ⌴⌴ / ⌴⌴⌴⌴ Month / Year Month / Year B. ⌴⌴ / ⌴⌴⌴⌴ to ⌴⌴ / ⌴⌴⌴⌴ Month / Year Month / Year C. ⌴⌴ / ⌴⌴⌴⌴ to ⌴⌴ / ⌴⌴⌴⌴ Month / Year Month / Year	A. ⌴⌴ / ⌴⌴⌴⌴ to ⌴⌴ / ⌴⌴⌴⌴ Month / Year Month / Year B. ⌴⌴ / ⌴⌴⌴⌴ to ⌴⌴ / ⌴⌴⌴⌴ Month / Year Month / Year C. ⌴⌴ / ⌴⌴⌴⌴ to ⌴⌴ / ⌴⌴⌴⌴ Month / Year Month / Year	A. ⌴⌴ / ⌴⌴⌴⌴ to ⌴⌴ / ⌴⌴⌴⌴ Month / Year Month / Year B. ⌴⌴ / ⌴⌴⌴⌴ to ⌴⌴ / ⌴⌴⌴⌴ Month / Year Month / Year C. ⌴⌴ / ⌴⌴⌴⌴ to ⌴⌴ / ⌴⌴⌴⌴ Month / Year Month / Year
DL14d.	Why did the school disruption occur?	B C D E F G H I K L M V	B C D E F G H I K L M V	B C D E F G H I K L M V	B C D E F G H I K L M V
DL15.	While attending [...] school, did you work?	Yes .... 1 No .... 3 **➔DL11a NEXT COL/DL30**	Yes .... 1 No .... 3 **➔DL11a NEXT COL/DL30**	Yes .... 1 No .... 3 **➔DL11a NEXT COL/DL30**	Yes .... 1 No .... 3 **➔ DL30**

Code DL14d

Working/helping to earn income ....B	Not able to study.................................. E	School had no teachers .... H	Help at home L
Could not afford.....................................C	Not admitted at school ....F	School closed/ruined I	Marriage ....M
No schools/schools too far ....D	Sick or disabled ....G	Doesn't want to go.................................K	Others.. V

SECTION DL (EDUCATION)

We would like to ask about school-related expenses for the previous school year.

DL30.	Did you attend school in the previous school year (starting 2010/2011) ?		No .....3➔ **DL31c** Yes 1
	DL31TYPE		
DL31a.	What were your (approximate) school-related expenses during the 2010/2011 school year? Did you spend money for:	**3. No** **1. Yes**	**DL31b.** Please give your best estimate of the amount you spent.
	T. Total (Fees, supplies, transportation, pocket money, other)	3 ↓ 1 ➔	⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	A. School Fees		
	1. Registration	3 ↓ 1 ➔	⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp. ➔ **DL31bx.** How much is the tuition if you have to pay in full? ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	2. Tuition and other scheduled fees	3 ↓ 1 ➔	⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	3. Exams	3 ↓ 1 ➔	⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	B. School supplies		
	1. Books and writing supplies	3 ↓ 1 ➔	⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	2. Uniform and sports	3 ↓ 1 ➔	⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	C. Transportation and Pocket Money		
	1. Transportation	3 ↓ 1 ➔	⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	2. Housing costs, food	3 ↓ 1 ➔	⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	3. Special courses	3 ↓ 1 ➔	⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	V. Other:	3 ↓ 1 ➔	⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
DL40.	Did [NAME] receive any books from the school during the 2009/2010 school year? **(CIRCLE ALL THAT APPLY)**		Yes, for him/herself..... A Yes, to share..... B No..... C
DL41.	Did the school reduce [NAME] Committee fees or other fees during the 2009/2010 school year?		Yes ..... 1 No..... 3
DL42.	Did [NAME] receive assistance for school costs from GNOTA, School Committee, government, community groups, religious groups, or family (outside HH), or other?		No..... 3➔ **DL31c** Yes 1

SECTION DL (EDUCATION)

DL43. From what source was this assistance, and what was the total value? **(CIRCLE ALL THAT APPLY)**	
T. Total	**T.** ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp.
A. GNOTA	A. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp.
C. Government (other than BOS)	C. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp.
D. Community Group	D. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp.
E. Religious Group	E. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp.
F. Family	F. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp.
I. School Committee	I. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp.
J. BOS/BKM Fund	J. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp.
K. Foreign government/foundation/individual	K. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp.
L. Domestic Non-Government Institution	L. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp.
L1. Aid for poor students	L1 ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp.

SECTION DL (EDUCATION)

DL31c. INTERVIEWER CHECK:	Respondent not in school (DL07a = 3).....3➔SECTION SW Respondent still in school (DL07a = 1).....1

DL44a. What were your (approximate) school-related expenses during the past month? Did you spend money for:		3. No	1. Yes	DL44b. Please give your best estimate of the amount you spent.
T	**Total (Fees, supplies, transportation, pocket money, other)**	3 ↓	1 ➔	⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ Rp.
A.	School Fees			
	1. Registration	3 ↓	1 ➔	⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ Rp.
	2. Other scheduled fees	3 ↓	1 ➔	⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ Rp.➔**DL44bx**. How much is the tuition if you have to pay in full? ⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ Rp.
	3. Exams	3 ↓	1 ➔	⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ Rp.
B.	School supplies			
	1. Books and writing supplies	3 ↓	1 ➔	⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ Rp.
	2. Uniform and sports	3 ↓	1 ➔	⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ Rp.
C.	Transportation and Pocket Money			
	1. Transportation	3 ↓	1 ➔	⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ Rp.
	2. Housing costs, food	3 ↓	1 ➔	⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ Rp.
	3. Special courses	3 ↓	1 ➔	⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ Rp.
V.	Other:	3 ↓	1 ➔	⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ , ⌊__⌋⌊__⌋⌊__⌋ Rp.

SECTION SW (SUBJECTIVE WELLBEING)

We would like to know your opinion on the quality of your life.

SW01. Please imagine a six-step ladder where on the bottom (the first step), stand the poorest people, and on the highest step (the sixth step), stand the richest people. On which step are you today?	Poorest Richest 1 2 3 4 5 6 8. DON'T KNOW
SW02. On which step were you five years ago?	Poorest Richest 1 2 3 4 5 6 8. DON'T KNOW
SW03. On which step do you expect to find five years from now?	Poorest Richest 1 2 3 4 5 6 8. DON'T KNOW
SW12. Taken all things together how would you say things are these days - would you say you were very happy, pretty happy, or not too happy?	Very happy.....1 Happy.....2 Unhappy.....3 Very unhappy.....4

SECTION HR (HOUSEHOLD ASSETS)

HR00a.	**INTERVIEWER CHECK: DID RESPONDENT ALREADY ANSWER BOOK II?**	YES ..... 1 ➔**SECTION HI** NO 3
HR00b.	**Are you currently married?**	No ..... 3 ➔**SECTION HI** Yes 1

Next, we would like to know about assets owned by you or by members of the household but not used for a business. Do not report assets used mostly or only for a business.

TYPE OF ASSETS (HRTYPE)	**HR01.** Do you or does any other member of the household own [...]?	**HR02.** What is the total value of [...] at present?	**HR05.** What is the total income from the rent/lease/interest/ profit sharing of [...] in the past 12 months?	**HR06.** Is the entire [...] owned by the householders?	**HR07.** What is the percentage share of [...] that is owned by the house-holders?	**HR08.** Who outside the household also owns [...]? **(CIRCLE ALL THAT APPLY)**	**HR10.** Which householders own [...]? **(CIRCLE ALL THAT APPLY)**	**HR11.** How many householders own [...]? **(REFER TO ANSWER OF HR10)**	**HR12.** **ONLY IF THE RESPONSE TO HR10 INCLUDES A OR B.** You told me that members of this household own ____% **(RESPONSE FROM HR07)** of the [...]. Of that ____%, how much is owned by you and how much is owned by your spouse?
A. House and land occupied by this household	3. No ➔ **ROW B** 1. Yes➔	1. ⌊_⌊_⌊_⌊,⌊_⌊_⌊_⌊,⌊_⌊_⌊_⌊ Rp. ➔ 7. UNWILLING TO ANSWER➔ 8. DON'T KNOW➔ **HR02p. PROBING** 1. ≥ 20 mil → 11. ≥ 40 mil; 12. < 40 mil; 18. DK 2. < 20 mil → 21. ≥ 10 mil; 22. < 10 mil; 28. DK 98. DK ➔ **HR05 ROW A**	1. ⌊_⌊_⌊_⌊,⌊_⌊_⌊_⌊,⌊_⌊_⌊_⌊ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes ➔ **HR10** 3. No	⌊_⌊_⌊ Percent	B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊_⌊_⌊ Persons **IF 01➔ROW B**	1. A ⌊_⌊_⌊ % B ⌊_⌊_⌊ % 6. Neither A nor B owns 8. DON'T KNOW
B. Other house/ building (including land)	3. No ➔ **ROW C** 1. Yes➔	1. ⌊_⌊_⌊_⌊,⌊_⌊_⌊_⌊,⌊_⌊_⌊_⌊ Rp. ➔ 7. UNWILLING TO ANSWER➔ 8. DON'T KNOW➔ **HR02p. PROBING** 1. ≥ 20 mil → 11. ≥ 40 mil; 12. < 40 mil; 18. DK 2. < 20 mil → 21. ≥ 10 mil; 22. < 10 mil; 28. DK 98. DK ➔ **HR05 ROW B**	1. ⌊_⌊_⌊_⌊,⌊_⌊_⌊_⌊,⌊_⌊_⌊_⌊ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes ➔ **HR10** 3. No	⌊_⌊_⌊ Percent	B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊_⌊_⌊ Persons **IF 01➔ROW C**	1. A ⌊_⌊_⌊ % B ⌊_⌊_⌊ % 6. Neither A nor B owns 8. DON'T KNOW

HR08 AND HR10

A. Respondent
B. Respondent's wife/husband
C. Respondent's biological and in-law
D. Respondent's parents
E. Respondent's parents-in-law
F. Respondent's sibling
G. Respondent's brother/sister-in-law
I. Respondent's grandchild/great grandchild
J. Grandparents
K. Uncle/aunt
L. Nephew/niece
M. Cousin
P. Non family
Q. Step/adopted child
R. Family of spouse
U. Ex spouse
V. Others .....

HR12:

A. Respondent
B. Respondent's spouse

IF A AND B ARE THE ONLY OWNERS IN HOUSEHOLD, THEIR ANSWERS SHOULD SUM TO 100%.
IF MORE HH MEMBERS THAN A AND B ARE OWNERS, THE ANSWERS OF A AND B SHOULD SUM TO LESS THAN 100%.

SECTION HR (HOUSEHOLD ASSETS)

	HR01.	HR02.	HR05.	HR06.	HR07.	HR08.	HR10.	HR11.	HR12.
TYPE OF ASSETS **(HRTYPE)**	Do you or does any other member of the household own [...]?	What is the total value of [...] at present?	What is the total income from the rent/lease/interest/ profit sharing of [...] in the past 12 months?	Is the entire [...] owned by the householders?	What is the percentage share of [...] that is owned by the house-holders?	Who outside the household also owns [...]? **(CIRCLE ALL THAT APPLY)**	Which householders own [...]? **(CIRCLE ALL THAT APPLY)**	How many householders own [...]? **(REFER TO ANSWER OF HR10)**	ONLY IF THE RESPONSE TO HR10 INCLUDES A OR B. You told me that members of this household own ____% (RESPONSE FROM HR07) of the [...]. Of that ____%, how much is owned by you and how much is owned by your spouse?
C. Land (not used for farm nonfarm, or house)	3. No 1. Yes→ ↓ **ROW D1**	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. → 7. UNWILLING TO ANSWER↓ 8. DON'T KNOW↓	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋⌋ Percent	B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋⌋ Persons **IF 01→ROW D1**	1. A ⌊⌊⌋⌋ % B ⌊⌊⌋⌋ % 6. Neither A nor B owns 8. DON'T KNOW
		HR02p. Is it […] 1. ≥ 20 mil → 11. ≥ 40 mil; 12. < 40 mil; 18. DK 2. < 20 mil → 21. ≥ 10 mil; 22. < 10 mil; 28. DK 98. DK → **HR05 ROW C**							
D1. Poultry	3. No 1. Yes→ ↓ **ROW D2**	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋⌋ Percent	B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋⌋ Persons **IF 01→ROW D2**	1. A ⌊⌊⌋⌋ % B ⌊⌊⌋⌋ % 6. Neither A nor B owns 8. DON'T KNOW
D2. Livestock/ fishpond	3. No 1. Yes→ ↓ **ROW D3**	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋⌋ Percent	B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋⌋ Persons **IF 01→ROW D3**	1. A ⌊⌊⌋⌋ % B ⌊⌊⌋⌋ % 6. Neither A nor B owns 8. DON'T KNOW
D3. Hard stem plant that not used for farm or non-farm business	3. No 1. Yes→ ↓ **ROW E**	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋⌋ Percent	B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋⌋ Persons **IF 01→ROW E**	1. A ⌊⌊⌋⌋ % B ⌊⌊⌋⌋ % 6. Neither A nor B owns 8. DON'T KNOW
E. Vehicles (cars, boats, bicycles, motorbikes)	3. No 1. Yes→ ↓ **ROW F**	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋⌋ Percent	B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋⌋ Persons **IF 01→ROW F**	1. A ⌊⌊⌋⌋ % B ⌊⌊⌋⌋ % 6. Neither A nor B owns 8. DON'T KNOW

HR08 AND HR10

A. Respondent
B. Respondent's wife/husband
C. Respondent's biological and in-law
D. Respondent's parents
E. Respondent's parents-in-law
F. Respondent's sibling
G. Respondent's brother/sister-in-law
I. Respondent's grandchild/great grandchild
J. Grandparents
K. Uncle/aunt
L. Nephew/niece
M. Cousin
P. Non family
Q. Step/adopted child
R. Family of spouse
U. Ex spouse
V. Others

HR12:

A. Respondent
B. Respondent's spouse

IF A AND B ARE THE ONLY OWNERS IN HOUSEHOLD, THEIR ANSWERS SHOULD SUM TO 100%.
IF MORE HH MEMBERS THAN A AND B ARE OWNERS, THE ANSWERS OF A AND B SHOULD SUM TO LESS THAN 100%.

SECTION HR (HOUSEHOLD ASSETS)

	HR01.	HR02.	HR05.	HR06.	HR07.	HR08.	HR10.	HR11.	HR12.
TYPE OF ASSETS **(HRTYPE)**	Do you or does any other member of the household own [...]?	What is the total value of [...] at present?	What is the total income from the rent/lease/interest/ profit sharing of [...] in the past 12 months?	Is the entire [...] owned by the householders?	What is the percentage share of [...] that is owned by the house-holders?	Who outside the household also owns [...]? **(CIRCLE ALL THAT APPLY)**	Which householders own [...]? **(CIRCLE ALL THAT APPLY)**	How many householders own [...]? **(REFER TO ANSWER OF HR10)**	ONLY IF THE RESPONSE TO HR10 INCLUDES A OR B. You told me that members of this household own ____% (RESPONSE FROM HR07) of the [...]. Of that ____%, how much is owned by you and how much is owned by your spouse?
F. Household appliances (radio, tape recorder, tv, fridge, sewing or washing machine, VCD player, HP, etc.)	3. No → **ROW G** 1. Yes →	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋ Percent	B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 01→ROW G**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW
G. Savings/ certificate of deposit/ stocks	3. No → **ROW H** 1. Yes →	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋ Percent	B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 01→ROW H**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW
		HR02p. Is it […] 1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil; 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil; 28. DK 98. DK → **HR05 ROW G**							
H. Receivables	3. No → **ROW J** 1. Yes →	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes → **HR10** 3. No	⌊⌊⌋ Percent	B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 01→ROW J**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW

HR08 AND HR10

A. Respondent
B. Respondent's wife/husband
C. Respondent's biological and in-law
D. Respondent's parents
E. Respondent's parents-in-law
F. Respondent's sibling
G. Respondent's brother/sister-in-law
I. Respondent's grandchild/great grandchild
J. Grandparents
K. Uncle/aunt
L. Nephew/niece
M. Cousin
P. Non family
Q. Step/adopted child
R. Family of spouse
U. Ex spouse
V. Others

HR12:

A. Respondent
B. Respondent's spouse

IF A AND B ARE THE ONLY OWNERS IN HOUSEHOLD, THEIR ANSWERS SHOULD SUM TO 100%.
IF MORE HH MEMBERS THAN A AND B ARE OWNERS, THE ANSWERS OF A AND B SHOULD SUM TO LESS THAN 100%.

SECTION HR (HOUSEHOLD ASSETS)

	HR01.	HR02.	HR05.	HR06.	HR07.	HR08.	HR10.	HR11.	HR12.
TYPE OF ASSETS **(HRTYPE)**	Do you or does any other member of the household own [...]?	What is the total value of [...] at present?	What is the total income from the rent/lease/interest/ profit sharing of [...] in the past 12 months?	Is the entire [...] owned by the householders?	What is the percentage share of [...] that is owned by the house-holders?	Who outside the household also owns [...]? **(CIRCLE ALL THAT APPLY)**	Which householders own [...]? **(CIRCLE ALL THAT APPLY)**	How many householders own [...]? **(REFER TO ANSWER OF HR10)**	ONLY IF THE RESPONSE TO HR10 INCLUDES A OR B. You told me that members of this household own ____% (RESPONSE FROM HR07) of the [...]. Of that ____%, how much is owned by you and how much is owned by your spouse?
J. Jewelry	3. No 1. Yes➔ ↓ **ROW K1**	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW		1. Yes ➔ **HR10** 3. No	⌊⌊⌋ Percent	A B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 01➔ROW K1**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW
		HR02p. Is it […] 1. ≥ 4 mil → 11. ≥ 8 mil; 12. < 8 mil; 18. DK 2. < 4 mil → 21. ≥ 2 mil; 22. < 2 mil; 28. DK 98. DK ➔ **HR06 ROW J**							
K1. Household Furniture and Utensils	3. No 1. Yes➔ ↓ **ROW K2**	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW		1. Yes ➔ **HR10** 3. No	⌊⌊⌋ Percent	A B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 01➔ROW K2**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW
K2. Other assets:	3. No 1. Yes➔ ↓ **HR16**	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. 3. NONE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. Yes ➔ **HR10** 3. No	⌊⌊⌋ Percent	A B C D E F G I J K L M P Q R U V	A B C D E F G I J K L M P Q R U V	⌊⌊⌋ Persons **IF 01➔HR16**	1. A ⌊⌊⌋ % B ⌊⌊⌋ % 6. Neither A nor B owns 8. DON'T KNOW

HR08 AND HR10

A. Respondent
B. Respondent's wife/husband
C. Respondent's biological and in-law
D. Respondent's parents
E. Respondent's parents-in-law
F. Respondent's sibling
G. Respondent's brother/sister-in-law
I. Respondent's grandchild/great grandchild
J. Grandparents
K. Uncle/aunt
L. Nephew/niece
M. Cousin
P. Non family
Q. Step/adopted child
R. Family of spouse
U. Ex spouse
V. Others

HR12:

A. Respondent
B. Respondent's spouse

IF A AND B ARE THE ONLY OWNERS IN HOUSEHOLD, THEIR ANSWERS SHOULD SUM TO 100%.
IF MORE HH MEMBERS THAN A AND B ARE OWNERS, THE ANSWERS OF A AND B SHOULD SUM TO LESS THAN 100%.

SECTION HR (HOUSEHOLD ASSETS)

Next we want to inquire about the purchase and sale of non-business assets held by all household members for 12 months.

TYPE OF ASSETS (HR2TYPE)	HR16. What is/was the total value in rupiah of any […] purchased in the past 12 months?	HR17. What is the total value of any […] sold in the past 12 months?
A. House occupied by this household	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 3. NO SALES 7. UNWILLING TO ANSWER 8. DON'T KNOW
B. Other house/building	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 3. NO SALES 7. UNWILLING TO ANSWER 8. DON'T KNOW
C. Land (not used for farm business)	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 3. NO SALES 7. UNWILLING TO ANSWER 8. DON'T KNOW
E. Vehicles (cars, boats, bicycles, motorbikes)	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 3. NO SALES 7. UNWILLING TO ANSWER 8. DON'T KNOW
J. Jewelry	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW
L. Other assets, not used for farm or non-farm business:	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW	1. ⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 3. NO PURCHASE 7. UNWILLING TO ANSWER 8. DON'T KNOW

SECTION HI (NON-LABOR INCOME)

Next, we would like to ask about income you yourself have received from other sources during the past 12 months.

HI14a. INTERVIEWER NOTE: IF INCOME IS SHARED BY SEVERAL HOUSEHOLD MEMBERS, RECORD IN HI14 ONLY THE PORTION OWNED BY THIS RESPONDENT.

SOURCE OF INCOME (HITYPE)	HI14. What is the total income you received from [...] during the past 12 months?		
A. Pension	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp.	3. Did not receive	8. DON'T KNOW
B1. Government scholarship	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp.	3. Did not receive	8. DON'T KNOW
B2. Private scholarship	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp.	3. Did not receive	8. DON'T KNOW
C. Insurance Money	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp.	3. Did not receive	8. DON'T KNOW
D1. Winnings/Lottery	1. ⌊⌊⌊,⌊⌊⌊,⌊⌊⌊ Rp.	3. Did not receive	8. DON'T KNOW

SECTION KW (MARITAL HISTORY)

Now we would like to ask about your marital history.

KW01a	What is your current marital status?	Never married ..... 1➔**SECTION MG** Cohabitation ..... 2 Married, formal (KUA or Civil Registration) ..... 3 Married, formal according to religious law (nikah sirri) ..... 4 Married, formal according to *adat* law ..... 5 Separated ..... 6 Divorced ..... 7 Widow/Widower 8
KW01.	**INTERVIEWER CHECK BOOK COVER: RESPONDENT FEMALE < 50 YEARS (COV3):**	Yes ..... 1➔**SECTION PK** No 3
KW02a.	What is the name of your current/latest spouse?	_____
KW02g.	**INTERVIEWER VERIFY KW02a AND AR00:** **1. If […] lives in the household fill in AR00 (line # from Roster).** **2. If […] died/does not live in household, but registered in the Roster, fill in AR00** **3. If […] is not registered in the Roster**	1. ⌊__⌋⌊__⌋ 2. ⌊__⌋⌊__⌋ 3.
KW02x.	**INTERVIEWER CHECK:** **KW01a = 2 (COHABITATION)?**	Yes ..... 1➔**KW02L** No 3
KW02j.	What was the date of your current/most recent marriage?	1. ⌊__⌋⌊__⌋ / ⌊__⌋⌊__⌋⌊__⌋⌊__⌋ MONTH YEAR 8. DON'T KNOW ➔**KW02n**
KW02L.	When did you start living with your spouse?	1. ⌊__⌋⌊__⌋ / ⌊__⌋⌊__⌋⌊__⌋⌊__⌋ Month Year 8. DON'T KNOW
KW02m.	What was the value of the assets you owned just prior to of your living together with your partner?	⌊__⌋⌊__⌋⌊__⌋,⌊__⌋⌊__⌋⌊__⌋,⌊__⌋⌊__⌋⌊__⌋ Rp. ..... 1 DON'T KNOW 8

KW02n.	What was the highest education level attended by your partner?	01. None ..... 01 02. Elementary School ..... 02 03. Junior High General ..... 03 04. Junior High Vocational ..... 04 05. Senior High General ..... 05 06. Senior High Vocational ..... 06 60. College (D1, D2, D3) ..... 60 61. University (BA) ..... 61 62. University (MA) ..... 62 63. University (PHD) ..... 63 11. Adult Education A ..... 11 12. Adult Education B ..... 12 15. Adult Education C ..... 15 13. Open University ..... 13 14. Islamic School *(Pesantren)* ..... 14 17. School for the disabled ..... 17 70. Madrasah, General ..... 70 72. Islamic Elementary School *(Madrasah Ibtidaiyah)* ..... 72 73. Islamic Junior/High School *(Madrasah Tsanawiyah)* ..... 73 74. Madrasah Senior High School *(Madrasah Aaliyah)* ..... 74 90. Kindergarten ..... 90 98. Don't Know ..... 98 95. Other 95
KW02o.	What was the highest grade completed by your partner?	00. Didn't complete 1st grade at that level 01. 1 04. 4 07. Graduated 02. 2 05. 5 96. Unschooled 03. 3 06. 6 98. DON'T KNOW
KW02ox.	**INTERVIEWER CHECK:** **KW01a = 2 (COHABITATION)?**	Yes ..... 1➔**KW03** No 3
KW12a.	What was the dowry for your current/ most recent marriage? **(CIRCLE ALL THAT APPLY)**	Nothing ..... W➔**KW13a** Sholat (praying) accessory ..... A Money ..... B Land ..... C Building/House ..... D Jewelry ..... E Complete set of clothing ..... G Food ..... H Household Items ..... I Religious book ..... K Beauty items ..... L Livestock ..... M Other V

SECTION KW (MARITAL HISTORY)

KW12b.	What was the value of the dowry of your current/most recent marriage at the time of the marriage?	⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. ..... 1 ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Other currency_____..... 2 DON'T KNOW 8
KW13a.	What did you receive as a gift, not a dowry, at the time of your current/most recent marriage, that was not consumed for the wedding party? **(CIRCLE ALL THAT APPLY)**	Nothing .....W➔**KW14** Sholat (praying) accessory .....A Money.....B Land .....C Building/House .....D Jewelry .....E Complete set of clothing .....G Food .....H Household Items.....I Religious book.....K Beauty items.....L Livestock .....M Other V
KW13b.	What was the value of the gift, at the time of your current/most recent marriage, that was not consumed for the wedding party?	⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. ..... 1 ⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Other currency_____..... 2 DON'T KNOW 8
KW14.	What was the value of the assets you owned just prior to the wedding of your current/latest marriage?	⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. ..... 1 DON'T KNOW 8

KW14a.	Right after the wedding ceremony of your current/latest marriage, did you move?	NO, lived at the same place.....3➔**KW14c** YES, moved within the same village.....2➔**KW14c** YES, moved to another Village.....1
KW14b.	What is the [ ] name at the place you moved at that time?	A. **Vill:** 1._____ 3. Same as current residence 8. DON'T KNOW B. **Kec:** 1._____ 3. Same as current residence 8. DON'T KNOW C. **Kab:** 1._____ 3. Same as current residence 8. DON'T KNOW D. **Prov:** 1. _____ 3. Same as current residence 8. DON'T KNOW
KW14c.	How long did you reside at your first residence after the wedding?	01. ⌊_⌊_⌋ Weeks .....04 Month .....05 Year .....06 96. Still live there 98. DON'T KNOW
KW14d.	At the time you married your current/latest husband/wife, did your husband/wife change residence?	Yes .....1 No 3
KW14d1.	Because of adat and the high cost of wedding, many couples choose to live together before the wedding. Did you and your current/latest partner live together before the wedding?	No .....3 ➔**KW14e** Yes 1
KW14d2.	How long did you live together before the wedding?	01. ⌊_⌊_⌋ Weeks .....04 Month .....05 Year .....06 98. DON'T KNOW
KW14e.	Did you and your current/latest husband/wife start to live together right after the wedding?	Yes .....1➔**KW14g** No 3
KW14f.	How long after the wedding took place did you start to live together with your husband/wife?	96. Don't live together yet ➔**KW04** 01. ⌊_⌊_⌋ Weeks .....04 Month .....05 Year .....06 98. DON'T KNOW

SECTION KW (MARITAL HISTORY)

KW14g.	At the time you lived together with your current/latest husband/wife for the first time, who else lived in the house? **(CIRCLE ALL THAT APPLY)** IN THIS CASE THE WEDDING LOCATION IS NOT REGARDED AS A JOINT RESIDENCE (REFER TO ANSWER KW14e = 1 (YES)) AND RESIDENCE REGISTERED IN KW14b.	Nobody else ..... W Own parents ..... A Parents-in-law ..... C Biological brother ..... D Biological sister ..... E Brother-in-law ..... F Sister-in-law ..... G Other family members ..... H Not family-related ..... I Child (biological and non-biological) ..... J
KW04.	Who chose your husband/wife (from your **first** marriage) ?	Parents ..... 01 Self ..... 03 Family ..... 04 Other: 05
KW03.	How many times have you been married / cohabitation?	⌊_⌊_⌋ Times
KW05.	**INTERVIEWER TO VERIFY COV5:**	FEMALE ..... 3 ➔ **KW07a** MALE 1
KW06.	Do you currently have more than one wife?	NO ..... 3 YES 1
KW07a.	**INTERVIEWER TO VERIFY KW03 MORE THAN 1**	NO ..... 3 YES 1

Now we will ask you about your first married

KW09.	Name of the fisrt husband/wife:	_____
KW10.	What (month/year) did you get married?.	1. ⌊_⌊_⌋ / ⌊_⌊_⌊_⌊_⌋ ➔ **KW11a** **MONTH** **YEAR** 8. DON'T KNOW
KW11.	How old were you when your [...] marriage started?	⌊_⌊_⌋ Year
KW11a.	Because of adat and the high cost of wedding, many couples choose to live together before the wedding. Did you and your current/latest partner live together before the wedding?	1. Yes 3. No

KW11b.	What is the status of your […] marriage	2 3 4 5 ➔ **KW20** 6 7 8
KW18.	When (month/year) did the marriage end/separation begin?	1. ⌊_⌊_⌋ / ⌊_⌊_⌊_⌊_⌋ ➔ **KW20** **MONTH** **YEAR** 8. DON'T KNOW
KW19.	How old were you when the [...] marriage ended/separation began?	⌊_⌊_⌋ years old
KW20.	What was the highest education level attended by your husband/wife of the [...] marriage	⌊_⌊_⌋
KW21.	What was the highest grade completed by your husband/wife of the [...] marriage?	00 01 02 03 04 05 06 07 96 98
KW23a.	If you could choose exactly the number of children to have in your whole life, how many would that be?	⌊_⌊_⌋ Children ..... 1 UP TO GOD 95
KW23.	**INTERVIEWER'S NOTE:** **RESPONDENT IS A:**	FEMALE ..... 5 ➔ **SECTION PK** UNMARRIED MALE ..... 3 ➔ **SECTION MG** MARRIED MALE 1
KW24a.	Are you and your wife physically able to conceive a child (again) without medical help?	Yes ..... 1 ➔ **KW25** No 3
KW24b.	Have you and your wife ever sought medical attention to help you conceive?"	Yes ..... 1 No 3
KW25.	Do you personally wish to have another child (besides the children you already have)?	No ..... 3 ➔ **SECTION PK** Yes 1
KW26.	How many (more) children do you wish to have?	⌊_⌊_⌋ Children ..... 1 UP TO GOD 95
KW27.	Among the children that you (still) wish to have, how many sons and daughters do you wish to have?	01. a. ⌊_⌊_⌋ Sons b. ⌊_⌊_⌋ Daughters 95. UP TO GOD

CODE FOR KW11b

2. Cohabitation
3. Married, formal (KUA or Civil Registration)
4. Married, formal according to religious law (nikah siri)
5. Married, formal according to adat law
6. Separated
7. Divorced
8. Widow/widower

CODE FOR KW20

01.	None	61.	University, Bachelor S1	15.	Adult Education C
02.	Elementary School	62.	University, Master S2	17.	School for the disabled
03.	Junior High (SLP/SLTP) General	63.	University, Doctorate S3	72.	Islamic School- Elementary (MI)
04.	Junior High (SLP/SLTP) Vocational	11.	Adult Education A	73.	Islamic School- Junior High(MT)
05.	Senior High (SMA/SLA/SLTA) General	12.	Adult Education B	74.	Islamic School- Senior High (MA)
06.	Senior High (SMA/SLA/SLTA) Vocat.	13.	Open University	90.	Kindergarten
60.	Academy D1, D2, D3	14.	Pesantren	98.	DON'T KNOW
				95.	Others

KODE KW21:

00.	Didn't complete school at that level		
01.	1		
02.	2	06.	6
03.	3	07.	Graduated
04.	4	96.	No school/not yet
05.	5	98.	TIDAK TAHU

SECTION PK (HOUSEHOLD DECISION-MAKING)

PK00a.	Are you currently married?	No .....3 ➔**SECTION BR** Yes.....1
PK00b.	Does your spouse live in this household now/in the last 6 months?	Yes.....1➔**PK18** No 3
PK00c.	Where do your spouse live?	Same village.....01 Same sub-district .....02 Same district .....03 Same province .....04 Same country.....05 Other country .....06 ➔ **SECTION BR**

SECTION PK (HOUSEHOLD DECISION-MAKING)

We would like to know how your family makes decisions about expenditures and use of time.

EXPENDITURES AND USE OF TIME (PK2TYPE)	PK18. In your household, who makes decisions about: (CIRCLE ALL THAT APPLY ON EACH LINE)																	
	RESPONDENT	SPOUSE	SON	DAUGHTER	MOTHER	FATHER	MOTHER-IN-LAW	FATHER-IN-LAW	BROTHER	SISTER	BROTHER-IN-LAW	SISTER-IN-LAW	GRANDPARENT	SON/DAUGHTER IN-LAW	GRANDCHILD	OTHERS	X or W or Y	CAN'T ANSWER
A1. Expenditure on food eaten at home	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V		Z
A2. Choice of food eaten at home	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V		Z
B. Routine purchases for the household of items such as cleaning supplies	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V		Z
C. Your clothes	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V		Z
D. Your spouse's clothes	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V		Z
E. Your children's clothes	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V	W	Z
F. Your children's education	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V	W	Z
G. Your children's health	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V	W	Z
H. Large expensive purchases for the household (i.e., refrigerator or TV)	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V		Z
I. Giving money to your parents/family	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V	X	Z
J. Giving money to your spouse's parents/family	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V	X	Z
K. Gifts for parties/weddings	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V		Z
L. Money for monthly arisan (savings lottery)	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V	X	Z
M. Money for monthly savings	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V	X	Z
N. Time the husband spends socializing	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V		Z
O. Time the wife spends socializing	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V		Z
P. Whether you/your spouse works **INTERVIEWER NOTE: ASK WHETHER RESPONDENT OR SPOUSE DOES OR DOES NOT WORK**	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V		Z
Q. Whether you and your spouse use contraception? **INTERVIEWER NOTE: ASK FOR COUPLES USING AND NOT USING CONTRACEPTION**	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	V	Y	Z

Code PK18: X. Never used money for this purpose. Y. Never consider the use of contraception. W. No children V. OTHER Z. CAN'T ANSWER

	PK20.					PK21.
	At that time that you were married, was [Father/Mother/Mother-in-Law/Father-in-Law) alive?				**ANSWER PK21 IF "1" IS CIRCLED IN BOTH PK20 COLUMNS (PK3TYPE)**	At the time that you were married, how did the status of your parents compare to the status of your parents-in-law?
	PK20a. Father 1. Yes 3. No	**PK20b.** Mother 1. Yes 3. No	**PK20c.** Father-in-Law 1. Yes 3. No	**PK20d.** Mother-in-Law 1. Yes 3. No		
	INTERVIEWER NOTE: (CIRCLE 1 (YES), 3 (NO) IN EACH COLUMN FOR LINES A-H. BASED ON THE INFORMATION IN PK20a-PK20d.					
A.	**1 3**		**1 3**		Father's job	Higher 1 2 3 Lower 4 5 NA 6 UA 7 DK 8
B.	**1 3**		**1 3**		Father's education	Higher 1 2 3 Lower 4 5 NA 6 UA 7 DK 8
C.		**1 3**		**1 3**	Mother's education	Higher 1 2 3 Lower 4 5 NA 6 UA 7 DK 8
	PK20abx. CIRCLE "1" IF EITHER MOTHER OR FATHER WAS ALIVE		**PK20cdx.** CIRCLE "1" IF EITHER MOTHER-IN-LAW OR FATHER-IN-LAW WAS ALIVE			
D.	**1 3**		**1 3**		Position in community	Higher 1 2 3 Lower 4 5 NA 6 UA 7 DK 8
E.	**1 3**		**1 3**		Quality of house/neighborhood	Higher 1 2 3 Lower 4 5 NA 6 UA 7 DK 8
F.	**1 3**		**1 3**		Earnings	Higher 1 2 3 Lower 4 5 NA 6 UA 7 DK 8
G.	**1 3**		**1 3**		Land	Higher 1 2 3 Lower 4 5 NA 6 UA 7 DK 8
H.	**1 3**		**1 3**		Other assets	Higher 1 2 3 Lower 4 5 NA 6 UA 7 DK 8

Code PK21 :

1. Much higher
2. Somewhat higher
3. About the same
4. Somewhat lower
5. Much lower
6. PARENT(S) NOT ALIVE AT TIME OF MARRIAGE (NA)
7. UNWILLING TO ANSWER (UA)
8. DON'T KNOW (DK)

SECTION BR (PREGNANCY SUMMARY)

Now, I would like to ask about your pregnancy history.

BR00xa.	**INTERVIEWER CHECK : COV2,COV3, COV4, COV5**	MALE (COV5) ..... 1➔**SECTION MG** LESS THAN 50 YEARS (C0V3) AND FEMALE (COV5)..... 3➔**SECTION MG** OVER 49 (COV3) AND NOT RESPONDENT BOOK IV 4
BR01.	Now I would like to ask you about all children that you have so far. Have you ever given birth?	No .....3 ➔ **BR08** Yes 1
BR02.	Do you have biological sons or daughters who are now living with you?	No ..... 3 ➔ **BR05** Yes 1
BR03.	How many biological sons are now living with you?	⌊_⌋⌊_⌋ Males
BR04.	How many biological daughters are now living with you?	⌊_⌋⌊_⌋ Females
USE LIST OF HOUSEHOLDERS TO VERIFY NUMBER OF RESPONDENT'S BIOLOGICAL CHILDREN WHO LIVE IN THIS HOUSEHOLD. IF THE TOTAL OF BR03 + BR04 AND THE NUMBER OF RESPONDENT'S BIOLOGICAL CHILDREN IN LIST OF HOUSEHOLDERS DO NOT MATCH, DO SOME PROBING TO CONFIRM THE NUMBER. REPEAT THE QUESTION BY MENTIONING EACH BIOLOGICAL CHILD'S NAME FROM LIST OF HOUSEHOLDERS (AR01).		
BR05.	Do you have biological sons or daughters, who are still alive, but do not live with you?	No ..... 3 ➔ **BR08** Yes 1
BR06.	How many biological sons are still alive, but do not live with you?	⌊_⌋⌊_⌋ Males
BR07.	How many biological daughters are still alive, but do not live with you?	⌊_⌋⌊_⌋ Females
BR08.	Have you ever given live birth to a son or daughter, who later passed away though only lived for a while?	No ..... 3 ➔ **BR11** Yes 1

BR09.	How many sons were born alive but passed away later?	⌊_⌋⌊_⌋ Males
BR10.	How many daughters were born alive but passed away later?	⌊_⌋⌊_⌋ Females
BR11.	Have you ever had a pregnancy that resulted in a stillbirth?	No ..... 3 ➔ **BR13** Yes 1
BR12.	How many stillbirths have you had?	⌊_⌋⌊_⌋
BR13.	(Besides that) have you had any miscarriages?	No ..... 3 ➔ **BR15** Yes 1
BR14.	How many miscarriages have you had?	⌊_⌋⌊_⌋
BR15.	**INTERVIEWER GUIDELINE:** **ADD THE NUMBERS (BR03, BR04, BR06, BR07, BR09, AND BR10) AND ENTER AMOUNT HERE:** To confirm your answers, you have had ⌊_⌋⌊_⌋ livebirths, is it correct ?	⌊_⌋⌊_⌋ No ..... 3 ➔ **REVISE BR01-BR10** Yes 1
BR16.	**INTERVIEWER GUIDELINE:** **ADD THE NUMBERS (BR12 AND BR14) AND ENTER AMOUNT HERE:** Again, to confirm your answers, you have had ⌊_⌋⌊_⌋ stillbirths and miscarriages, is it correct ?	⌊_⌋⌊_⌋ No ..... 3 ➔ **REVISE BR12-BR14** Yes 1

SECTION MG (MIGRATION)

Now I would like to ask you about your birthplace and your moves from one place to another.

MG01.	What is the […] name of your birthplace when you were born?	A. Vill 1. _____ 3. Same as current residence 8. DK B. Kec 1. _____ 3. Same as current residence 8. DK C. Kab 1. _____ 3. Same as current residence 8. DK D. Prov 1. _____ 3. Same as current residence 8. DK E. Country 1. _____ 3. Same as current residence 8. DK
MG02.	To your best knowledge, have any of the above mentioned places changed their names?	DON'T KNOW ..... 8 ➔ **MG04** No ..... 3 ➔ **MG04** Yes 1
MG02a.	Is […] the current name?	3. No ➔ **MG03b** 1.Yes
MG03a.	What was the name when you were born?	A. Vill 1. _____ 3. Same as current name (MG01) 8. DK B. Kec 1. _____ 3. Same as current name (MG01) 8. DK C. Kab 1. _____ 3. Same as current name (MG01) 8. DK D. Prov 1. _____ 3. Same as current name (MG01) 8. DK E. Country 1. _____ 3. Same as current name (MG01) 8. DK ➔ **MG04**
MG03b.	What is the name now?	A. Vill 1. _____ 3. Same as the birthplace (MG01) 8. DK B. Kec 1. _____ 3. Same as the birthplace (MG01) 8. DK C. Kab 1. _____ 3. Same as the birthplace (MG01) 8. DK D. Prov 1. _____ 3. Same as the birthplace (MG01) 8. DK E. Country 1. _____ 3. Same as the birthplace (MG01) 8. DK
MG04.	Was the place when you were born a:	Village ..... 1 Small town ..... 3 Big city ..... 5 DON'T KNOW 8

MG04a.	When you were 12 years old did you live in the same place as the place where you were born?	Yes ..... 1 ➔ **MG08** No 3
MG05.	What was the [...] name of the place where you lived when you were 12 years old (the name when you were age 12)?	A. Vill 1. _____ 3. Same as the birthplace 8. DK B. Kec 1. _____ 3. Same as the birthplace 8. DK C. Kab 1. _____ 3. Same as the birthplace 8. DK D. Prov 1. _____ 3. Same as the birthplace 8. DK E. Country 1. _____ 3. Same as the birthplace 8. DK
MG06.	To your best knowledge, have any of the above mentioned places changed their names (since you were 12)?	DON'T KNOW ..... 8 ➔ **MG08** No ..... 3 ➔ **MG08** Yes 1
MG07.	Is the name of [...] still the same or has it been changed?	A. Vill 1. _____ 3. Same name as when I was 12 (MG05) 8. DK B. Kec 1. _____ 3. Same name as when I was 12 (MG05) 8. DK C. Kab 1. _____ 3. Same name as when I was 12 (MG05) 8. DK D. Prov 1. _____ 3. Same name as when I was 12 (MG05) 8. DK E. Country 1. _____ 3. Same name as when I was 12 (MG05) 8. DK
MG08.	When you were 12, was the place a:	Village ..... 1 Small town ..... 3 Big city ..... 5 DON'T KNOW 8
MG08a.	When you were 12 ,were your biologal parents still married?	NA ..... 6 No ..... 3 Yes 1
MG08b.	When you were 12, did you live with your mother?	NA ..... 6 No ..... 3 Yes 1
MG08c.	When you were 12, did you live with your father?	NA ..... 6 No ..... 3 Yes 1

SECTION MG (MIGRATION)

MG19b.	Have you ever moved since the age of 12?	No.....3➔Section TK Yes.....1
MG20b.	Have you ever moved across village to live at the new location more than 6 months?	No.....3➔Section TK Yes.....1

Now we want to ask about how many times have moved away after 12 years of age that is past the village and stay for 6 months or more.

MG20c1	How many times have moved since the age of 12 years until January 1, 2007.	⌊_⌊_⌋ times

SKETCH FOR MOVING FROM THE AGE OF 12 YEARS UNTIL 1 JANUARY 2007

MG20c2	What was the [...] name of the place where you lived on january 1, 2007?	A. Vill 1. _____ 3. Same as current residence 8. DK B. Kec 1. _____ 3. Same as current residence 8. DK C. Kab 1. _____ 3. Same as current residence 8. DK D. Prov 1. _____ 3. Same as current residence 8. DK E. Country 1. _____ 3. Same as current residence 8. DK
MG20c3	How many times have moved since January 1, 2007 until now?	⌊_⌊_⌋ times **INTERVIEWER CHECK : if 0 ➔ TK SECTION**

SKETCH FOR MOVING FROM JANUARY 1, 2007

SECTION MG (MIGRATION)

MOVENUM: NUMBER IF MIGRATION	1ST	2ND	3ND	4TH
MG21. What is the [...] name of the [...] destination?	A. Vill: 1. ____ 3. Same as current residence 8. DON'T KNOW B. Kec: 1. ____ 3. Same as current residence 8. DON'T KNOW C. Kab: 1. ____ 3. Same as current residence 8. DON'T KNOW D. Prov: 1. ____ 3. Same as current residence 8. DON'T KNOW E. Country: 1. ____ 3. Same as current residence 8. DON'T KNOW	A. Vill: 1. ____ 3. Same as current residence 8. DON'T KNOW B. Kec: 1. ____ 3. Same as current residence 8. DON'T KNOW C. Kab: 1. ____ 3. Same as current residence 8. DON'T KNOW D. Prov: 1. ____ 3. Same as current residence 8. DON'T KNOW E. Country: 1. ____ 3. Same as current residence 8. DON'T KNOW	A. Vill: 1. ____ 3. Same as current residence 8. DON'T KNOW B. Kec: 1. ____ 3. Same as current residence 8. DON'T KNOW C. Kab: 1. ____ 3. Same as current residence 8. DON'T KNOW D. Prov: 1. ____ 3. Same as current residence 8. DON'T KNOW E. Country: 1. ____ 3. Same as current residence 8. DON'T KNOW	A. Vill: 1. ____ 3. Same as current residence 8. DON'T KNOW B. Kec: 1. ____ 3. Same as current residence 8. DON'T KNOW C. Kab: 1. ____ 3. Same as current residence 8. DON'T KNOW D. Prov: 1. ____ 3. Same as current residence 8. DON'T KNOW E. Country: 1. ____ 3. Same as current residence 8. DON'T KNOW
MG22. To your best knowledge, have any of the above mentioned places changed their names?	DON'T KNOW .... 8 → **MG24** No .... 3 → **MG24** Yes 1	DON'T KNOW .... 8 → **MG24** No .... 3 → **MG24** Yes 1	DON'T KNOW .... 8 → **MG24** No .... 3 → **MG24** Yes 1	DON'T KNOW .... 8 → **MG24** No .... 3 → **MG24** Yes 1
MG23. Is the [...] name still the same (as MG21) or has it been changed?	A. Vill: 1. ____ 3. Same as above MG21 8. DON'T KNOW B. Kec: 1. ____ 3. Same as above MG21 8. DON'T KNOW C. Kab: 1. ____ 3. Same as above MG21 8. DON'T KNOW D. Prov: 1. ____ 3. Same as above MG21 8. DON'T KNOW E. Country: 1. ____ 3. Same as above MG21 8. DON'T KNOW	A. Vill: 1. ____ 3. Same as above MG21 8. DON'T KNOW B. Kec: 1. ____ 3. Same as above MG21 8. DON'T KNOW C. Kab: 1. ____ 3. Same as above MG21 8. DON'T KNOW D. Prov: 1. ____ 3. Same as above MG21 8. DON'T KNOW E. Country: 1. ____ 3. Same as above MG21 8. DON'T KNOW	A. Vill: 1. ____ 3. Same as above MG21 8. DON'T KNOW B. Kec: 1. ____ 3. Same as above MG21 8. DON'T KNOW C. Kab: 1. ____ 3. Same as above MG21 8. DON'T KNOW D. Prov: 1. ____ 3. Same as above MG21 8. DON'T KNOW E. Country: 1. ____ 3. Same as above MG21 8. DON'T KNOW	A. Vill: 1. ____ 3. Same as above MG21 8. DON'T KNOW B. Kec: 1. ____ 3. Same as above MG21 8. DON'T KNOW C. Kab: 1. ____ 3. Same as above MG21 8. DON'T KNOW D. Prov: 1. ____ 3. Same as above MG21 8. DON'T KNOW E. Country: 1. ____ 3. Same as above MG21 8. DON'T KNOW
MG24. When did you move to (DESTINATION)?	1. __ / ____ → **MG39** Month Year 8. DON'T KNOW	1. __ / ____ → **MG39** Month Year 8. DON'T KNOW	1. __ / ____ → **MG39** Month Year 8. DON'T KNOW	1. __ / ____ → **MG39** Month Year 8. DON'T KNOW
MG25. How old were you when you moved?	__ Year	__ Year	__ Year	__ Year
MG39. After this move was there any other move which crossed the village (Desa) border line for 6 or more months? (Including the move to this residence, even if it has lasted for less than six months.)	Yes........1 → **MG21 NEXT COLUMN** No........3 → **MG40**	Yes........1 → **MG21 NEXT COLUMN** No........3 → **MG40**	Yes........1 → **MG21 NEXT COLUMN** No........3 → **MG40**	Yes........1 → **MG21 SUPPLEMENT** No........3 → **MG40**
MG40. INTERVIEWER CHECK: NUMBER OF COLUMNS IS IDENTICAL WITH NUMBER OF MIGRATIONS (MG20C) AND LOCATION AT THE LAST COLUMN MG21 [MG23] IS IDENTICAL WITH THE LAST RESIDENCE.	NO........3→ **PROBE AND FILL ADDITIONAL COLUMN** YES........1→ **MG26 COLUMN 1**	NO........3→ **PROBE AND FILL ADDITIONAL COLUMN** YES........1→ **MG26 COLUMN 1**	NO........3→ **PROBE AND FILL ADDITIONAL COLUMN** YES........1→ **MG26 COLUMN 1**	NO........3→ **PROBE AND FILL ADDITIONAL COLUMN** YES........1→ **MG26 COLUMN 1**

SECTION MG (MIGRATION)

MOVENUM: NUMBER IF MIGRATION		1ST	2ND	3ND	4TH
MG26.	Was the place a: (**BASED ON MG21 & MG23**)	Village ..... 1 Small town ..... 3 Big city ..... 5 DON'T KNOW 8	Village ..... 1 Small town ..... 3 Big city ..... 5 DON'T KNOW 8	Village ..... 1 Small town ..... 3 Big city ..... 5 DON'T KNOW 8	Village ..... 1 Small town ..... 3 Big city ..... 5 DON'T KNOW 8
MG27.	How many kilometers is the distance from (PREVIOUS PLACE) to (DESTINATION)	⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Km ..... 1 DON'T KNOW 8	⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Km ..... 1 DON'T KNOW 8	⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Km ..... 1 DON'T KNOW 8	⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Km ..... 1 DON'T KNOW 8
MG28.	What was the main purpose for your move to (DESTINATION)?				
	02. Education/training-related	02 → **MG31**	02 → **MG31**	02 → **MG31**	02 → **MG31**
	03. Military career-related	03 → **MG31**	03 → **MG31**	03 → **MG31**	03 → **MG31**
	Family related:				
	04. Marriage	04 → **MG34**	04 → **MG34**	04 → **MG34**	04 → **MG34**
	05. Pregnancy	05 → **MG34**	05 → **MG34**	05 → **MG34**	05 → **MG34**
	06. Death of spouse	06 → **MG34**	06 → **MG34**	06 → **MG34**	06 → **MG34**
	07. Sickness of self/spouse	07 → **MG34**	07 → **MG34**	07 → **MG34**	07 → **MG34**
	08. Migration with family	08 → **MG34**	08 → **MG34**	08 → **MG34**	08 → **MG34**
	09. To be closer to family	09 → **MG34**	09 → **MG34**	09 → **MG34**	09 → **MG34**
	10. Death of other	10 → **MG34**	10 → **MG34**	10 → **MG34**	10 → **MG34**
	11. Sickness of other	11 → **MG34**	11 → **MG34**	11 → **MG34**	11 → **MG34**
	12. Live w/family member	12 → **MG34**	12 → **MG34**	12 → **MG34**	12 → **MG34**
	13. To be independent, separate from parents	13 → **MG34**	13 → **MG34**	13 → **MG34**	13 → **MG34**
	14. Political disturbance	14 → **MG34**	14 → **MG34**	14 → **MG34**	14 → **MG34**
	15. Eviction	15 → **MG34**	15 → **MG34**	15 → **MG34**	15 → **MG34**
	16. Like the destination	16 → **MG34**	16 → **MG34**	16 → **MG34**	16 → **MG34**
	17. Transmigration	17 → **MG34**	17 → **MG34**	17 → **MG34**	17 → **MG34**
	19. Dry season/drought	19 → **MG34**	19 → **MG34**	19 → **MG34**	19 → **MG34**
	22. Family problem	22 → **MG34**	22 → **MG34**	22 → **MG34**	22 → **MG34**
	23. New housing opportunity	23 → **MG34**	23 → **MG34**	23 → **MG34**	23 → **MG34**
	24. Divorce	24 → **MG34**	24 → **MG34**	24 → **MG34**	24 → **MG34**
	25 Natural and other disasters	25 → **MG34a**	25 → **MG34a**	25 → **MG34a**	25 → **MG34a**
	95. Other	95 → **MG34**	95 → **MG34**	95 → **MG34**	95 → **MG34**
	01. Work-related (fired, retired, end-of-contract) (non-military)	01			
MG29.	Whose work?				
	02. Husband/wife	02→ **MG34**	02→ **MG34**	02→ **MG34**	02→ **MG34**
	03. Birth parents	03→ **MG34**	03→ **MG34**	03→ **MG34**	03→ **MG34**
	04. Siblings	04→ **MG34**	04→ **MG34**	04→ **MG34**	04→ **MG34**
	05. Biological child	05→ **MG34**	05→ **MG34**	05→ **MG34**	05→ **MG34**
	06. Other family member	06→ **MG34**	06→ **MG34**	06→ **MG34**	06→ **MG34**
	07. Not a family member	07→ **MG34**	07→ **MG34**	07→ **MG34**	07→ **MG34**
	01. Self	01	01	01	01

MOVENUM: NUMBER OF MIGRATION	1ST	2ND	3RD	4TH
MG30. In what connection was your move made? 1. To get work at the destination 2. To search for new job opportunities due to job market limitation at previousplace 3. Company transfer/relocation 4. Retirement 6. Job problem 7. Be closer to job 5. Other...	1 2 3 4 6 7 5 → **MG34b**	1 2 3 4 6 7 5 → **MG34b**	1 2 3 4 6 7 5 → **MG34b**	1 2 3 4 6 7 5 → **MG34b**
MG31. Whose education/training/military career?	Self ....1 Husband/wife.................................2 Other family member ....3 Not a family member ....4 → **MG34**	Self ....1 Husband/wife.................................2 Other family member ....3 Not a family member.........................4 → **MG34**	Self ....1 Husband/wife.................................2 Other family member ....3 Not a family member.........................4 → **MG34**	Self ....1 Husband/wife.................................2 Other family member ....3 Not a family member.........................4 → **MG34**
MG34a. What kind of natural disaster?	Flood ....01 Landslide/mudslide.........................02 Mudflow ....03 Volcanic eruption ....04 Earthquake ....05 Tsunami..06 Windstorm ....07 Forest fire ....08 Fire ....09 Civil Conflict...................................10 → **MG34**	Flood...01 Landslide/mudslide.........................02 Mudflow ....03 Volcanic eruption ....04 Earthquake ....05 Tsunami..06 Windstorm ....07 Forest fire ....08 Fire ....09 Civil Conflict...................................10 → **MG34**	Flood...01 Landslide/mudslide.........................02 Mudflow ....03 Volcanic eruption ....04 Earthquake ....05 Tsunami..06 Windstorm ....07 Forest fire ....08 Fire ....09 Civil Conflict...................................10 → **MG34**	Flood...01 Landslide/mudslide.........................02 Mudflow ....03 Volcanic eruption ....04 Earthquake ....05 Tsunami..06 Windstorm ....07 Forest fire ....08 Fire ....09 Civil Conflict...................................10 → **MG34**
MG34b. INTERVIEWER CHECK MG21: WHAT IS THE PURPOSE OF MOVING E. Abroad?	3. No → **MG34** 1. Yes	3. No → **MG34** 1. Yes	3. No → **MG34** 1. Yes	3. No → **MG34** 1. Yes
MG34c. Does your departure to [....] through the mobilization of Indonesia Labor Services / Indonesian labor Placement Company Private (PJTKI / PPTKIS)?	3. No → **MG34f** 1. Yes 8. DON'T KNOW	3. No → → **MG34f** 1. Yes 8. DON'T KNOW	3. No → **MG34f** 1. Yes 8. DON'T KNOW	3. No → **MG34f** 1. Yes 8. DON'T KNOW
MG34d How much you should pay for the departure?	___ . ___ . ___ Rp. .... 1 DO NOT PAY .... 6→ **MG34f** DON'T KNOW .... 8→ **MG34f**	___ . ___ . ___ Rp. .... 1 DO NOT PAY . ... 6→ **MG34f** DON'T KNOW 8→ **MG34f**	___ . ___ . ___ Rp. .... 1 DO NOT PAY .... 6→ **MG34f** DON'T KNOW 8→ **MG34f**	___ . ___ . ___ Rp. .... 1 DO NOT PAY .... 6→ **MG34f** DON'T KNOW 8→ **MG34f**
MG34e How do you pay for this recruitment?	Savings Using.................................A Borrowing a friend / family ....B Borrowing from the bank................. C Borrowing from recruiters .... D asset sales.......................................E Deductions from wages ....F Other ________________________ V	Savings Using.................................A Borrowing a friend / family ....B Borrowing from the bank................. C Borrowing from recruiters .... D asset sales.......................................E Deductions from wages ....F Other ________________________ V	Savings Using.................................A Borrowing a friend / family ....B Borrowing from the bank................. C Borrowing from recruiters .... D asset sales.......................................E Deductions from wages ....F Other ________________________ V	Savings Using.................................A Borrowing a friend / family ....B Borrowing from the bank................. C Borrowing from recruiters .... D asset sales.......................................E Deductions from wages ....F Other ________________________ V

SECTION MG (MIGRATION)

MG34f	How much monthly income you earn on [.....] (before the deduction of the Agent)?	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp. ..... 1 NOT PAID..... 6	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp. .....1 NOT PAID 6	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp. .....1 NOT PAID 6	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp. .....1 NOT PAID 6
MG34g	How much of your income for a month in place before?	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp. ..... 1 NOT PAID. 6	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp. . .....1 NOT PAID.....6	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp. .....1 NOT PAID. 6	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp. . ..... 1 NOT PAID..... 6
MG34h	How much money did you send it to the house as long as you are [.....]?	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp. ..... 1 NOT PAID..... 6➔ **MG34j**	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp. .....1 NOT PAID. ..... 6➔ **MG34j**	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp. .....1 NOT PAID.....6➔ **MG34j**	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp. .....1 NOT PAID. ..... 6➔ **MG34j**
MG34i	How do you send money home as long as you are [.....]?	A. Via bank transfer B. Remittance agencies C. Through a friend / family V. Other _____	A. Via bank transfer B. Remittance agencies C. Through a friend / family V. Other _____	A. Via bank transfer B. Remittance agencies C. Through a friend / family V. Other _____	A. Via bank transfer B. Remittance agencies C. Through a friend / family V. Other _____
MG34j	How much money did you bring back to Indonesia after you finish the work in [....]?	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp. ..... 1 No money is taken home…. 6	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp.... ..... 1 No money is taken home…. 6	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp. . .....1 No money is taken home…. 6	⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋.⌊_⌊_⌊_⌋ Rp.. .....1 No money is taken home…. 6
MG34k.	Over at [....] How often do you meet with your family at the home of origin?	4. At least once a week 3. At least once a month 2. At least once a year 1. Never	4. At least once a week 3. At least once a month 2. At least once a year 1. Never	4. At least once a week 3. At least once a month 2. At least once a year 1. Never	4. At least once a week 3. At least once a month 2. At least once a year 1. Never
MG34l	During the [...] How often do you touch by phone with your family at the home of origin?	5. every day➔**MG34** 4. At least once a week 3. At least once a month 2. At least once a year 1. never	5. every day➔**MG34** 4. At least once a week 3. At least once a month 2. At least once a year 1. never	5. every day➔**MG34** 4. At least once a week 3. At least once a month 2. At least once a year 1. never	5. every day➔**MG34** 4. At least once a week 3. At least once a month 2. At least once a year 1. never
MG34m.	During the [...] How often are you in touch by mail / SMS / email / chat with your family at the home of origin?	5. every day 4. At least once a week 3. At least once a month 2. At least once a year 1. never	5. every day 4. At least once a week 3. At least once a month 2. At least once a year 1. never	5. every day 4. At least once a week 3. At least once a month 2. At least once a year 1. never	5. every day 4. At least once a week 3. At least once a month 2. At least once a year 1. never
MG34.	Did you move together with other householders?	No.....3➔**MG26 NEXT COLUMN/SECTION TK** Yes 1	No.....3➔**MG26 NEXT COLUMN/ SECTION TK** Yes.....1	No.....3➔**MG26 NEXT COLUMN/ SECTION TK** Yes.....1	No.....3➔**MG26 NEXT COLUMN/ SECTION TK** Yes 1
MG35.	How many householders moved with you?	⌊_⌊_⌋ Persons	⌊_⌊_⌋ Persons	⌊_⌊_⌋ Persons	⌊_⌊_⌋ Persons

SECTION MG (MIGRATION)

MG36. Who moved together with you at the time of the move? **(CIRCLE ALL THAT APPLY)**				
A. Husband/wife	A	A	A	A
B. Father	B	B	B	B
C. Mother	C	C	C	C
D. Brother	D	D	D	D
E. Sister	E	E	E	E
F. Parents/sister/brother-in-laws	F	F	F	F
G. Children	G	G	G	G
I. Not a family member	I	I	I	I
V. Other family member	V	V	V	V
	➔ MG26 NEXT COLUMN/SECTION TK	**➔ MG26 NEXT COLUMN/SECTION TK**	**➔ MG26 NEXT COLUMN/SECTION TK**	**➔ MG26 SUPLEMENT/SECTION TK**

SEKSI TK (EMPLOYMENT)

Now we would like to ask about your work experience.

TK01a.	During the past week, did you do any of these activities?	Yes / No a. Work for pay 1 3 b. Attend school 1 3 c. Housekeeping 1 3 d. Job searching 1 3
TK01.	What was your primary activity during the past week?	Working/trying to work/helping to earn income ..... 01➔**TK16c1** Job searching ..... 02 Attending school ..... 03 Housekeeping ..... 04 Retired ..... 05 Sick/disable ..... 07 On vacation/just graduated ..... 09 Other 95
TK02.	Did you work/try to work/help to earn income for pay for at least 1 hour during the past week?	Yes ..... 1➔**TK16c1** No 3
TK03.	Do you have a job/business, but were temporarily not working during the past week?	Yes ..... 1➔**TK16c1** No 3
TK04.	Did you work at a family-owned (farm or non-farm) business during the past week?	Yes ..... 1➔**TK16c1** No 3
TK05.	Have you ever worked before?	No ..... 3➔**TK16d** Yes 1
TK07.	When did you work for the last time?	Year ⌊_⌊_⌊_⌊_⌋
TK08.	Why haven't you worked again since that year? **(CIRCLE ALL THAT APPLY)**	Retirement ..... A Prolonged sickness ..... B Handicap ..... C Marriage ..... D Too old ..... E Have a child ..... F Family responsibilities ..... N Forbidden ..... O Other family reason ..... P Fired ..... Q Cannot find work ..... R Do not want to work ..... S Company closed/moved/bankrupt ..... T Other V

TK15.	Which category best describes the work you did in your last job?	Unpaid family worker ..... 06➔**TK16c** Self employed ..... 01 Self-employed with unpaid family worker/temporary worker ..... 02 Self-employed with permanent worker ..... 03 Government worker ..... 04 Private worker ..... 05 Casual worker in agriculture ..... 07 Casual worker not in agriculture 08
TK16a.	What was your monthly income when you were working at that job?	⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. .... 1➔**TK16b** DON'T KNOW 8
TK16a1.	Is it […]?	1. ≥ 1 million Rp 2. < 1 million Rp 11. ≥10 million Rp 12. <10 million Rp 18. DK 21. ≥ 500 thousand Rp 22. < 500 thousand Rp 28. DK 98. DK
TK16b.	Was that a […?	Wage ..... 1 Net profits (after taking out costs) ..... 3 ➔**TK16d**
TK16c.	What is the name of your employer?	Name _____ AR00 ⌊_⌊_⌋ ➔**TK16d**
TK16c1.	How satisfied are you with your current job?	Very satisfied ..... 1 Satisfied ..... 2 Unsatisfied ..... 3 Very unsatisfied 4
TK16d.	In the past one month, have you been looking for a job?	No ..... 3➔**TK16h** Yes 1
TK16e.	How long have you been looking for a job in the past one month?	1 ⌊_⌊_⌋ weeks 2. ⌊_⌊_⌋ days
TK16f.	What activities have you done for your job search?	**Yes / No** a. Registered with government job fairs 1 3 b. Registered with private job fairs 1 3 c. Registered with school/university job fairs 1 3 d. Contacted company 1 3 e. Responded to job ads 1 3 f. Contacted friends/relatives 1 3 g. Done nothing 1 3
TK16g.	Do you have a valid "Yellow Card"?	Yes ..... 1 No ..... 3 ➔**TK16i**

TK16h.	What is the main reason not looking for a job?	Feel impossible to find a job.....01 Already has a job, but has not started yet.....02 Attending school.....03 Housekeeping.....04 Already has a business.....05 Do not need to.....06 Do not able to do work.....07 Other.....95
TK16i.	have you been preparing to set up a business?	No.....3➔**TK16k** Yes.....1
TK16j.	What activities have you done in preparing to set up a business ?	**Yes** **No** a. Looked for capital 1 3 b. Looked for place of business 1 3 c. Arranged for business license 1 3 d. Done nothing 1 3

TK16k.	**INTERVIEWER CHECK :**	**IF TK05=1 .....3➔ TK47** **IF TK05=3.....4➔SECTION TR** **IF TK01=1 OR TK02=1 OR TK03=1 OR TK04=1 .....1**

A. PRIMARY JOB THE JOB WHICH CONSUMES THE MOST TIME		
TK18A.	Where do you work on your [...] job? **(ENTER NAME OF COMPANY/EMPLOYER)**	_____ _____ _____
TK18Aa.	What is the address of the company?	_____ _____
TK18Ab.	What is telephone number of the company?	A. Phone └┴┴┴┘ └┴┴┴┴┴┴┴┴┘ B. Cellphone └┴┴┴┴┴┴┴┴┴┴┴┴┘ Belonging to_____ W. NA Y. DK
TK18Ac.	What is the name of your supervisor?	_____ _____
TK18Ad.	What is telephone number of the your supervisor?	A. Phone └┴┴┴┘ └┴┴┴┴┴┴┴┴┘ B. Cellphone └┴┴┴┴┴┴┴┴┴┴┴┴┘ Belonging to_____ W. NA Y. DK

TK19A.	What does your company produce?	_____ _____
TK19Ab.	**EDITOR: CODE FOR SECTORS**	└┴┘
TK20A.	What are your primary duties at your workplace?	_____ _____
TK20aA.	How many people work at your firm?	└┴┘**,** └┴┴┘ Persons.....1➔**TK21A** DON'T KNOW.....8
TK20aB.	Is it […]?	1. 1- 4 people 2. 5-19 people 3. 20-99 people 4. ≥ 100 people
TK21A.	What was the total number of hours you worked during the past week (on your job)?	└┴┴┘ Hours/Week
TK22A.	Normally, what is the approximate total number of hours you work per week?	└┴┴┘ Hours/Week
TK23A.	Approximately what is the total number of weeks you work per year?	└┴┘ Weeks/Year
TK23A2.	How long have you worked on this job?	└┴┘ Years └┴┘ Months
TK23A4.	Are you a member of a labor union or a business association?	Yes.....1 No.....3
TK24A.	Which category best describes the work that you do?	Self employed.....01➔ **TK26A1** Self-employed with unpaid family worker/temporary worker.....02➔ **TK26A1** Self-employed with permanent worker.....03➔ **TK26A1** Government worker.....04➔ **TK24A2a** Private worker.....05➔ **TK24A2a** Casual worker in agriculture.....07➔ **TK24A2a** Casual worker not in agriculture.....08➔ **TK24A2a** Unpaid family worker.....06
TK24A1.	What is the name of your employer?	_____ **AR00** └┴┘ ➔**TK26A5**

CODE TK19Ab

Agriculture, forestry, fishing and hunting	01	Wholesale, retail, restaurants and hotels	06
Mining and quarrying	02	Transportation, storage and communications	07
Manufacturing	03	Finance, insurance, real estate and business services	08
Electricity, gas, water	04	Social services	09
Construction	05	Activities that cannot be classified	10

TK24A2a.	How did you get this job?	Through government job fairs .....01 Through private job fairs .....02 School/university job fairs .....03 Responded to job ads .....04 Contacted company .....05 Through friends/relatives.....06 Contacted by company 07
TK24A2.	By what system were you paid during the last month?	By piece .....01 Per day or hour .....02 Per week or month .....03 Exchange labor .....04 Share of harvest/output.....05 By the job .....06 In kind .....07 Other 95
TK24A5.	Do you work with a contract?	No, work without contract..... 03➔ T**K25A1** Yes, with contract but not fixed time ..... 01➔ T**K25A1** Yes, with fixed time contract 02
TK24A6.	What is the term of your contract?	1. ⌊_⌋⌊_⌋ months 2. ⌊_⌋⌊_⌋ . ⌊_⌋ year
TK24A7.	When did the current contract start?	⌊_⌋⌊_⌋ / ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ Month / Year
TK25A1.	Approximately what was your salary/wage during the **last mo**nth (including the value of all benefits)?	⌊_⌋⌊_⌋⌊_⌋ , ⌊_⌋⌊_⌋⌊_⌋ , ⌊_⌋⌊_⌋⌊_⌋ Rp. .....1➔**TK25A2** DON'T KNOW 8
TK25A1a.	Is it […]?	1. ≥ 1 million Rp 11. ≥10 million Rp 12. <10 million Rp 18. DK 2. < 1 million Rp 21. ≥ 500 thousand Rp 22. < 500 thousand Rp 28. DK 98. DK
TK25A2.	Approximately what was your salary/wage during the **last year** (including the value of all benefits)?	⌊_⌋⌊_⌋⌊_⌋ , ⌊_⌋⌊_⌋⌊_⌋ , ⌊_⌋⌊_⌋⌊_⌋ Rp. .....1➔ T**K25A2b** DON'T KNOW 8
TK25A2a.	Is it […]?	1. ≥ 12 million Rp 11. ≥ 80 million Rp 12. < 80 million Rp 18. DK 2. < 12 million Rp 21. ≥ 6 million Rp 22. < 6 million Rp 28. DK 98. DK

TK25A2b.	What is the amount of year-end-bonus or other bonuses you received during **the last year**?	⌊_⌋⌊_⌋⌊_⌋ , ⌊_⌋⌊_⌋⌊_⌋ , ⌊_⌋⌊_⌋⌊_⌋ Rp. ..... 1➔ T**K25A3** TIDAK BERLAKU ..... 6 ➔**TK25A3** DON'T KNOW 8
TK25A2c.	Is it […]?	1. ≥ 1 million Rp 11. ≥10 million Rp 12. <10 million Rp 18. DK 2. < 1 million Rp 21. ≥ 500 thousand Rp 22. < 500 thousand Rp 28. DK 98. DK
TK25A3.	Did you receive the following benefits from your employer for this job?	**Yes No** a. Employer provided meals?.....1 3 If yes, how many per day? 1. ⌊_⌋ times per day 2. Not every day b. Raw food, not in form of meals?.....1 3 c. Housing benefits? .....1 3 d. Transportation benefits? 1. Car? .....1 3 2. Transportation allowance? .....1 3 e. Medical benefits? 1. Employer paid some health expenses? ..1 3 2. Employer provided health insurance policy? .....1 3 3. Employer provided health clinic .....1 3 f. Credit .....1 3 g. Employer-provided pension .....1 3 h. Severance eligibility 1 3
TK25A3x.	**INTERVIEWEAR CHECK: TK24A= 7 OR 8?**	**YES**..... **1➔ TK26A5** **NO**..... **3**
TK25A4.	What type of pension plan are you enrolled in?	No pension plan ..... 6➔ **TK25A7** TASPEN..... 1 ASABRI..... 2 JAMSOSTEK ..... 3 Other private pension..... 4
TK25A5.	What is your out of pocket contribution to the pension fund each month?	⌊_⌋⌊_⌋⌊_⌋ , ⌊_⌋⌊_⌋⌊_⌋ , ⌊_⌋⌊_⌋⌊_⌋ Rp. ..... 1 DON"T KNOW..... 8
TK25A6.	How will the pension benefit be paid out?	Annuity benefit per month/year ..... 1 Lump sum payment at retirement..... 2 Combination of lump sum and annuity 3

TK25A7.	What is your out of pocket contribution to the health insurance each month?	⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. .....1 DON"T KNOW .....8 No health insurance 6
TK25A8.	Have you ever received any training from your employer?	No .....3➔**TK26A5** Yes.....1
TK25A9.	How many weeks of training did you receive r in the last 12 months?	3. Not receive any training in the last 12 months ➔**TK26A5** 1. ⌊⌊⌋ Weeks 2. Less than a week
TK25A10.	What kind of training did you receive in the last 12 months?	A. Computer B. Language C. Technical training D. Teamwork E. Leadership V. Other ➔**TK26A5**
TK26A1.	Approximately how much net profit did you gain last month, after taking out all your business expenses?	**Profit (+)** ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. ..1 **Loss (–)** ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. ..2 ➔**TK26A3** DON'T KNOW .....8↓
TK26A1a.	Is it […]?	1. ≥ 5 million Rp 11. ≥20 million Rp 12. 10 - <20 million Rp 13. <10 million Rp 18. DK 2. < 1 million Rp 21. ≥ 1 million Rp 22. < 1 million Rp 28. DK 98. DK
TK26A3.	Approximately how much net profit did you gain last year, after taking out all your business expenses?	**Profit (+)** ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. ..1 **Loss (–)** ⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋,⌊⌊⌊⌋ Rp. ..2 ➔**TK26A5** DON'T KNOW.....8↓

TK26A3a.	Is it (--)	1. ≥ 60 million Rp 11. ≥ 120 million Rp 12. 80 -< 120 million Rp 13. < 80 million Rp 18. DK 2. < 60 million Rp 21. ≥ 12 million Rp 22. < 12 million Rp 28. DK 98. DK

Now we would like to ask you about the characteristics of your primary job.

TK26A5.	My job requires lots of physical effort.	1. All/Almost all the time 2. Most of the time 3. Some of the time 4. None/Almost none of the time
TK26A6.	My job requires lifting heavy loads.	1. All/Almost all the time 2. Most of the time 3. Some of the time 4. None/Almost none of the time
TK26A7.	My job requires stooping, kneeling, crouching.	1. All/Almost all the time 2. Most of the time 3. Some of the time 4. None/Almost none of the time
TK26A8.	My job requires good eyesight.	1. All/Almost all the time 2. Most of the time 3. Some of the time 4. None/Almost none of the time
TK26A9.	My job requires intense concentration/attention.	1. All/Almost all the time 2. Most of the time 3. Some of the time 4. None/Almost none of the time
TK26A10.	My job requires skill in dealing with people.	1. All/Almost all the time 2. Most of the time 3. Some of the time 4. None/Almost none of the time
TK26A11.	My job requires me to work with computers.	1. All/Almost all the time 2. Most of the time 3. Some of the time 4. None/Almost none of the time
TK26A12.	My job involves a lot of stress.	1. All/Almost all the time 2. Most of the time 3. Some of the time 4. None/Almost none of the time

TK27. Do you have any additional job?	No ..... 3➔**TK46a** Yes 1

B. ADDITIONAL JOB ASK ABOUT THE ONE THAT CONSUMES MOST TIME		
TK18B.	Where do you work on your [...] job? **(ENTER NAME OF COMPANY/EMPLOYER)**	_____ _____
TK19B.	What does you company produce?	_____ _____
TK19Ba.	**EDITOR: CODE FOR SECTORS**	⌊_⌊_⌋
TK20B.	What are your primary duties at your workplace?	_____ _____
TK20Ba.	How many people work at your firm?	⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ Persons ..... 1 DON'T KNOW 8
TK21B.	What was the total number of hours you worked during the past week (on your job)?	⌊_⌊_⌊_⌋ Hours/Week
TK22B.	Normally, what is the approximate total number of hours you work per week?	⌊_⌊_⌊_⌋ Hours/Week
TK23B.	Approximately what is the total number of weeks you work per year?	⌊_⌊_⌋ Weeks/Year
TK23B2.	How long have you worked on this job?	⌊_⌊_⌋ Years ⌊_⌊_⌋ Months
TK23B4.	Are you a member of a labor union or a business association?	Yes ..... 1 No 3

CODE TK19Ba

Agriculture, forestry, fishing and hunting 01	Wholesale, retail, restaurants and hotels 06
Mining and quarrying 02	Transportation, storage and communications 07
Manufacturing 03	Finance, insurance, real estate and business services 08
Electricity, gas, water 04	Social services 09
Construction 05	Activities that cannot be classified 10

TK24B.	Which category best describes the work that you do?	Self employed ..... 01➔ **TK26B1** Self-employed with unpaid family worker/temporary worker ..... 02➔ **TK26B1** Self-employed with permanent worker .... 03➔ **TK26B1** Government worker ..... 04➔ **TK24B1a** Private worker ..... 05➔ **TK24B1a** Casual worker in agriculture ..... 07➔ **TK24B1a** Casual worker not in agriculture ..... 08➔ **TK24B1a** Unpaid family worker 06
TK24B1.	What is the name of your employer?	_____ AR00 ⌊_⌊_⌋ ➔ **TK46a**
TK24B1a.	How did you get this job?	Through government job fairs ..... 01 Through private job fairs ..... 02 School/university job fairs ..... 03 Responded to job ads ..... 04 Contacted company ..... 05 Through friends/relatives ..... 06 Contacted by company 07
TK24B2.	By what system were you paid during the last month?	By piece ..... 01 Per day or hour ..... 02 Per week or month ..... 03 Exchange labor ..... 04 Share of harvest/output ..... 05 By the job ..... 06 In kind ..... 07 Other 95
TK24B5.	Do you work with a contract?	No, work without contract ..... 03➔**TK25B1** Yes, with contract but not fixed time ..... 01➔**TK25B1** Yes, with fixed time contract 02
TK24B6.	What is the term of your contract?	1 ⌊_⌊_⌋ months 2. ⌊_⌊_⌋ . ⌊_⌋ year
TK24B7.	When did the current contract start?	⌊_⌊_⌋ / ⌊_⌊_⌊_⌊_⌋ Month / Year
TK25B1.	Approximately what was your salary/wage during the **last mo**nth (including the value of all benefits)?	⌊_⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ Rp. ..... 1➔**TK25B2** DON'T KNOW 8
TK25B1a.	Is it […]?	1. ≥ 1 million Rp — 11. ≥10 million Rp; 12. <10 million Rp; 18. DK 2. < 1 million Rp — 21. ≥ 500 thousand Rp; 22. < 500 thousand Rp; 28. DK 98. DK

TK25B2.	Approximately what was your salary/wage during the **last year** (including the value of all benefits)?	⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋ Rp. ..... 1➔**TK25B2b** DON'T KNOW 8
TK25B2a.	Is it […]?	1. ≥ 12 million Rp: 11. ≥ 80 million Rp; 12. < 80 million Rp; 18. DK 2. < 12 million Rp: 21. ≥ 6 million Rp; 22. < 6 million Rp; 28. DK 98. DK
TK25B2b.	What is the amount of year-end-bonus or other bonuses you received during **the last year**?	⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋ Rp. ..... 1➔**TK25B3** NOT APPLICABLE ..... 6➔**TK25B3** DON'T KNOW 8
TK25B2c.	Is it […]?	1. ≥ 1 million Rp: 11. ≥10 million Rp; 12. <10 million Rp; 18. DK 2. < 1 million Rp: 21. ≥ 500 thousand Rp; 22. < 500 thousand Rp; 28. DK 98. DK
TK25B3.	Did you receive the following benefits from your employer for this job?	**Yes No** a. Employer provided meals? ..... 1 3 If yes, how many per day? 1. ⌊⌋ times per day 2. Not every day b. Raw food, not in form of meals? ..... 1 3 c. Housing benefits? ..... 1 3 d. Transportation benefits? 1. Car? ..... 1 3 2. Transportation allowance? ..... 1 3 e. Medical benefits? 1. Employer paid some health expenses? .. 1 3 2. Employer provided health insurance policy? ..... 1 3 3. Employer provided health clinic ..... 1 3 f. Credit ..... 1 3 g. Employer provided pension ..... 1 3 h. Severance eligibility ..... 1 3 ➔**TK46a**
TK26B1.	Approximately how much net profit did you gain **last month**?	**Profit (+)** ⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋ Rp..... 1 **Loss (–)** ⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋ Rp..... 2 ➔**TK26B3** DON'T KNOW ..... 8↓

TK26B1a.	Is it […]?	1. ≥ 5 million Rp: 11. ≥20 million Rp; 12. 10-<20 million Rp; 13. <10 million Rp; 18. DK 2. < 5 million Rp: 21. ≥ 1 million Rp; 22. < 1 million Rp; 28. DK 98. DK
TK26B3.	Approximately how much net profit did you gain **last year**?	**Profit (+)** ⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋ Rp.....1 **Loss (–)** ⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋, ⌊⌊⌊⌋⌋⌋ Rp.....2 ➔ **TK46a** DON'T KNOW .....8↓
TK26B3a.	Is it […]?	1. ≥ 60 million Rp: 11. ≥ 120 million Rp; 12. 80- <120 million Rp; 13. < 80 million Rp; 18. DK 2. < 60 million Rp: 21. ≥ 12 million Rp; 22. < 12 million Rp; 28. DK 98. DK

SEKSI TK (EMPLOYMENT)

Now we want to ask about job quitting or job termination that you may have experienced as private/goverment employee.

TK46a.	In the last five years, have you been working for salary as private or government employee?	No..... 3 ➔ **TK47** Yes..... 1
TK46b.	When you were working for salary in the last five years, have you experienced job termination or quitted your job? **(NOT INCLUDING MANDATORY RETIREMENT OR END OF CONTRACT)**	No..... 3 ➔ **TK47** Yes..... 1
TK46c.	How many times in the last five years did you quit your job or experienced job termination? **(NOT INCLUDING MANDATORY RETIREMENT OR END OF CONTRACT)**	⌊⌊⌋⌋ times
TK46d.	When was the last time in the last 5 years you quit your job or experienced job termination? **(NOT INCLUDING MANDATORY RETIREMENT OR END OF CONTRACT)**	⌊⌊⌋⌋ /⌊⌊⌋⌋⌊⌋⌋ Month Year

Now we want to ask about the last job termination or job quitting as private or government employee.

TK46e.	Where did you work on your last job? **(ENTER NAME OF COMPANY/EMPLOYER)**	_____ _____
TK46f.	What did the company produce?	_____
TK46g.	**EDITOR: CODE FOR SECTORS**	⌊⌊⌋⌋
TK46h.	How many employee did your employer have?	1. 1- 4 people 2. 5-19 people 3. 20-99 people 4 ≥ 100 people 8. DON'T KNOW

CODE TK46g

Agriculture, forestry, fishing and hunting..... 01	Wholesale, retail, restaurants and hotels..... 06
Mining and quarrying..... 02	Transportation, storage and communications..... 07
Manufacturing..... 03	Finance, insurance, real estate and business services.... 08
Electricity, gas, water..... 04	Social services..... 09
Construction..... 05	Activities that cannot be classified..... 10

TK46i.	What type of company do you work for?	01. Government agencies 02. State-owned company 03. Domestic private company 04. Foreign/multinational company 05. Domestic worker (servants, driver, gardener, etc.)
TK46j.	How long have you been working there before you stop working?	⌊⌊⌋⌋ years and ⌊⌊⌋⌋ months
TK46l.	How much the wage / salary per month is received in the last month working on the job?	⌊⌊⌋⌋ , ⌊⌊⌋⌋⌊⌋⌋ , ⌊⌊⌋⌋⌊⌋⌋ Rp
TK46m.	What was the main reason your job was terminated or you quitted your job?	01. Fired by the company because business was closed down/relocated/restructured 02. Fired for other reason 03. Wage/salary was too low 04. Not conducive working environment 05. Refused being relocated 06. Prolonged sickness 07. Marriage 08. Childbirth 09. Other family reason 95. Other
TK46n.	Did you receive severance payment when you quit the job or when your job was terminated?	No..... 3 ➔ **TK46r** Yes..... 1
TK46p.	How much severance payment have you received so far?	⌊⌊⌋⌋ , ⌊⌊⌋⌋⌊⌋⌋ , ⌊⌊⌋⌋⌊⌋⌋ Rp.
TK46r.	Did you receive pension benefit from this job?	No..... 3 ➔ **TK46x** Yes..... 1
TK46s.	What type of pension?	TASPEN..... 1 ASABRI..... 2 JAMSOSTEK..... 3 Other private pension..... 4
TK46u.	What is the amount of the pension benefits you have received?	⌊⌊⌋⌋ , ⌊⌊⌋⌋⌊⌋⌋ , ⌊⌊⌋⌋⌊⌋⌋ Rp. ..... 1 DON"T KNOW..... 8
TK46x.	**INTERVIEWER CHECK TK46n=1 OR TK46r =1**	**NO**..... 3➔**TK47** **YES**..... 1
TK46y.	Were you satisfied with the terms of the severance and pension payment?	Very satisfied..... 1 Satisfied..... 2 Unsatisfied..... 3 Very unsatisfied..... 4

SEKSI TK (EMPLOYMENT)

Now we would like to ask about your first job.

TK47.	When did you start working full-time for the first time? **THE MEANING OF WORKING FULL-TIME IS THAT WORKING IS THE PRIMARY ACTIVITY.**	Work never primary activity .....6➔**SECTION RE** Year ⌊_⌊_⌊_⌊_⌋ .....1➔**TK50** DON'T KNOW 8
TK48.	What was your age when starting to work full-time for the first time?	⌊_⌊_⌋ **Years**
TK50.	Where did you work [...] ? **(ENTER NAME OF COMPANY/EMPLOYER)**	_____
TK50a.	What did the company produce?	_____
TK50b.	**EDITOR: CODE FOR SECTORS**	⌊_⌊_⌋

CODE TK50b

Agriculture, forestry, fishing and hunting.....01	Wholesale, retail, restaurants and hotels.....06
Mining and quarrying.....02	Transportation, storage and communications.....07
Manufacturing.....03	Finance, insurance, real estate and business services....08
Electricity, gas, water.....04	Social services.....09
Construction.....05	Activities that cannot be classified.....10

TK52.	What were your daily primary duties at [...] ?	_____ _____
TK53.	Normally, what was the approximate total number of hours you worked per week on your primary job in [...] ?	⌊_⌊_⌊_⌋ Hours/Week
TK54.	Approximately what was total number of weeks you worked per year on your primary job in [...] ?	⌊_⌊_⌋ Weeks/Year

TK55.	Which category best describes the work you did in your last job?	Unpaid Family Worker.....06➔ **SECTION RE** Self employed.....01➔**SECTION RE** Self-employed with unpaid family worker/temporary worker.....02➔**SECTION RE** Self-employed with permanent worker .03➔**SECTION RE** Government worker.....04 Private worker .....05 Casual worker in agriculture.....07 Casual worker in non-agriculture.....08
TK55a.	How did you get this job?	Through government job fairs.....01 Through private job fairs.....02 School/university job fairs.....03 Responded to job ads.....04 Contacted company.....05 Through friends/relatives.....06 Contacted by company.....07
TK56.	Approximately what was your monthly wage/salary/income in the year of [...] (including the value of all benefits)?	⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. ..... 1 DON'T KNOW ..... 8 ➔**SECTION RE**

SECTION RE (RETIREMENT)

Now we would like ask to you some questions related to theend of your work

RE01.	**INTERVIEWER CHECK COV3: IS RESPONDENT 50 OR ABOVE?**	**RESPONDENT AGE< 50**..... **3 ➔SECTION TR** **RESPONDENT AGE ≥ 50**..... 1

RE02.	Are you currently working?	3. Not working ➔**RE08** 1. Working
RE03.	If you lose this job one year from now, how easy do you expect you would get a similar job within a couple of months?	1. Very easy 2. Easy 3. Difficult 4. Very difficult
RE04.	Do you have any plan to stop working?	2. Change kind of work ➔ **RE06** 3. Work for self➔ **RE07** 4. Will not stop working➔**RE08** 5. Work until health fails➔**RE08** 6. Haven't given much thought/no plan yet➔**RE08** 1. Stop working
RE05.	At what age do you plan to stop working?	1. Age: ⌊_⌋⌊_⌋ years 2. Year ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ 8. DON'T KNOW
RE05a.	Are you planning to change the work you do?	No.....3➔**RE06a** Yes.....1
RE06.	At what age do you plan to change the work you do?	1. Age: ⌊_⌋⌊_⌋ years 2. Year ⌊_⌋⌊_⌋⌊_⌋⌊_⌋
RE06a.	Are you planning to start worki for yourself?	3. No➔**RE08** 1. Yes
RE07.	At what age do you plan to start work for yourself?	1. Age: ⌊_⌋⌊_⌋ years 2. Year ⌊_⌋⌊_⌋⌊_⌋⌊_⌋
RE08.	Do you consider yourself […]?	1. Retired➔**RE09** 2. Partly retired➔**RE09** 3. Not retired
RE08a.	Did you ever quit from your main job and continue to work?	No.....3➔**RE24** Yes.....1
RE09.	When did you retire?	1. ⌊_⌋⌊_⌋/⌊_⌋⌊_⌋⌊_⌋⌊_⌋ Month / Year 2. Age: ⌊_⌋⌊_⌋⌊_⌋ years
RE10.	What was your monthly salary the last month before you retired**? IF NOT RECEIVE SALARY/WAGES, CIRCLE 6**	⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.....1 NA.....6 DON"T KNOW.....8

RE11.	The following are the reasons why some people retire. Please tell me whether, for you, these were important reasons for retirement?	
A.	Poor health	1. Very important 2. Moderately important 3. Somewhat important 4. Not important at all
B.	Wanted to do other things	1. Very important 2. Moderately important 3. Somewhat important 1. Not important at all
C.	Didn't like the work	1. Very important 2. Moderately important 3. Somewhat important 4. Not important at all
D.	Want to spend more time with family.	1. Very important 2. Moderately important 3. Somewhat important 4. Not important at all

RE22.	All in all, would you say your retirement has turned out to be satisfying, moderately satisfying, or not at all satisfying?	1. Satisfying 2. Moderately satisfying 3. Not satisfying at alll
RE23.	Thinking about your retirement years compared to the years before you retired, would you say your retirement years have been better, about the same, or not as good?	1. Better 2. About the same 3. Not as good 6. RETIRED LESS THAN 1 YEAR AGO

RE24.	Do you currently live with your children?	NO CHILDREN..... 6 ➔ **SECTION TR** No..... 3 Yes..... 1
RE25.	In the next 5 years, do you expect to live with your children?	Yes..... 1 No..... 3
RE26.	Do you expect you will need financial help from your children in the future ?	Yes..... 1 No..... 3
RE27.	In the past 12 months, did you receive financial assistance from your children?	No..... 3 Yes..... 1
RE28.	Do you think you will receive financial assistance from your children in the future?	Yes..... 1 No..... 3
RE29.	Do you think you will leave a bequest/inheritance to one of your children?	Yes..... 1 No..... 3

SECTION TR (TRUST)

Now we want to ask you about trust in this village.

TR01.	I am willing to help people in this village if they need it.	Strongly agree ..... 1 Agree ..... 2 Disagree ..... 3 Strongly disagree 4
TR02.	In this village I have to be alert or someone is likely to take advantage of me.	Strongly agree ..... 1 Agree ..... 2 Disagree ..... 3 Strongly disagree 4
TR03.	Taking into account the diversity of ethnicities in the village, I trust people withe the same ethnicity as mine more.	Strongly agree ..... 1 Agree ..... 2 Disagree ..... 3 Strongly disagree 4
TR04.	I would be willing to leave my children with myr neighbors for a few hours if I cannot bring my children with along.	Strongly agree ..... 1 Agree ..... 2 Disagree ..... 3 Strongly disagree 4
TR05.	I would be willing to ask my neighbors to look after their house if I leave for a few days?	Strongly agree ..... 1 Agree ..... 2 Disagree ..... 3 Strongly disagree 4
TR06.	How safe do you consider this village?	Very safe ..... 1 Safe ..... 2 Unsafe ..... 3 Very unsafe 4
TR07.	In most parts of the village, is it safe for you to walk alone at night?	Very safe ..... 1 Safe ..... 2 Unsafe ..... 3 Very unsafe 4

Say you lost a wallet or a purse that contained Rp. 200.000 and your identity card. I'd like you to think about how likely it is that it will be returned with the money if it were found by someone else.

TR08.	Say it was found by someone who lives close by. Is it likely or unlikely that it will be returned to you with the Rp. 200.000?	**A.** Is it […]? 1. Likely 2. Unlikely 8. DON'T KNOW	**B.** 11. Very likely 12. Somewhat likely 18. DON'T KNOW 21. Somewhat unlikely 22. Very unlikely 28. DON'T KNOW
TR09.	Say it was found by a police officer. Is it likely or unlikely that it will be returned to you with the Rp. 200.000?	**A.** Is it […]? 1. Likely 2. Unlikely 8. DON'T KNOW	**B.** 11. Very likely 12. Somewhat likely 18. DON'T KNOW 21. Somewhat unlikely 22. Very unlikely 28. DON'T KNOW
TR10.	Say it was found by a complete stranger. Is it likely or unlikely that it will be returned to you with the Rp. 200.000?	**A.** Is it […]? 1. Likely 2. Unlikely 8. DON'T KNOW	**B.** 11. Very likely 12. Somewhat likely 18. DON'T KNOW 21. Somewhat unlikely 22. Very unlikely 28. DON'T KNOW

SECTION TR (TRUST)

TR11. How religious are you?	1. Very religious 2. Religious 3. Somewhat religious 4. Not religious 7. REFUSED
TR12. What is your religion?	96. ➔ **TR23** 2. Catholic ➔**TR15** 3. Protestant ➔ **TR15** 4. Hindu ➔**TR17** 5. Budha ➔**TR19** 6. Konghucu➔**TR21** 1. Islam
TR13. How many times do you pray each day?	⌊_⌊_⌋ times .....1 Not every day.....2 Do not practice .....3 REFUSED.....7
TR14. Do you only eat/drink halal food?	No .....3 Yes.....1 ➔ **TR23**
TR15. How often do you pray/read the bible?	Before each activities.....1 Morning and evening .....2 Once a day .....3 Sometimes.....4 Do not practice.....5 REFUSED.....7
TR16. Do you actively participate in religious activities such as prayer fellowship, etc?	No .....3 Yes.....1 ➔ **TR23**
TR17. Do you practice risadya/meditation/ yoga/ or pray in pura /sanggah/merajan/candi?	Every day.....1 During kajeng kliwon/full moon/tilem.....2 On holy days.....3 Don't practice.....4 REFUSED.....7
TR18. Do you observe a certain diet for spiritual reason?	Yes, vegetarian/mutih ..... 1 Yes, don't eat animals except fish ..... 2 Yes, don't eat read meat..... 3 Yes, don't eat beef..... 4 Yes, other dietary resriction ..... 5 No dietary restriction..... 6 ➔ **TR23**
TR19. Do you practice puja mantra/meditation/ to Vihara/ or in temple?	Every day.....1 Every week/every 1st or 15th of the month According to Chinese calendar.....2 Don't practice.....3 REFUSED.....7

TR20. Are you a vegetarian?	No .....3 Yes.....1 ➔ **TR23**
TR21. Do you pray/perform rituals?	Every day.....1 Every week .....2 No .....3 REFUSED.....7
TR22. Do you practice individual development according to your faith?	No .....3 Yes.....1
TR23. Taking into account the diversity of religions in the village, I trust people withe same religion as mine more.	Strongly agree.....1 Agree .....2 Disagree.....3 Strongly disagree 4
TR24. How do you feel if someone with different faith from you live in your village?	Not acceptable .....1 Somewhat acceptable.....2 No objection.....3 No objection at all 4
TR25. How do you feel if someone with different faith from you live in your neighborhood?	Not acceptable .....1 Somewhat acceptable.....2 No objection.....3 No objection at all 4
TR26 How do you feel if someone with different faith from you rent a room from you?	Not acceptable .....1 Somewhat acceptable.....2 No objection.....3 No objection at all 4
TR27 How do you feel if someone with different faith from you marry one of your close relatives or children?	Not acceptable .....1 Somewhat acceptable.....2 No objection.....3 No objection at all 4
TR28 What do you think if people who have different faith from you build a house of worship in your community?	Not acceptable .....1 Somewhat acceptable.....2 No objection.....3 No objection at all 4
TR29 How important is the religion of a candidate in influencing your decision to vote for him/her in an selection?	Make it very likely to vote for him.....1 Make it somewhat likely to vote for him .....2 Does not matter .....3 Make it somewhat unlikely to vote for him.....4 Make it very unlikely to vote for him 5
TR30 How important is the religiosity of a candidate in influencing your decision to vote for him/her in an election ?	Make it very likely to vote for him.....1 Make it somewhat likely to vote for him .....2 Does not matter .....3 Make it somewhat unlikely to vote for him.....4 Make it very unlikely to vote for him 5

SECTION CP (INTERVIEW SESSION NOTES)

EVALUATION FORM FOR BOOK IIIA

CP1. WHO ELSE (OTHER PERSONS) BESIDES RESPONDENT WAS PRESENT DURING THE INTERVIEW?
ANSWER MAY BE MORE THAN ONE.

A. NO ONE
B. A CHILD 5 YEARS OLD OR UNDER
C. A CHILD OLDER THAN 5 YEARS OLD
D. HUSBAND/WIFE
E. AN ADULT, A HOUSEHOLDER
F. AN ADULT, NOT A HOUSEHOLDER

CP2. WHAT IS YOUR EVALUATION OF THE ACCURACY OF RESPONDENT'S ANSWERS?

1. EXCELLENT
2. GOOD
3. FAIR
4. NOT SO GOOD
5. VERY BAD

CP3. WHAT IS YOUR EVALUATION ON THE SERIOUSNESS AND ATTENTIVENESS OF THE RESPONDENT?

1. EXCELLENT
2. GOOD
3. FAIR
4. NOT SO GOOD
5. VERY BAD

CP4. WHAT QUESTIONS DID RESPONDENT FIND DIFFICULT, EMBARRASSING, OR CONFUSING?

_____

_____

_____

CP5. WHAT QUESTIONS DID INTERVIEWER FIND DIFFICULT, EMBARRASSING, OR CONFUSING?

_____

_____

_____

CP6. WHAT QUESTIONS DID RESPONDENT SEEM INTERESTED IN?

_____

_____

_____

NOTES:

_____

_____

_____

_____

_____

_____

_____

_____

EDITOR: _____ ⌊_⌊_⌊_⌋ ***CONFIDENTIAL*** HHID: ⌊_⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌋

INTERVIEWER: _____ ⌊_⌊_⌊_⌋

INDONESIA FAMILY LIFE SURVEY EAST 2012

BOOK V

SECTIONS: DLA, MAA, PSA, RJA, FMA, RNA, BAA, CP

Respondent is a child less than 15 years old

TO BE FILLED OUT BY INTERVIEWER WHO COMPLETED ROSTER AR: PID

NAME OF HOUSEHOLDER: _____ ⌊_⌊_⌋

DIISI OLEH PEWAWANCARA YANG MENGISI BUKU V

COV7. **NAMA YANG MENJAWAB:** _____ ⌊_⌊_⌋ **NO. ART**

COV8. **HUBUNGAN DENGAN ANAK:**
01. Ibu 2. Ayah 03. Kakak
04. Paman/Bibi 5. Kakek/Nenek 06. Anak Yang Bersangkutan
95. Lainnya _____

TO BE FILLED OUT BY INTERVIEWER FOR BOOK V

QUESTION FOR RESPONDENT:

COV3. How old is [NAME OF CHILD]? ..... ⌊_⌊_⌋ Years

COV5. Sex: Male 1
Female 3

COV6. Date of Birth ..... ⌊_⌊_⌋ / ⌊_⌊_⌋ / ⌊_⌊_⌊_⌊_⌋
DAY MONTH YEAR

CODES FOR LANGUAGE

00. Indonesian
01. Javanese
02. Sundanese
03. Balinese
04. Batak
05. Bugis
06. Chinese
07. Maduranese
08. Sasak
09. Minang
10. Banjar
11. Bima
12. Makassar
13. Nias
14. Palembang
15. Sumbawa
16. Toraja
17. Lahat
18. Other South Sumatra
19. Betawi
20. Lampung
96. NO OTHER
95. Other _____

WAWANCARA	1	2	3
DATE:	⌊_⌊_⌋/ ⌊_⌊_⌋/ ⌊_⌊_⌊_⌊_⌋ DAY MONTH YEAR	⌊_⌊_⌋/ ⌊_⌊_⌋/ ⌊_⌊_⌊_⌊_⌋ DAY MONTH YEAR	⌊_⌊_⌋/ ⌊_⌊_⌋/ ⌊_⌊_⌊_⌊_⌋ DAY MONTH YEAR
TIME STARTED:	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR / MINUTE	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR / MINUTE	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR / MINUTE
TIME FINISHED:	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR / MINUTE	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR / MINUTE	⌊_⌊_⌋ / ⌊_⌊_⌋ HOUR / MINUTE

CK1. Interview was entirely/mostly conducted in what language?

⌊_⌊_⌋ Other: _____

CK2. Other language used (if any):

⌊_⌊_⌋ Other: _____

C1.RESULT OF INTERVIEW OF BOOK V	C2. CODE REASON FOR ANSWER "3"/"2" ON C1	C3. REVIEW BY EDITOR	C4. SUPERVISOR MONITORING
1. Completed➔**C3** 2. Partially completed 3. Not completed	1. Respondent was not at home/not available 2. Respondent was seriously ill 3. Respondent refused (to be interviewed) 5. Other: _____	1. Entered, no corrections necessary 2. Entered AND corrected 4. Manual edit without CAFÉ 3. Entered, but not corrected, explain: _____	Yes No a. Observed ..... 1 3 b. Edited ..... 1 3 c. Verified..... 1 3

SECTION DLA (CHILD'S EDUCATION)

Now we would like to ask some questions about [CHILD'S NAME]'s education.

DLA01.	Has [CHILD'S NAME] ever been to school?	Yes..... 1➔**DLA03b** No 3
DLA02.	Why has [CHILD'S NAME] never been to school? **CIRCLE ALL THAT APPLY**	NOT OLD ENOUGH ..... A TO HELP PARENTS EARN MONEY..... B COULD NOT AFFORD..... C NO SCHOOL/ TOO FAR ..... D NOT ABLE TO STUDY..... E NOT ACCEPTED IN SCHOOL ..... F BECAUSE SICK OR DISABLED ..... G SCHOOL HAD NO TEACHER..... H SCHOOL CLOSED..... I DOESN'T WANT TO GO..... K HELP AT HOME..... L OTHER..... V
DLA03b	Do you have cell phone?	No. ..... 3➔**DLA3d** Yes..... 1
DLA03c	What do you ussually use the cell phone for?	A.Private conversation B.Bussiness Conversation C.Text Message D.Email E.Social Media (chatting,facebook,Twitter) F.Mobile Banking G.Transfer phone minutes H. Entertainment/Multimedia (games, ringtones, TV, Radio, MP3)
DLA03d	Do you have internet access?	No. ..... 3➔**DLA03x** Yes..... 1
DLA03e	Where do you get internet access?	A.Computer at home B.Computer at school C.Computer at place of work D.Computer at Internet Cafe E.Handphone V.Others
DLA03x.	**INTERVIEWER CHECK** **DLA01 = 1**	**NO..... 3➔DLA04a** **YES 1**

DLA08.	What is the highest education level attended? **[NOTE TO INTERVIEWER: IF CURRENTLY IN SCHOOL, RECORD LEVEL ATTENDING CURRENTLY]**	02. Elementary School 03. Junior High-General 04. Junior High-Vocational 05. High School-General 06.High School-Vocational 11. Adult Education A 12. Adult Education B 14. Islamic School *(Pesantren)* 15. Adult Education C 17. School for the disabled. 72. Islamic Elementary School *(Madrasah Ibtidaiyah)* 73. Islamic Junior/High School *(Madrasah Tsanawiyah)* 74. Madrasah Senior High School 98. DON'T KNOW 95. Other
DLA09.	What class has [CHILD'S NAME] completed?	Did not finish 1st class at that level..... 00 1 ..... 01 2 ..... 02 3 ..... 03 4 ..... 04 5 ..... 05 6 ..... 06 Graduated ..... 07 DON'T KNOW 98
DLA04.	At what age did [CHILD'S NAME] first enter elementary school ?	⌊_⌊_⌋ Years..... 1 DON'T KNOW 8
DLA04a.	Did [CHILD'S NAME] ever attend a kindergarten?	No ..... 3➔**DLA04c** Yes..... 1
DLA04b.	At what age did [CHILD'S NAME] first enter kindergarten ?	⌊_⌊_⌋ Years..... 1 DON'T KNOW 8
DLA04c.	Did [CHILD'S NAME] ever attend a playgroup?	No ..... 3➔**DLA04e** Yes..... 1
DLA04d.	At what age did [CHILD'S NAME] first enter playgroup ?	⌊_⌊_⌋ Years..... 1 DON'T KNOW 8

SECTION DLA (CHILD'S EDUCATION)

DLA04e.	Is [CHILD'S NAME] attending school at Kindergarten now?	No ..... 3➔**DLA05x** Yes..... 1
DLA04f.	What was the total amount of money you spent on Kindergarten this academic year?	Rp ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋⌊_⌋ ➔ **DLA56x**
DL0A5x.	**INTERVIEWER CHECK DLA08: 14**	Yes .....1 ➔ **DLA56x** No.....3
DLA07.	Are you currently attending school?	No. ..... 3➔ **DLA09c** Yes..... 1
DLA07a .	How many effective shool hours did you attend your school last week or the last week the school was in session? (**NOT INCLUDING BREAKS**)	⌊_⌋⌊_⌋ hours
DLA09c.	**INTERVIEWR CHECK DLA08: WRITE DOWN THE NUMBER OF COLUMNS NEED TO BE COMPLETED ACCORDING TO HIGHEST LEVEL OF SCHOOL ATTENDED**	⌊_⌋ columns **IF "0" THEN ➔ DLA56x**

SCHOOL LEVEL (DLATYPE)	1. Elementary	2. Junior High	3. Senior High
DLA70. What is the school level [CHILD'S NAME] attended or [CHILD'S NAME] is still attending?	Elementary .... 02 Adult Education A .... 11 School for Disabled .... 17 Madrasah Elementary .... 72 Other 95	Junior high general .... 03 Junior high vocational .... 04 Adult Education B .... 12 School for Disabled .... 17 Madrasah Junior High School .... 73 Other 95	Senior high general .... 05 Senior high vocational .... 06 Adult Education C .... 15 School for Disabled .... 17 Madrasah Senior High School .... 74 Other 95
DLA71. Under whose administration is the school?	Public non-religious .... 01 Public religious .... 02 Private non-religious .... 03 Private Islam .... 04 Private Catholic .... 05 Private Protestant and others .... 06 Private Buddhist .... 08 Other 95	Public non-religious .... 01 Public religious .... 02 Private non-religious .... 03 Private Islam .... 04 Private Catholic .... 05 Private Protestant and others .... 06 Private Buddhist .... 08 Other 95	Public non-religious .... 01 Public religious .... 02 Private non-religious .... 03 Private Islam .... 04 Private Catholic .... 05 Private Protestant and others .... 06 Private Buddhist .... 08 Other 95
DLA71aa. Have you been following adult education A, B or C ?	YES .... 1 NO 3	YES .... 1 NO 3	YES .... 1 NO 3
DLA71a. What year did [CHILD'S NAME] first attend this level of schooling?	1. Year ⎿⏊⏊⏊⏌ ➔**DLA71c** 8. DON'T KNOW	1. Year ⎿⏊⏊⏊⏌ ➔**DLA71c** 8. DON'T KNOW	1. Year ⎿⏊⏊⏊⏌ ➔**DLA71c** 8. DON'T KNOW
DLA71b. At what age did [CHILD'S NAME] first enter this level of schooling?	⎿⏊⏌ Years	⎿⏊⏌ Years	⎿⏊⏌ Years
DLA71c. What is highest grade [CHILD'S NAME]completed at this level?	Graduated .... 07➔**DLA71f** Did not finish 1st class at that level .... 00 1 .... 01 2 .... 02 3 .... 03 4 .... 04 5 .... 05 6 .... 06 DON'T KNOW 98	Graduated .... 07➔**DLA71f** Did not finish 1st class at that level .... 00 1 .... 01 2 .... 02 3 .... 03 4 .... 04 5 .... 05 6 .... 06 DON'T KNOW 98	Graduated .... 07➔**DLA71f** Did not finish 1st class at that level .... 00 1 .... 01 2 .... 02 3 .... 03 4 .... 04 5 .... 05 6 .... 06 DON'T KNOW 98
DLA71d. Did [CHILD'S NAME] graduate this level of schooling?	Still enrolled .... 6➔**DLA75** Yes .... 1➔**DLA71f** No 3	Still enrolled .... 6➔**DLA75** Yes .... 1➔**DLA71f** No 3	Still enrolled .... 6➔**DLA75** Yes .... 1➔**DLA71f** No 3
DLA71e. Why did [CHILD'S NAME]stop [….]school?	Working/help parents earn money .... B Could not afford .... C No school/ too far .... D Not able to study .... E Not accepted in school .... F Because sick or disabled .... G School had no teacher .... H School closed/ruined .... I Doesn't want to go .... K Help at home .... L Other V	Working/help parents earn money .... B Could not afford .... C No school/ too far .... D Not able to study .... E Not accepted in school .... F Because sick or disabled .... G School had no teacher .... H School closed/ruined .... I Doesn't want to go .... K Help at home .... L Other V	Working/help parents earn money .... B Could not afford .... C No school/ too far .... D Not able to study .... E Not accepted in school .... F Because sick or disabled .... G School had no teacher .... H School closed/ruined .... I Doesn't want to go .... K Help at home .... L Other V
DLA71f. When did [CHILD'S NAME] leave/graduate from this level of schooling?	1. Year ⎿⏊⏊⏊⏌ ➔**DLA75** 8. DON'T KNOW	1. Year ⎿⏊⏊⏊⏌ ➔**DLA75** 8. DON'T KNOW	1. Year ⎿⏊⏊⏊⏌ ➔**DLA75** 8. DON'T KNOW

SECTION DLA (CHILD'S EDUCATION)

SCHOOL LEVEL (DLATYPE)	1. Elementary	2. Junior High	3. Senior High
DLA71g. At what age did [CHILD;S NAME] leave/graduate from this level of schooling?	⌴⌴ Years	⌴⌴ Years	⌴⌴ Years
DLA75. While attending [...] school, did [CHILD'S NAME] work?	Yes ..... 1 No 3	Yes ..... 1 No 3	Yes ..... 1 No 3
DLA73. Has [CHILD'S NAME]ever failed a grade at [...] school ?	No ..... 3➔**DLA74a** Yes 1	No ..... 3➔**DLA74a** Yes 1	No ..... 3➔**DLA74a** Yes 1
DLA74. What grades has [CHILD'S NAME] failed and how many times did you repeat that grade? **CIRCLE ALL THAT APPLY**	Grade / Number of repeats A. 1 ⌴ Times B. 2 ⌴ Times C. 3 ⌴ Times D. 4 ⌴ Times E. 5 ⌴ Times F. 6 ⌴ Times	Grade / Number of repeats A. 1 ⌴ Times B. 2 ⌴ Times C. 3 ⌴ Times	Grade / Number of repeats A. 1 ⌴ Times B. 2 ⌴ Times C. 3 ⌴ Times
DLA74a Has [CHILD'S NAME] ever leave school for 4 consecutive weeks or more, including not enrolling in a full year?	Yes ..... 1➔**DLA76b** No 3	Yes ..... 1➔**DLA76b** No 3	Yes ..... 1➔**DLA76b** No 3
DLA74aa. Has [CHILD'S NAME] ever leave school for 2 consecutive weeks or more, including not enrolling in a full year?	No ..... 3➔**DLA76a** Yes 1	No ..... 3➔**DLA76a** Yes 1	No ..... 3➔**DLA76a** Yes 1
DLA74b. How many time did [CHILD'S NAME] ever leave school and re-enter?	Grade / Number of disruption; Class / Number of disruption A. 1 ⌴ Times; D. 4 ⌴ Times B. 2 ⌴ Times; E. 5 ⌴ Times C. 3 ⌴ Times; F. 6 ⌴ Times	Grade / Number of disruption A. 1 ⌴ Times B. 2 ⌴ Times C. 3 ⌴ Times	Grade / Number of disruption A. 1 ⌴ Times B. 2 ⌴ Times C. 3 ⌴ Times
DLA74c. How many and when [CHILD;S NAME] leaves school temporary?	1. ⌴⌴ / ⌴⌴⌴⌴ until ⌴⌴ / ⌴⌴⌴⌴ Month /Year Month /Year 2. ⌴⌴ / ⌴⌴⌴⌴ until ⌴⌴ / ⌴⌴⌴⌴ Month /Year Month /Year 3. ⌴⌴ / ⌴⌴⌴⌴ until ⌴⌴ / ⌴⌴⌴⌴ Month /Year Month /Year	1. ⌴⌴ / ⌴⌴⌴⌴ until ⌴⌴ / ⌴⌴⌴⌴ Month /Year Month /Year 2. ⌴⌴ / ⌴⌴⌴⌴ until ⌴⌴ / ⌴⌴⌴⌴ Month /Year Month /Year 3. ⌴⌴ / ⌴⌴⌴⌴ until ⌴⌴ / ⌴⌴⌴⌴ Month /Year Month /Year	1. ⌴⌴ / ⌴⌴⌴⌴ until ⌴⌴ / ⌴⌴⌴⌴ Month /Year Month /Year 2. ⌴⌴ / ⌴⌴⌴⌴ until ⌴⌴ / ⌴⌴⌴⌴ Month /Year Month /Year 3. ⌴⌴ / ⌴⌴⌴⌴ until ⌴⌴ / ⌴⌴⌴⌴ Month /Year Month /Year
DLA74d. What the reason [CHILD'S NAME] stop/leave this level of schooling?	To help parents earn money ..... B Could not afford ..... C No school/ too far ..... D Not able to study ..... E Not accepted in school ..... F Because sick or disabled ..... G School had no teacher ..... H School closed/ruined ..... I Doesn't want to go ..... K Help at home ..... L Other V	To help parents earn money ..... B Could not afford ..... C No school/ too far ..... D Not able to study ..... E Not accepted in school ..... F Because sick or disabled ..... G School had no teacher ..... H School closed/ruined ..... I Doesn't want to go ..... K Help at home ..... L Other V	To help parents earn money ..... B Could not afford ..... C No school/ too far ..... D Not able to study ..... E Not accepted in school ..... F Because sick or disabled ..... G School had no teacher ..... H School closed/ruined ..... I Doesn't want to go ..... K Help at home ..... L Other V

SECTION DLA (CHILD'S EDUCATION)

	SCHOOL LEVEL	1. Elementary	2. Junior High	3. Senior High
DLA76a.	Has [CHILD'S NAME] ever taken the EBTANAS/UAN exam at [...] level?	No ..... 3 ➔ **DLA76xa** Yes 1	No ..... 3 ➔ **DLA76xa** Yes 1	No ..... 3 ➔ **DLA76xa** Yes 1
DLA76b.	Can you show us the official record of [CHILD'S NAME]'s EBTANAS/UAN score (DANEM) or National Examination Certificate (SURAT KETERANGAN HASIL UJIAN NASIONAL /SKHUN)? **INTERVIEWER NOTE:** **EBTANAS/UAN SCORES SHOULD BE COPIED FROM THE OFFICIAL RECORD (DANEM OR SKHUN).**	Yes ..... 1 No 3	Yes ..... 1 No 3	Yes ..... 1 No 3
DLA76c.	What month and year did [CHILD'S NAME] take the EBTANAS/UAN [...]?	1. ⌊_⌋⌊_⌋ / ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ Month Year 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ / ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ Month Year 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ / ⌊_⌋⌊_⌋⌊_⌋⌊_⌋ Month Year 8. DON'T KNOW
DLA76c1.	**INTERVIEWER CHECK: EBTANAS OR UAN**	EBTANAS ..... 1 UAN/UN/UAS 2	EBTANAS ..... 1 UAN/UN/UAS 2	EBTANAS ..... 1 UAN/UN/UAS 2
DLA76c2.	Number of subjects in the EBTANAS/UAN/UN at [...] level?	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋	⌊_⌋⌊_⌋
DLA76d.	What was [CHILD'S NAME] 's Ebtanas/UAN score for the following subjects: (If the respondent shows you official record (*DANEM*) copy from danem, if you cannot see official record (*DANEM*) ask the respondent for their score).			
	A. Moral and Civic Education from the nation's five principal/*Pancasila* (PMP/PPKn)	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW
	B. Indonesian	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW
	C. English		1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW
	D. Math	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW
	E. Science	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	
	I. Social studies	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	
	F. Biology			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW
	G. Chemistry			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW

SECTION DLA (CHILD'S EDUCATION)

	SCHOOL LEVEL	1. Elementary	2. Junior High	3. Senior High
	H. Physics			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW
	J. Economics			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW
	K. Sociology			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW
	L. Anthropology			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW
	M. Government			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW
	N. Accounting			1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW
	V. Total score of other courses	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 6 . NA 8. DON'T KNOW
DLA76e.	What is the total EBTANAS/UAN/UN (NEM) score?	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 8. DON'T KNOW	1. ⌊_⌋⌊_⌋ . ⌊_⌋⌊_⌋ 8. DON'T KNOW

SECTION DLA (CHILD'S EDUCATION)

	SCHOOL LEVEL	1. Elementary	2. Junior High	3. Senior High
DLA76xa.	**INTERVIEWER CHECK DLA08 AND DLA07: IS CHILD CURRENTLY ENROLLED IN […]?**	NO .... 3 ➔ **DLA76g** YES 1	NO .... 3 ➔ **DLA76g** YES 1	NO .... 3 ➔ **DLA76g** YES 1
DLA76f.	What is the name and address of the school? 1. Specify 3. Same as current residence 8. DON'T KNOW (DK)	**N. Name :** 8. DK 1. ________ **Add. Address:** 8. DK 1. ________ ________ **Loc. Loc. Note:** 8. DK 1. ________ ________ **A. Vill:** 1. ________ 3. Same 8. DK **B. Kec:** 1. ________ 3. Same 8. DK **C. Kab:** 1. ________ 3. Same 8. DK **D. Prov:** 1. ________ 3. Same 8. DK **CODE CF** └─┴─┴─┘ └─┘ └─┴─┴─┘	**N. Name :** 8. DK 1. ________ **Add. Address:** 8. DK 1. ________ ________ **Loc. Loc. Note:** 8. DK 1. ________ ________ **A. Vill:** 1. ________ 3. Same 8. DK **B. Kec:** 1. ________ 3. Same 8. DK **C. Kab:** 1. ________ 3. Same 8. DK **D. Prov:** 1. ________ 3. Same 8. DK **CODE CF** └─┴─┴─┘ └─┘ └─┴─┴─┘	**N. Name :** 8. DK 1. ________ **Add. Address:** 8. DK 1. ________ ________ **Loc. Loc. Note:** 8. DK 1. ________ ________ **A. Vill:** 1. ________ 3. Same 8. DK **B. Kec:** 1. ________ 3. Same 8. DK **C. Kab:** 1. ________ 3. Same 8. DK **D. Prov:** 1. ________ 3. Same 8. DK **CODE CF** └─┴─┴─┘ └─┘ └─┴─┴─┘
DLA76g.	How many hours on average did [CHILD'S NAME] attend school each day now/in his/her last year at school?	└─┴─┘ Hours/Day	└─┴─┘ Hours/Day	└─┴─┘ Hours/Day
DLA76i.	Approximately how many students are/were in [CHILD'S NAME]'s class now/in last year of school attended at this level?	└─┴─┘ Person(s) .... 1 DON'T KNOW 8	└─┴─┘ Person(s) .... 1 DON'T KNOW 8	└─┴─┘ Person(s) .... 1 DON'T KNOW 8
DLA76j.	Approximately how much time does it take to make a one-way trip to the school, now/in [CHILD'S NAME]'s last year of school at this level.	1. └─┴─┴─┘ 1. Hour 2. Minute 8. DON'T KNOW ➔ **DLA70 COLUMN 2/ DLA90**	1. └─┴─┴─┘ 1. Hour 2. Minute 8. DON'T KNOW ➔ **DLA70 COLUMN 3/ DLA90**	1. └─┴─┴─┘ 1. Hour 2. Minute 8. DON'T KNOW ➔ **DLA90**

HHID └─┴─┴─┘ └─┴─┘ └─┴─┘ └─┴─┘ **PID** └─┴─┘

SECTION DLA (CHILD'S EDUCATION)

We would like to ask about school-related expenses for the previous school year.

DLA90.	Did [CHILD'S NAME] attend school in the previous school year (starting 2010-2011) ?	No ..... 3➔ **DLA91c** Yes..... 1

DLA91a. What were [CHILD'S NAME] 's (approximate) school-related expenses during the 2010-2011 school year? Did you spend money for:			**DLA91b.** Please give your best estimate of the amount you spent.
T	**Total**		⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ Rp.
	3. No	**1. Yes**	
A.	School Fees		
1.	Registration ..... 3 ↓	1 ➔	⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ Rp.
2.	Other scheduled fees (BP3, School Committee, etc) ..... 3 ↓	1 ➔	⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ Rp. **DLA91bx. How much should you spend for other schedule fees […]?** ⌊_⌊_⌋ . ⌊_⌊_⌊_⌋ . ⌊_⌊_⌊_⌋ Rp.
3.	Exams..... 3 ↓	1 ➔	⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ Rp.
B.	School supplies		
1.	Books and writing supplies ..... 3 ↓	1 ➔	⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ Rp.
2.	Uniform and sports ..... 3 ↓	1 ➔	⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ Rp.
C.	Transportation and Pocket Money		
1.	Transportation ..... 3 ↓	1 ➔	⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ Rp.
2.	Housing costs, food 3 ↓	1 ➔	⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ Rp.
3.	Special courses ..... 3 ↓	1 ➔	⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ Rp.
V.	Other: ..... 3 ↓	1 ➔	⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ Rp.

DLA100.	Did [CHILD'S NAME] receive any books from the school during the 2010/2011 school year? **(CIRCLE ALL THAT APPLY)**	Yes, for himself/herself ..... A Yes, to share..... B No C
DLA101.	Did the school reduce [CHILD'S NAME] School Committee fees or other fees during the 2010/2011 school year (**i.e. FEES LISTED IN ITEM A IN DLA91a**)?	Yes..... 1 No 3
DLA102.	Did [CHILD'S NAME] receive assistance for school costs from School Committee, GNOTA, government, community groups, religious groups, or family (outside HH), or other?	No ..... 3➔ **DLA91c** Yes..... 1

SECTION DLA (CHILD'S EDUCATION)

DLA103.	From what source was this assistance, and what was the total value? **(CIRCLE ALL THAT APPLY)**	
	T. Total	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	A. GNOTA	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	C. Government (beside BOS/BKM)	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	D. Community Group	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	E. Religious Group	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	F. Family	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	I. School Committee	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	J. BOS/BKM fund	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	K. Foreign Government/Foundation/Private	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	L. Domestic Non-Government Institution/Organzitation	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	L1. Assistance for poor students	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.

DLA91c.	**INTERVIEWER CHECK:**	**RESPONDENT NOT IN SCHOOL (DLA07 = 3) ..... 3➔DLA56X** **RESPONDENT STILL IN SCHOOL (DLA07 = 1) 1**

	DLA104TYPE			**DLA104b.** Please give your best estimate of the amount you spent.
DLA104a.	What were [CHILD'S NAME] 's(approximate) school-related expenses during the past month? Did you spend money for:			
	T Total			⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
		3. No	**1. Yes**	
	A. School Fees			
	1. Registration	3 ↓	1 ➔	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	2. Other scheduled fees (BP3, School Committee, etc)	3 ↓	1 ➔	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp. **DLA91bx. How much should you spend for other schedule fees]?** ⌊_⌋⌊_⌋.⌊_⌋⌊_⌋⌊_⌋.⌊_⌋⌊_⌋⌊_⌋ Rp.
	3. Exams	3 ↓	1 ➔	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	B. School supplies			
	1. Books and writing supplies	3 ↓	1 ➔	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	2. Uniform and sports	3 ↓	1 ➔	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	C. Transportation and Pocket Money			
	1. Transportation	3 ↓	1 ➔	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	2. Housing costs, food	3 ↓	1 ➔	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	3. Special courses	3 ↓	1 ➔	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.
	V. Other:	3 ↓	1 ➔	⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋, ⌊_⌋⌊_⌋⌊_⌋ Rp.

SECTION DLA (CHILD'S EDUCATION)

DLA56x.	**INTERVIEWER CHECK COV3: AGE OF CHILDREN**	**< 5 YEARS OLD..... 3 ➔SECTION MAA** **≥ 5 YEARS OLD..... 1**

	DLA2TYPE	1.Wages	2. Family farm business	3. Family non-farm business	4. Household work
DLA56a.	Has [CHILD'S NAME] ever worked for […]?	No .....3 ➔**NEXT COLUMN** Yes.....1	No.....3 ➔**NEXT COLUMN** Yes 1	No .....3 ➔**NEXT COLUMN** Yes.....1	No.....3 ➔**SECTION MAA** Yes.....1
DLA57a.	Did [CHILD'S NAME] work for […] last month?	No .....3➔**DLA61a** Yes.....1	No.....3➔**DLA61a** Yes 1	No .....3➔**DLA61a** Yes.....1	No.....3➔**DLA61a** Yes.....1
DLA58a.	How many hours did [CHILD'S NAME] work for […] in the last week he/she worked?	⌊_⌋⌊_⌋ hours..... 1 DON'T KNOW..... 8	⌊_⌋⌊_⌋ hours ..... 1 DON'T KNOW 8	⌊_⌋⌊_⌋ hours.....1 DON'T KNOW.....8	⌊_⌋⌊_⌋ hours ..... 1 DON'T KNOW 8
DLA59a.	How many weeks did [CHILD'S NAME] work for […] in last month?	⌊_⌋ . ⌊_⌋ weeks .....1 DON'T KNOW.....8	⌊_⌋ . ⌊_⌋ weeks .....1 DON'T KNOW 8	⌊_⌋ . ⌊_⌋ weeks .....1 DON'T KNOW.....8	⌊_⌋ . ⌊_⌋ weeks.....1 DON'T KNOW 8
DLA60a.	How much was [CHILD'S NAME]'s earnings last month?	⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. .... 1 DON'T KNOW..... 8			
DLA61a.	At what age did [CHILD'S NAME] start working for […]?	⌊_⌋⌊_⌋ age ..... 1 DON'T KNOW..... 8	⌊_⌋⌊_⌋ age.....1 DON'T KNOW 8	⌊_⌋⌊_⌋ age .....1 DON'T KNOW.....8	⌊_⌋⌊_⌋ age ..... 1 DON'T KNOW 8
DLA62a.	At what age did [CHILD'S NAME] last work for […]?	⌊_⌋⌊_⌋ age ..... 1 STILL WORKING..... 6 DON'T KNOW..... 8 **➔DLA56a NEXT COLUMN**	⌊_⌋⌊_⌋ age.....1 STILL WORKING ..... 6 DON'T KNOW ..... 8 **➔DLA56a NEXT COLUMN**	⌊_⌋⌊_⌋ age .....1 STILL WORKING.....6 DON'T KNOW.....8 **➔DLA56a NEXT COLUMN**	⌊_⌋⌊_⌋ age ..... 1 STILL WORKING ..... 6 DON'T KNOW ..... 8 **➔SECTION MAA**

SECTION MAA (ACUTE MORBIDITY)

Now, we'd like to know about [CHILD'S NAME]'s health status and whatever symptoms [CHILD'S NAME] has had during the past 4 weeks, namely since [...] date, 4 weeks ago.

MAA0a.	In general, how is [...]'s health at this time?	Very healthy ..... 1 Somewhat healthy ..... 2 Somewhat unhealthy ..... 3 Unhealthy 4
MAA0b.	During the last 4 weeks how many days of activities did [...] miss because of poor health?	⌊_⌋⌊_⌋ Days ..... 1 DON'T KNOW 8
MAA0c.	During the last 4 weeks how many days did [...] spend in bed because of poor health?	⌊_⌋⌊_⌋ Days ..... 1 DON'T KNOW 8
MAA0d.	Compared with […]'s health 12 months ago, would you say that [NAME OF CHILD]'s health now is […]?	Much better now ..... 1 Somewhat better now ..... 2 About the same ..... 3 Somewhat worse ..... 4 Much worse ..... 5 Child less than 1 year old 6

		MAA01. Did your child ever experience […] in the last 4 weeks?	**1. Yes**	**3. No**
AA	Headache		1	3
BA	Runny nose		1	3
CA	Cough		1	3➔**DA**
	a. Dry cough	a.	1	3
	b. Cough with phlegm	b.	1	3
	c. Bloody cough	c.	1	3
DA	Difficulty breathing		1	3➔**EA**
	a. Wheezing	a.	1	3
	b. Short, rapid breath	b.	1	3
EA	Fever		1	3
FA	Stomach ache		1	3
HA	Nausea/vomiting		1	3
IA	Diarrhea minimal of 3x per day		1	3➔**JA**
	a. Mixed with blood	a.	1	3
	b. Mixed with mucous	b.	1	3
	c. Pale liquid	c.	1	3
JA	Skin infection (boil, abcess itching)		1	3
KA	Eye Infection		1	3
LA	Toothache		1	3
MA	Cold sores		1	3

MAA04.	**INTERVIEWER CHECK:** **IF MAA01 = 1**	**NO ..... 3 SECTION PSA** **YES 1**		
MAA05a.	While your child was sick, did/was he/she:			
	a. Still like to play	a.	1. Yes	3. No
	b. Have difficulty sleeping	b.	1. Yes	3. No
	c. More irritable than usual	c.	1. Yes	3. No
	d. Just lie around	d.	1. Yes	3. No

SECTION MAA (ACUTE MORBIDITY)

Now, we'd like to know whether [CHILD'S NAME] has taken medicine on his/her own during the past 4 weeks, namely since [...] date, 4 weeks ago.

TYPE OF SELF TREATMENT (PSATYPE)	PSA01. During the past 4 weeks, has [CHILD'S NAME] ever [...]?	PSA02. What is the approximate total cost to purchase or make that medicine during the past 4 weeks?
A. Consumed over-the-counter modern medicines (like bodrexin, inzana, paramex)	3. No ➔ 1. Yes ➔	1. ⌊__⌋,⌊__⌋⌊__⌋⌊__⌋,⌊__⌋⌊__⌋⌊__⌋ Rp. 8. DON'T KNOW
B. Consumed traditional herbs or traditional medicines as treatment	3. No ➔ 1. Yes ➔	1. ⌊__⌋,⌊__⌋⌊__⌋⌊__⌋,⌊__⌋⌊__⌋⌊__⌋ Rp. 8. DON'T KNOW
C. Used topical medicines (like eyedrops, cream, medical plaster, ointment and the like)	3. No ➔ 1. Yes ➔	1. ⌊__⌋,⌊__⌋⌊__⌋⌊__⌋,⌊__⌋⌊__⌋⌊__⌋ Rp. 8. DON'T KNOW
E. Vitamins/Supplements	3. No ➔ 1. Yes ➔	1. ⌊__⌋,⌊__⌋⌊__⌋⌊__⌋,⌊__⌋⌊__⌋⌊__⌋ Rp. 8. DON'T KNOW
F. Massage, *coining*, etc.	3. No ➔ 1. Yes ➔	1. ⌊__⌋,⌊__⌋⌊__⌋⌊__⌋,⌊__⌋⌊__⌋⌊__⌋ Rp. 8. DON'T KNOW

SECTION RJA (OUT-PATIENT CARE)

The next questions pertain to medical facilities or medical providers [CHILD'S NAME] may have visited for outpatient care during the past 4 weeks, namely since [...] date, 4 weeks ago.

RJA0a.	Did [...] visit a Posyandu in the last 4 weeks?	No ..... 3 ➔ **RJA01a** Yes 1
RJA0b.	What is the name and address of the Posyandu, including RT and RW? 1.Specify 2. Same as current dwelling 3. DON'T KNOW	Name 1. _____ 8. DK Address 1. _____ _____ 8. DK Loc. Note 1. _____ _____ 8. DK **RT** 1. _____ 3. Same as current residence 8. DON'T KNOW **RW** 1. _____ 3. Same as current residence 8. DON'T KNOW **A. Village** 1. _____ 3. Same as current residence 8. DON'T KNOW **CODE COMFAS** ⌊_⌊_⌋ ⌊_⌋ ⌊_⌊_⌋
RJA0c.	What services did [...] receive at the Posyandu?	Yes No a. Weighing ..... 1 3 b. Supplementary Food ..... 1 3 c. Vitamin A Pill ..... 1 3 d. Oral Rehydration Solution ..... 1 3 e. Immunization ..... 1 3 f. Exam by Puskesmas Staff ..... 1 3 g. Child Development Activity ..... 1 3 v. Other 1 3
RJA0d.	Were there any staff from the Puskesmas at the Posyandu?	No ..... 3 Yes 1
RJA0e.	Did you pay for the services [...] received at the posyandu?	No ..... 3 ➔ **RJA01a** Yes 1
RJA0f.	How much did you pay?	⌊_⌊_⌋ , ⌊_⌊_⌊_⌋ Rp. ..... 1 DON'T KNOW 8

HHID: ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌋ ⌊_⌊_⌋ **PID:** ⌊_⌊_⌋

SECTION RJA (OUT-PATIENT CARE)

RJA01a.	In the last 4 weeks, did [...] visit a hospital, health center, clinic, or doctor's practice, or was [...] visited by a health worker?	No ..... 3 ➔ **RJA25** Yes 1

MEDICAL FACILITY **(RJA1TYPE)**	**RJA01.** Within the last 4 weeks, has [CHILD'S NAME] been to [...]/ visited by [...]?	**RJA02.** How many times did [CHILD'S NAME] [...] / been visited by [...] during the past 4 weeks?	**RJA02a.** How much did you pay out of pocket for [CHILD'S NAME]'s outpatient care at […] during the past 4 weeks?
A. Public hospital (General or Specialty)	3. No➔ 1. Yes ➔	⌊_⌋⌊_⌋⌊_⌋ Times	1. ⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW
B. Public Health Center (puskesmas)/Auxiliary Center (puskesmas pembantu)	3. No➔ 1. Yes ➔	⌊_⌋⌊_⌋⌊_⌋ Times	1. ⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW
E. Private Hospital	3. No➔ 1. Yes ➔	⌊_⌋⌊_⌋⌊_⌋ Times	1. ⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW
F. Polyclinic, Private Clinic, Medical Center	3. No➔ 1. Yes ➔	⌊_⌋⌊_⌋⌊_⌋ Times	1. ⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW
G. Private Physician (General Practitioner, Specialist, Dentist)	3. No➔ 1. Yes ➔	⌊_⌋⌊_⌋⌊_⌋ Times	1. ⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW
H. Nurse, Paramedic, Midwife practitioner	3. No➔ 1. Yes ➔	⌊_⌋⌊_⌋⌊_⌋ Times	1. ⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW
I. Traditional practitioner (shaman, wiseman, kyai, Chinese herbalist, masseur, acupuncturist, etc.)	3. No➔ 1. Yes ➔	⌊_⌋⌊_⌋⌊_⌋ Times	1. ⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW
V. Other	3. No➔ 1. Yes ➔	⌊_⌋⌊_⌋⌊_⌋ Times	1. ⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW

SECTION RJA (OUT-PATIENT CARE)

Now, I'd like to ask you some questions about [CHILD'S NAME] LAST VISIT to health care providers.

		LAST HEALTH CARE
RJA05a.	What is the type of medical facility or type of provider?	⌊⌋ _____
RJA06.	What is the name and location of the medical provider? 1. Specify 3. Same as residence 8. DON'T KNOW (DK)	Name 1._____8. DK _____ Address 1. _____ _____8. DK Loc. Note 1._____ _____8. DK **A. Vill:** 1._____ 3. Same as residence 8. DK **B. Kec** 1._____ 3. Same as residence 8. DK **C. Kab:** 1._____ 3. Same as residence 8. DK **D. Prov:** 1._____ 3. Same as residence 8. DK **CODE CF** ⌊⌋⌊⌋ ⌊⌋ ⌊⌋⌊⌋⌊⌋
RJA08.	What was the purpose of [CHILD'S NAME] visit to that facility? **ANSWER MAY BE MORE THAN ONE**	**ANSWER MAY BE MORE THAN ONE**
	B. Immunization.....	B
	C. Consultation	C
	D. Medical check-up	D
	E. Medications.....	E
	F. Injection.....	F
	H. Treatment for Injury.....	H
	I. Treatment for Illness	I
	J. Massage	J
	V. Other, ...	V.....

HHID: ⌊⌋⌊⌋⌊⌋ ⌊⌋⌊⌋⌊⌋ ⌊⌋⌊⌋⌊⌋ ⌊⌋⌊⌋ **PID:** ⌊⌋⌊⌋

RJA09.	Was the visit to [...] the first visit or a follow-up visit for the symptom?	First.....1 Follow-up 3
RJA10.	**INTERVIEWER'S NOTE:** **CHECK RJA05a** **1. IF A, B, E, F ➔ RJA11** ..... **3. NO**	 **1. ➔ RJA11** **3. NO**
RJA10a.	Did the provider visit the child at home?	Yes .....1 ➔ **RJA17** No.....3
RJA11.	How many kilometers is it between the medical facility and [CHILD'S NAME] residence?	1. ⌊⌋⌊⌋⌊⌋.⌊⌋⌊⌋ Km 8. DON'T KNOW
RJA12.	What is the travel time to that facility?	1. ⌊⌋⌊⌋ 01. Minute 02. Hour 8. DON'T KNOW
RJA14.	What was the total transportation cost to the facility (**INCLUDING FUEL COST, ONE WAY TRIP)?**	1. ⌊⌋⌊⌋⌊⌋,⌊⌋⌊⌋⌊⌋ Rp. 8. DON'T KNOW
RJA15.	Upon arrival, how long did [CHILD'S NAME] have to wait to be examined?	⌊⌋⌊⌋ 01. Minute 02. Hour 8. DON'T KNOW
RJA17.	What kind of treatment did [CHILD'S NAME] receive? **ANSWER MAY BE MORE THAN ONE**	**ANSWER MAY BE MORE THAN ONE**
	A. Medical check-up/consultation..	A
	B. Injection	B
	C. Laboratorium test.....	C
	D. Surgery	D
	E. X-ray	E
	G. Medications.....	G
	I. Massage	I
	J. Traditional treatment.....	J
	V. Other.....	V
RJA17a.	What do you think about the services that were provided by this facility ?	1. Satisfactory 2. Somewhat satisfactory 3. Not satisfactory 4. Far from satisfactory
RJA20.	What was the total cost to fill a prescription that you received during this visit?	1. ⌊⌋⌊⌋⌊⌋,⌊⌋⌊⌋⌊⌋ Rp. 3. Didn't receive 5. Didn't fill 8. DON'T KNOW

SECTION RJA (OUT-PATIENT CARE)

RJA21.	What was the total cost of treatment, including medications that may have been administered, not including prescription cost?	1. ⌊_⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp 3. Did not pay anything 8. DON'T KNOW
RJA21a.	Did you use insurance to pay for all or some of this visit?	No.....3 ➔ **RJA22** Yes 1
RJA21b.	What insurance did you use?	01. Askes 02. Jamsostek 03. Employer provided insurance 04. Health insurance paid by the respondent 05. Insurance related bank saving 06. Letter stating non-affordability (*Surat Miskin*) 07. JAMKESMAS 95. Other
RJA22.	Was any payment in kind made?	No.....3 ➔ **RJA25** Yes 1
RJA23.	What was the approximate value of the goods?	1. ⌊_⌋,⌊_⌊_⌊_⌋,⌊_⌊_⌊_⌋ Rp. 8. DON'T KNOW
RJA25.	**INTERVIEWER CHECK BOOK COVER (COV3): IS [CHILD'S NAME] 0-5 YEARS OLD?**	**NO..... 3 ➔ SECTION FMA01** **YES 1**
RJA25a.	Has [CHILD'S NAME] been given Vitamin A in the last 6 months?	Yes ..... 1 No..... 3

SECTION RJA (OUT-PATIENT CARE)

RJA26.	Does [CHILD'S NAME] have a KMS card or KIA book? IF YES, may i see it, please?	Does not have card ..... 3 ➔ **RJA30** Yes, but can't see ..... 2 ➔ **RJA30** Yes, can see 1
RJA27.	FROM THE KMS CARD, RECORD THE NUMBER OF TIMES VITAMIN A WAS GIVEN	1. ⌊_⌋⌊_⌋ ... times vitamin A was given as recorded on the KMS/KIA card 3. Tidak tercatat di Kartu KMS/KIA
RJA28a.	1. RECORD THE DATE OF EACH IMMUNIZATION ON THE KMS CARD. 2. WRITE '44' IN 'DAY' COLUMN, IF THE CHILD HAS ALREADY HAD THE IMMUNIZATION, BUT THE DATE ISN'T RECORDED.	DAY MONTH YEAR
	b. BCG	b. ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋
	c. Polio 0 (at birth)	c. ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋
	d. Polio 1	d. ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋
	e. Polio 2	e. ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋
	f. Polio 3	f. ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋
	n. Polio 4	n. ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋
	g. DPT 1	g. ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋
	h. DPT 2	h. ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋
	i. DPT 3	i. ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋
	j. Measles	j. ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋
	k. Hepatitis B 1	k. ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋
	l. Hepatitis B 2	l. ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋
	m. Hepatitis B 3	m. ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋ ⌊_⌋⌊_⌋⌊_⌋⌊_⌋
RJA29.	Has [CHILD'S NAME] already received BCG, DPT 1-3, POLIO 0-4, and/or Measles and Hepatitis B, but this information isn't recorded on the KMS/KIA card?	Yes ..... 1 No ..... 3 DON'T KNOW 8
RJA29a.	**INTERVIEWER CHECK:** **PROBE ABOUT VACCINATIONS THAT HAVE BEEN RECEIVED AND** **WRITE "66" IN THE APPROPRIATE ROWS IN RJA28a ACCORDING TO THE LINES MENTIONED** **WRITE "00"IN RJA28a IN THE ROWS FOR WHICH IMMUNIZATION WERE NOT DONE** **WRITE "88"IN RJA28a IN THE ROWS FOR WHICH RESPONDENT DIDN'T KNOW WHETHER IMMUNIZATIONS HAVE BEEN DONE** ➔**RJA31**	

RJA30.	Please telll us whether [CHILD'S NAME] has already received the immunizations listed below:	
	A. **BCG** vaccination against turberculosis, that is, an injection in the upper arm that left a scar.	Yes ..... 1 No ..... 3 DON'T KNOW 8
	B. **Polio Vaccine**, that is, pink or white drops in the mouth? **IF 'YES':** How many times?	Yes ..... 1 No ..... 3 DON'T KNOW ..... 8 ⌊_⌋⌊_⌋ Times
	C. **DPT Vaccination**, that is, an injection, usually given at the same time as polio drops **IF 'YES':** How many times?	Yes ..... 1 No ..... 3 DON'T KNOW ..... 8 ⌊_⌋⌊_⌋ Times
	D. An injection against **Measles.**	Yes ..... 1 No ..... 3 DON'T KNOW 8
	E. **Anti Hepatitis B** Injection **IF 'YES':** How many times?	Yes ..... 1 No ..... 3 DON'T KNOW ..... 8 ⌊_⌋⌊_⌋ Times
	F. Vitamin A **IF 'YES':** How many times?	Yes ..... 1 No ..... 3 DON'T KNOW ..... 8 ⌊_⌋⌊_⌋ Times
RJA31.	In the last 4 weeks has [CHILD'S NAME] participated in the activities of the Child Development Program?	Yes ..... 1 No 3
RJA32.	How many times was child weighed in the last 6 months?	⌊_⌋⌊_⌋ Times..... 1 DON'T KNOW 8

SECTION FMA (FOOD FREQUENCY)

FMA01 How many times [CHILD'S NAME] eat?	Still breast fed .....96➔**SEKSI RNA** 3 or more times a day .....01 2 times a day .....02 1 time a day .....03 5-6 times a week.....04 3-4 times a week.....05 2 or less times a week .....06 DON'T KNOW.....98
FMA01a. How often does [CHILD'S NAME] brush their teeth? **(CIRCLE ALL THAT APPLY)**	Every morning.....A Every night.....B Every afternoon.....C After meals.....D Never .....E Sometimes.....F DON'T KNOW.....Y

Now we would like to ask you about the type of food [CHILD'S NAME] usually eat.

TYPE OF FOOD FMTYPE (FMTYPE)	FMA02.	FMA03.	FMA04.	FMA05.
	In the last week, did [CHILD'S NAME] eat any [….]?	How many days did [CHILD'S NAME] eat […] in the last week?	How many days did [CHILD'S NAME] eat […] in the last month?	How many days did [CHILD'S NAME] eat […] in the last 6 months?
A Sweet potatoes	3. No ➔ **FMA04** 1. Ya ➔	2 3 4 5 6 7 🡻 1➔	2. ⌊_⌋⌊_⌋ days 🡻 0.0 day 1.1 days➔	2. ⌊_⌋⌊_⌋ days 0.0 day 1.1 days
B Eggs	3. No ➔ **FMA04** 1. Ya ➔	2 3 4 5 6 7 🡻 1➔	2. ⌊_⌋⌊_⌋ days 🡻 0.0 day 1.1 days➔	2. ⌊_⌋⌊_⌋ days 0.0 day 1.1 days
C Fish	3. No ➔ **FMA04** 1. Ya ➔	2 3 4 5 6 7 🡻 1➔	2. ⌊_⌋⌊_⌋ days 🡻 0.0 day 1.1 days➔	2. ⌊_⌋⌊_⌋ days 0.0 day 1.1 days
D Meat (beef, chicken, pork, etc.)	3. No ➔ **FMA04** 1. Ya ➔	2 3 4 5 6 7 🡻 1➔	2. ⌊_⌋⌊_⌋ days 🡻 0.0 day 1.1 days➔	2. ⌊_⌋⌊_⌋ days 0.0 day 1.1 days
E Dairy	3. No ➔ **FMA04** 1. Ya ➔	2 3 4 5 6 7 🡻 1➔	2. ⌊_⌋⌊_⌋ days 🡻 0.0 day 1.1 days➔	2. ⌊_⌋⌊_⌋ days 0.0 day 1.1 days
F Green leafy vegetables	3. No ➔ **FMA04** 1. Ya ➔	2 3 4 5 6 7 🡻 1➔	2. ⌊_⌋⌊_⌋ days 🡻 0.0 day 1.1 days➔	2. ⌊_⌋⌊_⌋ days 0.0 day 1.1 days
G Banana	3. No ➔ **FMA04** 1. Ya ➔	2 3 4 5 6 7 🡻 1➔	2. ⌊_⌋⌊_⌋ days 🡻 0.0 day 1.1 days➔	2. ⌊_⌋⌊_⌋ days 0.0 day 1.1 days
H Papaya	3. No ➔ **FMA04** 1. Ya ➔	2 3 4 5 6 7 🡻 1➔	2. ⌊_⌋⌊_⌋ days 🡻 0.0 day 1.1 days➔	2. ⌊_⌋⌊_⌋ days 0.0 day 1.1 days
I Carrot	3. No ➔ **FMA04** 1. Ya ➔	2 3 4 5 6 7 🡻 1➔	2. ⌊_⌋⌊_⌋ days 🡻 0.0 day 1.1 days➔	2. ⌊_⌋⌊_⌋ days 0.0 day 1.1 days
J Mango	3. No ➔ **FMA04** 1. Ya ➔	2 3 4 5 6 7 🡻 1➔	2. ⌊_⌋⌊_⌋ days 🡻 0.0 day 1.1 days➔	2. ⌊_⌋⌊_⌋ days 0.0 day 1.1 days

SECTION RNA (CHILD INPATIENT UTILIZATION)

The following questions pertain to hospitalization (inpatient care) that [CHILD'S NAME] has had during the past 12 months, namely since the month of [...] 12 months ago.

RNA00. In the last 12 months, namely since the month of [...], did [CHILD'S NAME] receive inpatient care?	No ..... 3 ➔**SECTION BAA** Yes 1

HOSPITALIZATION FACILITY (RNA1TYPE)	RNA01. During the past 12 months, has [CHILD'S NAME] ever received inpatient care at [...]?	RNA02. How many times has [CHILD'S NAME] received inpatient care at [...] during the past 12 months?	RNA02a. How much did you pay out of pocket for inpatient care at […] during the past 12 months?
A. Public Hospital (General or Specialty)	3. No↓ 1. Yes ➔	⌊_⌋⌊_⌋ Times	1. Rp ⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW
B. Public Health Center (puskesmas)	3. No↓ 1. Yes ➔	⌊_⌋⌊_⌋ Times	1. Rp ⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW
C. Private Hospital	3. No↓ 1. Yes ➔	⌊_⌋⌊_⌋ Times	1. Rp ⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW
D Private Clinic	3. No↓ 1. Yes ➔	⌊_⌋⌊_⌋ Times	1. Rp ⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW
F. Midwife Clinic	3. No↓ 1. Yes ➔	⌊_⌋⌊_⌋ Times	1. Rp ⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW
V. Other	3. No↓ 1. Yes ➔ **RNA05a**	⌊_⌋⌊_⌋ Times	1. Rp ⌊_⌋,⌊_⌋⌊_⌋⌊_⌋,⌊_⌋⌊_⌋⌊_⌋ Rp. 8. DON'T KNOW

SECTION RNA (CHILD INPATIENT UTILIZATION)

Now, we'd like to ask you some questions about [CHILD'S NAME] last visit to inpatient health care providers.

RNA05a.	What was the type of the last hospitalization facility	⌊⌋ _____
RNA06.	What is the name and location of facility? 1. Specify 3. Same as current residence 8. DON'T KNOW	Name 1. _____ 8. DK _____ Address 1. _____ 8. DK _____ Loc. Note 1. _____ 8. DK _____ **A. Vill:** 1. _____ 3. Same 8. DK **B. Kec** 1. _____ 3. Same 8. DK **C. Kab:** 1. _____ 3. Same 8. DK **D. Prov:** 1. _____ 3. Same 8. DK **CODE CF** ⌊⌋⌋⌋ ⌊⌋ ⌊⌋⌋⌋⌋
RNA08.	How many nights was [CHILD'S NAME] hospitalized there?	⌊⌋⌋⌋ Nights
RNA10.	For what reason was [CHILD'S NAME] hospitalized?	Sickness .....01 Accident .....02 Operation, what type? .....05 Other 95

HHID: ⌊⌋⌋⌋ ⌊⌋⌋⌋ ⌊⌋⌋⌋ ⌊⌋⌋⌋ **PID:** ⌊⌋⌋

RNA15.	During hospitalization, what kind of treatment did [CHILD'S NAME] receive?	**(CIRCLE ALL THAT APPLY)** A. Physical exam/consult B. Injection C. Laboratory test D. Surgery E. X-ray G. Medications I. IV (Drip Infusion) J Fisioterapi V. Other
RNA15a.	What do you think about the services that were provided by this facility ?	1. Satisfactory 2. Somewhat satisfactory 3. Not satisfactory 4. Far from satisfactory
RNA18.	What was the total cost to fill a prescription that you received during this visit?	1. ⌊⌋⌋⌋,⌊⌋⌋⌋,⌊⌋⌋⌋ Rp. 3. Didn't receive 5. Didn't fill 8. DON'T KNOW
RNA19.	Upon discharge from the hospital, what was the total cost of hospitalization? (Including medications administered but not including self-bought medications and blood supply.)	1. ⌊⌋⌋,⌊⌋⌋⌋,⌊⌋⌋⌋ Rp. 3. Did not pay anything 8. DON'T KNOW
RNA19a.	Did you use insurance to pay for all or some of this visit?	No .....3 ➔ **SECTION BAA** Yes.....1
RNA19b.	What insurance did you use?	01. Askes 02. Jamsostek 03. Employer provided insurance 04. Health insurance paid by the respondent 05. Insurance related bank saving 06. Letter stating non-affordability (Surat Miskin) 07. JAMKESMAS 95. Other

SECTION BAA (PARENTAL INFORMATION)

(BAATYPE)		Father (1)	Mother (2)
BAA00.	**INTERVIEWER CHECK : [CHILD'S NAME] MOTHER/FATHER IS RESPONDENT FOR BOOK V?**	YES ..... 1 ➔ **BAA00 FOR MOTHER** NO 3	YES ..... 1 ➔ **SECTION CP** NO 3
BAA02.	**INTERVIEWER CHECK:** **1. […] CHILD STAYS IN HOUSEHOLD AND REGISTERED ON HOUSEHOLD ROSTER, FILL IN NUMBER […] FROM AR00.** **2. […] CHILD DIED/DOES NOT STAY IN HOUSEHOLD, BUT REGISTERED ON HOUSEHOLD ROSTER, FILL IN NUMBER […] FROM AR00.** **3. […] CHILD IS NOT REGISTERED ON HOUSEHOLD ROSTER**	1. ⌊_⌊_⌋ AR00 AND STAYS IN HOUSEHOLD ➔ **BAA00 COLUMN MOTHER** 2. ⌊_⌊_⌋ AR00 AND DIED/DOES NOT STAY IN HOUSEHOLD 3. NOT IN HOUSEHOLD ROSTER	1. ⌊_⌊_⌋ AR00 AND STAYS IN HOUSEHOLD ➔ **SECTION CP** 2. ⌊_⌊_⌋ AR00 AND DIED/DOES NOT STAY IN HOUSEHOLD 3. NOT IN HOUSEHOLD ROSTER
BAA03.	Is [child's name] father/mother still alive?	No ..... 3 ➔ **BAA06** DON'T KNOW ..... 8 ➔ **BAA06** Yes 1	No ..... 3 ➔ **BAA06** DON'T KNOW ..... 8 ➔ **BAA06** Yes 1
BAA04.	How often has [child's name] seen his/her father/mother in the last 12 months?	Everyday ..... 5 ➔ **BAA05** Never ..... 1 At least once per year ..... 2 At least once per month ..... 3 At least once per week 4	Everyday ..... 5 ➔ **BAA05** Never ..... 1 At least once per year ..... 2 At least once per month ..... 3 At least once per week 4
BAA04a.	How often has [child's name] been in telephone contact with his/her father/mother in the last 12 months?	Everyday ..... 5 ➔ **BAA05** Never ..... 1 At least once per year ..... 2 At least once per month ..... 3 At least once per week 4	Everyday ..... 5 ➔ **BAA05** Never ..... 1 At least once per year ..... 2 At least once per month ..... 3 At least once per week 4
BAA04b.	How often has [child's name] been in contact with his/her father/mother through email, sms, chatting, or letter in the last 12 months?	Never ..... 1 At least once per year ..... 2 At least once per month ..... 3 At least once per week ..... 4 Everyday 5	Never ..... 1 At least once per year ..... 2 At least once per month ..... 3 At least once per week ..... 4 Everyday 5
BAA05.	Where does [child's name] father/mother live?	⌊_⌊_⌊_⌋ Other	⌊_⌊_⌊_⌋ other
BAA06.	What is the highest level of education of father/mother?	⌊_⌊_⌋ Other	⌊_⌊_⌋ Other
BAA07.	What is the highest class that father/mother finished?	00 01 02 03 04 05 06 07 96 98 ➔ **BAA00 FOR MOTHER**	00 01 02 03 04 05 06 07 96 98 ➔ **SECTION CP**

CODE BAA05:

000.	In this household	018.	Lampung	060.	Kalimantan	081.	Maluku
001.	In the same village	019.	Bangka Belitung	061.	West Kalimantan	082.	North Maluku
002.	In the same subdistrict	020.	Riau Islands	062.	Central Kalimantan	090.	Irian
003.	In the same district	030.	Java	063.	South Kalimantan	091.	West papua
004.	In the same province	031.	DKI Jakarta	064.	East Kalimantan	094.	Papua
010.	Sumatera	032.	West Java	070.	Sulawesi	101.	Malaysia
011.	Nanggroe Aceh Darussalam	033.	Central Java	071.	North Sulawesi	102.	Singapore
012.	North Sumatra	034.	D.I. Yogyakarta	072.	Central Sulawesi	103.	Brunei Darussalam
013.	West Sumatra	035.	East Java	073.	South Sulawesi	104.	Hongkong
014.	Riau	036.	Banten	074.	Southeast Sulawesi	105.	Japan
015.	Jambi	051.	Bali	075.	Gorontalo	106.	South Korea
016.	South Sumatra	052.	West Nusa Tenggara	076.	West Sulawesi	107.	Taiwan
017.	Bengkulu	053.	East Nusa Tenggara			108.	Timor Leste

121.	Yaman	
122.	Saudi Arabia	
123.	Kuwait	
124.	United Arab Emirates	
131.	Argentina	
132.	USA	
141.	Australia	
151.	Holland	
152.	England	
998.	DON'T KNOW	
995.	Other	

CODE BAA06:

01. No school/Not yet in school	61. University (Bachelor)	15. Adult Education C
02. Elementary	62. University (Master)	17. School for disabled
03. Junior High - General	63. University (PhD)	72. Islamic Elementary School (Madrasah Ibtidaiyah)
04. Junior High - Vocational	11. Adult Education A	73. Islamic Junior High School (Madrasah Tsanawiyah)
05. Senior High - General	12. Adult Education B	74. Islamic Senior High School (Madrasah Aliyah)
06. Senior High – Vocational	13. Open University	90. Kindergarten
60. College (D1, D2, D3)	14. Islamic School (Pesantren)	98. DON'T KNOW
		95. Other

CODE BAA07:

00. Did not completer 1st grade at this level
01. 1
02. 2
03. 3
04. 4
05. 5
06. 6
07. Graduated
96. No school
98. DK

SECTION CP (INTERVIEW SESSION NOTES)

EVALUATION FORM FOR BOOK V

CP1. WHO ELSE (OTHER PERSONS) BESIDES RESPONDENT WAS PRESENT DURING THE INTERVIEW?
ANSWER MAY BE MORE THAN ONE.

A. NO ONE
B. A CHILD 5 YEARS OLD OR UNDER
C. A CHILD OLDER THAN 5 YEARS OLD
D. HUSBAND/WIFE
E. AN ADULT, A HOUSEHOLDER
F. AN ADULT, NOT A HOUSEHOLDER

CP2. WHAT IS YOUR EVALUATION OF THE ACCURACY OF RESPONDENT'S ANSWERS?

1. EXCELLENT
2. GOOD
3. FAIR
4. NOT SO GOOD
5. VERY BAD

CP3. WHAT IS YOUR EVALUATION ON THE SERIOUSNESS AND ATTENTIVENESS OF THE RESPONDENT?

1. EXCELLENT
2. GOOD
3. FAIR
4. NOT SO GOOD
5. VERY BAD

CP4. WHAT QUESTIONS DID RESPONDENT FIND DIFFICULT, EMBARRASSING, OR CONFUSING?

_____
_____
_____

CP5. WHAT QUESTIONS DID INTERVIEWER FIND DIFFICULT, EMBARRASSING, OR CONFUSING?

_____
_____
_____

CP6. WHAT QUESTIONS DID RESPONDENT SEEM INTERESTED IN?

_____
_____
_____

NOTES:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

SURVEY OF CITRUS PRODUCERS IN EAST JAVA

September - October 2017

UNIVERSITY OF ADELAIDE - ICHORD - IPB

Objective: The purpose of this survey is to obtain better understanding of citrus farmers behaviour under climate change risks

Use of data: The data collected as part of this survey are for research purposes ONLY.
Household-level data will not be shared with non-research organizations. .
Only summary results will be included in published report.

Household ID number

Village code | Enumerator code | Household code

Do you manage the citrus plot more than 25 trees?

Yes	
No	

Note:
If citrus farmers rent out all of the citrus plot, please exclude from the respondent list

Name of head family	
Name of respondent	
Address/location	
Phone	
Village	
Sub-district	
District	

	Date			Name	Sign
	Day	Month	Year		
Interview			2017		
Field check			2017		
Check kantor			2017		
Data Entry - Start			2017		
Data Entry - Finish			2017		

Research funded by a grant from the Australian Centre for International Agricultural Research (ACIAR)

Version: 18 September 2017

A. CHARACTERISTICS OF MEMBERS OF THE HOUSEHOLD

	Name	What is the relationship between [name] and the head of household? 1 Head 2 Spouse 3 Son/daughter 4 Son/daughter in law 5 Grandchild 6 Parent or in-law 7 Other related 8 Other unrelated	Is [name] a male or female? 1 Male 2 Female	How old is [name]? [age at last birthday, use 0 for < 1 yr] Year	How many years of schooling has [name] completed? Year	Ask tthese questions only for members What is the ethnic group? 1 Javanese 2 Maduranes 3 Balinese 4 Osing 5 Minang 6 Others	What is the marital status of [name]? 1 Single 2 Married 3Separated 4 No longer married	What are the main activities of [name]? 1. Farming/aquaculture 2. Self-employed trader 3 Self-employed - other 4. Agricultural wage labor 5. Other wage labor 6. Housework 7. Student 8. Other 9. None		Is [name] actively involve in you citrus farming? 1. Yes 2. No
								Main	Secondary	
A1		A2	A3	A4	A5	A6	A7	A8a	A8b	A9
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										

Note: The household is defined as a group of people who live and eat together most of the time. Each member must live with others at least 6 months of the year.
The head of the household is defined as the member who makes most of the economic decisions.

B. HOUSING AND ASSETS

What is the approximate area of your house in square meters (icl. homegarden)? [ ] B1

[If house owned] What is the approximate value of your house without farmland? (Rp. Million) [ ] B2a

[If house rented] What is the annual rent that you pay for your house (without farmland)? [ ] B2b

What is the main source of drinking water for your household? [ ] B3

1 Indoor tap
2 Outdoor private tap
3 Outdoor shared tap
4 Covered well
5 Collected rainwater
6 River, lake, pond, spring
7 Spring water
8 Water collected in a tank
9 Bottled water

What is the main type of toilet used by your household? [ ] B4

1 Flush toilet
2. Latrine with pipe
3 Pit latrine
3 Latrine over canal/pond
4 Public toilet
5 Other or none

What is the main type of lighting used by your household? [ ] B5

1 Electric lights
2 Oil lamps
3. Candles
4 Others
5 None

What type of fuel is used by your household for cooking? [ ] B6

1 Electricity
2 LPG
3 Biogas
4 Kerosene
5 Wood
6 Other

How many of each of the following items do members of your household currently own?

	Number	
a mobile phone/tablet?	[ ]	B7
internet access (Icl. Smartphone/tablet) (1. Yes; 2. No)	[ ]	B8
a bicycle?	[ ]	B9
a motorbike?	[ ]	B10
a car?	[ ]	B11
a PC/laptop	[ ]	B12
a 3 wheel motor cycle (tossa)	[ ]	B13
a Gerobak	[ ]	B14
a truck?	[ ]	B15
a water pump?	[ ]	B17
a generator?	[ ]	B18
a hand/manual sprayer?	[ ]	B19
a power sprayer?	[ ]	B20
a tractor/hand tractor?	[ ]	B21
a storage house?	[ ]	B22
cattle/buffalo?	[ ]	B23
goats/sheep?	[ ]	B24
poultry?	[ ]	B25

C. AGRICULTURAL LAND

(1) Draw the house of the farmer; **(2)**Ask and draw all off the plot they managed in 2016**; **(3)** Write "C" on the plot planted with citrus; **(4)** there is more than one plot, write "1" in the largest plot]

	1. Yes ; 2. No		Number of plot	Area	Area Unit	1. Hectare	4. Tumbak
Have you **sold** farm land over the past 5 years?		If yes, how much total land did you sell and what was the total value?				2. Bau	5. Ru
						3. Bata	6. m2
	C1		C2a	C2u	C2p	7. Patok	8. Wolon

Plot nbr	What is the area of this plot?		What is the land tenure arrangment for this plot?	[If C5=1-2] How was this plot acquired?	[If C6=3, did you buy this land in te last 5 years?	[If C5=1-2] How is the legal status of this plot?	[If C8=2-4], on whose behalf is the land document written?	What is the type of land?	How many minutes will it take from your house to the plot when using a motorcycle?
	Area	Unit	1. Owned and farm	1 Inherited	1. Yes	1. None	1. Husband	1. Technical irrigati	
		1. Bata	2. Owned and rent	2 Gift	2. No	2. Acta	2. Wife	2. Semi-technical	
		2. Tumbak	3. Rented from owr	3 Purchased		(can't be used to	3. Other	irrigation	
		3. Ru	4. Other	4 Allocated		access credit from bank)		3. Rainfed	
		4. M2		by government		3. Certificate			
		5. Hectare				4. Traditional ownership evidence (girik)			
		6. Patok							(minutes)
		7. Wolon							

C3	C4a	C4u	C5	C6	C7	C8	C9	C10	C11
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

What is the largest type of vehicle that can access the plot during the dry season?	What is the largest type of vehicle that can access the plot during the rainy season?	What is the soil type in the plot?	What is the colour of the soil in the plot?	What type of irrigation does this plot have in the RAINY season?	What type of irrigation does this plot have in the DRY season?	[If plot farmed by household, C8=1 or 7 10] What were the main crops grown currently and previous planting period?		When was citrus planted at this plot for the first time	What was the main crop grown in this plot before citrus planted at the first time?	How many times in the last 5 years this plot experience DROUGHT, where you couldn't access the water to watering your plants?	How many times in the las 5 years this plot experience FLOOD, where you couldn't drain within a week?	How many times in the last 5 years this plot experience DESTRUCTIVE WIND, that destruct your plants?
				1 None	1 None							
				2 Gravity/	2 Gravity/							
1. Truck	1. Truck	1. Clay	1. Black	tech Irrigated	tech Irrigated							
2. Pick-up (1-2 ton)	2. Pick-up (1-2 ton)	2. Crumbly	2. Black-white	3 Pumped	3 Pumped							
3. Tossa	3. Tossa	3. Sandy	3. Brown	surface	surface water							
4. Motor	4. Motor	4. Other	4. Brown-orange	water	4 Pumped	Now	Prev					
5. None	5. None		5. Other	4 Pumped	groundwater			(year)				
				groundwater	5. Bucket	crop	crop		crop			
				5. Bucket	6. Piped water	code	code		code	number	number	number
				6. Piped water	7. Retention basin							
C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C16	C17	C18

D. CITRUS PRODUCTION

	Plot number	How many citrus plants are in this plot?	Are you renting out the citrus tree in this plot?	How many productive plants are in this plot?	What the dominant variety of the citrus in the plot?	Did you do top working in the plot?	[If D4=1], when did you do top working?	[If D4=1], why did you do top working?					[If D4=1], What was the previous variety?
	[ENTER PLOT NUMBERS IN WHICH CITRUS WERE GROWN]				1 Siam 2 Keprok 3 Jeruk manis/baby 4 Pamelo 5 Lime/lemon 6 others	1. Yes 2. No		Changing variety 1. Yes 2. No	Old trees were not productive 1. Yes 2. No	Changing unhealthy trees 1. Yes 2. No	Increasing quality/ price 1. Yes 2. No	Other 1. Yes 2. No	1 Siam 2 Keprok 3 Jeruk manis 4 Pamelo 5 Lime/lemon 6 others
		Number	1. Yes 2. No	Number			year						
	C3	D1	D2	D3	D4	D5	D6	D7a	D7b	D7c	D7d	D7e	D8
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													

[If D4=1], where did you get the scion?	If you buy the scion, how much did you pay for each scion?	When did you plant the citrus in this plot for the last time?	How many trees that you need replant in this plot?	Did you use certified seedling in this plot?	What was the reason you choose the type of seedling?							Where did you get the seedling?	If you buy the seedling, what was the price?
					Availability	Cheapest price	Easy to access	Better performance	Follow other farmers	Longer age	Resistance to climate situation		
1. BPMT 2. Selection from own orchard 3. Selection from other farmers orchard				1. Yes 2. No	1. Yes 2. No	1. Yes 2. No	1. Yes 2. No	1. Yes 2. No	1. Yes 2. No	1. Yes 2. No	1. Yes 2. No	1. Nursery 2. Seedling big trader 3. Seedling retailer 4. Market 5. Government assistant 6. Research institute 7. Own production 8. Neighbour/ other farmer	
	(Rp/scion)	year	(trees)										(Rp/tree)
D9	D10	D11	D12	D13	D13a	D13b	D13c	D13d	D13e	D13f	D13g	D14	D15

Do you find citrus in plot attacked by CVPD or degreeining disease or a disease with the symptoms: yellow spot in the leaf, assymmetric fruit shape, ..)	[If D15=1], how many trees?	PERIOD 1				PERIOD 2				PERIOD 3			
		When the last time you harvest in the	How much revenue from the harvesting period?	How many kg did you get?	What was the price?	When the last time you harvest in the	How much revenue from the harvesting period?	How many kg did you get?	What was the price?	When the last time you harvest in the	How much revenue from the harvesting period?	How many kg did you get?	What was the price?
		1. Jan 2. Feb 3. Mar 4. Apr 5. May 6. Jun 7. Jul 8. Aug 9. Sept 10. Oct 11. Nov 12. Dec				1. Jan 2. Feb 3. Mar 4. Apr 5. May 6. Jun 7. Jul 8. Aug 9. Sept 10. Oct 11. Nov 12. Dec				1. Jan 2. Feb 3. Mar 4. Apr 5. May 6. Jun 7. Jul 8. Aug 9. Sept 10. Oct 11. Nov 12. Dec			
1. Yes 2. No	(number)		(Rp/plot)	(kg)	(Rp/kg)		(Rp/plot)	(kg)	(Rp/kg)		(Rp/plot)	(kg)	(Rp/kg)
D16	D17	D18a	D18b	D18c	D18d	D19a	D19b	D19c	D19d	D20a	D20b	D20c	D20d

PERIOD 4				PERIOD 5				PERIOD 6			
When the last time you harvest in the plot?	How much revenue from the harvesting period?	How many kg did you get?	What was the price?	When the last time you harvest in the plot?	How much revenue from the harvesting period?	How many kg did you get?	What was the price?	When the last time you harvest in the plot?	How much revenue from the harvesting period?	How many kg did you get?	What was the price?
1. Jan 2. Feb 3. Mar 4. Apr 5. May 6. Jun 7. Jul 8. Aug 9. Sept 10. Oct 11. Nov 12. Dec	(Rp/plot)	(kg)	(Rp/kg)	1. Jan 2. Feb 3. Mar 4. Apr 5. May 6. Jun 7. Jul 8. Aug 9. Sept 10. Oct 11. Nov 12. Dec	(Rp/plot)	(kg)	(Rp/kg)	1. Jan 2. Feb 3. Mar 4. Apr 5. May 6. Jun 7. Jul 8. Aug 9. Sept 10. Oct 11. Nov 12. Dec	(Rp/plot)	(kg)	(Rp/kg)
D21a	D22b	D22c	D22d	D23a	D23b	D23c	D23d	D24a	D24b	D24c	D24d

E. INPUT AND HIRED LABOUR USE

Indicate input and hired labour that you use in the plot which has the largest number and oldest trees,

	Type of input	For the LARGEST CITRUS PLOT in last 12 month, did you use [..]?	How much did you buy the input?		Did you use more than one brand of the input?	How many times did you applicate the input?	How much the input for each application (in average)	Where the [inputs] purchased in cash or on credit? 1. Own production 2. Buying 3.Provided by other and free 4,Government assistant 5.Credit from cooperative/farmers group 6.Credit from input trader/SUPPLIER
		1. Yes 2. No	Unit	Rp/Unit	1. Yes 2. No	(number)	Unit	
E1		E2	E3u	E3p	E4	E5	E6	E7
1	Chemical fertiliser							
	a. Urea							
	b. SP 36							
	c. KCl							
	d. ZA							
	d. ZK							
	e. NPK							
	f. NPK Phonska							
	f. Pupuk daun							
2	Organic fertiliser							
	a. Manure							
	b. Branded organic fertiliser							
3	Hormone perangsang bunga							
4	Pesticide							
	a. Prosromit							
	b. Mtarim							
	c .Micim-Samet							
5	Fungicide							
6	Herbicide							
7	Akarisida							
8	Perekat bunga							
9	Yellow trap							
10	Gasoline for water pump/generator							
11	Gasoline for power sprayer							
12	Irrigation							
13	Land tax							
14	Tiang penyanggga + tali							
15	Other							

Option for E5 and E6u:(1) Kg; (2) Liter; (3) Pack; (4) Bag; (5) Tree; (6) kali; (7) Label; (8) Roll; (9) Ons; (10) Lainnya

E. INPUT AND HIRED LABOUR USE

Did you have hired fix labour for this plot? (1. Yes; 2. No)		E8
[If E8 = 1), how many hired fix labour do you have?		E9
How mony total man days they work in this plot for the last 12 month? (day)		E10
In the last 12 month, how many days did you come to this plot?		E11
In the last 12 month, how many days did your spouse come to this plot?		E12
In the last 12 month, how many days did your other family member (over 18 y.o.) come to this plot?		E13

	Type of activities	For the LARGEST CITRUS PLOT in last 12 month, did you do[..]?	Did you use hired labour for the activity?	[If E10=1], how many hired male labour to do the activity?	[If E10=1], how many days hired male labour to do the activity?	[If E10=1], how many hired female labour to do the activity?	[If E10=1], how many days hired female labour to do the activity?	How many intra household children labour involve in the activity?	How many days intrahousehold children labour involve in the activity?
		1. Yes 2. No	1. Yes 2. No	(number)	(number)	(number)	(number)	(number)	(number)
E8		E9	E10	E11	E12	E13	E14	E15	E16
1	Prunning								
2	Manual weeding								
3	Herbicide spraying								
4	Organic fertilising								
5	Chemical fertilising								
6	Fungicide application								
7	Hormone application								
8	Pesticide spraying								
9	Fruit thinning								
10	Yellow trap application								
11	Watering in dry season								
12	Drainage maintenance								
13	Life fence maintenance								
14	Harvesting*)								
15	Other								

F. CITRUS MARKETING

Who is the main buyer of your citrus in the last 12 months? F1

1. Other farmers
2. Farmers group
3. Collector (small trader)
4. Big trader (pengepul)
5. Cooperative
6. Citrus industry
7. Supermarket/Modern market
8. Consumers
9. Other

Where is the main buyer come from? F2

1. Same village
2. Different village in the same subdistrict
3. Different subdistrict in the same district
4. Different district in the same province
5. Different province

How was the payment method from the main buyer? F3

1. Before harvest
2. At delivery
3. 1-7 days later
4. More than week later
5. Multiple payments (across categories)

Please indicate the marketing arrangement that you use in the last 12 months

1. Memanen sendiri dan menjual langsung ke pedagang/konsumen	1. Yes; 2. No	F4
2. Dipanen oleh pedagang dan menjual dengan kilo	1. Yes; 2. No	F5
3. Tebas	1. Yes; 2. No	F6
4. Kotasan	1. Yes; 2. No	F7
5. No selling in the last 12 month	1. Yes; 2. No	F8

	Indicate the importance of the reason you choose the citrus buyer for each following statement	1. Very important 2. Important 3. Neutral 4. Not important 5. Very not important
F9	The buyer has a commitment to buy my citrus	
F10	The Buyer pays in cash and fast	
F11	The buyer offers the highest price	
F12	I know the buyer very well or I have family relationship with him/her	
F13	The buyer lend me money or input credit	

G. SOCIAL CAPITAL AND ACCESSIBILITY

In what year you at the first time involve in citrus farming? ____ G1

What is your main reason at the first time to plant citrus? ____ G2

1. Following my parent
2. Following my neighbour/other farmers
3. Recommended by government/extension workers
4. The demand from traders / supermarkets / industries to be a citrus supplier
5. Citrus has a good prospect/profitability
6. Other

How many times you INDIVIDUALLY have a training/field school of citrus farming in the last 5 year? ____ G3

How many times you INDIVIDUALLY have an extension of citrus farming in the last 5 year? ____ G4

How many times have you ever attended a meeting/extension/training/field-school related to climate change and/or its adaptation strategy in the last 10 years? ____ G5

Are you a part of citrus farmers group currently? [1 = Yes; 2 = No] ____ G7

If (H2=1) what is your position in the citrus farmers group? ____ G8

1. FG management
2. Member

What are the activities of the farmers group? (check box)

1. Actively give citrus technology from [1 = Yes; 2 = No] ____ G9a
2. Activiely give farmer to farmer extension? [1 = Yes; 2 = No] ____ G9b
3. Facilitate government input assistance? [1 = Yes; 2 = No] ____ G9c
4. Facilitate post-harvest handling? [1 = Yes; 2 = No] ____ G9d
5. Facilitate marketing? [1 = Yes; 2 = No] ____ G9e
6. Studi banding [1 = Yes; 2 = No] ____ G9f
7. Pengananan hama/penyakit terpadu secara bersama2

Are you a part of cooperative? [1 = Yes; 2 = No] ____ G10

If (H5=1), what is the cooperative activities that you use? (check box) [1 = Yes; 2 = No]

1. Financial credit? [1 = Yes; 2 = No] ____ G10a
2. Money saving [1 = Yes; 2 = No] ____ G10b
3. Input credit [1 = Yes; 2 = No] ____ G10c
4. Input procurement [1 = Yes; 2 = No] ____ G10d
5. Product marketing [1 = Yes; 2 = No] ____ G10e
6. Others_____ [1 = Yes; 2 = No] ____ G10f

Do you have a direct access to government auhorithy in agriculture to ask for citrus information? (e.g. Dinas, extension workers, resercher, etc) [1 = Yes; 2 = No] ____ G11

Do you adopt agricultural insurance for your citrus farming? [1 = Yes; 2 = No] ____ G12

If (H8=2), What is the main reason? ____ G13

1. Insurance is not available
2. Insurance is not important
3. Do not want to pay additional cost
4. No Money
5. Do not understand
6. Religious reason
7. Other

Do you have a formal credit from bank, cooperative, etc that you use for citrus farming? [1 = Yes; 2 = No] ____ G14

If (H10=2), What is the main reason? ____ G15

1. The requerement is complicated
2. Too high interest rate
3. Do not understand
4. Religious reason
6. No need
7. No collateral

H. INFORMATION SOURCES

	Source of information	Over the past 5 years what have been your main sources of information about citrus production methods ?	How would you rate the quality of the information? 1. Good 2. OK 3. Poor	Over the past 5 years, what have been your main sources of information about citrus prices & markets?	How would you rate the quality of the market information? 1. Good 2. OK 3. Poor	Over the past 5 years, what have been your main sources of information about climate or weather ?	How would you rate the quality of the climate/ weather information? 1. Good 2. OK 3. Poor
H1		H2	H3	H4	H5	H6	H7
1	Extension workers						
2	Research institute						
3	Farmer/relative/neighbor						
4	Trader						
5	Processor						
6	Input sellers						
7	Cooperative						
8	Farmer group						
9	TV						
10	Radio						
11	Newspaper/magazine/books						
12	Input companies						
13	Internet (www)						
14	Mobile info service						
15	Other _____						

I. CASH INCOME ACTIVITIES

Income activity	CODE	In the past 12 months, have members of your household received income from [activity]?	Who is the source of the income? (spent more time or obtain more money)	[---------- if I2 = yes ----------] How many months out of the past 12 months did members of this household receive income from [activity]?	For each of these months that you were involved in [activity], how much total gross revenue did you make from this activity? (in average)	For each of these months, how much does your household spend in business expenses related to this activity? (in average)	Over the past 5 years, has this activity become more or less important as a share of your income?
		0. No 1. Yes	1. Husband 2. Wife 3. Sharing 4	Months	Rp/month	Rp/month	1. More important 2. No change 3. Less important
	I1	I2	I3a	I4	I5	I6	I7
CITRUS production							
Other agricultural production							
Livestock & animal product sales							
Aquaculture							
Agricultural trading							
Other trading							
Rice milling business							
Food processing business							
Other business							
Agricultural wage labor							
Non-agricultural employment (e.g. PNS)							
Pension fund							
Remittances from family members							
Other assistance programs							
Other							

J. FARM ACTIVITIES RESPONSIBILITY

Ask this module to husband and wife separately Activities	In citrus farming, do you involve in the activity? 1. Yes 2. No	Between husband and wife, who has a responsibility for each activity? 1. Husband 2. Wife 3. Sharing
J1	J2	J3
1 Land preparation		
2 Buying farm equipment		
3 Buying farm input (seed, fertiliser, pesticide, etc)		
4 Choosing and buying seedling		
5 Planting		
6 Fertilising		
7 Spraying		
8 Weeding		
9 Watering/Irrigation/Drainage		
10 Prunning		
11 Harvesting		
12 Marketing arrangement		
13 Negotiating with buyer/trader		
14 Looking for hired labour		
15 Credit application		
16 Attending agriculture training or extension activities?		

K. CLIMATE CHANGE KNOWLEDGE, PERCEPTION AND ADAPTATION

Ask this module to husband and Wife

Have you ever heard about "climate change" term? (0. No, 1. Yes)

What is your first thought when you heard about climate change?

1. Global warming (increasing in temperature)
2. Sea level rise
3. Drought
4. Flood
5. Heavy precipitation
6. Disaster
7. Deacreased rainfall
8. Changing rainfall pattern
9. Oozone layer
10. Destructive wind
11. Deforestration
12. Forest fire
13. Pollution
14. New pest and disease
15. Massive pest and disease incidence
16. Other

Please select the response that reflects the level of your agreement regarding the climate change		**Based on my experience/observation, there are […] over the last 5 - 10 years** 1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree	**The […] negatively impacted my citrus farming** 1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree	**In my perception there is likelihood of […] in the future** 1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree
K 4	Increasing air temperature			
K 5	Increasing dry season period			
K 6	Increasing rainy season period			
K 7	Increasing heavy rain			
K 8	Increasing flood			
K 9	Increasing destructive wind			

K. CLIMATE CHANGE KNOWLEDGE, PERCEPTION AND ADAPTATION

Ask this module to husband and Wife

K10 What farming practices that you use to adapt the climate change

1. Certified seedling	1. Yes; 2. No
2. Irrigation/drainage system improvement	1. Yes; 2. No
3. Increasing anorganic fertiliser dosage	1. Yes; 2. No
4. Increasing organic fertiliser dosage	1. Yes; 2. No
5. Intensive plant maintenance (prunning, weeding, sanitation)	1. Yes; 2. No
6. Investment in agricultural equipments (generator pump, deep well)	1. Yes; 2. No
7. Changing crops (from citrus to other crops)	1. Yes; 2. No
8 Multicropping	1. Yes; 2. No
9. Planting wind breaker	1. Yes; 2. No
10. Build retention basin	1. Yes; 2. No
11. Others _____	1. Yes; 2. No

K11 Do you plan to use other adaptation method to minimise negative impact of climate change that has not been applied on your citrus farming in the next 10 years? (0. No, 1. Maybe, 2. Yes)

K12 If Fh = Yes, what is the most important adaptation method that you plan to use? (choose from Fh17 list)

K13 What is the constraint of climate change adaptation on citrus farming?

1. Lack of climate information	1. Yes; 2. No
2. Limited knowledge about adaptation technique	1. Yes; 2. No
3. Limited water source and/or irrigation system	1. Yes; 2. No
4. Unsupported land characteristics	1. Yes; 2. No
5. Lack of money	1. Yes; 2. No
6. Lack of access to input market	1. Yes; 2. No
7. Lack of input availability	1. Yes; 2. No
8. Labaor shortage	1. Yes; 2. No
9. Others_____	1. Yes; 2. No

L. RISK EXPERIMENT

Ask this module to husband and Wife

Note to enumerator: Please read the risk procedure carefully. Make sure that you understand the experiment procedure.

A. Choose the respondent's answer based on experiment procedure A.

Always A	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	Always B

B. How do you see yourself: Are you a person who is generally willing to take risks, or do you try to avoid taking risks?
(Choose the respondent's answer based on procedure B)

0	1	2	3	4	5	6	7	8	9	10

C. Choose the respondent's answer based on experiment procedure C!

Always A	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	Always B

D. In comparison to others, are you a person who is generally willing to give up something today in order to benefit from that in the future or are you not willing to do so?
(Choose the respondent's answer based on experiment procedure D!)

0	1	2	3	4	5	6	7	8	9	10

E.what you can expect to get from CERTIFIED and UNCERTIFIED SEED in a given year per 100 citrus trees? (Follow the instruction in procedure E.

1. Certified seed

0-2 ton	3-4 ton	5-6 ton	7-8 ton	9-10 ton	11-12 ton	13-14 ton	15-16 ton	17-18 ton

2. Uncertified seed

0-2 ton	3-4 ton	5-6 ton	7-8 ton	9-10 ton	11-12 ton	13-14 ton	15-16 ton	17-18 ton

M. CHILD EDUCATION

The purpose of this section is to record education information and expenditure of all of the respondent's children during the period of July 1, 2016 - June 30, 2017

M1 How many children do you have?

M2 Who mostly make decision regarding children education expenditure in this household?
(0. Father, 1. Mother, 2. Grand parents, 3. others)

		Child No.1	Child No.2	Child No.3	Child No.4
M3	Name				
M4	Age				
M5	Gender (0. Male, 1. Female)				
M6	Does the child live in the household? (0. Yes, 1. No)				
M7	Does the child participate in the farmwork? (0.Yes, 1.No)				
M8v	How many times in the period of July 1, 2016 - June 30, 2017 does the child help in farmwork? (number of times)				
M8u	Unit of time (0. Week, 1. Month, 2. Year)				
M9	What is the level of education that the child was attending during the period ** July 1, 2016 - June 30, 2017 **?				
	1. Play group/kindergarten				
	2. Primary school				
	3. Junior high school (SMP)				
	4. Senior high school (SMA)				
	5. Academy (D1, D2, D3)				
	6. University (S1)				
	7. University (S2)				
	8. University (S3)				
	9. Vocational training institute				
	10. Not in school				
M10	Main reason of stopping school				
	1. Could not afford to further education				
	2. Prefer to work (citrus farming)				
	3. Prefer to work (jobs other than farming)				
	3. School is too far/No school in the area				
	4. Helping at home (e.g. caring for younger siblings, housework)				
	5. Marriage				
	6. Others				
M11	Is your child studying at ** public school ** in that period? (0.Yes, 1.No)				
M12	Is your child studying at ** boarding school ** in that period? (0.Yes, 1.No)				
M13	Is your child studying at ** religious school ** in that period? (0.Yes, 1.No)				

		Child No.1	Child No.2	Child No.3	Child No.4
M14	What is the distance from the house to the school (km)?				
M15v	How many times in the period of ** July 1, 2016 - June 30, 2017 did you pay for ** registration fee **?				
M15u	Unit of time (0. Week, 1. Month, 2. Year)				
M15a	What is the average cost for each payment?				
M16v	How many times during the period of ** July 1, 2016 - June 30, 2017 ** did you pay for SPP, POMG / BP3 / School Committee, Practicum / Skills, Other Contributions like OSIS) **?				
M16u	Unit of time (0. Week, 1. Month, 2. Year)				
M16a	What is the average cost for each payment?				
M17v	How many times in the period of ** July 1, 2016 - June 30, 2017 ** did you pay for evaluation / exam fee **?				
M17u	Unit of time (0. Week, 1. Month, 2. Year)				
M17a	What is the average cost for each payment?				
M18v	How many times during the period of ** July 1, 2016 - June 30, 2017 ** did you pay for Books, stationery and school supplies (textbooks / guides / writing materials, stationery and other supplies) ?				
M18u	Unit of time (0. Week, 1. Month, 2. Year)				
M18a	What is the average cost for each payment?				
M19v	How many times in the period of** July 1, 2016 - June 30, 2017 ** did you pay for school uniform and sport uniform?				
M19u	Unit of time (0. Week, 1. Month, 2. Year)				
M19a	What is the average cost for each payment?				
M20v	How many times in the period of** July 1, 2016 - June 30, 2017 did you pay for transportation (including shuttle fee)?				
M20u	Unit of time (0. Week, 1. Month, 2. Year)				
M20a	What is the average cost for each payment?				
M21v	How many times in the period of ** July 1, 2016 - June 30, 2017 ** did you pay for allowance, boarding / room rental (including meal costs) ?				
M21u	Unit of time (0. Week, 1. Month, 2. Year)				
M21a	What is the average cost for each payment?				
M22v	How many times in the period of ** July 1, 2016 - June 30, 2017 ** did you pay for tutorials?				
M22u	Unit of time (0. Week, 1. Month, 2. Year)				
M22a	What is the average cost for each payment?				
M23v	How many times in the period of ** July 1, 2016 - June 30, 2017** did you pay for fieldtrip?				
M23u	Unit of time (0. Week, 1. Month, 2. Year)				
M23a	What is the average cost for each payment?				
M24v	How many times in the period of ** July 1, 2016 - June 30, 2017 ** did you pay for other skill training courses **?				
M24u	Unit of time (0. Week, 1. Month, 2. Year)				
M24a	What is the average cost for each payment?				
M25v	How many times in the period of ** July 1, 2016 - June 30, 2017 did you pay for education cost of any child outside your households (e.g. niece/nephew)?				
M25u	Unit of time (0. Week, 1. Month, 2. Year)				

		Child No.1	Child No.2	Child No.3	Child No.4
M25a	What is the average cost for each payment?				
M26	In addition to all other expenses above, what is your total spending on other education expenses in the period of** July 1, 2016 - June 30, 2017 **?				
M27v	How many times in the period of ** July 1, 2016 - June 30, 2017 ** did you receive financial aid from GNOTA?				
M27u	Unit of time (0. Week, 1. Month, 2. Year)				
M27a	How much did you receive each time?				
M28v	How many times in the period of ** July 1, 2016 - June 30, 2017 ** did you receive financial aid from ** BSM (Poor Student Assistance) **				
M28u	Unit of time (0. Week, 1. Month, 2. Year)				
M28a	How much did you receive each time?				
M29v	How many times in the period of ** July 1, 2016 - June 30, 2017 ** did you receive financial aid from Bidik Misi**				
M29u	Unit of time (0. Week, 1. Month, 2. Year)				
M29a	How much did you receive each time?				
M30v	How many times in the period of ** July 1, 2016 - June 30, 2017 ** did you receive financial aid from other types of Government fund? **				
M30u	Unit of time (0. Week, 1. Month, 2. Year)				
M30a	How much did you receive each time?				
M31v	How many times in the period of ** July 1, 2016 - June 30, 2017 ** did you receive financial aid for child education from ** Your company / place of employment? **				
M31u	Unit of time (0. Week, 1. Month, 2. Year)				
M31a	How much did you receive each time?				
M32v	How many times in the period of ** July 1, 2016 - June 30, 2017 **did you receive financial aid for education from other family members outside the household?				
M32u	Unit of time (0. Week, 1. Month, 2. Year)				
M32a	How much did you receive each time?				
M33v	How many times in the period of ** July 1, 2016 - June 30, 2017 ** did you receive financial aid from your child's education institution?				
M33u	Unit of time (0. Week, 1. Month, 2. Year)				
M33a	How much did you receive each time?				
M34v	In the period of ** 1 July 2016 - 30 June 2017 ** did you receive assistance from BOS / BKM Fund ?				
M34u	Unit of time (0. Week, 1. Month, 2. Year)				
M34a	How much did you receive each time?				
M35v	How many times in the period of ** July 1, 2016 - June 30, 2017 ** did you receive financial assistance from ** Foundation / NGO? **				
M35u	Unit of time (0. Week, 1. Month, 2. Year)				
M35a	How much did you receive each time?				