

Remittances and Development: The Impact of Remittances on Livelihood Security. Evidence from Ko Kaeo Sub-District, Thailand.

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This Master's Thesis is carried out as a part of the education at the University of Agder and is therefore approved as a part of this education. However, this does not imply that the University answers for the methods that are used or the conclusions that are drawn.

ABSTRACT

In an increasingly globalized world, migrating and sending remittances has become so prevalent that the amount of remittances has since long dwarfed that of official development assistance. Previous research points to remittances as having several positive development effects such as improving education and health for households that receive remittances. Using a mixed methods approach founded on qualitative interviews and questionnaires, this study intends to find out to what degree remittances contribute to livelihood security for rural households in Ko Kaeo sub-district in Thailand. The results show that many young adults aged 20-39 years from Ko Kaeo migrate to other provinces - mostly the central provinces - to work and study. As a consequence, remittances are very common and roughly two thirds of the households in Ko Kaeo receive remittances. Moreover, remittances constitute on average the largest source of non-agricultural income for households that receive remittances. Households in Ko Kaeo receive remittances because of poverty, old age, and because they rear children of migrants who stay behind in the villages. Results from the study also indicate that remittances reduce household inequality and improve food security in Ko Kaeo. No statistical relationship could however be found between remittances received regularly and investments in housing, or rubber or sugar plantations. Likewise, vehicle ownership did not improve as a result of regular remittances. The qualitative data suggest that when households want to make larger investments like those aforementioned, migrants send ad hoc remittances particularly intended for those purposes. The study therefore concludes that remittances contribute to livelihood security by functioning similarly to how a social welfare system functions in other settings by providing poorer households with an extra income. In return they often take care of children of migrants in a kind of contractual arrangement. The study also raises some concerns over the large brain drain and manpower drain from Ko Kaeo to other provinces. In addition, enrolling children in inferior rural schools as opposed to having them live with their parents being enrolled in urban schools is also a point of concern.

ACKNOWLEDGEMENTS

Firstly, I would like to thank my wife and my family for helping me through the fieldwork as part of the thesis. For having me staying with them during the fieldwork feeling like any other family member. For teaching me about the life and ways of the local people. For helping me finding people to interview, making appointments, administer the questionnaire, and other tasks difficult to carry out alone by an outsider of the culture. This acknowledgement also includes the extended family in Thailand, who were my neighbors and my friends during and after the stay.

Secondly, I would like to thank the local people for being so hospitable. For opening up their doors to me. For letting me feel like Ko Kaeo was and is like my own home. For sharing their ideas, views, and knowledge and allowing me to use it for my master thesis. Without it, this study would be impossible to carry out. This acknowledgement is also directed at the villages leaders who allowed me to do research in their villages.

Then I would like to thank my supervisor, Arne Olav Øyhus, for helping me through the master thesis. His thorough work on correcting and giving suggestions for the draft was particularly useful in order to improve on the final product.

Finally, I would like to thank the scientific community for all the work that has been done prior to this thesis which I have benefitted immensely from. A lot of my knowledge, especially on the subject of remittances and livelihood security related to this thesis, is owing to other academicians' work. Those academicians' work are also cited within the body of the text of this thesis and referenced according to common scientific procedure in a stand-alone chapter after the conclusion.

"If I have seen further it is by standing on the shoulders of giants" - Sir Isaac Newton

DECLARATION BY CANDIDATE

I, Jørgen Nilsen, hereby declare that this thesis: "**Remittances and Development: The Impact of Remittances on Livelihood Security. Evidence from Ko Kaeo Sub-District, Thailand.**" is my original work and has not been previously submitted either as a whole or in part to any institution of higher learning for any kind of award.

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1 INTRODUCTION

Migrants who move abroad or to urban centers in their country of origin often send money back to their relatives. This money, called remittances, represent a vital source of income for the receiving households who are often living in poor, rural areas with less opportunities to meet basic needs and attain livelihood security. The amount of remittances sent each year to developing countries have by far outgrown the amount of official development assistance (ODA). International migrants sent 307 billion US\$ worth of remittances in 2009 to the developing world; thereby dwarfing the 120 billion US\$ that was sent as ODA. The amount sent is only second to foreign direct investments which are somewhat higher than remittances (World Bank, 2011). Remittances have also been recognized as *"an important and stable source of external development finance"* (Ratha, 2005, p. 19) which can move people out of poverty and lead to economic growth.

In contemporary development thinking, there has been a shift from measuring poverty only by the headcount of people living on 1.25 US\$ a day or less, to a more holistic understanding of poverty. The livelihood security concept (and the related sustainable livelihoods concept) constitutes one of these methods which takes into account several assets or "capitals" which are important for the poor. Poverty is not only income poverty and lack of financial capital. Poverty is multidimensional and also includes lack of human capital, social capital, physical capital and natural capital. External structures and processes also affect the household livelihood security. The lack of different kinds of capitals coupled with adverse external factors make households vulnerable to trends, seasonality and shocks such as loss of jobs and income, bad harvests and natural disasters.

Remittances have certain characteristics which make them advantageous compared to other financial sources. They are often targeted towards the poor, and they are stable and counter-cyclical (Munzele Maimbo & Ratha, 2005, p. 2). As a consequence, they can potentially lift poor households out of poverty by increasing the income and consumption of the household. In addition, they can solve credit constraints which can help the household make investments in human capital such as education and health, improved shelter to protect against natural disasters, and other important aspects of livelihoods. This can in turn improve the livelihood security for the poor rural households by making them less vulnerable to trends, seasonality and shocks. Migration (and the subsequent remittance sending) is therefore a livelihood strategy that represents one of the alternatives open for households when attempting to improve on their situation (Scoones, 1998, p. 9).

Although appreciating that remittances have development effects on an international, national and community level, this study intends to examine remittances' development effect at the household level. Using the theoretical framework of the sustainable livelihoods approach of the Department for International Development (1999), the aim is to examine to which degree remittances contribute to livelihood security for the rural people in Thailand. The study will begin by looking at how common migration is and how significant remittances are in Ko Kaeo. Thereafter, the study will present findings of the reasons why households receive remittances from migrants. It will also look at some basic physical assets like electricity, mobile phones, TVs, fridges, motorbikes/cars and housing to see whether remittances have any impact on the ownership of such items. A short discussion on remittances' impact on human capital in Ko Kaeo will also be presented. The study will then investigate whether remittances lead to increased likelihood of investing in rubber or sugar plantations, something which is quite common in the area. I will in this study also look at the relationship between remittances and food security, and finally at the effect remittances have on household inequality in Ko Kaeo. The choice of focus mentioned here is based primarily on the definition of livelihood security by Frankenberger and McCaston (1998) who write that livelihood security is:

The adequate and sustainable access to income and other resources to enable households to meet basic needs (including adequate access to food, potable water, health facilities, educational opportunities, housing, and time for community participation and social integration) (Frankenberger and McCaston, 1998, p. 31).

A mixed methods approach was applied in this study including both quantitative and qualitative research methods. It borrows from CARE's (2002) household livelihood security assessment (HLSA) and consisted more specifically of a pre-assessment period, semi-structured interviews, and a questionnaire. Carried out at one specific time, it is a cross-sectional research design. The target population was the sub-district of Ko Kaeo, which is located in Samrong Thap district, Surin Province, Thailand. As a study limited to one place at one time, there are thus limitations regarding both generalizations and how to deal with the counterfactual scenario. The idea of sustainability will also not be possible to answer comprehensively and accurately given that this is not a longitudinal research design. The method used and its weaknesses will be further explained in chapter four on methodology.

1.1 Research Objective and Research Questions

1.1.1 Research Objective

The main research objective of this thesis is to analyze to which degree remittances contribute to livelihood security for remittance receiving households in the sub-district of Ko Kaeo in Thailand.

1.1.2 Research Questions

Three main research questions will be applied in this study. They are specified and explained below.

RQ1: How significant are remittances as a source of household income?

The first research question aims to find out both how prevalent remittances are in the research area, and how much it constitutes of the total income of the households in Ko Kaeo. This will give an indication of how significant remittances are as a source of household income. It will also give some indication of the efficacy of migration as a livelihood strategy when comparing the amount of remittances to other sources of income that rural people have access to. Due to the nature of the question, it will be answered primarily by using data from the questionnaires handed out in the sub-district.

RQ2: Why do households receive remittances?

Investigating the motivations behind remittances can help answering the main research objective. If for example remittances are sent because of poverty, then they should improve livelihood security by increasing income and possibly reduce food insecurity. On the other hand, if they are mostly sent to pay back loans incurred from migration, then they may have limited impact on food insecurity. This research question will be answered using a combination of accounts of the locals from the qualitative interviews with the respondents combined with a quantitative analysis of the questionnaire data.

RQ3: Do remittances contribute to household livelihood security?

This is the main research question which is also directly connected to the main research objective of the thesis. Guided by this question, the aim is to find out whether remittances lead to less poverty, an increase in assets ownership, increased human capital, more agricultural investments, and improved food security. It will also look at whether remittances reduce household inequality. This research question therefore partially build on the two other research questions, especially on the point of poverty which to some degree will be answered

in the second research question. A combination of qualitative and quantitative method will be utilized in order to answer this research question.

1.2 Thesis Outline

Following this introduction, the thesis will move on to describe the research area in chapter two. It will first describe trends on economic development and poverty in Thailand, before giving a brief overview of migration patterns in Thailand both to other countries and between regions within Thailand. The chapter will end with a description of the lives and livelihoods of the people in the sub-district of Ko Kaeo.

Chapter three, the literature review, will first present some definitions and characteristics of remittances. It will then show the latest trends and numbers on remittances at an international level before describing some general views regarding the determinants of remittances. The concept of livelihood security and the theoretical framework will be introduced in section 3.2. Section 3.3 will go through relevant literature that discusses the impact of remittances on various aspects of livelihood security such as for example poverty, education and health. Finally, section 3.4 will look at the literature on remittances in Thailand.

Chapter four will present the methodology for this study. It will give a brief introduction on methodology in general before presenting the various tools and techniques used for the data collection of this thesis. The research consists of a mixed methods design inspired by CARE's (2002) household livelihood security assessment which is divided into a pre-assessment, qualitative semi-structured interviews and finally a questionnaire which all will be further elaborated on in their respective sections in chapter three. The chapter ends with a brief discussion on ethical considerations and challenges and limitations.

Chapter five - entitled discussion and analysis: remittances' contribution to livelihood security - will first give a short introduction on migration and remittances in Ko Kaeo. Section 5.2 will attempt to answer research question one by an analysis and discussion of the size and importance of remittances in Ko Kaeo. Section 5.3 will move on to answer the second research question on why households receive remittances. Section 5.4 will go through remittances' impact on physical assets, human capital and agricultural investments, while section 5.5 will look at remittances and food security. Section 5.6 will present data on remittances' effect on household inequality. At last, section 5.7 will sum up the discussion and analysis and through this try to give an answer to the third research question and the main objective, namely to what degree remittances contribute to livelihood security.

Chapter six, the final chapter, will present the conclusion.

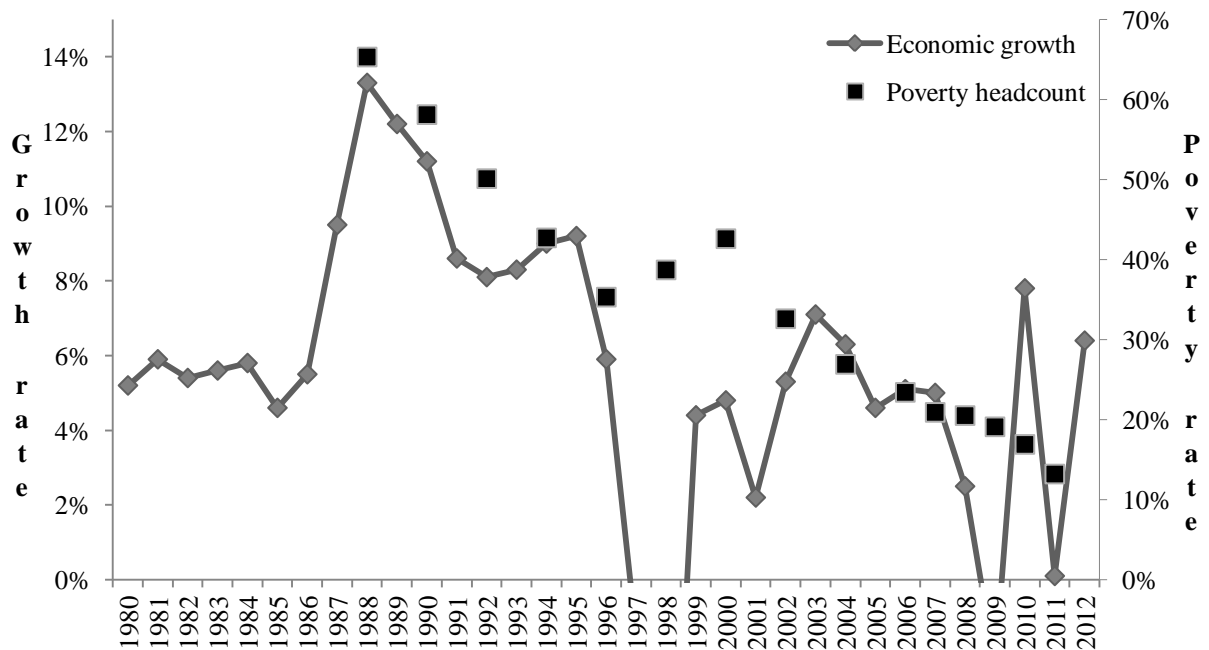
2 RESEARCH AREA

Thailand is situated in Southeast Asia and bordering Burma, Laos, Cambodia and Malaysia. It has about 67 million people, comprising 75% Thai, 14% Chinese, and 11% classified as belonging to other ethnicities. Thailand is predominantly a Buddhist country. Thai is the national language but many other languages are also spoken in the country. It is a constitutional monarchy where the chief of state is king Bhumibol Adulyadej, while the prime minister was - during the research period and until 07.05.2014 - Yingluck Shinawatra. Thailand was, as opposed to its neighboring countries, never colonized. It is divided into four regions; the south, the central, the north and the northeast and has 77 provinces (CIA, 2014).

2.1 Economic Development and Poverty in Thailand

Thailand is currently classified as a middle income economy (upper middle income) with a per capita income of 5,210 US\$ per year (The World Bank, 2013). In terms of human development, it is classified as a medium human development country currently ranked in 103th place. Life expectancy at birth is 74.3 years and expected years of schooling is 12.3 years (UNDP, 2013, p. 145). Economic growth and human development progress have been impressive in Thailand during the recent decades despite political instability and high levels of corruption. Figure 2.1 below gives an overview of the economic trend the last decades.

Figure 2.1: Economic growth and poverty headcount ratio in Thailand



Source: data from (World Bank, 2013)

As seen from figure 2.1 above, economic growth rates have been high for most years since 1980, with the exception of downturns during the 1997 Asian financial crisis and the 2008 financial crisis. The economic growth has led to an massive reduction of poverty as seen in figure 2.1. In 1988, the poverty level was at about 66%, while this number is now almost down to 10%. Concurrently, human development progressed from a score of 0.490 in 1980 to 0.690 in 2012, meaning that measures on income, health and education have shown an overall improvement in Thailand over the last decades (UNDP, 2013, p. 149).

Notwithstanding economic growth and falling poverty rates, there are still significant differences between regions in Thailand. While Bangkok is the capital and economic powerhouse of the country, the Northeastern region is often considered backwards and poor. Inequality is therefore high between regions. This becomes evident when looking at income and expenditure levels in the different regions of the country as in table 2.1 below.

Table 2.1: Income and expenditure at a regional level in Thailand

Region/Income	Average monthly income (Baht/US\$)				Average monthly expenditure (Baht/US\$)			
	per household		per capita		per household		per capita	
Bangkok and vicinity	37,732฿	1154\$	11,924฿	365\$	27,988฿	856\$	8,845฿	271\$
Central	20,960฿	641\$	6,532฿	200\$	17,107฿	523\$	5,331฿	163\$
North	15,727฿	481\$	5,119฿	157\$	12,051฿	369\$	3,923฿	120\$
Northeast	15,358฿	470\$	4,351฿	133\$	12,260฿	375\$	3,473฿	106\$
South	22,926฿	701\$	6,738฿	206\$	17,299฿	529\$	5,084฿	156\$

Source: (National Statistical Office of Thailand, 2009)

Baht-Dollar conversion rate: 32.69 baht/dollar as of 01.01.2014, source (XE: <http://www.xe.com/>)

Table 2.1 shows that a person living in Bangkok and vicinity has an average income of nearly three times that of a person living in the Northeast where Ko Kaeo is located. The inequality provides ample reasons to migrate to more well-off regions (or abroad) and send remittances as part of a household livelihood strategy. This corresponds well with internal migration patterns where many are moving from the poorer areas to those areas with good economic growth (see table 2.2, section 2.2).

As for the Northeastern region, 76% of the population are engaged in the agricultural sector despite lower yields and productivity compared to the rest of the country (Intarachai, 2003, p. 227). As shown in figure 2.1, poverty levels have fallen drastically in Thailand, but this is also the case for the Northeastern region:

Overall since 1960, poverty has fallen throughout Thailand. Rates in rural areas have also fallen markedly. In the early 1960s, more than 60% of the rural population lived in poverty: by the early 2000s, the figure was at a little more than 10%. Improvements probably came initially from increasing farm incomes and subsequently from rural non-farm jobs and remittances from migrants (Leturque and Wiggins, 2010).

This indicates that despite the regional differences, development in Thailand has benefitted more than just the urban centers and remittances are thought to be one of the important factors contributing to this astonishing development. Yet, as the World Bank (2014) writes that *"Poverty in Thailand is primarily a rural phenomenon, with 88 percent of the country's 5.4 million poor living in the rural areas."*

2.2 Migration in Thailand

The Migration and Remittances Factbook of 2011 records the number of emigrants from Thailand as 810,800 people; a number which amounts to 1.2% of the total population of 67.8 million people in 2009. Of the top ten destinations for the emigrants, eight were developed countries. The exceptions were Cambodia and Malaysia which are both neighboring countries (World Bank, 2011, p. 240).

Internal migration is also a possible way to seek opportunities elsewhere and remit. Huguet *et al.* writes that internal migration *"has long been a common response to land pressure, economic crisis and/or opportunity, and the seasonal nature of rice cultivation in Thailand."* (Huguet *et al.*, 2011, p. 14). As the numbers clearly demonstrate in table 2.2 below, there is an out-flux of people from the poorest region of Northeast to the more developed and urban regions of Thailand. Huguet *et al.* (2011, p. 14) also give an important explanation for the high migration to the Central region compared to the capital of Bangkok. The high migration to the Central region is caused by higher economic growth rates in this central region and other urban centers compared to Bangkok. This seems to correspond well with the theory that migrants seek economic opportunities.

Table 2.2: Internal migration in Thailand (in thousands)

Region/Period	1965-1970	1975-1980	1985-1990	1995-2000
Bangkok Metropolis	64.5	212.3	365.9	134.7
Central (excluding Bangkok Metropolis)	-11.2	-5.8	293.4	671.0
North	-3.2	-23.9	-89.3	-71.6
Northeast	-47.6	-181.3	-553.7	-369.7

South	-2.5	-1.3	-16.3	57.9
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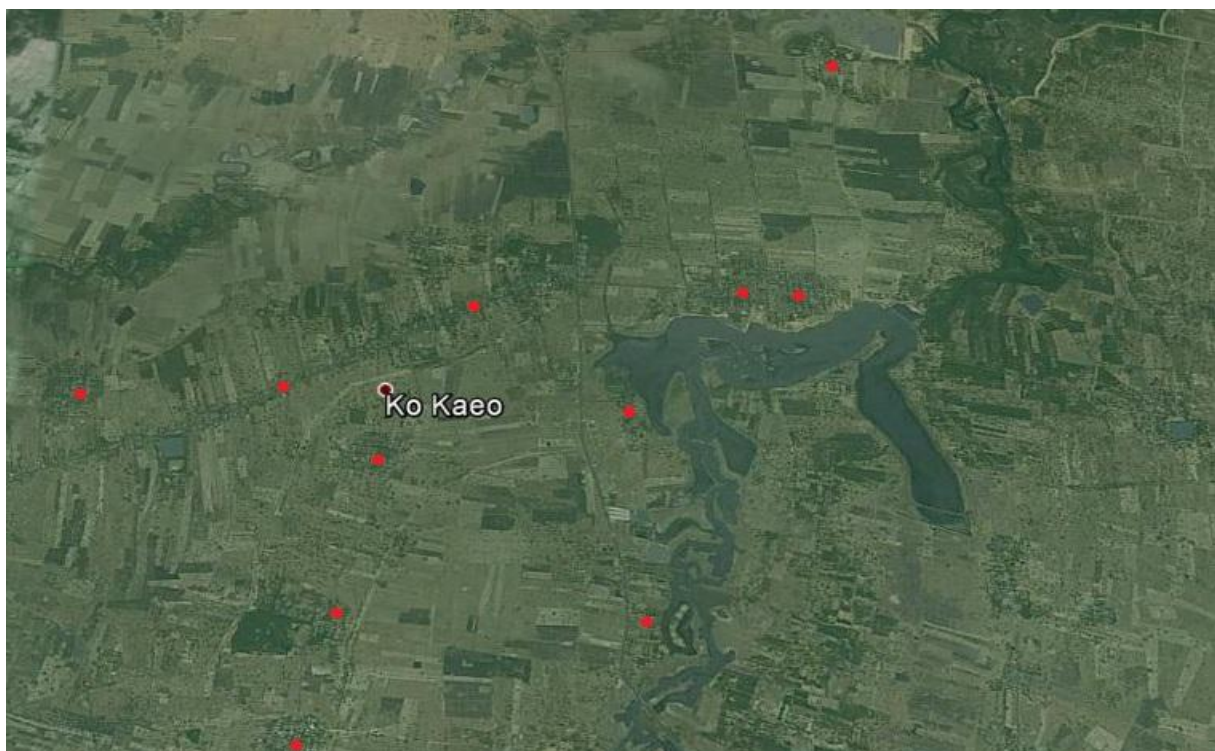
Source: (National Statistical Office of Thailand, as cited in: Huguet et al., 2011, p. 15).

As we can see from table 2.2 above, the Northeastern region have experienced emigration starting from at least late 60's. For the following decades, emigration increased markedly until a decrease occurred during the late 90's. Although the statistics do not include numbers from after the turn of the millennium, section 5.1 of this study will show that migration is still very common, especially among the younger working age population.

2.3 Ko Kaeo Sub-District

This study was carried out in the sub-district of Ko Kaeo in the district of Samrong Thap. The district belongs to the province of Surin in the Northeastern region of Thailand. It is located near the border of Si Sa Ket province about an hour or two drive away from the border of Cambodia. Lao Isaan is the main vernacular of the Northeastern region and also of Ko Kaeo sub-district, while Thai is used for education and most public purposes. According to information from this study, Ko Kaeo has three main ethnic groups, namely Khmer, Lao and Suay which all have their own mother tongue. It consists of 11 villages and 1,136 households (Sub-district Administrative Organization, 2013). A map of Ko Kaeo sub-district is shown below in figure 2.2. Red dots mark the 11 villages.

Figure 2.2: Map of Ko Kaeo Sub-District



Source: from Google Earth (Google, 2014), red dots added by author to indicate administrative villages

2.3.1 Description of Local Livelihoods in Ko Kaeo

Ko Kaeo is populated primarily by rice farmers. Most of the forest is cleared for agriculture, as can be seen in figure 2.2 above. About three quarters of the farmers harvest rice once a year around November/December month, while about a quarter of the farmers also sow rice off the main season because they have access to water. A phrase similar to *"before we did everything by hand, now we hire machines to do it"* was heard several times during the research. Most farmers now hire machines and pay for mechanical and chemical input to replace manual labor as seen in the picture below in figure 2.3. The disadvantage is that investment cost in land is high and the margin between expenses and income is very small. Most farmers in the area have debt, and a reason for this is that when crops fail, investments also fail. There are, however, also advantages to the mechanized farming. Months of work in the fields is now reduced to a couple of days by the farm machinery. This reduces the risk because crops could have been destroyed by rain during the long harvest. It also opens up the opportunity for the households with less manpower to continue farming. In addition it frees household labor, making it possible to gain income by working for hire or having a small business on the side. Further advantages are higher yields than previously, and the possibility to harvest rice twice a year for those farmers who have their land near a water source.

Figure 2.3: A harvester from the Japanese company Kubota hired by a local farmer. Source (author)



Starting around a decade ago, rubber and sugar plantations have gradually come to cover the lands as a means to diversify investments and risk. Farmers also often keep a few heads of livestock - mostly cows and buffaloes - in addition to other small scale on-farm activities. As the land is low-yielding and profit from agriculture is not high, many - if not most - households have other off-farm sources of income. According to the Thai Rice Exporters Association, one rai of rice land in the Northeastern region gave 334 kilograms of produce in

2013 (in season rice). This is the lowest of all regions, out-conquered by the Southern region at 458 kilo/rai, the Northern region at 585 kilo/rai and the central region at 601 kilo/rai (Thai Rice Exporters Association, 2014). A few inhabitants are also government servants with steady employment, while many work for hire or start a small business in order to secure their livelihood.

Modern infrastructure and technology have arrived quite recently in the area. According to the local people, electricity came about 15-20 years ago, while some of the most important stretches of roads were covered with tarmac 5-6 years ago. Mobile phones are widespread, while internet arrived around three years ago in some of the villages. There are also water catchments, water pumps, and canals in the area, but the irrigation system is characterized by being incomplete and only a few villages have been able to do off season rice farming starting about 4-5 years ago according to local farmers.

Primarily, being a agricultural community, most people are vulnerable to one or several factors arising from shocks and seasonality in the area. Seasonality determines when they make investments in their land, when they reap the benefits from these investments, and which parts of the year food insecurity may arise. Usually, the locals in Ko Kaeo consider drought and flood to be the two worst hazards in the area. The flood in September 2013 in Ko Kaeo was extreme, reported to be the worst in 40 years in the province of Surin (Bangkok Post, 2013). The national political conflict that was going on during the fieldwork for this study must also be reckoned to be a hazard. Governance in Thailand is inherently unstable and few Prime Ministers sit out their period. However, this time it was also very problematic for the farmers even though most of the demonstrations were taking place in Bangkok. One local farmer said in an informal chat during new year's celebration that it was like life stopped. The reason was that many farmers had sold their rice to the government rice-pledging scheme and were also awaiting insurance money for lost crops. The rice-pledging scheme was intended to give rice farmers higher income by buying their rice at 50% above market price, but as time passed, the scheme looked more and more like a failure which the government could not afford (Tanruangporn, 2014). As a consequence, the money did not arrive as scheduled when the conflict was going on so farmers were beginning to experience hardship. As weeks passed by, reports of dissatisfied farmers emerged in the news. Demonstrations arose, and some farmers were becoming so indebted that they even committed suicide (Corben, 2014). In fact, farmers did not get paid until the National Council

for Peace and Order (NCPO) decided to pay the outstanding 92.4 billion baht (2.83 billion US\$) to the more than 850,000 farmers after the Coup in Thailand (Siripunyawit, 2014).

3 LITERATURE REVIEW AND THEORETICAL FRAMEWORK

This chapter will focus on the literature and the theoretical framework relevant to this thesis. Section 3.1 will start with a general introduction on remittances by giving a definition on remittances, trends on remittances and some literature on why remittances are sent. Section 3.2 will present the concept of livelihood security and the theoretical framework. 3.3 will look at the literature showing how remittances can impact on different aspects of livelihood security, before 3.4 looks more specifically at the literature on remittances in Thailand.

3.1 Remittances

3.1.1 Remittances: Definitions and Characteristics

The IMF (2009, p. 70) defines remittances as used in the everyday discourse as “*cross-border payments of relatively low value, often recurrent person-to-person payments by migrants.*” IMF's definition refers to what is often called international remittances by including the wording *cross-border payments*. Many migrants who remit do not necessarily cross any borders, but migrate to another city or region. Their remittance sending can have much of the same function and characteristics as international remittances and should therefore in many cases be included in the definition. Sander (2003, p. 3) does so by defining remittances as:

Monies sent from one individual or household to another. International remittances are those sent by migrant workers who left their home country. Domestic remittances are those sent by migrant workers who left their home village or town to work elsewhere in their home country (e.g. rural-urban migration; sometimes also referred to as national remittances).

Domestic or national remittances are also at times referred to as internal remittances. One can in addition make a distinction between household or individual remittances and communal or collective remittances. This thesis will however primarily focus on the household remittances, or what Goldring (2003) calls family remittances. She writes that:

the practices associated with sending money “back home” are steeped in norms, obligations and/or affective ties that are bound up in processes of identity formation, gender and socialization, which are in turn rooted in social networks (of kinship, fictive kinship, friendship, etc.) and processes related to the construction of community, ethnicity and nation (Goldring, 2003, p. 9).

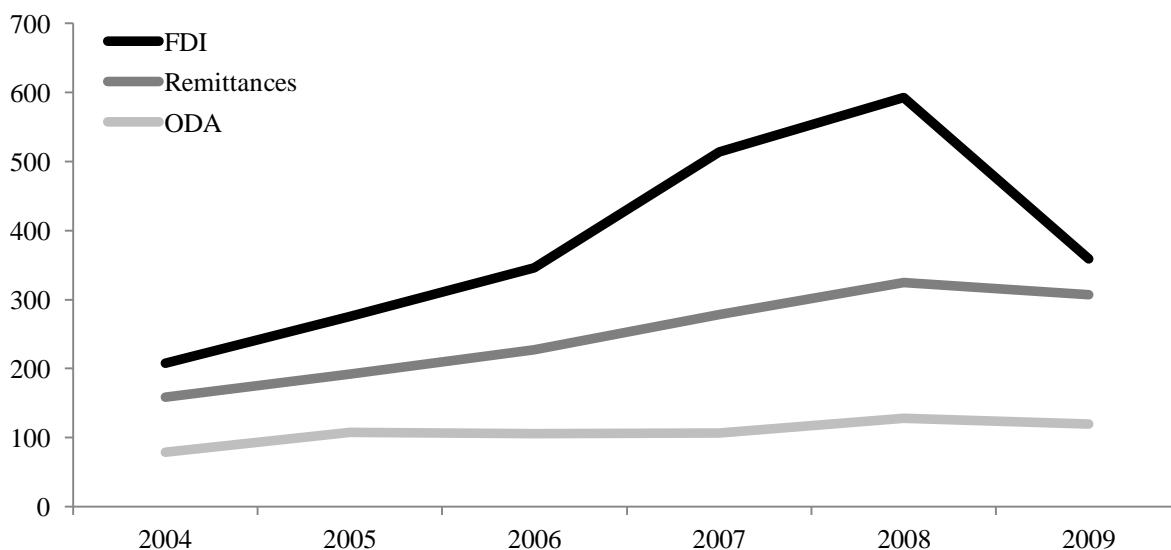
"Back home" must be understood quite metaphorically. In an increasingly urbanized and globalized world, it might actually mean anywhere where family members and friends are residing since they are likely to be dispersed around the country - or even the planet - in search for a living.

There also exists a more technical definition of remittances which is related to how remittances should be registered by each country in the balance of payments and reported to the IMF (see: Carling, 2004, p. 55; IMF, 2009). The technical definition is quite complex and is left out here since it serves no purpose for the sake of this thesis. It is quite common to separate between formal and informal remittances; informal remittances being those remittances which are not recorded by official statistics because informal channels such as Hawala, Hundi and Fei Ch'ien among others are being utilized (IMF, 2009, p. 13; Sander, 2003, p. 3). These informal channels: *"tend to be used more where financial sector is either missing (e.g. as can be the case in conflict or post-conflict countries), weak, or mistrusted (for instance due to bankruptcies)"* (Sander, 2003, p. 10). Migrants also bring large amounts of money back to the household themselves or through friends. This practice can also be understood as part of the total amount of remittances being *"sent"*, however it is unlikely to be recorded in official statistics and are thus informal. The same applies to goods that are sent or brought back which are often understood as remittances, but does not necessarily show up in any statistics.

3.1.2 Remittances: Trends and Numbers

Some of the most up-to-date statistics on remittances are those from the Migration and Remittances Factbook of 2011 (World Bank, 2011). The factbook reveals that an estimated 325 billion US\$ was remitted to developing countries in 2010; up from 307 billion US\$ in 2009. The 2009 figures for foreign direct investments (FDI) flows to developing countries was 359 billion US\$ while the numbers for Official Development Assistance (ODA) was 120 billion US\$. Figure 3.1 below shows a comparison of ODA, Remittances and FDI over time.

Figure 3.1: Resource flows to developing countries in billions of US\$ (The World Bank, 2011, p. 17).



The figure above shows that remittances are not so prone to external shocks as FDI were during the economic crisis. Remittances are also growing faster than ODA and was in 2009 almost three times that of ODA, even without including informal remittances (remittances not counted in statistics). Informal remittances are very hard to estimate, but one calculation puts the number at somewhere between 35-75 percent of the formal remittances to developing countries. Informal remittances are relatively high in Sub-Saharan Africa, Eastern Europe, and Central Asia, while they are relatively low in East Asia and the Pacific (Freund & Spatafora, 2005, p. 1). The total remittances might therefore be roughly double of what numbers on formal remittances tell us. Estimates and forecasts on more recent remittances' numbers indicate that they will grow to about 441 billion US\$ in 2014 (Ratha, 2012).

There are also quite big differences between countries. Some countries receive a lot of remittances while others receive practically nothing. However, due to the different size of the economies, even large absolute numbers can be quite insignificant when measured in percentage of GDP. Table 3.1 and table 3.2 below give the number for the top five remittance recipient countries in total and percentage of GDP.

Table 3.1: Top five remittance recipients in total. Data from: (World Bank, 2011, p. 21).

Country	India	China	Mexico	Philippines	Bangladesh
Remittances (billions)	55,0 US\$	51,0 US\$	22,6 US\$	21,3 US\$	11,1 US\$

Table 3.2: Top 5 remittance recipients in percentage of GDP. Data from: (World Bank, 2011, p. 21).

Country	Tajikistan	Tonga	Lesotho	Moldova	Nepal
Remittances (% of GDP)	35.1%	27.7%	24.8%	23.1%	22.9%

The tables above show that the top five remittance-receiving countries account for close to half of the total remittances to developing countries. Yet they are not among the five most remittance-dependant countries (as a % of GDP); countries which rely heavily on remittances from the Diaspora as a source of foreign exchange. Again this does not include internal or informal remittances. As already mentioned, total remittances will therefore likely differ markedly from the numbers presented here.

3.1.3 Why are Remittances Sent?

In a paper from 1985, Lucas and Stark (1985) discuss the determinants of remittances by looking at different motivations to remit. One determinant they consider is pure altruism where migrants send remittances because they obtain utility from improved household consumption by those back home. In other words, migrants send remittances because they care for their family members left behind. But Lucas and Stark question pure altruism alone as a determinant of remittance sending as they were unable to find evidence for remittances being greater to lower-income families.

They also consider a complete opposite theory, which they call pure self-interest. Three main reasons are here considered. The migrant remits because she/he has plans to inherit, and remittances increase the odds of being favored in the inheritance line. A second possible explanation is that the migrant remits to invest in assets back home which the family then looks after. A third reason is that the migrant remit with the intent to return home. This might be linked to the previous reason of investing in assets such as land or machinery, or just remitting to make sure that one is welcomed back home. Especially if social pressure for remitting is high. The main point is that the migrant is sending money because it ultimately is beneficial for him/herself.

Furthermore they offer a third theory, which they call tempered altruism or enlightened self-interest where remittances are considered an "*intertemporal, mutually beneficial contractual arrangement between migrant and home.*" (Lucas and Stark, 1985, p. 904). Here investments and risk are two major components. Remittances may for example pay back for education investments (principle and with interest). Education is often expensive in developing countries, but it pays off in the long run. Yet since the parents have to bear a large brunt of the costs, they will also expect to be paid back what they have invested in. This arrangement is therefore beneficial both for the parent and the child as long as the investments are repaid in the form of remittances. Remittances may also reduce risk from for example crop failure by

having a member staying outside the village. If the migrant is working in the industry while the household of origin are farmers, vulnerability is reduced since they are less likely to experience income loss at the same time.

Lucas and Stark conclude that their evidence from their research in Botswana point to the third theory. They write that this *"views the migrant and family as having an implicit understanding that is of mutual benefit. For the household as a whole, to allocate certain members as migrants may be a Pareto-superior strategy, and remittances are the mechanism for redistributing the gains."* They based this argument on findings that remittances seems to fit with the idea of risk spreading where *"urban member provide insurance during drought"*, and that their evidence also confirms the repayment hypothesis where migrants are paying back for the education their parents paid for (Lucas and Stark, 1985, p. 913-914). Although the motivations for remittances might be an important research area, Carling (2008, p. 585-586) have warned that focusing too much on altruism and self-interest might be unfortunate. He instead argues for a focus on *"the actual variation that is important in a policy perspective"* (Carling, 2008, p. 582). These are among others characteristics of remittance senders; characteristics of remittance receivers; remittance corridors; and migration history. In this paper, the characteristics of the remittances receivers will be used to test empirically what the determinants of remittances are. Yet the results will also be discussed in light of the more theoretical approach of Lucas and Stark.

3.2 Livelihood Security: a Framework for Understanding Poverty

A main goal agreed upon by all the world's countries and development institutions through the United Nations is to rid the world of poverty. This is evident by looking at the 1st goal of the Millennium Development Goals (MDGs) which is to eradicate extreme poverty and hunger. In fact, the goal to halve extreme poverty (those living on less than 1.25\$ a day) between 1990 and 2015 has been reached already (United Nations, 2013). However, many people are still living in poverty. A problem is that this measurement is done along a single scale which only concerns income (Chambers and Conway, 1991, p. 2-3). This has sparked new thinking and the idea of sustainable livelihoods emerged. A livelihood is defined simply as *"a means of securing a living"* (Chambers and Conway, 1991, p. 6). More thoroughly, sustainable livelihoods can be defined as:

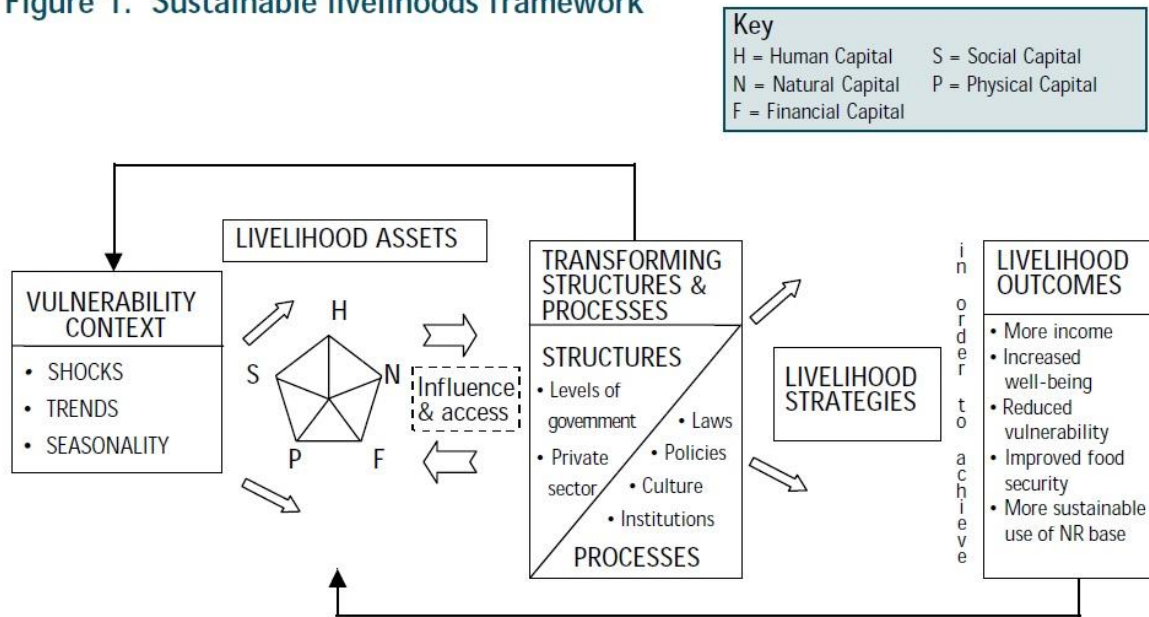
A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living: a livelihood is sustainable which can

cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes to net benefits to other livelihoods at the local and global levels and in the short and long term (Chambers and Conway, 1991, p. 6).

Chambers and Conway claim that the question of sustainability falls into two groups. These are *"whether a livelihood is sustainable environmentally, in its effect on local and global resources and other assets; and whether it is sustainable socially, that is, able to cope with stress and shocks, and retain its ability to continue and improve."* Chambers and Conway, 1991, p. 9). This paper will primarily look at the idea of social sustainability which is in line with the definition CARE (2002) use for livelihood security. Livelihood security is *"the adequate and sustainable access to income and other resources to enable households to meet basic needs"* (Frankenberger, 1996, as cited in CARE, 2002, p. v). There are several development actors that have worked on the idea of sustainable livelihoods and developed their distinct, albeit similar frameworks. While Chambers and Conway (1991) used capabilities, assets and activities as the requisites, the Department for International Development (DfID) (1999) has split the assets into five types of capital as shown in the framework below in figure 3.2. CARE's (2002) framework is similar except they have also included political capital. Remittances thus constitute part of the financial capital of the household, and a lot of the literature focus on how remittances can be used to invest in the other forms of capitals through for example increased education or improved shelter. This will be presented in the next section (3.3). Figure 3.2 below will be used as the framework for understanding household livelihood security in this study. The framework will also allow for an understanding of poverty that is multidimensional and not only considers whether income is above or below the poverty line.

Figure 3.2: Sustainable livelihoods framework (The Department for International Development, 1999)

Figure 1. Sustainable livelihoods framework



The sustainable livelihoods framework above from DfID (1999) shows the different aspects of livelihoods that are important in order to achieve livelihood outcomes that households pursue. Although more income is considered an outcome as in most measurements on poverty, the framework also includes factors such as well-being, vulnerability, food security, and sustainable use of the natural resource base. Outcomes are affected by the vulnerability context; what assets the household possess; transforming structures and processes; and which livelihood strategies the households opt for. All these will be described more thoroughly below.

Vulnerability Context: The vulnerability context "*frames the external environment in which people exist. People's livelihoods and the wider availability of assets are fundamentally affected by critical trends as well as by shocks and seasonality – over which they have limited or no control*" (DfID, 1999). Given that this research is in a rural area, the vulnerability context is obviously very important since rural economies and households are often much more affected by shocks, trends and seasonality than urban inhabitants. The DfID (1999) writes that shocks such as natural disasters can destroy assets or even force people to leave their area. Trends on the other hand may influence rates of return on livelihood strategies, while seasonal shifts in prices, employment opportunities, and food availability can have a large effect on poor rural households.

Transforming Structures and Processes: The DfID (1999) writes that these are the institutions, organizations, policies and legislations that determine **access** to capital, livelihood strategies, and to decision-making bodies; the **terms of exchange** between different types of capital; and the **returns** to the livelihood strategies. These have a direct effect on the livelihood outcomes of the locals (CARE, 2002, p. 13).

Livelihood Strategies: Although often severely constrained by structural factors outside the reach of their influence, rural people often make an active attempt to improve their situation through a set of different choices and strategies. Scoones sums up the main strategies for rural people quite thoroughly. He writes that:

Within the sustainable livelihoods framework, three broad clusters of livelihood strategies are identified. These are: agricultural intensification/extensification, livelihood diversification and migration. Broadly, these are seen to cover the range of options open to rural people. Either you gain more of your livelihood from agriculture (including livestock rearing, aquaculture, forestry etc.) through processes of intensification (more output per unit area through capital investment or increases in labour inputs) or extensification (more land under cultivation), or you diversify to a range of off farm income earning activities, or you move away and seek a livelihood, either temporarily or permanently, elsewhere. Or, more commonly, you pursue a combination of strategies together or in sequence (1998, p. 9).

Livelihood Assets: DfID (1999) states that "people require a range of assets to achieve positive livelihood outcomes" and have divided the assets into five capitals; namely human capital (education, health, ability to labor), natural capital (land, forests, water), financial capital (savings, earned income, transfer from the state, remittances), physical capital (transport, shelter, water supply and sanitation, energy, access to information) and social capital (networks and connectedness, membership of groups, relationships of trust, reciprocity and exchanges). Some, like CARE (2002), also includes political capital in this assets portfolio. These capitals are of course not always only means to receive livelihood outcomes, but are in a way part of the livelihood outcomes, or ends in themselves. Having more financial capital is for example often considered an outcome in itself since it means increased income, which is one of the most common ways to measure development outcomes. Also, more land can often also mean more food security since rural people often grow their own food.

Livelihood Outcomes: There are numerous development indicators used to measure development outcomes. The most common ones are usually related to measures of income since arguable income is not too difficult to measure and it is commonly agreed that income is important. Measures such as GDP/capita and the international poverty line of 1.25PPP\$ per person per day are well-known examples. Most countries also have national or even regional poverty lines. The poverty line is among others used by United Nations in order to measure progress in their Millennium Development Goals (MDGs). The MDGs also focus on other aspects of development such as education, equality and child mortality. Other well-known example is the Human Development Index (HDI) of United Nations Development Programme (UNDP) which also includes health and education in addition to the GDP/capita. Measures based on happiness and sustainability have also been proposed more recently and are beginning to gain some foothold. Examples are Happy Planet Index by the New Economics Foundation and Ecological Footprint promoted by the Global Footprint Network. Apart from these, UNDP has also quite recently introduced the Multidimensional Poverty Index (MPI) which focus more on health, education and living standards than just mere income.

The livelihood outcomes of the sustainable livelihood framework have many things in common with some of the above mentioned development measurements. The framework from the DfID (1999) focuses more on income, increased well-being, reduced vulnerability, increased food security and more sustainable use of natural resource base as their livelihood outcomes. Scoones (1998) have also identified five outcomes important to livelihoods. These are, i) creation of work days so people can gain an income, produce consumable output, and gain recognition, ii) poverty reduction, iii) well-being and capabilities, iv) livelihood adaption, vulnerability and resilience, and, v) natural resource base sustainability. Yet these outcomes have to been seen in relation to the broader picture of vulnerability, structures, assets, and livelihood strategies that are relevant in the context of where these livelihoods are lived out.

3.3 Remittances' Impact on Livelihood Security

Remittances can directly increase the income of the household and move people out of poverty based on measurements such as the 1.25\$ a day. Some scholars such as Chimowu *et al.* claim, however, that research on remittances should focus on a multidimensional understanding of poverty:

To assess the impact of remittances on poverty reduction, it is necessary to develop a framework that employs the widely accepted multidimensional concept of household poverty. In that concept, reducing poverty involves more than raising cash income and consumption levels; poverty reduction also includes building the capacity to accumulate assets that reduce vulnerability to financial shocks, and gaining access to entitlements such as education and health care that contribute to secure and sustainable livelihoods (2005, p. 93).

This view very much echoes some of the ideas from the sustainable livelihoods framework described above. This section will therefore take a look at literature on remittance impact on livelihood security by including not only the raised income effect, but also its contribution to other assets and capitals considered important in the framework.

Financial capital: One of the most important benefits of remittances is that they are pro-poor (Maimbo and Ratha, 2005, p. 2). By analyzing a detailed nationally representative household survey from Guatemala, Adams Jr. (2006, p. 53) found that *“both internal and international remittances reduce the level, depth, and severity of poverty in Guatemala.”* Yang and Martinez (2006, p. 105) also finds that remittances reduce poverty in the Philippines. In another study of Latin American countries, it was shown that remittances' impact on national poverty rates was relatively modest based on the whole population. In half of the countries, remittances had no significant impact. However, it is reasoned that in some countries remittance receiving households are mainly from the richer part of the population and therefore not raising people above the poverty line. In the same study, they measured the impact of remittances on international poverty lines (2\$ PPP) by including only the subgroup of remittance receiving households (not the whole population). This time the statistics showed a 10 to 17 percentage point reduction of poverty in Bolivia, Ecuador, Guatemala, Haiti and Honduras (Acosta *et al.*, 2007, p. 83).

Remittances are also considered to be a stable, something which stands in contrast to other capital flows such as FDI which rise and fall according to economic cycles (Ratha, 2005, p. 26). The stability is important as it helps in creating a income smoothing effect which in turn protects poor and vulnerable households against shocks and crisis (Chimowu *et al.*, 2005, p. 86). If remittances are to lead to more sustainable livelihoods, an important characteristic should be that they are stable and not completely prone to economic cycles or development fads.

Not only are remittances stable and reduce poverty, but they are an important source of income for many people. In the Philippines, 6.2 percent of the families have international remittances as their main source of income (Go, 2002, as cited in Bagasao, 2005, p. 137). As can be implied from the fact that remittances reduce poverty, remittances do in many cases increase expenditures of households. In Guatemala, households receiving remittances have 37.1 % (internal) and 39.5 % (international) higher household expenditures than non remittance receiving households (Adams Jr., 2006, p. 66).

In many developing countries remittances often compensate for lack of welfare mechanisms such as pension and unemployment benefits (Sander and Maimbo, 2005, p. 71). The effect of remittances on employment is quite complex however. Yang and Martinez (2006, p. 115) found an increase in entrepreneurial activity in the Philippines between 1997 and 1998 as a result of increased remittances. Mansuri (2007, p. 112) also found that household investments in nonfarm enterprises increased as a result of migration, but only after the migrant had returned home. These studies indicate that remittances are not only welfare, but that they can also solve credit constraints which can lead to diversified livelihood activities. On the other hand, Acosta (2007) found that remittances reduced labor supply among recipient individuals in El Salvador, with higher numbers of females quitting the labor market than males. This may therefore indicate that remittances may lead some people to stop working as a consequence of receiving remittances. At the same time however, remittances increase the likelihood of managing a business among females - especially in rural areas - whereas there was no association between remittances and self-employment.

Even though remittances are stable and constitute a significant source of income for many, Ballard found that communities could be locked into dependency on remittances (Ballard, 2005). Migrating and remitting is therefore not a panacea for solving development problems in a particular locality.

Human capital: Education is often considered one of the basic constituents of human capital. DfID (1999) for example considers skills, knowledge, ability to labor and good health to represent human capital. Education also serves as one of the most important parts of several development indicators. The effect of migration and remittances on education has been studied quite thoroughly. Yang and Martinez (2006, p. 83) studied favorable exchange rates and its subsequent effect of an increase in remittances received. The study conducted on households in Philippines found that this increase lead to *“greater child schooling, reduced*

child labor, and increased education expenditure in migrants' origin households." Adams Jr. (2006, p. 77) also found similar results for Guatemala where *"remittance-receiving households spend considerably more on the margin on education."* In Pakistan, children in migrant households are more likely to attend school, are less likely to drop out of school in age ranges where dropping out is an issue, and have higher completed grades in their cohorts. As a consequence, being a child of a migrant household also lead to reduced child labor. Whereas education benefitted girls more than boys, child labor was reduced quite equally (Mansuri, 2007, p. 118-123). However, evidence from Mexico indicate that migration seems to lower investments in education. An effect of migration might be that it causes children to drop out of school, and that expectations of future income from migration reduce incentives to invest in schooling. In addition, absent parents are less able to supervise their children. This is also often combined with a larger household work burden for the remaining children of the household (Mckenzie, 2006, p. 138-142). This is confirmed by Acosta *et al.* (2007, p. 95) who found remittances to be *"positively and significantly associated with higher education attainment in 6 of 11 countries."* One of the exceptions were Mexico. They also found from their research that the effect was larger when parents' education was low. This proves that there is a complex relationship between migration and remittances and the subsequent effect on education attainment. Remittances itself opens up opportunities for more investments in education, but the migration process which is intricately linked to the remittances can have some negative effects. This therefore warns us about making very broad generalizations about the effect of migration and remittances as it seems to vary depending on locality and likely also time.

Health is another important constituent of both human capital and development which has been measured in several studies. In Mexico, McKenzie (2006, p. 128) found that migration reduced infant mortality with 3 % for children born in a household with a migrant member, compared to children born in households without a migrant member, but with similar characteristics. For child mortality the magnitude is a smaller with 0.5 % reduction in chance of dying. Birth weight also increased by 364 grams for children born in households with a migrant member, while the number of children delivered by a doctor increased by 30 %. Migration also increased maternal health knowledge in households who had a migrant, indicating knowledge spillover from migrant to the original household. Among the negative effects, Mckenzie found that children in migrant households are found to be *"19% less likely to be breastfed and 11% less likely to have received all of their recommended vaccinations."*

It is however not entirely clear what is an outcome of migration and what effect is from remittances in this study. Yet migration and remittances are so interlinked that separating the effects is not necessarily productive.

Acosta *et al.* (2007) have also studied remittances and its health effects. By using weight-for-age and height-for-age to measure the impact of remittances on health in Guatemala and Nicaragua, they found that children of remittance receiving households showed better health outcomes than non-receivers of similar households. The results also indicate that the biggest effect are among the low-income households (2007, p. 95). A somewhat similar measurement done in Pakistan showed that migration had a "*large positive effect on both measures of child growth*" and that the height benefit for girls was sustained for incremental age groupings (Mansuri, 2007).

Natural capital: Natural capital is "*the natural resource stocks from which resource flows and services (e.g. nutrient cycling, erosion protection) useful for livelihoods are derived*" (DfID, 1999). Some of these services are often public and so remittances might have little or no effect on who can access them and to what degree. Yet others such as land, forests and water may as well be owned privately and remittances can therefore be used to invest in them (DfID, 1999). One study done on Pakistan by Mansuri (2007, p. 113) found that once migrants had returned, investments in farm land increased in Pakistan. Still, caution must be taken as the study also showed a negative effect for land investments before the migrant returned.

Social capital: Social capital is "*the social resources upon which people draw in pursuit of their livelihood objectives*" (DfID, 1999). That remittances can "buy" social capital is probably a bold assumption. But the migration of a member of a household can increase social capital in many ways. If the migrant moves to the West, it means that the household now has a network that reaches into a richer part of the world. This can allow for migration of other family members (and subsequently more remittances) since networks is seen as one of the most influential factors of future migration (Mora and Taylor, 2006, p. 47). If the migration is legal, that household can indirectly benefit from institutions in the migrant receiving country such as different kinds of welfare benefits. Furthermore, Orozco shows how many migrants take part in hometown associations which are often formed for social purposes but also for development purposes of the hometown. In these cases remittances as sent and used collectively in a way that forms social capital and spurs development (Orozco, 2001, p.

10-14). One can also theorize that the income derived from remittances can allow the household to take part in savings groups which often are build on trust.

Physical capital: Physical capital is considered as *"the basic infrastructure and producer goods needed to support livelihoods"* (DfID, 1999). Remittances could potentially lead to investments in physical capital since it should solve credit constraints that rural households often experience. A study by Mansuri (2007) found that once the migrants had returned, investments in farm assets (tractors and tube wells) increased in Pakistan. Yang and Martinez (2006, p. 115) found an increase of vehicle ownership as a consequence of remittances while Adams Jr. (2006) found that households receiving remittances also spend more on the margin on housing. What must be taken into account is that some of these investments are controversial in terms of their development benefits. Housing is for example not that beneficial if everyone in the neighborhood spend a lot on housing and not much on more productive investments. But investing in housing can be good if it improves living conditions of the household members. This can include improving protection against disasters, improving hygiene, secure access to electricity and light, healthier conditions for cooking food and so on. This implies that the condition of the shelter before investments also has to be taken into account, not just how much was used on housing per se.

3.4 Remittances in Thailand

The amount of formal international remittances to Thailand is estimated to be 1,788 million US\$ in 2010. The amount has been quite stable and has not increased much since 2003 when it was 1,607 million US\$ (World Bank, 2011, p. 240). The number indicates that Thailand is not a particularly remittance-dependent country as remittances amounted to only around 0.6-0.7 percent of GDP in 2009 (Pholphirul, 2011, p. 56). However, this does not mean that remittances are unimportant, especially since internal remittances are not included in the numbers from the World Bank. This becomes evident when we considers the numbers from the 2009 household socio-economic survey of Thailand. It shows that 6.95 % of the average income of households in Thailand derives from assistance from a person outside the household. The number for the Northeastern region is higher at 12.49 %. For the category of economically inactive households, it represents 37.7 % of their average income and is without doubt the most important source of income for this particular group (National Statistical Office of Thailand, 2009).

Studies indicate that international remittances increased markedly during the 1997 Asian Financial Crisis, meaning that they are often countercyclical and lead to economic stability (Pholphirul, 2011, p. 56). They also improve living standards, reduce poverty and enhance children's education (Pholphirul, 2011, p. 57).

When it comes to internal remittances, there are some differences compared to international remittances. While international remittances seem to increase community inequality, internal remittances decrease village inequality (Boonyamanond and Pungpuing, 2009; Paris, *et al.* 2009; and Guest, 1998, as cited in Pholphirul, 2011, p. 58). Internal remittances also reduce regional inequality and alleviates poverty (Yang, 2004; Guest, 1998, as cited in Pholphirul, 2011, p. 59). This is also supported by Osaki (2003, p. 214) who found that *"the income of the origin household was inversely related to the amount remitted: these results confirm that out-migrants are responsive to the economic needs of the origin household."*

There also seems to be little evidence for brain drain from Thailand to abroad (the loss of highly educated and skilled labor), as 70% of migrants have little secondary education (Sciortino and Pungpuing, 2009, p. 27). Yet, Amare *et al.* (2012, p. 9) suggests that there is a human capital drain from rural to urban areas in Thailand based on a study they did on rural-urban migration and employment quality. There is therefore a large difference on the effect of migration on brain drain in Thailand depending on whether the migration is international or internal.

When it comes to the characteristics of the senders and receivers, Knodel *et al.* (2010, p. 823) states that: *"It is clear that financial support was most likely from migrant children."* Osaki (2003, p. 218) also concluded similarly, saying that remittances from children to parents were common and that it was a *"normative expression of gratitude and respect toward the migrants' parents for raising them, a social norm which remains relatively strong in Thailand."* The data that made Osaki come to this conclusion was that remittances were received by households belonging to all types of income levels and not only by the poor. Kolden *et al.* found a strong connection between the age of parents and remittances. They state that:

Work was cited as their main source of support by 82 per cent of the parents aged 50–54 years, 59 per cent of those aged 60–64 years, and 26 per cent of those aged 70–79 years. In contrast, only 16 per cent of 50–54-year-old parents cited children (or

grandchildren) as their main source of support, compared to 35 per cent of those aged 60–64 years and 63 per cent of 70–79 year-olds (2010, p. 822).

It is not always a one way favor where the migrants have to send remittances back to their household of origin primarily as a pure altruistic behavior. Vanwey (2004, p. 753) also shows that many households are sending remittances to the migrants, especially if the migrant is a student, indicating that migrants will later "pay back" by sending remittances once they finish their education. The remittances from migrants are therefore often in relation to an earlier investment made by the household back home. Another factor which also indicate that many migrants remit in return for a favor is the fact that many parents among the rural households are taking care of the migrants children in the rural household. The sum they send for this favor may however not always be covering more than the expenses related to having an extra child in the household. As Kolden et al. writes:

in cases where their parents are caring for grandchildren who are children of the migrant, the monetary contribution may be more for the support of the grandchildren than the parents (2010, p. 823).

4 METHODOLOGY

Application of scientific methodology is often considered fundamental for any scientific investigation. A reason is that for something to be called science, it should follow certain principals of the scientific method. This view is however not shared by everyone. Some favor a "non-scientific" approach based on the argument that researching social actors and their institutions require a different research approach than the ones used in the natural sciences. These epistemological considerations regarding how the social world should be studied greatly influence how the researcher conducts his or her research (Bryman, 2012, p. 6). Very generally, Bryman writes that the view that the study of the social world should follow the same approach as in the natural sciences is called positivism. Interpretivism on the other hand, argues for different scientific model than the one used in the natural sciences (Bryman, 2012, p. 28)

In addition to epistemological views, ontological views also influence how the research is carried out. Questions on ontology is according to Bryman related to "*whether social entities can and should be considered objective entities that have a reality external to social actors, or whether they can and should be considered social constructions built up from the perceptions and actions of social actors*" (Bryman, 2012, p. 32). The view that social entities have a reality external to social actors is termed objectivism, while the opposing view that they are constructions is termed constructionism (Bryman, 2012, p. 32-33)

Generally, there has often been distinguished between two research strategies - a quantitative and a qualitative. Objectivism and positivism is often identified with a quantitative research strategy, while constructionism and interpretevism often is identified with a qualitative research strategy. A quantitative research strategy is also often more deductive with a focus on testing theories, while a qualitative is inductive, where the focus is more on generating theories (Bryman, 2012, p. 36). Moreover, as the name suggests, a quantitative research strategy often involves quantifying using numbers, while the qualitative research strategy is often leaning more towards using text to describe and narrate. More recently, combining the two approaches in a mixed methods research has become more popular for reasons such as to triangulate findings or to take advantage of the strengths of both strategies (Bryman, 2012, p. 633).

As understood from what Bryman (2012) writes on methodology, the branch of scientific discipline the researcher operates within determines or at least influences what strategy is

likely to be used. Natural and social sciences favor different strategies, although there is no clear-cut separation. This is also because the topic and research objective of a social science study will have implications for what method which is most useful in answering the research questions. Some questions are, for instance, much more likely to be answered more concretely by a statistical analysis, even if social actors are the objects of study. An example would be an investigation on education's effect on income.

The method employed in this thesis borrows from CARE's (2002, p. 2) Household Livelihood Security Assessment (HLSA) which is described as a method similar to rapid rural appraisal (RRA) and participatory rural appraisal (PRA). The HLSA process *"aims to enhance understanding about local livelihood systems – livelihoods, economic, sociocultural and political systems and the constraints, vulnerabilities, marginalization, and risks of poor families living within this context – and important differences among types of households and among members within the household."* (CARE. 2002, p. 2). Some defining features of these methods (HLSA and RRA) are rapid results; interdisciplinary; eclectic in techniques; rely on open ended interviews; and allow for interaction between researcher and participants (CARE, 2002, p. 3). CARE itself advocate mixed methods for triangulation in its HLSA and also uses qualitative and quantitative information and a range of different data collection techniques (CARE, 2002). It is therefore probably safe to call the research strategy a mixed methods approach. One of the areas where this research parts from the RRA and HLSA method is that those methods rely on survey or research teams. This research was on the contrary carried out by only one researcher, so some limitations naturally occurred as a consequence. Still this study will also follow a mixed methods approach with elements and techniques from both the qualitative and the quantitative research strategies.

4.1 Data Collection Techniques and Tools

This study relies on several data collection techniques and tools in order to gather primary data. Broadly speaking, three main data collection techniques were used. First a pre-assessment in field was carried out in order to get an understanding of the local livelihoods. Then qualitative interviews were conducted with local households in order to get a better understanding of remittances at a household level. Finally, a questionnaire was handed out in the sub-district in order to collect and analyze data on remittance sending. These will be described in detail below.

4.1.1 Pre-Assessment in Field

CARE (2002, p. 5) recommend performing a pre-assessment study before conducting a survey. This is done in order to gain an understanding about the local area and local livelihoods where the HLSA will be conducted. Since the researcher had limited knowledge regarding the local livelihoods in Ko Kaeo, an initial period of two weeks was spent for pre-assessment in field. The pre-assessment included long daily conversations with a former village leader, in addition to informal conversations with several other farmers in the neighborhood. Time was also spent driving around the area to see what was grown and what kind of assets rural people usually possess, and what kind of activities - both on- and off-farm - that people were occupied with. The information gotten from the pre-assessment formed a basis for developing both the interview guide and later the questionnaire. The pre-assessment study - primarily consisting of informal conversations - was therefore following a qualitative approach.

4.1.2 Qualitative Interviews

The researcher conducted interviews as one of the data collection techniques. As Bryman (2012) argues, interviews can range from the completely structured interviews to completely unstructured. Structured interviews usually have fixed questions in a predetermined order where the possible answers to the questions are often limited to fixed choices or at least severely constrained. This is done so that answers can be "*coded and processed quickly*" and is often associated with a quantitative approach (Bryman, 2012, p. 470). In this study, semi-structured interviews were used. Unstructured and semi-structured interviews are most often employed in qualitative research and sometimes goes under the name of qualitative interview (Bryman, 2012, p. 469). Semi-structured interviews often make use of a list of questions that the researcher would like to ask or a list a words or topics that needs to be covered. This list is often called an interview guide. Since it is the subjects' own perceptions that are important, the guide will not have to be followed chronologically and systematically, and the subjects are often allowed to talk freely about their views with little restraints unless they are completely off track (for interview guide, see; Bryman, 2012, p. 472-473). The first questions of the interview guide are however sometimes recommended to contain questions that let the participant introduce him- or herself and serve as a warm up for the rest of the interview and also for contextualizing the participants answers (Bryman, 2012, p. 473). The researcher therefore started off by asking questions related to household characteristics and about those household members who had migrated. Later in the interviews, more in-depth opinions were sought.

One of the reasons why semi-structured interviews were considered to be of particular importance was that the researcher did not have adequate knowledge regarding the research subject. There are many aspects of both remittances and livelihood security that the participants could enlighten the researcher on. This includes both general knowledge and knowledge that is context- and place specific. By using the semi-structured interview, the participants informed the researcher in-depth using their own words. This is important since the participants belong to an "unknown" culture for the researcher. All interviews were carried out face-to-face and served as data for the study but also as data for the questionnaire which was later developed and used as the main data collection method after all semi-structured interviews were completed (see part 4.1.3). The interviews also allowed for more in-depth life histories of the participants, something which is difficult to gain with a questionnaire.

Sampling: During the interview process, the researcher has to make a choice regarding whom to interview and how many as it is impossible to interview everyone. Since interviewing is a qualitative method, non-probability sampling seemed to be the more appropriate. Bryman writes that *"most sampling in qualitative research entails purposive sampling of some kind"* (Bryman, 2012, p. 418). Purposive sampling, a non-probability form of sampling, means one try to find participants that are especially relevant for the research questions (Bryman, 2012, p. 418). The researcher therefore decided to rely mostly on purposive sampling where certain criteria were followed in order to choose respondents. The criteria used were the village the household was located in; the ethnicity of the household; whether the household was headed by a male or female; whether the household received remittances or not; and the main occupation of household. All in all interviews were conducted in 5 of the 11 villages in the sub-district and belonging to all three ethnic groups. An officer from the Bank for Agriculture and Agricultural Cooperatives (BAAC) was also interviewed in order to get information about their services and agriculture in general.

The number of interviews to conduct is an important question in qualitative research. One criteria is for example to stop interviewing people when saturation is achieved. This is according to Bryman (2012, p. 421) at the time when *"new data no longer suggest new insights into an emergent theory or no longer suggest new dimensions of theoretical categories."* The researcher conducted 24 qualitative interviews for the study. The number of interviews was to some degree decided by saturation, but also by the fact that since a

questionnaire was handed out after the interview period, there was not enough time to conduct more interviews.

Language: The researcher interviewed all of the participants in the Thai language. Since the researcher is not fluent in Thai, there were times when minor communication problems were faced. However, this was weighed up against hiring an interpreter and having to rely on another person every day for each interview. The original plan was also to record and transcribed the interviews. However, it quickly turned out that most respondents preferred doing the interviews outside their houses since they seldom spend time inside the house during the daytime. This meant that often there was noise from the traffic, and also from people who were sitting nearby when the interview was taking place. The researcher therefore took notes while interviewing instead of using a recorder. This has the disadvantage of accuracy when taking notes from the interviews as opposed to recording, while it saves a lot of time as one does not have to transcribe and translate each and every interview.

4.1.3 Questionnaire

A questionnaire was developed and handed out in order to collect statistical data from the population regarding remittances and livelihood security and use these data as part of the analysis. This was done to support the qualitative data with quantitative data, but also for triangulation. By just relying on qualitative interviews, there is a risk of biasing the findings without any cross-check from the questionnaire if the researcher for example only interviewed households that received remittances. It is also feasible to gather quantitative data when researching the fields of remittances and livelihood security. The amount of remittances received per household can easily be quantified. This is also true for many of the capitals or assets that are usually counted as part of what make up the capabilities and assets of the household. This can be education levels, farm and non-farm income, land ownership, vehicles, computers, cell phones among other assets. The questionnaire was handed out (the exact way will be explain further down) to a sample of the population in several villages of Ko Kaeo sub-district and thereafter analyzed. Since the questionnaire was handed out and collected at one specific time, it means that it represents a cross-sectional analysis. This has a major weakness. Since the objective is to find out the impact of remittances on the livelihood security, it is difficult to construct the counterfactual, that is; what if the household did not receive remittances? A randomized controlled trial could have solved this, but it is not a feasible method for this kind of study. It would require households to be put randomly in treatment and non-treatment groups, without them knowing which groups they belong to.

Since the treatment would require both migration and the sending of remittances, it is impossible to construct a perfect random experience where no one knows which groups they are in. In addition, it would be extremely expensive. Another solution could have been to do a longitudinal study which measured several indicators over time to see what happen before and after remittances was received. However, since only one questionnaire was administered at one point in time, the easiest way to analyze the impact of remittances is to compare those who receive remittances with those who do not receive remittances. This technique carries the risk of overstating the effect of remittances since if the migrant had not migrated and sent remittances, he or she might have stayed in the household and earned an income in the counterfactual scenario. This have to be kept in mind when analyzing and discussing the quantitative data material.

Developing and Testing: The researcher started developing the questionnaire before arriving at the research area, but most of the work was done after the initial assessment period and the completion of the qualitative interviews. If considering the in-field period as a 3-stage period; pre-assessment period, qualitative interview period, and quantitative questionnaire period; then the third stage builds on the two former. This means that the questionnaire was mainly based on the information gotten from the two former. This was done because the researcher had limited knowledge about the local livelihoods before arrival, and the first month or so would serve as a good foundation for creating an understanding upon which a questionnaire could be developed.

The questionnaire was written in English first and then translated to Thai by the researcher. Afterwards it was read by several local people sitting in a group, going through each question to translate it into proper Thai while the researcher was present. This made it possible to see whether we had the same understanding of each question. Once it had been translated and printed, it was tested by a few locals who tried answering it. Although testing removed many of the errors of the previous versions of the questionnaire, the final version was not without flaws as the data entry period showed that certain questions was notoriously misunderstood. Some of the variables therefore had to be removed from the final analysis.

Sampling: It is important that the number of respondents, or sample size, of a questionnaire or household survey is sufficiently big in absolute terms. Bryman (2012, p. 198) writes that up to a sample size of about 1000, the gains in decrease in sampling error is noticeable. Increasing the number of respondents thus increase the precision and validity of the findings. Large

country wide surveys or polls usually have a sample size above this number or even more in order to be representative. This sample size was however above the limitation of this study. First of all; because of the amount of work it requires for one researcher within a limited amount of time to manage a sample if this size, second; because the population in the research area is limited. The researcher therefore visited the local government administration of Ko Kaeo to get hold of statistics of the sub-district. The total amount of households of the sub-district was 1,136 households, as shown in table 4.1 below. It was estimated that 150 questionnaires would be manageable within the time limit. Accounting for sampling errors, non-respondents and such, this was intended to give a minimum of 100 respondents for the questionnaire part of the study. If two out of three households which were given a questionnaire would respond, this would give a response rate of around 66 %, a rate which is considered acceptable by Mangione (1995, p. 60-61, as cited in Bryman, 2012, p. 235).

Table 4.1: household registration statistics, households to sample, and valid samples in Ko Kaeo

Village number	Village name	households	households to sample	valid samples
All	Sub-district	1136	150	105
0	Unregistered	1	0	0
1	Ko Kaeo	114	15	13
2	Dtang Mang	104	14	15
3	Dtama	145	19	0
4	Song Nong	32	4	5
5	Kok Jaroen	82	11	12
6	Nong Grajan	127	17	8
7	Nonsawan	200	26	17
8	Bpa Woey	39	5	4
9	Positat	92	12	12
10	Ta Dan	56	7	0
11	Ko Kaeo Patana	144	19	19

Source: household registry: Subdistrict Administrative Organization (SAO) (2013), samples: author

As can be seen from the table above, the size of the villages vary a lot from the smallest village of 32 households to the largest of 200 households. Not only size, but also ethnicity, proximity to main road, access to water source, flood proneness and such was known in advance to differ between the villages. The researcher therefore decided that every household in the sub-district should have approximately equal chance of being sampled. Since 150 out of the 1,136 households was to be sampled, the sample would represent about 13.2% of the total population. Each element or household in the sub-district should therefore have approximately 13.2% of being part of the sample. In order to fill this requirement, it was calculated how many questionnaires to be handed out in each village, varying according to total number of households in each village, as shown in table 4.1. This meets the three requirements of a probability sampling which according to the United Nations (2005, p. 32)

are "(1) that each element must have a known mathematical chance of being selected, (2) that chance must be greater than zero and (3) it must be numerically calculable."

In practice however, the sampling method was non-probability sampling. The reason for this was related to the way the questionnaires were handed out. Since the researcher did not have a list of all the households in each village (only the total number of households, and no information on which households were inhabited or not), the researcher first decided to do a random walk handing out the questionnaires personally. This was first tested out in village number five, Kok Jaroen. However, it soon became obvious that many aged people were unable to read, mostly because of bad eyesight. The researcher therefore had to sit down with those unable to read. This was done in order to not bias the sample by not including people with bad eyesight in the sample, but it turned out that this was very time-consuming. The rest of the respondents in this village were each given the questionnaire and a pen and told that it would be picked up later. At a later stage the researcher was advised to give the questionnaires to the village leaders in each village, and have them handing out the questionnaires. Each leader was paid a day's wage as a compensation. This advice was given because village leaders are respected and it was therefore said it would lead to a high response rate. The disadvantage with this was first; even though they were told to hand out questionnaires randomly, there is no way to know to what degree they did so. Second; one of the village leaders had obviously written the information himself, so the questionnaires from the entire village had to be discarded. Yet another leader failed to give back the questionnaires. Still 105 out of the 150 questionnaires were returned. This equals a 70% response rate. Nine out of the 11 villages were also covered when leaving out the villages with no samples.

Analyzing: As soon as the questionnaires were returned, data was entered into excel. The reason for doing it this way was to make sure that the data was backed up digitally before returning from the field in case the papers were lost during traveling. Data was then later copied into SPSS and all the analysis was done through SPSS.

4.1.4 Secondary Data

In addition to the pre-assessment, interviews and the questionnaires, secondary literature data was an important fundament of the thesis. Several research papers and books have been written on the subjects of remittances and livelihood security. Reading these has been important in order to get a proper understanding of the topic. In addition, recent household

surveys from Thailand were beneficial as secondary data in order to both triangulate and add to the findings and analysis of this paper.

4.2 Ethical Considerations

Permission: One of the main ethical considerations that had to be taken for this research was whether to apply for a permission to do research in Thailand. The application procedure of the National Research Council of Thailand is quite complex and the researcher was actually advised not to apply by an acquaintance who had done it before. After consulting with an academician at the University of Surin, the researcher was told it was not necessary as long as the research was not regarding public matters. The researcher therefore asked permission from each village leader instead in order to do interviews and questionnaires in their village.

Informed consent: For each interview, informed consent was carried out by telling each respondent what the study was about and that it was voluntary to participate. They were also told that it was anonymous and no names would be asked or noted down. For the questionnaires, a short introduction on informed consent was written on the top part of the first page so that respondents could make an informed decision on whether to fill out the questionnaires. This included the researcher's name and country, the name of the university, what the research was about, that the questionnaire was anonymous, and that it was voluntary to participate.

Compensation: For the qualitative interviews, respondents were not promised or told about any compensation for agreeing to participate in the research. However, after the interviews were finished, a small non-monetary compensation was given as payment for their time spent doing the interview. This was done as it was advised to do so according to the local common courtesy. For the questionnaires, compensation was neither promised nor given afterwards. However, village leaders were paid a day's wage to hand out and return the questionnaires in their village as they had to spend time and fuel when carrying out this task.

4.3 Challenges and Limitations

Just before the researcher arrived in Thailand, a national political conflict erupted and continued for the whole period of the research. Although the conflict was mostly confined to the capital Bangkok, the everyday lives of the locals in Ko Kaeo were heavily affected. One of the main detrimental impacts was that many farmers had their payment for their flood insurance and rice scheme money postponed. This meant that many farmers who had invested money in rice production throughout the year had yet to get paid and were starting to feel

hardship. Reports of heavy indebtedness and farmer suicides came to the surface as time went by and payments were still not distributed (Corben, 2014). This obviously had an effect on the views and answers given by the local farmers during the time of research and thus needs to be taken into account as part of the total picture.

Another challenge and limitation has to do with language. There are practically no one who speaks English in the sub-district, so the researcher had to communicate in Thai. This is both a challenge and a limitation of the study as the researcher is neither a native speaker nor fluent in the language. The second challenge related to language is that although most people in Ko Kaeo are able to speak Thai, the farmers seldom use it in their everyday lives as their mother tongue is either Lao, Khmer or Suay. Therefore, the researcher cannot grasp what is being communicated between the locals when they speak to each other as they use a different language than the national language.

A third factor and limitation is that the farmers lives are very much dependent on seasonality. The researcher arrived during the harvest season, so most people had at least some food and money at the initial period. However, this is likely to differ very much had the research been done during months of flooding, drought or food crisis. Result from the research may therefore do some degree be affected by which part of the year the research is carried out.

It was also a challenge and limitation of this study that the relationship between remittances and human capital such as health and education was difficult to establish. These links would be much better to investigate using a longitudinal research design. Furthermore, even though most of the locals are farmers, getting information on agricultural income proved notoriously difficult given the nature of how investments and revenues spread out over the course of the seasons. Therefore, many of the calculations on income in this paper will not include agricultural income. If possible, land size is used instead, yet this is not always as good as accurate data on agricultural income would have been.

A final challenge had to do with the nature of remittances. Most respondents seemed to understand remittances primarily as the money their migrant relatives sent regularly to them. The questionnaire therefore tried to separate between monthly remittances, and remittances intended specifically for investments in agriculture, education and housing. When collecting the questionnaires, most people had specified what they received per month in remittances, but few had specified what they had received in remittances for other specific purposes. It was therefore decided that only the part on remittances per month could be trusted. This is not that

surprising, as remittances for investments are sent so seldom (or never) that they are more difficult to remember for respondents. Still it limited the researcher to analyze only the relationship between the remittances that households receive regularly and investments in housing, agriculture and other physical assets.

5 DISCUSSION AND ANALYSIS: REMITTANCES' CONTRIBUTION TO LIVELIHOOD SECURITY

This chapter will present the discussion and analysis of the findings from the study. It will start off by giving an introduction to migration and remittances in Ko Kaeo. Section 5.2 will then attempt to answer research question one - *how significant are remittances as a source of household income?* - by comparing the size of remittances to other sources of income in Ko Kaeo using data from the questionnaires. This data will be triangulated by a comparison from the data of the national household survey in Thailand in 2009. Section 5.3 will answer the second research question - *why do households receive remittances?* - by using accounts both from the locals from the qualitative interviews and regression analyses based on the questionnaire data. Section 5.4 will then move on to try to find out whether remittances impact on the ownership of physical assets considered as basic needs by the locals. It will also discuss remittances effect on human capital in Ko Kaeo before finally trying to determine whether remittances lead to an increased propensity to invest in rubber or sugar plantations. Section 5.5 will look at the relationship between remittances and food security as food security is often considered one of the important outcomes in the livelihood security framework. The effect remittances have on household inequality will be presented in section, 5.6, while section 5.7 will end the chapter by summing up the discussion and analysis. It will also try to answer the third research question on remittances' contribution to livelihood security based on the findings of the study.

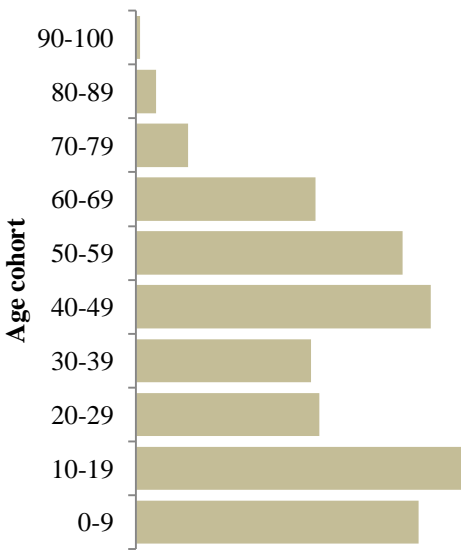
5.1 Migration and Remittances in Ko Kaeo - An Introduction

Ko Kaeo is no different from the rest of the Northeastern region of Thailand. Many people chose to migrate in order to get an education or a job. Sometimes whole households migrate. Such cases are unfortunately difficult to incorporate in a study like this as all that is left is an empty house. Many times however only one or a few of the household members chose to migrate. During the pre-assessment and the qualitative interviews, it seemed like those left in the households were mostly older people and children. In order to illustrate, the household the researcher was staying in during the fieldwork of the study was inhabited by two adult farmers in their fifties. They are the head of the household, Somchai, and his wife, Phailin. They stayed there with their two grandchildren below ten. All of their three adult children lived outside the sub-district to work and study. The head of the household, Somchai, lived next door to one of his brothers, Sunan. Sunan stayed alone as his wife had left him and his two adult children were working in Chon Buri, a province in central Thailand. The other

adjacent house was inhabited by the sister of Sunan and Somchai. The sister, Suchin, lived there with her husband. Both were in their 60's. They lived there together with one of their children who was disabled, and two grandchildren whom they looked after. All in all Suchin and her husband had five children. Apart from the one disabled who were still staying with them, one lived further down the street with her husband, while the three others were working in the central regions of Thailand. Behind Somchai's house, the brother-in-law Mongkut were living alone with his grandchild at four, having just lost his wife to cancer. Mongkut had four children, but all of them had migrated to the central provinces to work and study. This household arrangement, where those still staying in the houses are mostly elders and their grandchildren, seemed to be the norm for many houses in the area. Most of the migrants were therefore assumed to be younger working age people and students. This was confirmed during new year's celebration, when migrants *glab ban* (return home) for a short holiday. They were mostly in their 20's or 30's, and came back from jobs in huge factories in the central provinces like Bangkok, Chon Buri, Prachin, Ayuttaya, Rayong, and Saraburi. Some also came back from the universities.

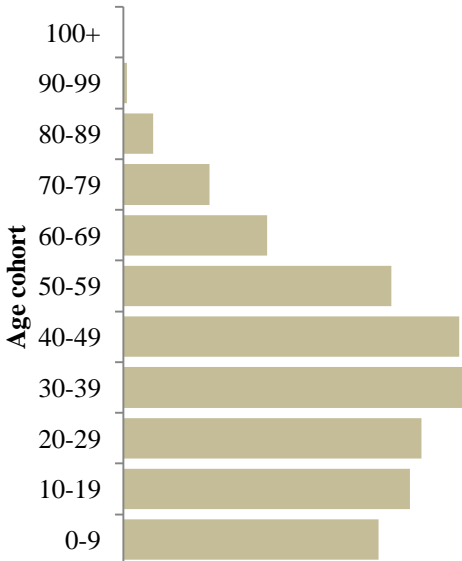
Obviously not all migrants are children of the head of the household. Sometimes also the head of the household will migrate, or it could be any other member. Based on the age of all household members as reported by the respondents of the questionnaire, it is possible to confirm or reject the hypothesis on who the majority of the migrants are. Results are given in figure 5.1. The distribution of Thailand is in figure 5.2 for comparison.

Figure 5.1: Demographics of Ko Kaeo (2014)



Source: author, number of people counted 448

Figure 5.2: Demographics of Thailand (2010)



Source: United Nations (2012)

What is very interesting, but not entirely surprising is that the age structure of Ko Kaeo is very different from the whole of Thailand. The age cohorts from 20-39 are much smaller in Ko Kaeo than in Thailand in general. These "missing" people are the migrants who are currently residing elsewhere in order to get an education or earn an income. Comparing the age structure of Ko Kaeo with the age structure of Thailand in figure 5.2 confirms that there should be more people aged 20-39 in Ko Kaeo in a non-migration scenario. Despite this, the age cohorts of 0-9 and 10-19 show that there are many children living in the area. This is likely because children of migrants are staying behind with their grandparents. From the statistics we may therefore conclude that migration as a livelihood strategy is very common for households in Ko Kaeo and that the majority of the migrants are in the age cohorts of 20-39 years.

Since the data shows that migration is a very common livelihood strategy for households in Ko Kaeo, it is also good reasons to believe that remittances are quite common. Especially if migration is a household livelihood strategy which includes the sending of remittances and not just an individual livelihood strategy where the migrant only look to make a living for him/herself. And indeed remittances are common. Of the sampled households, 68.6% receive remittances. The households almost exclusively receive internal remittances, with only a couple of exceptions. This is therefore a good indication that most migrants look for work in other parts of the country instead of going abroad. Regarding size and distribution of remittances, numbers are given in table 5.1 below.

Table 5.1: Remittances in Ko Kaeo (baht and dollar per household per month)

	Average	Average*	Median	Median*	Mode	Mode*	Max	St. dev.
Thai Baht	2,952	4,305	2,000	3,250	0	5,000	15,000	3,324
US Dollars	90.3	131.7	61.2	99.4	0	153	458.9	101.7

Source: author, n=105

* indicate calculation of average, median and mode only for those households that receive remittances (excluding non-receivers)

Baht-Dollar conversion rate: 32.69 baht/dollar as of 01.01.2014, source (XE: <http://www.xe.com/>)

What is probably the most interesting fact from the table above is the amount of remittances an average household typically receives. A household that receive remittances receive on average 4,305 baht/month, or roughly 131.7 US dollars/month. The median is somewhat lower, at 3,250 baht/month (99.4 dollars/month). The mode, or in other words, the most common sum to receive (except 0), is 5,000 baht/month per household, or roughly 153 dollars/month. A frequency count also shows that the most common sum at 5,000 baht/month

is by far the most common sum to receive. A comparison of these remittances relative to other sources of income will be given in part 5.2, thereby giving a clearer picture of how much remittances make up of total income for both all households and remittance receiving households.

5.2 The Size and Importance of Remittances in Ko Kaeo

5.2.1 Introduction

Remittances, both international and national, are an important source of financial capital for many households in developing countries. If remittances are to contribute to livelihood security, they ought to be significant in terms of size. This means both absolute size, and, probably more importantly, their relative size compared to, a) other sources of income and, b) compared to income and expenses of a household. This section will therefore attempt to answer research question 1: *"how significant are remittances as a source of household income?"*

5.2.2 Remittances Relative to other Sources

As already described, remittances are very common in Ko Kaeo with almost 70% of the households receiving remittances. But households obviously have other sources of income in addition to remittances. It is therefore fruitful to compare the size of remittances to these other sources. Results are in table 5.2 below.

Table 5.2: Income source and central tendency (baht/household/month)

	Salary	Hired/business	Agriculture	Pension/disabled	Remittances
Average	7,970฿	4,080฿	-	399฿	2,952฿
Average*	12,371฿	6,200฿	-	911฿	4,305฿
Median	5,000฿	2,000฿	-	0฿	2,000฿
Median*	8,000฿	5,000฿		800฿	3,250฿
Mode	0฿	0฿	-	0฿	0฿
Mode*	5,000฿	5,000฿		500฿	5,000฿
Max	120,000฿	30,000฿	-	2,000฿	15,000฿
St. deviation	14,836฿	5,923฿		531฿	3,324฿
% (all households)	52%	26%	-	3%	19%
% (remittance-receiving households)	34%	24%	-	5%	37%

Source: author

Average*, Median*, and Mode* indicate the average, median and mode by excluding zero values in the calculation

Explanation: Salary is monthly salary from steady employment such as for government employees.

Hired/business is income from either being hired which is very common in the area, or from one's own business.

These were merged because they were both considered as less stable sources of income than the other sources.

Pension/disabled is income from pension which everyone over 60 is eligible for, and disabled welfare which

only applies for disabled people. Remittances are money received regularly from friends and family living in another household.

The table above reveals that remittances are on average a bit smaller than income from hired work and business and a bit below half of the income from salary from employment. Meanwhile, it is much bigger than pension and disabled welfare. The numbers indicate that in Ko Kaeo, households derive roughly 19% of their total non-agricultural income from remittances. Remittances are therefore one of the cornerstones of the economy. This is even more evident when exclusively considering households that do receive remittances. For these households, remittances make up 37% of their total non-agricultural income and is their biggest and probably most important source of income. For all the households in Ko Kaeo, about 24% have remittances as their biggest source of income (not including agriculture).

Since agricultural income was left out of the previous calculation because of difficulties of calculating, we cross-check and triangulate with information from the 2009 socio-economic household survey of Thailand as in table 5.3 below. Numbers are for the Northeastern region of Thailand where Ko Kaeo is situated.

Table 5.3: Income by category in the Northeastern region of Thailand (baht/household/month)

	Wages and salaries	Net profit from business	Net profit from farming	Pension and other assistance	Remittances
Average	4,685฿	3,124฿	1,800฿	258฿	1,919฿
% (non-agricultural income)	47%	31%	-	3%	19%
% (total income)	40%	27%	15%	2%	16%

Source: 2009 socio-economic households survey of Thailand (National Statistical Office, 2009)

Although the socio-economic survey use slightly different income categories, the numbers for non-agricultural income is similar for the region as for Ko Kaeo. For an average household, remittances constitute 19% of the non-agricultural income in the Northeastern region of Thailand. If farming is included, remittances make up 16% of total monetary income for households, slightly higher than profit from farming. This is somewhat surprising given that the region is dominated by agriculture. Yet it also shows how efficacious it is for households to migrate given that the sums households receive from remittances are often higher than for their main livelihood, i.e. farming.

5.3 Characteristics of Remittance Households

5.3.1 Introduction

Remittances are bound to vary from society to society. Remittance-sending in Mexico is likely to differ from remittance-sending in Thailand. This section will therefore make an effort to answer the second research question: "*why do households receive remittances?*" The answers will as a consequence mostly apply to the particular population being researched. Some of the answers given might also apply to the Northeastern region of Thailand, or even Thailand in general. Yet making generalizations beyond the particular area of investigation should be done with caution.

Section 5.3.2 will first give a qualitative description of why households receive remittances based on the locals own accounts. Then quantitative data from Ko Kaeo will be analyzed in section 5.3.3 before a final discussion on why households receive remittances will be given in 5.3.4.

5.3.2 Reasons for Receiving Remittances - Accounts of the Locals

When respondents were asked why they receive remittances, they emphasized the obligation, responsibility, indebtedness, and gratefulness their children had to show towards them. Some of the most common words used to describe the reasons for receiving remittances were *rappitchop*, *dtop taen*, *bunkun*, and *gatanyu*. *Rappitchop* means responsibility while *dtop taen* means to repay or reciprocate. *Bunkun* means an obligation, while *gatanyu* means gratefulness. It was said several times that it was children's responsibility to repay their parents. They are in a way obliged to do so. Children are to some degree thought to be indebted to their parents because their parents made them come to life, reared them, and paid for all their expenses during childhood, including education. There is very little welfare, and parents usually have to pay for most things themselves. Many villagers do in fact also sell off land or take up loans in order to finance education for their children, hoping that they will be repaid as soon as their children finish their education and get a job. It is therefore fair to say that some children are in a way indirectly indebted to their parents. In addition, paying back means showing gratefulness. Their religion (Buddhism) was also said to teach people to be grateful towards their parents.

Another factor mentioned by many respondents is poverty. They said they think their children send money because they want their parents to have a good life. Many households consists of poor old people with little opportunities for obtaining an off-farm income. Farming is not very

productive, and although everyone over 60 years receive pension, the sums are nowhere near enough to cover expenses. Health is sometimes deteriorating, and education is limited. A village leader said that he thinks children are *huang* (worried) about their parents, and that those who do not receive remittances are often *lambak* (in hardship). A 77 year old woman answered in a similar vein. She said her children send because they *songsan mae* (pity/sympathize with mother). Without the remittances, life would be hard for her.

It was also noted by some that remittances are sent because it is (partly) a payment for childrearing. Many migrants working outside the province are unable to bring their children with them. This is because many jobs, especially factory jobs, are not compatible with taking care of children. Often there is heavy traffic, long working hours, and many hours of overtime meaning that they as employees leave home early and come home late. They would therefore be unable to bring and pick up their children from school. In addition, many expenses related to having children is much higher in the cities than in the rural areas. Children are therefore often staying behind in the villages with their grandparents who take care of them instead. Data from the questionnaire, which will be presented more thoroughly in the next sub-section, showed that a remittance-receiving household on average looked after 1.17 children of migrants. Having an extra household member is of course not free of costs, so usually the migrants will send money back to cover expenses for child rearing. This provides an additional income for the rural households who have time available to take care of children. Despite this, some respondents noted that the remittances received did not cover the expenses of having an extra household member.

It is also likely that migrants send remittances because they plan to return and later inherit land and house. There were several migrants who - either alone or together with their siblings - sent quite large chunks of money in order to invest in housing back home in Ko Kaeo. Jobs in the factories often have bonuses, so many get a large sum of money at the end of the year. Since little data have been collected on the migrants themselves, it is difficult to conclude whether this is one of the main reasons for sending remittances.

It must also be noted that a substantial number of migrants do not send money back home. It was common to hear during the interviews that the households had several members living in another province, yet sometimes none, one or maybe two were sending remittances home. When asked why some of the children did not send remittances, a common answer was that these people/children had established their own families and therefore had a lot of expenses

themselves. In addition, some migrants did not receive enough salary to send something back home as they were in hardship themselves.

5.3.3 Comparison of Remittance Households and Non-Remittance Households

In order to test some of the reasons for receiving remittances given by the local households, it is possible to analyze the quantitative data to see whether these remittance receiving households differ significantly from households that do not receive remittances. Since this is not experimental research, households in the non-remittance household group should not be considered as the counterfactual. This means that they are likely to be different from the remittance receiving households not only by the fact that they do not receive remittances, but also in a range of other characteristics. Results are in table 5.4 below.

Table 5.4: comparison of remittance receiving households and non-remittance households

Variable	Unit	Remittance Households	Non-remittance Households	Significance
Household size	Members	4.44	3.85	0.033**
Highest education of household	Category	2.69	3.33	0.003***
Highest education of household + migrant children	Category	3.15	3.45	0.097*
Age oldest person	Years	60.40	50.42	0.000***
Age second oldest person	Years	48.60	44.67	0.096*
Members aged 18-50	People	1.69	2.21	0.062*
Children in household	People	1.43	0.91	0.015**
Grandchildren reared	People	1.17	0.21	0.000***
Adult children outside household	People	1.99	0.97	0.000***
Adult students outside household	People	0.24	0.36	0.284
Land	Rai (1,600m ²)	13.82	11.18	0.174
Livestock	Heads	2.85	2.87	0.874
Salary (employment)	Baht/month	3,861	16,693	0.004***
Income (hired work/business)	Baht/month	2,729	7,027	0.008***
Income (pension/disabled)	Baht/month	543	85	0.000***
Remittances	Baht/month	4,305	0	0.000***

Notes: *** = significant at 0.01 level ** = significant at 0.05 * = significant at 0.1 level

Remittance households n = 72 non-remittance households n = 33

extreme outliers are included in the dataset, thereby affecting mean salary and income especially for non-remittance households

Source: author

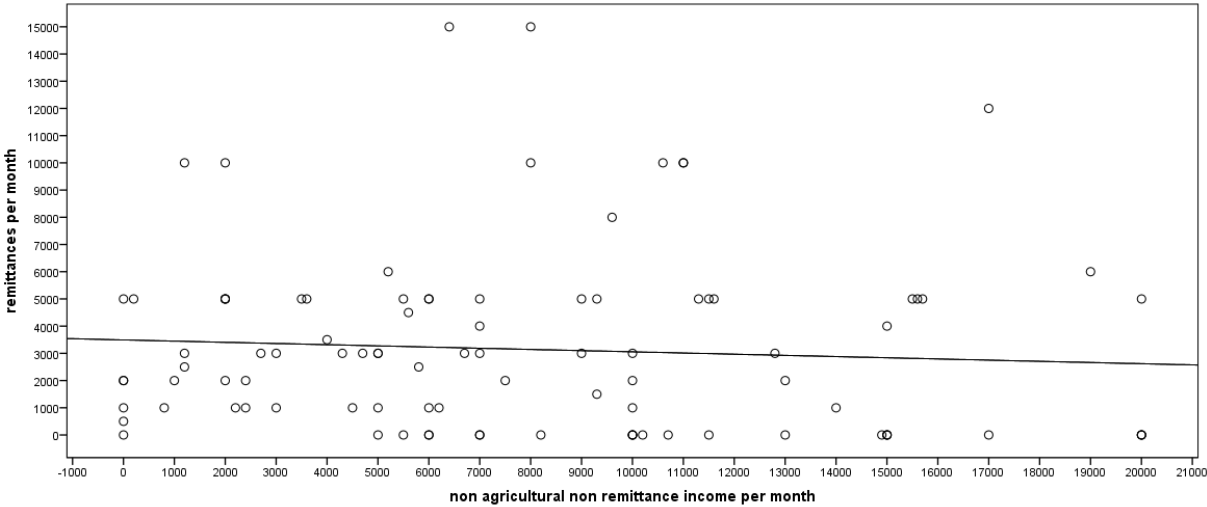
The table above shows that households that receive remittances differ significantly from households that do not receive remittances in a range of characteristics. Remittance receiving households have more members but are less educated (only counting education of most educated person currently staying in the household). If we include the education of the migrants, then the difference is smaller, but there is some indication that the difference is insignificant depending on which significance level we accept. The oldest household member in the remittance receiving household is, in general, also much older - about 10 years on

average - than in non-remittance households. The second oldest member of the receiving household is also older, but here the difference is smaller at about 4 years on average.

Remittance receiving households also have more children (members aged ≤ 17 years) living in their house than non-receiving households. Since remittance receiving households are on average headed by older members (who are on average around 60 years) than non-receiving households, this is a bit counter logical. One would think that households headed by younger adults like in the non-receiving group have more children in their household. The fact that they have fewer children in their household is, however, likely influenced by the fact that remittance receiving households are much more likely to rear grandchildren. They rear on average 1.17 children of migrant children, while this number is only 0.21 for non-receiving households. Moreover, remittance receiving households have more adult children (migrated children) living outside the household.

Land size and size of livestock do not seem to differ between the two groups. As for financial capital, remittance receiving households have much less income from employment and hired work/business, while they have more income from pension/disabled welfare and, obviously, from remittances. However, this is based on a calculation of the mean, so some caution should be taken because of extreme outliers. This becomes evident when we consider the relationship between non agricultural non remittance income and size of remittances as in figure 5.3 below.

Figure 5.3: Relationship between non-agricultural non-remittance income per month and remittances per month



Source: author (some outlier data points not visible)

The figure above tells at least two important things. First of all, almost all of the poorer households (households with low non-agricultural non-remittance income) receive remittances. This pretty much echoes what the statistics on remittance households have already shown, i.e. that remittance receiving households are on average poorer. Also interesting is the fact that quite a number of those households which have a decent income from other sources also receive substantial amounts of remittances. A logistic regression can analyze what determines whether a household receives remittances. Results are in table 5.5 below.

Table 5.5: Logistic regression of determinants of remittances

	B	S.E.	Wald	df	Sig.	Exp(B)
Age oldest person	.095	.048	3.896	1	.048	1.099
Age second oldest person	-.019	.037	.278	1	.598	.981
People in household	.067	.252	.071	1	.789	1.070
Adult children outside household	.222	.281	.622	1	.430	1.248
Number of grandchildren reared	1.761	.651	7.313	1	.007	5.820
Non-agricultural non-remittance income (in thousands)	-.131	.042	9.707	1	.002	.877
Total land	-.003	.035	.010	1	.922	.997
Constant	-3.327	1.926	2.984	1	.084	.036

Source: author

Dependent variable: Household receives remittances (Dummy, 1=yes, 0=no)

Cox & Snell R Square .450, model significant at .000

The logistic regression indicate that only the age of the oldest person in the household; the number of grandchildren (children of migrants); and the non-agricultural non-remittance income of the household are significant determinants of whether the household receive remittances. Running a linear regression as in table 5.6 below can give an indication as for which factors determine the remittance size that the household receives.

Table 5.6: Linear regression of determinant of remittance size

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	-3596.405	1497.824		-2.401	.018
Age oldest person	17.242	26.684	.064	.646	.520
Age second oldest person	57.400	23.508	.237	2.442	.016
People in household	434.806	198.358	.209	2.192	.031
Number of grandchildren reared	313.041	292.549	.105	1.070	.287
adult children outside household	514.137	246.690	.196	2.084	.040
Non-agricultural non-remittance income	-.035	.016	-.186	-2.158	.033
total land	23.177	30.862	.064	.751	.454

Source: author

Dependent Variable: remittances per household month

R square .331, model significant at .000

The linear regression indicate that the significant determinants of the remittance size is the age of the second oldest person in the household; the number of people in the household; the

number of adult children outside the household; and finally the nonagricultural non-remittance income of the household. The strength (Beta) is not very different between the independent variables, but the age of the second oldest member seems to be the most important factor in determining remittance size.

5.3.4 Discussion

Poverty: Both the reviewed literature and interviews suggest that households receive remittances because they are poor. The results from the quantitative logistic regression also supports this. For each 1000 baht per month of non-agricultural non-remittance income the households earns, the likelihood of receiving remittances decreases. 1000 baht more per month means the household is .877 less likely to receive remittances.

The data also suggest that poorer households receive more remittances. However, the effect is the weakest among the significant independent variables. This is evident from the graph in figure 5.3, where many households which have a considerable non-agricultural non-remittance income also receive substantial amounts of remittances. A weakness here is that the data does not control for education and salary of the migrants which is likely to have an effect on the size of remittances received. It cannot be ruled out that richer households also have richer migrants which again makes them receive more.

Obligations: There were indications from both the literature reviewed and from interviews that children are obliged to remit for cultural reasons and the necessity to pay back what parents have given them, such as for the upbringing and their education. The results from the multivariate regression suggest that the likelihood of receiving remittances is not based on number of adult children living outside the household when controlling for income and whether the household rear grandchildren. The *size* of remittances does however increase with more children outside the household. Yet here the effect of education and income of the migrant is also left out of the model, something which might have implications for the results.

Rearing of grandchildren: Table 5.4 showed that remittance receiving households on average take care of more grandchildren than non-receiving households. The regression analysis indicate that rearing one more child of a migrant makes it almost six times more likely to receive remittances. Despite this, the number of grandchildren reared by the receiving household does not seem to determine the household's remittance size. This therefore indicate that households receive remittances as a payment for rearing grandchildren, yet the amount they receive is not determined by how many children they take care of.

The analysis on why households receive remittances suggests that factors related to both altruism and self-interest play a part. Poorer households are more likely to receive remittances, indicating altruism. Yet the effect of taking care of migrants' children is quite strong indicating that there is some kind of contractual relationship between migrant and household of origin where they "exchange money" for child rearing. That households receive remittances because of obligations cannot be entirely ruled out however, especially since number of migrant children affect remittance size. There is also a large part of the variation that is unexplained, so this might come from both migrant's income and other cultural factors.

5.4 Remittances, Assets and Investments

In order to extend the analysis from mere income, the study also measured the ownership of different kind of assets in the sub-district of Ko Kaeo. This part will therefore first look at some of the more important physical assets that people possess and analyze them quantitatively. A discussion around issues related to human capital will also be carried out mostly based on the qualitative data. Then finally it will look at whether remittances lead to higher probability of having a rubber or sugar plantation.

5.4.1 Remittances and Assets

Households in Ko Kaeo are obviously relying on physical assets just as anywhere else in the world. However, not all assets are as important as others. One village leader interviewed stated that the most important things to own are a fridge, a TV, a mobile phone and a motorbike. Other more expensive assets like computers, tablets and even cars are also quite common in the area. A comparison of asset ownership between remittance receiving households and non-remittance households is given below in table 5.7.

Table 5.7: Physical asset ownership in Ko Kaeo

Variable	Unit	Remittance Households	Non-remittance Households	Significance
Electricity	Dummy	100%	100%	
Motorbike	Dummy	82%	100%	0.000***
Car	Dummy	28%	61%	0.002***
Motorbike or car	Dummy	86%	100%	0.001***
Mobile phone	Dummy	94%	100%	0.045**
Internet	Dummy	7%	18%	0.139
Computer/tablet	Dummy	25%	61%	0.001***
TV	Dummy	97%	100%	0.338
Radio	Dummy	53%	64%	0.299
Fridge	Dummy	94%	97%	0.577
Small bus	Dummy	3%	6%	0.419
Tractor	Dummy	6%	0%	0.045**
Plowing tractor	Dummy	32%	18%	0.121
Harvester	Dummy	1%	3%	0.572
Miller	Dummy	1%	0%	0.501
Life insurance	Dummy	81%	58%	0.025**

Value of house	Baht	269,486	417,272	0.018**
Drinking water	Category	1.5	2.03	0.038**

Source: author

n=105

*** significant at p=1 ** significant at p=5 * significant at p=10

As seen from the table above, there is close to universal coverage when it comes to some of the most important assets like electricity, mobile phones, TV, and fridge among both groups. No matter how poor a household is, they usually have these assets. When exploring Ko Kaeo looking for some of the poorer households, it is still possible to find quite a few dwellings which resemble dilapidated shacks with only one or two walls and a roof. Still they are usually connected to the grid and the inhabitants often have a TV, a mobile phone, a rice cooker, and a few other electrical appliances. A visual example is given in figure 5.4 below.

Figure 5.4: Old and new dwelling. Source (author)



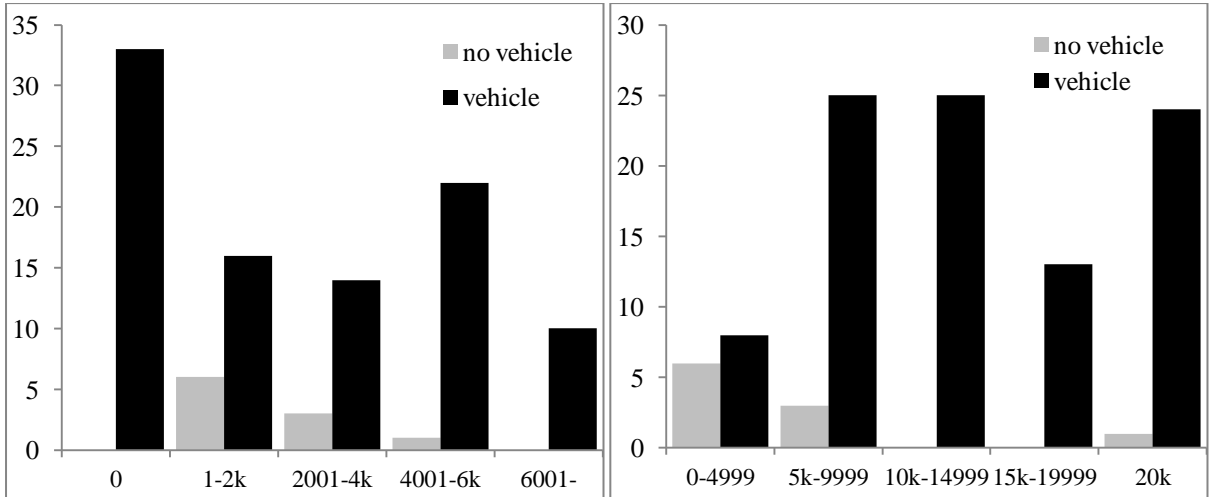
The picture above shows the shack which the household lived in temporarily until last year (2013). Before that they had an old wooden house they tore down in order to make place for a new building. The children of the household who are permanently working outside the province sent money to invest in the new house located adjacent to it. It is still possible to see that the old shack was connected to the electricity grid before it was abandoned as a dwelling. Several other households in the sub-district live in buildings similar to the shack in the picture. The picture also serves to illustrate the way in which remittances contribute to the development of the rural part of the country through investment in housing.

Having a transportation vehicle (either motorbike or car) is also quite common, but here non-remittance households are better covered than remittance receiving households. Non-remittance households are also slightly more probable to own a mobile phone and

internet/tablet, while remittance households are more probable to own a plowing tractor and have life insurance. As for housing, the self reported value of the house is higher among non remittance households. A point of interest besides just whether the household receives remittances or not is whether the size of remittances matter. The analysis will focus on car/motorbike ownership since this is considered an important factor of distinction, but also on housing which differ quite a lot between the two groups.

Transportation: Owning a motorbike and/or a car is important for mobility. The data from the questionnaire shows that most households have either a motorbike or car. However, many times this means an old motorbike in serious need of repair, and not a brand new car. In order to see if remittances have any impact on vehicle ownership, households are first categorized according to the remittance size they receive and then according to total non-agricultural income. The relationship with vehicle ownership is given below in figure 5.5 and 5.6.

Figure 5.5: Vehicle ownership and remittances per month **Figure 5.6: Vehicle ownership and nonagricultural income**



The figures indicate that those who do not own a vehicle are more likely to belong to the categories of households that receive the smallest amounts of remittances (except for the non-receivers). The figure to the right also shows that households without a vehicle are by and large among the poorest households. The households without a vehicle have (with one exception) a non-agricultural income of either 0-4999 baht per month or 5000-9999 baht per month. This indicate that it is the households that are poor and receive small amounts of remittances that do not have a vehicle. However, owning a motorbike and/or car depends on more than just current income or remittances. One factor that these numbers do not reveal is the factor of age. Driving a motorbike or car is not common for very young or very old

people. And there are quite a few households which consists of mostly or only older people (above 60 years) and young people (below 18 years). A regression analysis as in table 5.8 below seems to confirm this.

Table 5.8: Logistic regression of vehicle ownership (car/motorbike)

	B	S.E.	Wald	df	Sig.	Exp(B)
Remittances (in thousands)	.365	.218	2.799	1	.094	1.441
Nonagricultural nonremittance income (in thousands)	.067	.079	.714	1	.398	1.069
Members aged 18-60	1.852	.592	9.778	1	.002	6.370
Constant	-2.233	1.126	3.932	1	.047	.107

Source: author

Dependent variable: owning car/motorbike (dummy 1=yes, 0=no)

R square: Cox & Snell R Square=.245, model significant at .000

The regression analysis give some indication that an increase in remittances increase propensity to own a motorbike and/or car, after controlling for the income from other sources and the age structure of the household. However given the p-value of 0.94, the is a chance of rejecting the null hypothesis when one should actually confirm it. Controlling for the age structure (apart from income from other sources) seems very important given that it is a significant factor in determining ownership. Of the 10 households in the sample without a vehicle, 4 have no members between 18-60, 4 have only one member in this category, while 2 households have 2 members in the age category of 18-60. Households with more members of this category all have a vehicle. Income seems to be insignificant when controlling for the number of members between 18 and 60 in the household. An obvious weakness here is the fact that it only considers ownership of a vehicle, and not whether it is a car or a motorbike, or the value of that car or motorbike. In that case, it is much more likely that income and the amount of remittances would play a more important part in determining the outcome. Yet this analysis is more concerned with having a vehicle for transportation or not. Given the high p-level, it is therefore best to confirm the null-hypothesis, namely that an increase in monthly remittances does not seem to increase likelihood of owning a car and/or a motorbike. The most likely factor explaining the lack of ownership is the age factor, namely that households that have few or none members between 18-60 are less likely to own a car or a motorbike.

House value: There are strong reasons to believe that increased remittances would also lead to better housing since the added income it represents for the household might not only be used for daily expenses, but also for investments in housing. In Ko Kaeo there were several families who reported that they had invested money from remittances in housing. Correlating

remittances with the value of the house is however problematic because we know already that there is a tendency for increased remittances to mean less income from other sources. We can however control for non-remittance income in a regression analysis. Results are in table 5.9 below.

Table 5.9: Linear regression of determinants of house value of household

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	111019.489	53362.532		2.080	.040
Total land	5193.417	2860.097	.160	1.816	.072
Non agricultural non remittance income	7.651	1.528	.450	5.007	.000
Remittances per month	14.488	8.135	.162	1.781	.078

Source: author

Dependent Variable: value of house in baht (self-reported)

R Square .231, model significant at .000

The model shows that controlling for the land size and other income, one more baht of remittances gives roughly 14 more baht in value of the house value. Yet the p-level is .078, so if we only accept a significance level, α , of 0.05, then results are insignificant. Otherwise the results are significant if we accept a significance level of 0.1. Since a critical significance level of 0.05 is often the norm in science, we choose to confirm the null-hypothesis, namely that an increase in remittances per month does not lead to an increase in house value. There are several weaknesses here however. First is that the value of the house is self-reported, which of course has errors associated with it. Second, is the fact that what is measured in the table is regular remittances received per month. The main impression gotten from the pre-assessment and the qualitative interviews is that remittances sent for investments in housing are extra sums sent in lumps after the migrants have saved money or gotten their bonuses from their jobs. The new house seen in figure 5.4 was not build by money from monthly remittances. It was rather financed by savings and bonuses combined from all the children of the households living outside the province. During an interview with a household of seven members, the male head of the household, a 61 years old farmer looking after four of his grandchildren, said that his own children did not send any money regularly. But they were living in a newly built house which his children had financed by sending 200,000 baht, or roughly 6000 US\$, together. A 55 years old woman staying with her husband also had a similar story. They had two adult children living in Chiang Mai in the Northern region of Thailand. None of them were sending money regularly, but they had sent 25,000 baht, or roughly 750 US\$, to renovate the house and were also saving to fix the toilet. The conclusion derived from both the quantitative and the qualitative data is that monthly remittances are by

and large used for regular expenses, whereas investments in housing are from remittances sent occasionally in lump sums.

5.4.2 Migration, Remittances and Human Capital

Human capital is obviously an important part of the picture regarding sustainable livelihoods. Yet analyzing it, especially quantitatively, is very difficult since many of the aspects of it are intertemporal. An example would be investments in education which are done over a course of time, but do not reap benefits until several years later. Therefore, a cross sectional study will have difficulties with the effect of remittances especially on education. Yet a few aspects of migration and remittances noted during the research is worth mentioning.

First of all, the positive effect on income that remittances have on many households is likely to have some effect on both health and education. Even though health care is almost free through the 30-baht universal health care insurance in Thailand, added expenses to for example transportation might pose a challenge for some who have to visit the clinic or hospital regularly. As for education, it is likely that those that choose to migrate will increase their chance of sending other family members to the university. Education is affordable for most households up to the university level, but then expenses rise several-fold as their children have to move out of the district and rent their own place and pay high education fees. Many households interviewed were saddened by the fact that they could not afford sending their children or grandchildren to the university. Remittances can therefore help paying for the costs that would not have been able to cover had it not been for the choice of migrating and sending remittances.

There are also a couple of negative effects that needs mentioning. As seen from the demographic data earlier, most migrants are between 20-39 years of age. This is a generation of people that are both more educated and of better health than their parent generation. The statistics from the remittance households clearly shows that the education level of the household rises as one includes the education of the migrants. As a consequence, there is probably at least a temporary brain drain going on from Ko Kaeo to the urban centers. This effect might however only be temporary if migrants return later.

Another factor related to this out migration is a manpower drain caused by all the people in their best working age that leave the villages. Since they also have a tendency to let children stay behind in the villages with their grandparents, the villages are left with an unproportional large amount of old and young compared to the middle aged. Despite the likely

lower life expectancy in Ko Kaeo compared to the rest of Thailand, the dependency ratio (proportion of people aged 0-14 and 64+ to the rest) is higher in Ko Kaeo than in the whole of the country. The dependency ratio of Thailand is at 38.6% (CIA, 2014). Calculating the dependency ratio of Ko Kaeo based on the sample of the population we get:

$$\text{Dependency ratio} = \frac{(\text{number of people aged 0-14})+(\text{number of people aged 64+})}{(\text{Number of people aged 15-64})} \times 100$$

$$\text{Dependency ratio} = \frac{110 + 32}{306} \times 100 = 46.4\%$$

The dependency ratio of 46.4% in Ko Kaeo is therefore higher than the whole of Thailand. This is not necessarily negative given that there are difficulties finding enough work in Ko Kaeo for everyone anyway. Still it shows that the livelihood strategy of migration leads to an increased dependency ratio in the villages. Those left behind are normally people who in a society are - given their age - supported by the labor of others. In Ko Kaeo, this support is to a large degree coming from the remittances of migrants.

Another effect that migration and remittance-sending have on education is that a large number of children will be enrolled in a rural school instead of a urban school by staying in the villages with their grandparents instead of migrating with their parents. An OECD report (2013, p. 6) cites research from Lounkaew (2011) and ONESQA (2008) and concludes that quality of schooling is inferior in rural schools compared to urban schools in Thailand and that this determines the performance of students. There is thus a likelihood of a *brain potential waste* among the children left in the village. If they had they migrated together with their parents, they would more likely be enrolled in a better school. It therefore points to a possible negative effect for some children staying behind who will get inferior schooling.

5.4.3 Remittances and Agricultural Investments

A final, interesting relationship to investigate is whether remittances are used as investments in agriculture. Many households have the last few years invested in both small sugar and rubber plantations. Previously, the available land in Ko Kaeo was almost exclusively used for rice cultivation. This has however changed. An officer from the Bank for Agriculture and Agricultural Cooperatives said that investments in these plantations came as a result of the success seen from plantations in other parts of the country. In addition, it was done as a measure to spread risk away from relying on only one crop such as rice.

It is therefore fair to assume that as households receive more remittances, given unchanged/equal income from other sources, are more likely to have either a rubber or a sugar plantation. Running a regression analysis does however not indicate this. No variables on non-remittance income, household characteristics and similar turn out to be significant except for remittances received per month. Including many insignificant variables also make the model itself insignificant. We are therefore left with one independent variable of remittances per month. Results are in table 5.10 below.

Table 5.10: Logistic regression on owning a sugar and/or rubber plantation

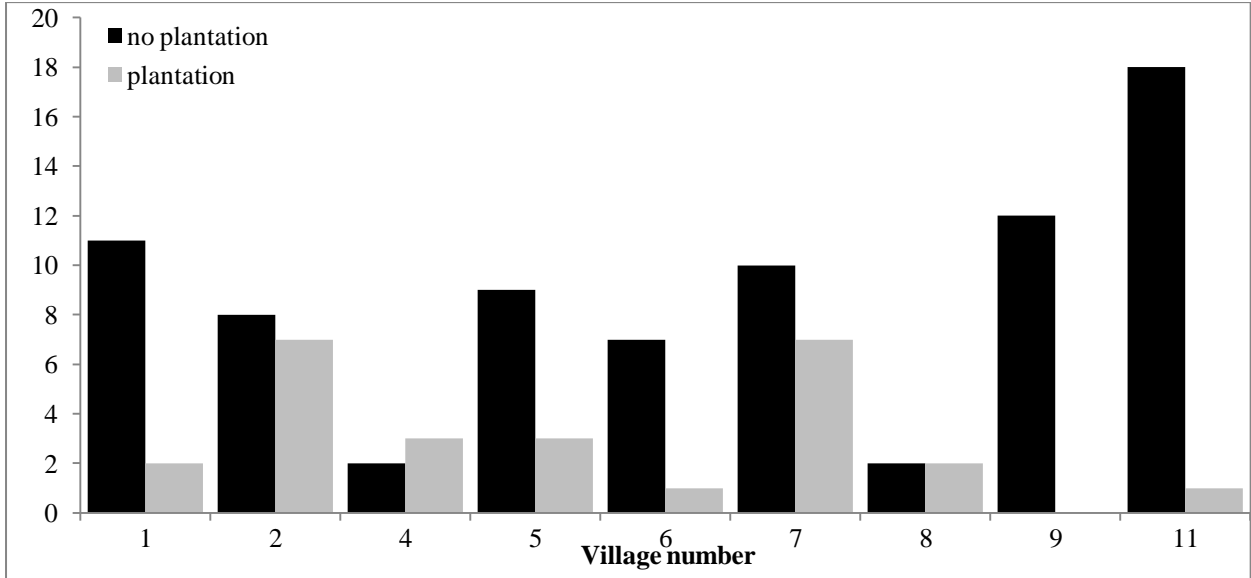
	B	S.E.	Wald	df	Sig.	Exp(B)
Remittances per month (thousands)	-.224	.101	4.915	1	.027	.799
Constant	-.579	.301	3.684	1	.055	.561

Dependent variable: household has sugar and/or rubber plantation

R Square: .061, model significant at .010

The results indicate that contrary to what was expected, an increase in monthly remittances leads to a decreased likelihood of having a sugar and/or rubber plantation. As already explained, trying to control for other variables such as income or age does not alter the results much. The R square value indicate that there is a lot of the variation that is not explained by the model itself. This means that other factors or variables not included in this regression model are likely to have a large impact on the variation in having or not having a plantation. What may explain a lot of the unexplained variation in the model is geographical features. An indication of this is that by looking at the relationship between having a plantation and which village the household is located in as given in the figure 5.7 below.

Figure 5.7: Plantation ownership by village



Source: author

The results suggests that plantations are much more common in certain villages like for example village 2 (Dtang Mang) and village 7 (Nonsawan), than for villages like Ko Kaeo and Ko Kaeo Patana. One possible explanatory factor is that the two latter villages seemed to have less vacant land. Also, land elevation and subsequent flood risk is different in the respective villages. The results thus give no indication that monthly remittances lead to higher likelihood of owning a rubber or sugar plantation. The univariate regression analysis actually points to the opposite. It therefore seems very important to include more detailed information on geographical features for each household in order to analyze the impact of remittances on agricultural investments of this type. Another factor that must be considered is that these investments can be quite large, and the remittances received monthly are therefore not used for these investments. Rather it is quite possible that relatives and friends send remittances particularly intended for this purpose in addition to the sums they send regularly each month.

5.5 Remittances and Food Security

Food security is considered one of the outcomes of sustainable and secure livelihoods. Having food security means that households are not vulnerable and feel free from the risk of food crisis. But rural people are often vulnerable to many different factors that make food security an important issue. In Ko Kaeo, most households rely on a kind of semi-subsistence farming where they produce some food for their own consumption and some for selling on the market. One way this is still evident is that almost every household still have a *yung*, i.e. a barn for storing rice, near their main house as can be seen from the picture in figure 5.8 below.

Figure 5.8: A *yung*, i.e. a barn for storing rice. Source (author).



The barn is used for storing rice for the following year after the harvest. This is both for consumption, and for storing seeds for the next year's sowing season. It was said that these storage facilities used to be much larger in the past when households had more members. It was also much more difficult to transport rice to the market in the past when buffalo and cart was the most advanced mode of transport. A trip of 9 km to the local market that now takes 5-10 minutes used to take half a day. It is therefore much more common now to sell the surplus of the harvest on the market. In addition to producing rice for consumption, many households also have a small vegetable garden, livestock, and chickens and ducks which they either consume themselves or sell. Hunting and gathering is to some degree also still carried out. Apart from fishing, wild foods such as frogs, birds, snakes, crabs, nuts, insects, ant eggs, mice and mushrooms were still hunted for and gathered. Most households agreed however, that the availability of wild foods had decreased rapidly along with increased deforestation. Despite this, the results from the questionnaire shows that households get approximately 47.9% of their food from nature, meaning food they do not buy in the market.

During the time of this study, a national political conflict was unfolding which had implication for the farmers. In addition, they had just witnessed an extreme flood a few months earlier, and commodity prices, especially rubber and sugar prices, were not particularly favorable. People therefore probably had less food and especially less money compared to previous years at the same time of the year. It was therefore decided to measure food security since many could describe which periods of the year that were particularly difficult. Consequently, people who were not sure they will have enough food next year, were considered to be food insecure.

Official statistics shows that food poverty is very low in Thailand. Numbers based on the household survey in 2011 shows that only 1.37% of the rural people in the Northeastern region were food poor (NESDB, 2013a). But this number is based on a food poverty line and does not correspond well with what (at least according to the researcher) seemed to be the case in Ko Kaeo. A possible explanation for the low numbers might be that it is only calculated based on income, but does not consider the volatility of this income nor other factors such as e.g. debt.

At the time of data collection (January 2014), people had not yet received their money from the rice-pledging scheme, nor from the insurance scheme. They had expected the money around mid-December, but because of the conflict, the payment was postponed. Some people

were therefore starting to feel a bit distressed. Yet harvest season was just over so at that time, most people therefore had at least some rice, but maybe not enough for the whole year.

Households were asked whether they think it would be difficult to find enough food for the year 2014. Three alternatives were given: "difficult", "unsure", and "not difficult". The total outcome shows that 20 households answered "difficult", 21 answered "unsure", and 64 answered "not difficult". There were thus quite a number of people who were food insecure because they answered either "difficult" or "unsure". The researcher therefore wanted to compare food security with size of remittances and size of land. Then finally the researcher compared food security with total non-agricultural income (salary, hired/business, remittances, and pension/disabled) for each household as a control. First, however, these variables were transformed into categories in order to get enough counts for each category. Results are in figure 5.9, 5.10, and 5.11 below.

Figure 5.9: Remittances (baht/month) and food security

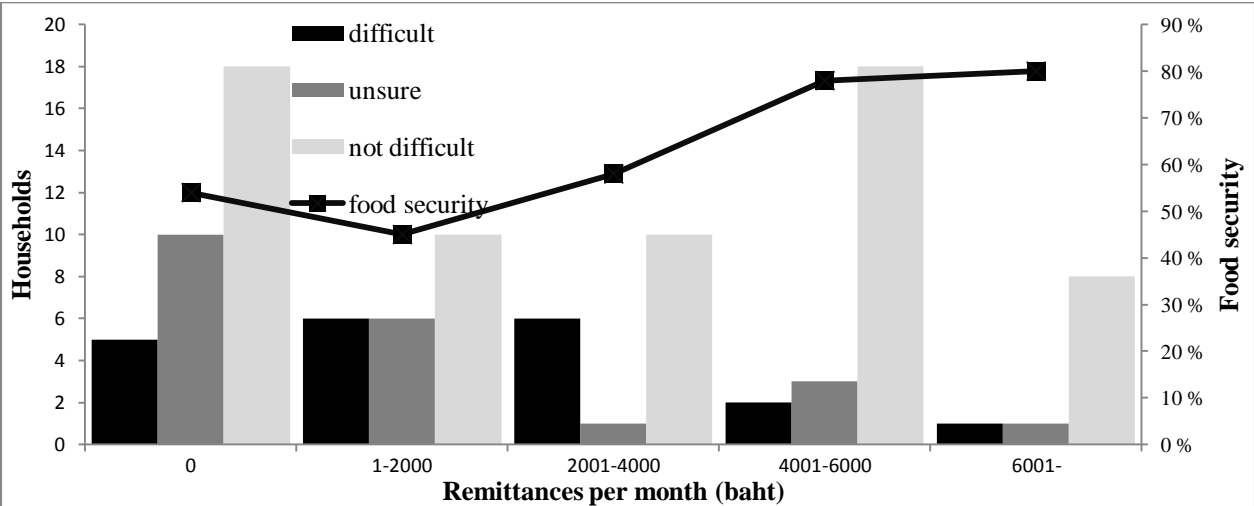


Figure 5.10: Land size (rai) and food security (1 rai=1,600m²)

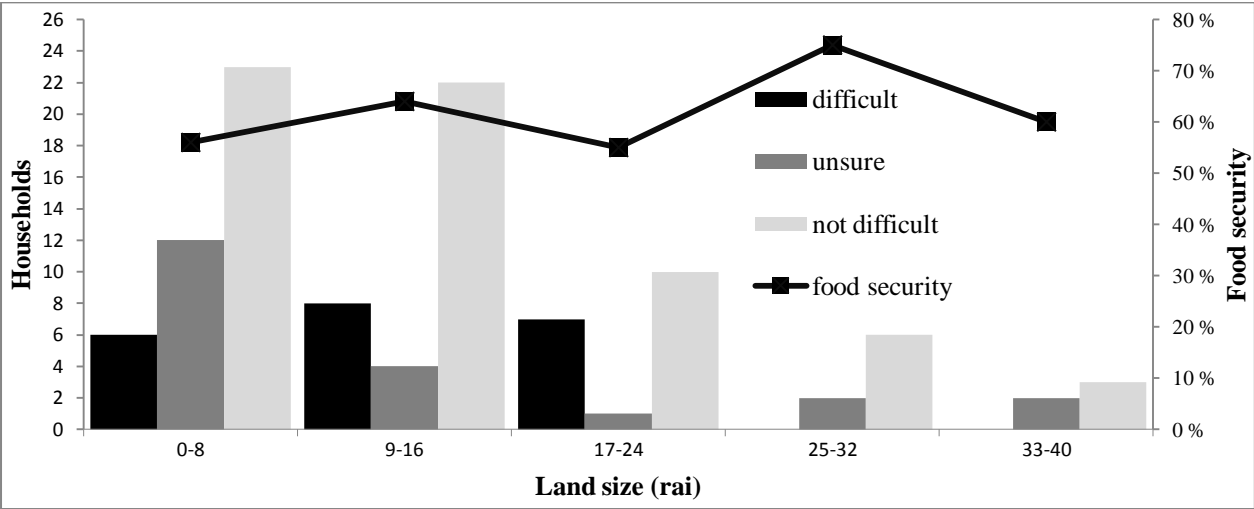
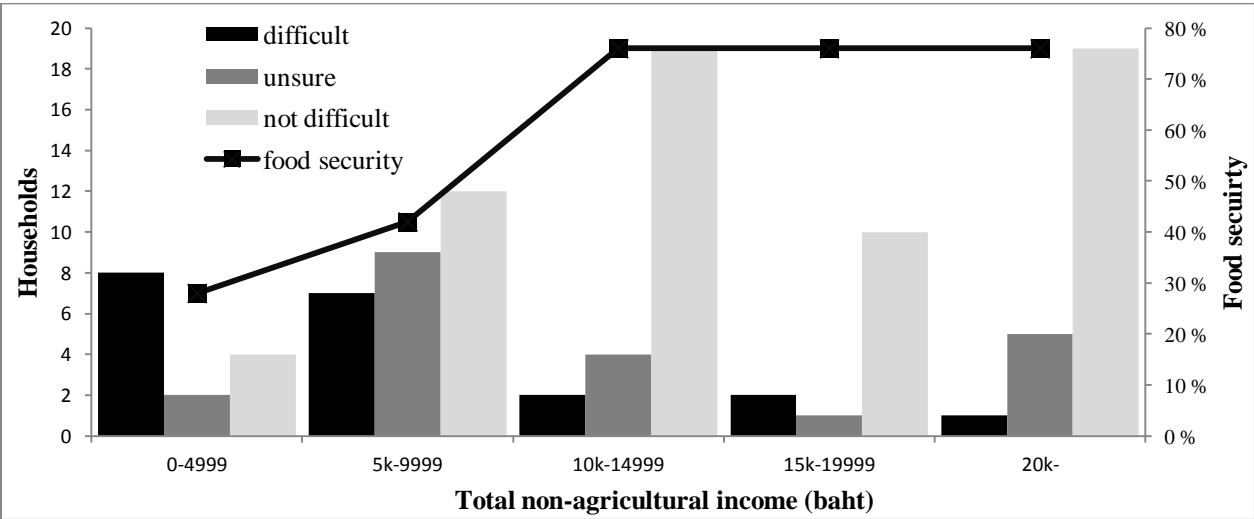


Figure 5.11: Total non-agricultural income (baht/month) and food security



First we look at figure 5.9 (upper left) showing remittance size and food security. The "0" category is a bit difficult to interpret as many households in this category receive no remittances, but have a high income from other sources. As a consequence, many in this category have food security, while others do not. For the following category, about 45% of those that receive 1-2000 baht/month of remittances answered "not difficult," while the number is 58% for those households that receive 2001-4000 baht/month. For the next category, households which receive 4001 to 6000 baht per month, 78% answers "not difficult." For the category of 6001 baht per month and higher, this is roughly the same at 80%. The numbers seem to indicate two things. First, as remittances rise, food security improves. This corresponds well with what DfID (1999) writes on financial capital (or remittances in this case), namely that "It can be used for direct achievement of livelihood outcomes – for example when food is purchased to reduce food insecurity." There are

therefore indications that remittances received monthly are used to purchase food which again leads to improved food security. Second, there looks to be a threshold where those households which receive more than 4000 baht per month (122 US\$) by and large have food security (roughly 80%). This threshold is around the mean remittance size of 4305 baht per household per month (132 US\$), and somewhat above the median remittance size of 3250 baht per household per month (99 US\$). A point of interest here is that the most common sum to receive (expect 0) is 5000 baht per month (153 US\$). This might indicate that many migrants send sufficient enough money so that their family can experience food security as 5000 baht per month (153 US\$) should in most instances be enough. The rising food security for the categories holds notwithstanding the fact that remittance size is inversely correlated with other sources of income for households.

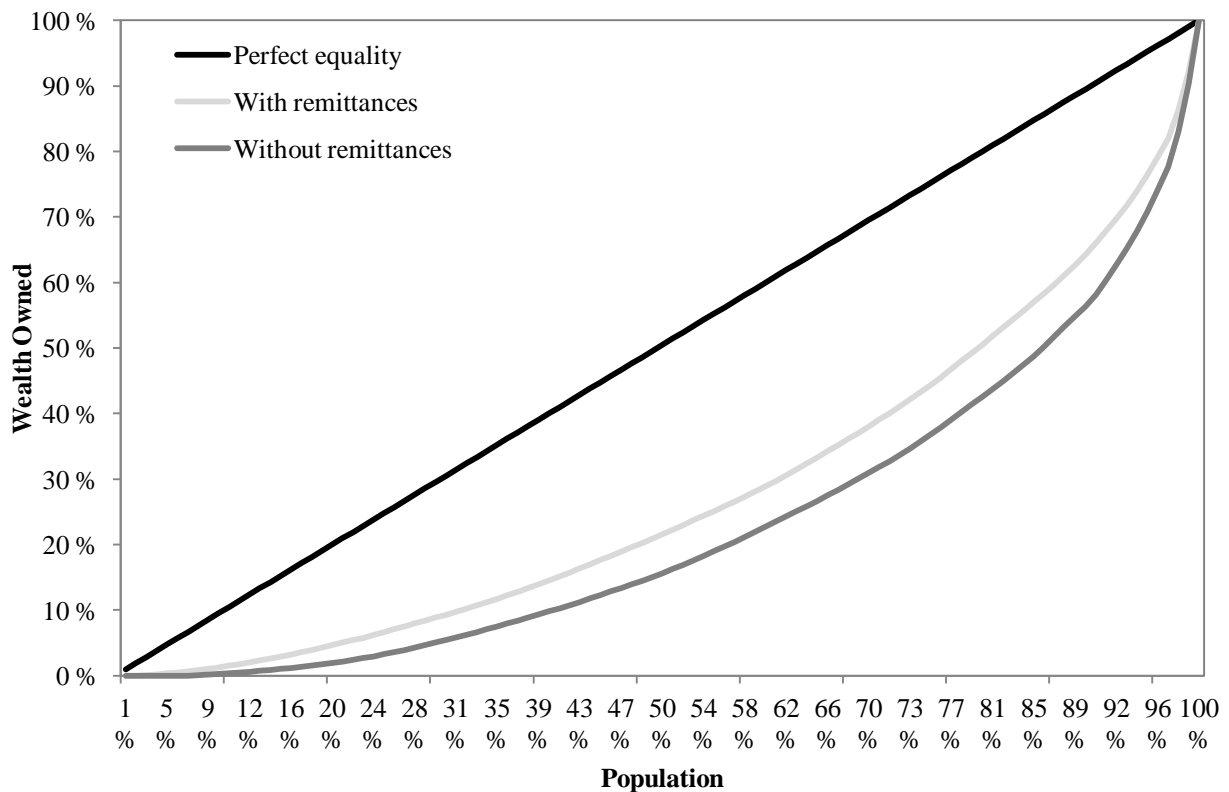
For the sake of comparison, we can also look at land size and food security (upper right figure). Larger land size should improve food security as most farmers produce their own food (rice) and also gain an income from their land. A surprising finding here is that there looks to be less of a relation between land size and food security. For the three first categories of land size, food security is at 56%, 64% and 55% respectively. Then the two last categories seem to show some improvement, although the sample is a bit small to say exactly. The main "concern" with land size is that mean land size is about 12.9 rai, with a standard deviation of 9.2 rai. This indicates that farmers need way above the average land size in order to experience food security. Yet these numbers must again be seen in light of the problems farmers were experiencing with their crops due to the flood and political conflict.

In figure 5.11 above, a comparison is made of total non-agricultural income (salary + hired work/business + remittances + pension/disabled) and food security. Agriculture is left out because it is unfortunately too complicated to calculate. Yet the results show, not surprisingly, that as income increase, food security improves. A threshold appears at around 10,000 baht per household per month (306 US\$). Beyond this income, most households are secure. This indicate that households have to combine income from different sources in order to attain food security since few have equal to or more than 10,000 baht from any *one* source per month. Remittances therefore contribute to food security by constituting an extra income source which adds to the households' total financial capital. Without remittances, it is unlikely that these households would be able to get hold of the same size of income through other sources.

5.6 Remittances and Inequality

As a final consideration, it is important to see what effect remittances have on inequality. Driving around Ko Kaeo, it is easy to see the huge gap between the poorest and the richest families. While some of the poorest people still live in shacks, others live in villas enclosed by large fences accompanied by several newer vehicles. By looking at the definition of household livelihood security by Frankenberger and McCaston (1998), one aspect where high inequality is likely to be negative is related to social integration. If the gap between the poor and the rich become larger, there is a risk that these two groups of people will become less integrated. As seen from figure 5.3 in section 5.3.3, it is evident that most of the poorest households receive remittances. There are therefore reasons to believe that household inequality decreases as a consequence of remittances. Still, there are several of the richer households that also receive remittances, so the effect might not be very large. One way to display remittances' effect on household inequality is to compare the Lorenz curve - the wealth distribution curve - for households both with and without remittances. The Lorenz curves for the income distribution in Ko Kaeo both with and without remittances are shown in figure 5.12 below.

Figure 5.12: Lorenz curve for income distribution in Ko Kaeo, with and without remittances. Source: (author)



The figure above shows the non-agricultural income distribution for the sample in Ko Kaeo both with and without remittances. Since the area between the perfect equality line and the line which includes remittances is the smallest, it means that inequality is reduced when including remittances in the calculation. Without remittances from migrants, inequality would be greater as the area between the perfect equality line and the line without remittances is larger. Looking at the more exact numbers, the poorest 20% of the population in Ko Kaeo have only 1.9% of the cumulative non-agricultural non-remittance income. When remittances are included in the calculation, they have 4.7% of the cumulative non-agricultural income. For the poorest 40%, the numbers are 9.8% and 14.5% respectively. The results therefore indicate that remittances reduce household inequality in Ko Kaeo. There are, however, a couple of precautions that have to be taken regarding this conclusion. First; the results do not say that inequality is reduced compared to a counterfactual scenario where the migrants chose not to migrate and send remittances. It only calculates the income distribution with and without remittances. Second; since we already know that households that receive remittances also have a tendency to have more members and especially take care of more children of migrants, the inequality might not be reduced on an individual level. Thus the added income that the poorer households receive which reduce household inequality will likely have to be spent on more household members compared to richer households that do not receive remittances.

5.7 Summing up Discussion and Analysis

The results from the findings, analysis and discussion paints a picture of Ko Kaeo as a sub-district where migration is a very common livelihood strategy for households, especially among household members aged 20-39 years. The consequence is that remittances are very common in the area, with about 2/3 of the households receiving remittances. Migration is thus a household livelihood strategy and not only an individual livelihood strategy, since the migrants are likely to send remittances after migrating and not only migrating for their individual purpose. About 19% of all nonagricultural income in the sub-district comes from remittances. This number is 37% for those households that receive remittances, meaning remittances constitute a very important source of income for many households.

The reasons found for receiving remittances echoes much of what has been written in the literature. Poor households are much more likely to receive remittances, and the non-agricultural non-remittance income is inversely related to the remittance size. The results also show that remittances have the effect of reducing household inequality in the sub-district, something which obviously is positive.

Despite these findings, it is not necessarily the case that remittances lead to a large reduction in income poverty per capita. Several respondents noted during the interviews that although they receive remittances, they were not better off (or even worse off) because they had to take care of the children of the migrants. The findings clearly indicate that caring for children of migrant children is a determining factor for receiving remittances. A remittance-receiving household takes, on average, care of 1.17 children of migrants. Many households take care of several children of migrants simultaneously. In 2011, the poverty line in the rural Northeastern region was 2,028 baht per person per month (62 US\$) (NESDB, 2013b). Many households do not receive this sum for each child they care for, and thus may be worse off if they receive remittances as a payment for child rearing. Even if the household income grows, so does the household size, and the effect of increased income is many times neutralized. Giving an exact answer as to whether the household is worse or better off is very difficult given that children have different expenses than adults.

When it comes to physical assets generally considered basic needs by the locals, the effect of remittances is difficult to measure given that households in the area were actually almost fully covered in terms of electricity, mobile phones, TVs and fridges. The only aspect where there was some lack was in terms of mobility by owning a vehicle (motorbike or car). It was, however, not possible to confirm that monthly remittances received by the household lead to an increase in vehicle ownership. The same is true for remittance and housing, where there was no clear causal effect proven. The lack of causal effect found is likely because the analysis only considered money sent regularly, and not remittances sent in bulk sums. The impression from the qualitative interviews was that most investments in housing are done through money that migrant workers have saved or gotten as bonuses. These are then sent as remittances in bulk sums and are not part of the regular remittances which are usually sent monthly. Since this happens seldom, maybe only once over a period of several years, it is not as easy to incorporate in a study like this.

The effect on remittances on human capital has been quite well covered in the literature. Given the difficulties of measuring it in a cross-sectional study, this thesis cannot give an exact answer, but merely point to several possible positive and negative effects given the context of Ko Kaeo. The most prominent are the fact that remittances are likely to lead to increased university attendance for household were a migrant can send money for a sibling or a child to go to university, which seemed to be the main bottle neck in terms of education. This is because the expenses is much higher for university than for the primary and secondary

levels and there are credit constraints for many households. However, there is also a likely negative effect in the sense that the migrants let their children stay behind and being enrolled in inferior rural schools compared to the urban schools where the migrants live.

Investing in agriculture is one of the rural livelihood strategies that are commonly thought to improve livelihood outcomes. Increased remittances could therefore be used to invest in sugar or rubber plantations. Yet the analysis found no evidence that remittances received regularly increase the likelihood of having a sugar or rubber plantation. This might be because investing in a plantation depends a lot geographical factors like available land and flood risk. The reason for this suggestion is the very different spread of plantations in the villages. Some villages have few or none plantations, while others have quite many. It is also likely that investing in agriculture follows the same principle as for housing, namely that these investments require larger sums sent once or a few times. This means that these kinds of investments might rarely be done through using the remittances the household receive monthly or at least regularly.

As for food security, remittances seem to increase food security in Ko Kaeo. However, households which receive quite small sums, mostly from 1000-4000 baht per month, are not necessarily experiencing food security since it is not enough to put them on a safe ground alone. Households will combine income from many sources in order to achieve food security (not only remittances by itself) and for households which receive around 5000 baht per month (153 US\$), this sum is usually enough to cover what they are short of from the other sources. Since so many households are receiving exactly 5000 baht per month, there is reason to believe that the sum is based on what is needed for their family to avoid experiencing hardship and avoid having difficulties finding enough food. However, further studies on the migrants motivation would be needed to confirm this. Given the extremely problematic years of 2013 and 2014 related to agriculture and especially rice farming, the effect of remittances are probably a bit stronger for this year than other years. Without remittances in the area, many households would likely be in much deeper problems, especially related to income and food security. Yet it also points to the vulnerability related to being a farmer.

The discussion and analysis has mostly touched upon the adequacy aspect of livelihood security. What is meant by this is that according to the definition of livelihood security, "*the adequate and sustainable access to income and other resources to enable households to meet basic needs*" (Frankenberger, 1996, as cited in CARE, 2002, p. v) there should both be

adequacy and sustainability in the access to income and other resources. Since this is a cross-sectional study, there are obvious methodological limitations that make it difficult to answer whether the access is sustainable. But a few things related to sustainability is worth mentioning.

First of all, there seemed to be a quite strong belief that remittances were sustainable in the sense that the migrant would in most instances send money every month and continue to do so for a long period. The economy in Thailand is also quite good, so the risk of the migrant losing his/her income and not being able to send seemed quite low. Yet obviously there were exceptions of households which had migrants that were unemployed or not fully employed and therefore could not send and support his or her relatives.

Another important aspect is that judging from the data gathered, there were little evidence of remittances leading to self-sustainability of the household by for example being invested in sugar or rubber plantations or leading to more off-farm work-days. The only clear exception was for work related to caring for children. Remittance receiving households have more children in their household and this is mainly caused by the fact that they take care of the children of migrants. One could of course argue that this is a way in which remittances increase their self-sustainability since taking care of children requires a lot of work, and they do in a way get paid for it (unless as already discussed, the remittances are not higher than expenses of having an extra child in the household). Although not possible to measure here, it is plausible that self-sustainability of the household over several generations is also improved through increased investments in education such as research by for example Yang and Martinez (2006) and Adams Jr. (2006) by solving credit constraints.

6 CONCLUSION

The objective of this study was to find out to what degree remittances contribute to livelihood security for rural households in the sub-district of Ko Kaeo in Thailand. Livelihood security means that households will have access to key assets - be it income, land, or shelter - that enable them to meet basic needs. These basic needs should also be possible to meet even when facing stress and shocks - such as natural disasters - which is common among rural people in the developing world.

Migration is a common and viable livelihood strategy for many rural households. By following this strategy, one or several members will leave the original household, get external employment, and send remittances which can contribute to livelihood security by giving the household an extra source of income to meet their basic needs. In Ko Kaeo, migration is especially common among the younger generations of people in the age group from 20-39 years. They migrate in large numbers to the central provinces where employment opportunities are much better than in Ko Kaeo. Migration is so widespread that the villages are left with a high dependency ratio where many of the households with migrants to a large extent comprise of children and elderly people. The villages are experiencing both brain drain and manpower drain as a result of all the young working-age people leaving. Many of the migrants who leave send money regularly to their household of origin to support their elders and often also their children who are staying behind in the village with their grandparents. Roughly two thirds of all the households in Ko Kaeo receive remittances. For these households, remittances are on average their largest source of income. It constitutes 37% of the total non-agricultural income and are therefore very important for them in order to meet basic needs.

When asking the locals why they receive remittances, a few explanatory factors stand out. First of all they emphasize the obligations, responsibility, indebtedness and gratefulness that children have to show towards their parents as it is by and large migrated children who are sending money to their parents. Many also point to poverty as one of the reasons for receiving remittances. The Northeastern region of Thailand is the poorest among the regions and many people live on a low income. Moreover, a common arrangement in this area is that the children of the migrants are staying behind with their grandparents in the villages. Many respondents therefore said that they received remittances as a sort of compensation for the extra expenses and work they had as a result of caring for their grandchildren. The quantitative analysis also confirms some of these findings. The poorer the household, the

more likely the household is to receive remittances. Furthermore, the more children of migrants the household is taking care of, the more likely the household is to receive remittances. Lastly, increased age of the head of the household also increase the propensity to receive remittances. The size of remittances on the other hand is determined by non-agricultural income (lower income equals more remittances); household size (more members equals more remittances); and number of migrated children (more migrated children equals more remittances). Both the qualitative and the quantitative data therefore supports the poverty hypothesis that households receive remittances because they are poor. This also has the positive effect of reducing household inequality in Ko Kaeo as described in section 5.5. Despite these findings, it is difficult to conclude that remittances reduce poverty per capita levels as a result of the increased income. Even though poorer households are more likely to receive remittances, they also have more household members, and a prominent reason for this is they take care of children of migrants. The increased household income from remittances therefore have to be shared among more members, so the added income effect per capita is not very high for some households, and sometimes even negative. For others though, the added income is important in order to attain basic needs. And even though not analyzed as part of this study, the migrants themselves of course also benefit from the migration process. This in turn have to be considered as part of the bigger picture of the migration and remittances link.

Despite being located in the poorest region of Thailand, inhabitants in Ko Kaeo are actually quite well covered in terms of basic physical needs considered important by the local households such as electricity, mobile phones, TVs, fridges, and transportation vehicles. Statistically, no definitive causal effect between regular remittances received and housing, and remittances and owning a vehicle for transportation (car or motorbike) could be found. Likewise, the results from the analysis could not confirm that receiving regular remittances made it more likely to open businesses like rubber or sugar plantations. The regression analysis actually seemed to show that the more remittances the household receives, the less likely it is to have a plantation. But the results did not take into consideration geographical factors that are likely to be important in determining whether the household invests in a plantation. This is because some villages had many plantations, while others had close to none. The qualitative findings also indicate that monthly or regular remittances are seldom used for larger investments. Rather, migrants save money and/or use bonuses they receive and send them in bulk sums as remittances intended for example housing or agricultural

investments. These kinds of remittances were not counted as part of the monthly remittances households receive in the statistical analysis as they are sometimes sent with years in-between and difficult to incorporate in the data. They are also not a stable source of income like other remittances which are often sent on a monthly basis in order to cover the running expenses of the household.

Another important element of livelihood outcomes in addition to monetary income is that of food security. At the time of this study, the situation was especially critical because of an extreme flood in 2013, and an ongoing political conflict. Food security was therefore expected to be a problem for many households in 2014. The findings from the study indicate that remittances improve food security since most households which receive at least 5000 baht per month (153 US\$) responded that they believe it will not be difficult to secure enough food. For households that receive less remittances, food security was a bigger problem as more households among those that receive less remittances responded that they were either unsure or believed that it will be difficult to find enough food the coming year (2014). This is no surprise, as remittances can easily be used to buy food, especially in times of crisis when natural capital such as land are ineffective in providing food security.

The overall conclusion is that remittances in Ko Kaeo functions quite similarly to how a social welfare system functions in other settings, where households which are poorer, headed by older members, and with less education receive remittances regularly so that they can enjoy a higher income and improved food security than they would otherwise have had. In return, they take care of children of migrants as a kind of contractual relationship between the migrant and the household of origin where they "exchange money" for child rearing. If the household and/or the migrant want to make larger investments in for example housing or agriculture, these are most often done through sending ad hoc remittances specifically intended for this purpose. In a short or medium term perspective, it is difficult to see that remittances will have any large transforming effect on the households in Ko Kaeo because of the high dependency ratio (many children and elders compared to working age adults) and low level of human capital. Given that the head of household is on average around 60 years, often have only four years of elementary education, and quite often also have a poorer health condition, expecting the household to become self-sustainable without the help of the migrant(s) is many times impossible. Yet the alternative of no migration and no remittances is very likely an even worse strategy since there are not enough jobs for the younger generations in their local communities. In the long run, however, investments in, for example education,

through the use of remittances will likely have a self-sustaining effect on the household looking at two or three generations simultaneously. For many households it is only possible to finance higher education for household members through remittances from a migrant. By doing so, the household can secure an income also for the next generations which leads to a sustainable access to financial capital. On the negative side, this study also raises some initial concerns over letting the children of migrants stay behind in the villages with their grandparents. The reason being that rural schools are often inferior to urban schools in Thailand, thus depriving the children of better quality elementary and secondary education. Unfortunately, because of the long time frame needed to quantitatively analyze this relation between remittances, education and income over two or three generations, no analysis can be done in this study. In the end though, we must also bring to our minds that remittances are private transfers from one household to another, implying that people are free to use them for whatever purpose they want (unless for illegal purposes). Remittances should also not be an excuse for the government to avoid carrying out pro-poor policies. Many households are still in need of support, both among those who receive remittances and those that do not.

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