



Is There Future in Farming?: The Case of Hacienda Palico Agrarian Reform Community in Nasugbu, Batangas, Philippines



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ABSTRACT

This study sets out to gain insights and understanding of the factors that influence or affect the succession decisions or plans by the agrarian reform beneficiaries operating in small-scale sugarcane farms in Nasugbu, Batangas. The study evolved from observations that the young generation is not interested to pursue farming. Their parents don't encourage their children to remain and work in the farm as their goal was to send their children to school so they can engage in work that provides regular or steady income.

Guided by studies that associate human capital investments and non-farm activities with the children's motivation to either stay in farming or veer away from farming, this study was carried out to determine the interrelations of educational attainment, livelihood strategies, and farm succession in the households.

Evidence from fieldwork showed that the small-scale farmers depend largely on sugarcane as source of income. They engage in other activities like off-farm and seasonal non-farm work to secure their consumption needs especially during lean months but households dependent on sugarcane and off-farm work can hardly afford to send their children to college and in fact are struggling to make ends meet.

Meanwhile, the value of non-farm work in a diversified livelihood portfolio was demonstrated by a couple of households. Their experiences showed the increasing importance of non-farm work in improving the income and eventually their capacity to increase their investment in their children's education. Consequently, the improvements in educational attainment and the increased involvement in non-farm work means less interest and commitment in succeeding in the farm mainly because farming is viewed as a non-viable work.

Keywords: Farm Succession, Small-scale Sugarcane Farms, Agrarian Reform Community, Nasugbu

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LIST OF ABBREVIATIONS

APPC	Asia-Pacific Policy Center
AR	Agrarian Reform
ARB	Agrarian Reform Beneficiaries
ARC	Agrarian Reform Communities
CADP	Central Azucarera de Don Pedro, Inc.
CARL	Comprehensive Agrarian Reform Law
CARP	Comprehensive Agrarian Reform Program
CARPER	Comprehensive Agrarian Reform Program Extension with Reforms
CLOA	Collective Land Ownership Award
DAR	Department of Agrarian Reform
DFID	Department of International Development
FAO	Food and Agriculture Organisation
GDP	Gross Domestic Product
ICCO	Inter-Church Organisation for Development Cooperation
IDS	Institute of Development Studies
IRA	Internal Revenue Allotment
KAMAHARI ABMPC	<i>Katipunan ng Magsasaka sa</i> Hacienda Roxas, Inc. – Agri-based Multi-Purpose Cooperative
LBP	Land Bank of the Philippines
MDDFI	Mill District Development Foundation, Inc.
MPDO	Municipal Planning and Development Office
NCSB	National Statistical Coordination Board
PARO	Provincial Agrarian Reform Office
PCA	Philippine Coconut Authority
PD	Presidential Decree
SIFI	Sugar Industry Foundation Inc.
SRA	Sugar Regulatory Administration
TFA	Total Farm Assets

I. INTRODUCTION

Having worked with sugarcane farming households in agrarian reform communities of Western Batangas, Philippines for over eight years, the researcher came to understand the constraints faced by the small-scale farmers. One, there was the insecurity of their land tenure as their former land-owners continued to resist the land distribution by all legal means possible. Second, the fluctuating prices of sugar in the world market and the influx of cheap imported sugar as part of the Philippine Government's commitment to trade liberalization has threatened the plight of the small-scale farmers. The increasing production costs further reduce the income that they depend on to tide them over the cropping season.

As they then assumed the role of a new small land-owner after being awarded with land through the agrarian reform program, they had to take on the challenges and responsibilities of managing a farm – something that they were not used to. Prior to the land distribution program, these farmers were tenants of large plantation estates and were largely dependent on their land-owners who provided them everything they needed, from production to consumption needs. Back in early 1990s, the farmers were unsure on how to overcome the various production constraints on their own – the lack of support services, inadequate access to production credit, poor infrastructures, unavailability of farm inputs, among others. At that time, it was viewed that the peasants-turned-landowners stood little chance of success without institutional support. These circumstances cast a doubt on the sustainability of farming as the farmer-beneficiaries have to overcome the pressure of selling their land as a way to ease their condition.

Several studies conducted on the Comprehensive Agrarian Reform Program (CARP) have shown evidences that it has achieved modest gains in improving tenurial relations (Ballesteros and Dela Cruz, 2006), improving income and reducing poverty incidence (Reyes, 2002) and increasing human capital investments resulting to higher educational attainment for children of Agrarian Reform Beneficiaries (ARBs) (Pangandaman, 2006). Other studies have indicated that higher educational attainment and/or increased involvement in non-farm work can be associated with the young generation's preference not to pursue farming as their occupation. Conversely, the young generation with less educational attainment are most likely to end up working in the farm.

Stories of farmers selling or pawning their land had been circulating which the local communities regard to be inevitable considering the seemingly worsening plight of the farmers as they cope with low income and increasing costs of production inputs and standard of living, in general. Viewed as a low status of occupation because of the low income, the farmers themselves do not encourage their children to follow their footsteps and end up like them. Most often, the children are pushed to take the path of finding a job as a means to improve their living condition. Thus, the question of whether there is still a successor-generation of farmers was slowly being brought up. As children are not being encouraged to pursue farming as an occupation, the continuity of farming as an occupation is uncertain.

A study (Ballesteros and Dela Cruz, 2006) has pointed out that there has not been any systematic effort to monitor ownership of awarded lands and that the effects of land distribution on transfer actions of land ownership by farmer-beneficiaries are not known. Farm succession, a process of transferring the ownership, income and management of a farm to the next or younger generation (Mishra, A. and El-Osta, E., 2008) is one form of transfer action where not much information is available to date.

For this reason, the study was undertaken to contribute in understanding one form of transfer action - that is, farm succession - in an agrarian reform community by examining succession plans or decisions within households.

The study was carried out in a community where major development changes have been taking place in the past two decades, as it is located in a municipality in which most areas have been declared as a tourism zone. Its ARBs have gained ownership of the land but are dependent on a single crop that requires economies of scale to be viable. Against this backdrop, it was necessary to understand and analyse the future of small-scale sugarcane farming households. The analysis shall be based on establishing the inter-relations of human capital assets in particular the educational attainment of family members, livelihood strategies and their effect on succession plans or decisions by the households.

This chapter briefly describes the context of the study and also presents an outline of the report. Chapter 2 provides a background for the study divided in different sections which include a description of the study area to introduce the environment in which the households to be studied operate. Succeeding sections discuss the concepts and facts behind the research topic as well as related studies to understand the theories related to the research.

Having identified the issues or possible gaps of information from previous studies, Chapter 3 explains the problem statement, research objective and the research questions that the study aims to answer based from the findings. The conceptual framework on how the research questions will be answered at the end of the study is also described in this chapter. The conceptual framework applies some elements of the sustainable livelihood framework to understand the relationships in the human capital-livelihood strategies-livelihood outcome matrix which forms a major factor in explaining farm succession in this study.

Meanwhile, the focus of Chapter 4 is to describe the research methodology. The justification for its chosen research strategy is presented, as well as the methods used for collecting and analysing data. Chapter 5 presents the results of the interviews from the fieldwork, and Chapter 7 is the discussion chapter which attempts to answer the research sub-questions based on the findings. The chapter also analyses the findings by comparing them with the relevant concepts of previous studies.

Finally, Chapter 7 presents a summary of the study, answers the main research question and provides recommendations for future research and for some concrete actions for the local organisation to consider in response to issues identified by the farmers who participated in the study.

II. BACKGROUND INFORMATION

This chapter presents the background of the study divided in different sections. The first section is a description of the study area. The second section describes the classification of small-scale sugarcane farms and provides brief information on the implementation of agrarian reform in sugarcane areas.

Farm succession is the focus of the third section. It describes the different factors influencing succession decisions, the choice of successors and the children's decision to succeed. The two types of succession perspectives were also discussed. A brief discussion on the inter-generational transfer of assets in poor families was likewise included in the section. The last section deals with the post-agrarian reform context. It presents significant findings of impact studies on agrarian reform to understand how access to land has made a difference in improving the farmers' conditions. As what the study aims to establish, the changes in the farmers' living conditions have to some extent influenced or affected their succession plans or decisions.

2.1 THE STUDY AREA

The area of study is the Palico Agrarian Reform Community which is found in the Municipality of Nasugbu, Province of Batangas in the Philippines. It covers seven of the 42 barangays/villages of Nasugbu.

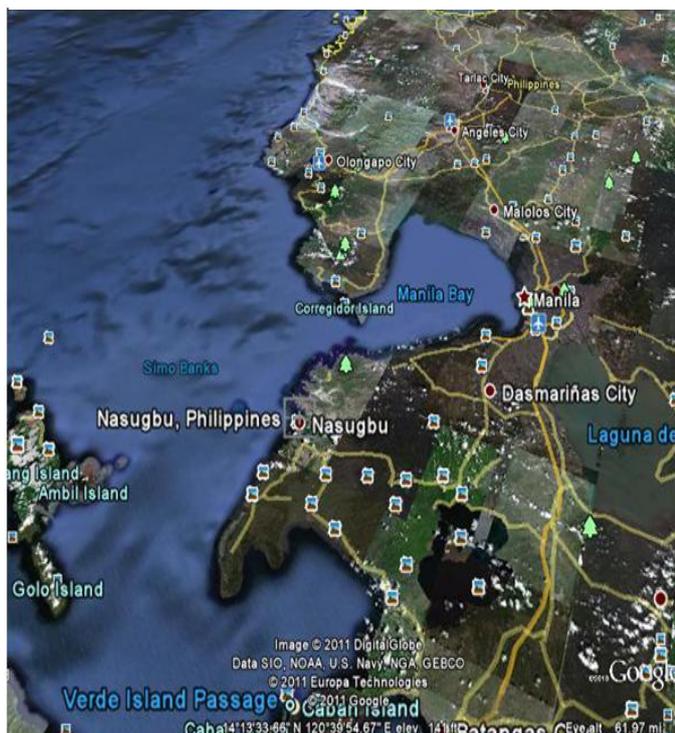
2.1.1 The Municipality of Nasugbu

Nasugbu is about 100 kilometer southwest of Manila, the country's capital (Figure 2.1). According to the 2007 census, it has a population of 113,926 people in 19,615 households.

The Municipality of Nasugbu is one of the eight towns of the western section of the Batangas province which is known as the Sugar, Aqua-culture Tourism Area. It is a coastal town in which six out of its 42 barangays or villages boast of several existing and potential tourist attractions like beaches, coves and white sands. Recognizing its tourism potential, Nasugbu, together with two other towns in nearby province, was declared as a Tourist zone by virtue of Presidential Decree 1520 under the Marcos Administration.

Primarily an agricultural town, its agricultural area covers 21,553.74 hectares comprising 78.22% of the municipality's total land area. Its main agricultural product, sugarcane, is planted in 6,065

Figure 2.1. Map of Nasugbu, Batangas



Source: Google Map

hectares, the third largest sugarcane area in the Western Batangas district or 12% of the provincial sugarcane production. The Province of Batangas produces 8% of the country's total sugarcane output. There are around 3,322 sugarcane farmers in Nasugbu which comprise 44% of the total number of sugarcane farmers in the Western Batangas district.

The agricultural lands in Nasugbu are suitable for several types of crops such as sugarcane, rice, corn, banana, vegetables, coconut, fruits and rootcrops. Its climate falls under the type 1 classification which is wet season from May to October and dry season for the rest of the year. Among the problems in crop production is the lack of irrigation facilities in Nasugbu. In fact, only about 4% or 800 hectares of the total agricultural area of the municipality is irrigated. This is one major constraint that prevents the sugarcane farmers from diversifying to other crops. Rice is the next main crop in the municipality covering an area of 2,486 hectares, followed by coconut, 1,123 hectares and fruit trees, 1,120 hectares. However, rice, together with fruit bearing trees and vegetable crops are planted mainly for household consumption. Being a coastal town, fisheries also have a significant input to the town's agricultural production.

The municipality is composed of mixed topographic reliefs. Its eastern side and along the shores on the western side are predominantly level to gently sloping. The southern portions are gently sloping while the northwestern section is mountainous

Nasugbu hosts the Central Azucarera de Don Pedro (CADP) which has the highest milling capacity in the country at 10,000 ton canes per day. CADP, owned by the Roxas and Co., started its operations dating back to 1927. It has modern and updated machinery compared to the Batangas Sugar Central Inc. (BSCI), the other milling facility found in Western Batangas. Within the CADP and BSCI mill districts, households rely largely on sugar farming and employment in the sugar mills.

A first-class municipality, Nasugbu has already reached the income requirement of PHP100 million pesos (16,667 euros) to qualify for cityhood. Once it becomes a city, Nasugbu's Internal Revenue Alloment (IRA) is expected to increase which means more resources for public services. Soon, more tourism projects will be built along the shoreline. In line with this, two major road projects are underway to make the municipality more accessible. Real property values are expected to increase as a consequence of this development.

2.1.2 The Hacienda Palico Agrarian Reform Community

The seven barangays/villages of Nasugbu that comprise the Palico ARC are Barangays Catandaan, Cogonan, Lumbangan, Reparó, Tumulim, Bilaran and Banilad, in which 2,074 hectares with 1,451 ARBs are covered by CARP. Male ARBs number to 986 (68%) and female ARBs, 465 (32%).

The area planted with sugarcane in the seven barangays accounts for 50% of Nasugbu's total sugarcane area. Barangays of Hacienda Palico are mainly inland and most are found along the major road. Their proximity to the town center makes them vulnerable to development pressures.

2.1.3 Introduction to Agrarian Reform Community

An Agrarian Reform Community (ARC) is a cluster of rural communities or *barangays* (villages) where land transfer has been more or less completed and where there is a critical mass of ARBs, that is, 50 - 60 percent of the community residents are

agrarian reform beneficiaries (FAO, 2003). The ARC strategy was conceived in 1993 by the Department of Agrarian Reform (DAR), the lead government agency in the implementation of CARP, as an innovative approach to optimize the use of the limited government resources. The DAR provided these ARCs with staff support through the development facilitators (DFs) who served as extension officers tasked to coordinate the provision of services to their respective ARCs.

The ARC strategy which provides a focused delivery of support services in selected areas, fitted into the framework of foreign donors and reinvigorated their interest in agrarian reform by supporting specific geographic areas or sectors rather than the whole CARP itself. Through the ARC projects, the DAR had mobilized close to a billion dollars for 39 foreign-assisted projects for 770 ARCs by December 2002 (FAO, 2003).

2.1.4 Agrarian Reform in Hacienda Palico

In 1993, three haciendas in the Municipality of Nasugbu, Batangas, namely Hacienda Palico, Banilad and Caylaway covering 2,941.95 hectares were placed under CARP's compulsory acquisition by DAR from its owner, the Roxas and Co. Soon after the Mother CLOA (Collective Land Ownership Award) was awarded to the agrarian reform beneficiaries (ARBs), a land dispute ensued between the beneficiaries and the former land-owner who filed a case of exemption and cancellation of CLOAS at various courts provided by the law on the ground that the location of the haciendas had been declared a tourist zone and/or that the land is not suitable for agricultural production. While the case was pending, the farmer beneficiaries continued to cultivate their newly-acquired farms and enjoyed the fruits of their labour as new small land-owners. After a long legal battle between the former land-owner and the farmer-beneficiaries, the Supreme Court of the Philippines finally decided in favour of the farmers. The long-awaited decision was handed down in 2010 and sealed the farmers' ownership of the land eighteen years after it was granted to them.

Hacienda Palico ARC fits DAR's classification of a prime ARC which are as follows: i) it is a cluster of more than five contiguous barangays, ii) with huge tracts of agricultural lands, iii) with a significant number of farmers and small agricultural workers, and iv) volume of production and land utilization rate can support market demands (APPC, 2008). As such, it was given utmost importance by DAR in terms of mobilizing support and resources, in collaboration with other government line agencies mandated to support ARCs, the local government units and non-government organizations working in the area. Resources mobilized for Palico ARC ranged from infrastructure projects (e.g. farm to market roads and bridges) from the Government of Japan and capability-building support from a Dutch private donor.

In the presence of support packages made available to the ARBs of Hacienda Palico, the chance of success of the development interventions in the ARC is presumably high. However, the ARBs are perennially faced with challenges and constraints being dependent on sugarcane farming where income is low and seasonal. Because of its proximity to the urban centers particularly Metro Manila, most of the young household members are drawn to urban employment, away from farming. While involvement with non-farm activities is not necessarily regressive as it has in fact led to an increase in investments of rural households in education (Estudillo, et al 2004), it casts doubt on the future of farming, particularly among small-scale sugarcane farmers.

Prior to the legislation of the Comprehensive Agrarian Reform Program in 1989, sugarcane farmers in Nasugbu served as tenants of the Roxas and Co., the owner of CADP. When Hacienda Palico and Hacienda Banilad were covered by CARP, the tenants who were surveyed by the DAR were included in the Mother CLOA issued to them indicating their ownership of the land. The tenants in turn allocated or subdivided the land which range from five to eight hectares to their children. Some of the children's name appeared in the Mother CLOA; some are subject for inclusion because apparently the Mother CLOA was issued by DAR prior to the conduct of a survey in 1995.

2.2 SMALL-SCALE SUGARCANE FARMS

Sugar is a plantation crop which requires scale economies arising from the need to coordinate production and large scale processing, both to avoid under-capacity, and to ensure that harvested cane be processed quickly enough to avoid deterioration.

2.2.1 Classification of Sugarcane Farms

Farms are normally classified as small (up to 10 ha), medium (10–50 ha), and large (over 50 ha). Large farms are said to perform better because utilization of resources can be optimized. It is economically efficient to use modern machines like tractors and harvesters in large farms. As a result of size efficiencies, farm holdings of more than 100 hectares have an average productivity of 73.4 TC/ha, while smaller farms of less than 5 hectares have an average productivity of 50.3 TC/ha (Ang, 2011).

According to SRA, there are about 59,600 sugarcane farmers in the country. Of these, 79 percent have landholdings less than 5 hectares in size; less than one percent have farms greater than 100 hectares. The fragmentation of medium and large-scale sugar farms into smaller units can be attributed to the agrarian reform program which mandates the distribution of agricultural lands above five hectares. Sugarlands represent about eight percent of the total land area covered by the CARP and about 14.7 percent of total private agricultural lands (APPC, 2008).

For this study, a small-scale farm shall be classified as a landholding less than five hectares in size since the area being studied is an agrarian reform community.

2.2.2 Sugarcane Farming in Western Batangas

Sugarcane is the preferred crop by more than seven thousand and five hundred farmers in Western Batangas; a large number of which come from Nasugbu, one of the major sugarcane producing towns in the district. The farmers' preference for sugarcane stems from the fact that the crop is drought and typhoon resistant. In a region that is frequently hit by typhoons in a year, sugarcane seems an ideal crop for the farmers.

Aside from being the traditional crop, another popular reason why farmers prefer sugarcane is because it does not have to be attended regularly during its nine-month gestation period, hence the name "a lazy man's crop". Unlike palay and vegetables which require constant monitoring, sugarcane farmers are busy only in the first two months and last month of the crop's life cycle.

2.2.3 Agrarian Reform in Sugarcane Areas

Among the commercial farms in the country, it is in sugarcane farms where agrarian reform implementation has met major difficulty because of strong resistance by big land-owners. Some groups in the industry point the blame to the agrarian reform program as one of the factors of the industry's declining performance on the ground that breaking up large sugarcane estates into small family-owned farms forego the economies of scale and is therefore inefficient.

As the government purchases the land from the landowner at nominal value without regard to improvements and equipment, the CARP as a policy lessens the incentive to invest in irrigation, soil improvement, and new equipment (Zabaleta, 1997). As farmer-beneficiaries gain control of their income, it was also argued that they would use a large portion of it for consumption, rather than investments. Less investment ultimately lead to a decline in production resulting to less revenue (Padilla-Fernandez & Nuthall, 2001).

A study by APPC (2008) reported that another set of problems arises in sugarcane production phase after the farmer has been installed as ARB. Farm yield under ARB cultivation is said to be lower than under the traditional landowner for two main reasons. One, the ARB has little know-how and experience in farming; and two, the ARB lacks cash. The ARBs tend to have lower endowment of human capital and probably less managerial skill. Meanwhile, the lack of cash has two effects: first, he or she cannot achieve the recommended levels of variable inputs (mainly fertilizer and rent of equipment for mechanized farming); second, the ARB cannot purchase cane points for replanting, hence resorts to more ratoons than warranted which affects farm yield.

Over time, some ARBs opt to shift from sugar, where cash requirements are high but circulation is slow (one harvest per year), to other crops where cash requirements are lower (e.g. cassava) and/or cash circulation is faster (e.g. corn). Further, as sugarcane farmers have to wrestle tight direct competition with the cheaper and subsidized sugar from other countries, livelihood diversification is the only way to survive given the bleak prospects of the industry that is dependent on an unpredictable international market.

The same is true to small sugarcane producers in other countries. In Jamaica, families operating small sugarcane farms engaged in a diverse portfolio of farm and non-farm activities for their livelihood. They could not rely solely on sugarcane farming for a living as it provided only 40 percent of agricultural income and 5.75 percent of total income. Meanwhile, non-sugarcane crops accounted for more than half of agricultural income and earned three times more per hectare than sugarcane. Still, on-farm income only accounts for 15 percent of total income. Most of their incomes were derived from non-farm activities which were categorized as follows: i) Activities that required particular skills and educational level and were attractive to high income, and ii) Activities with low entry barriers and are likely to be less remunerative (Prince, 2010).

2.3 FARM SUCCESSION

The agricultural sector in general is undergoing major changes; non-farm activities are becoming central to rural livelihoods; diversified livelihood is becoming more common and that the balance of household income is shifting from farm to non-farm livelihoods, and there is an increasing number of rural households that have no

commitment to farming whatsoever as livelihoods are becoming delinked from land. The tendency to veer away from farming has implications on farm succession that will ensure the continuity of farming.

According to Taylor, et. al (1998), succession, or the transfer of the farm to the younger generation, is not a single act but a multi-staged process that may take many years. It is a prolonged period of intergenerational involvement which begins before heirs enter the farm business with the socialization of children into farming and in some cases is completed through inheritance when the younger generation is middle aged.

2.3.1 Factors Influencing Succession Decisions

Succession decisions by farm households are significantly influenced by the owner's attributes particularly age and educational attainment (Mishra and El-Osta, 2008). Farm operators with higher levels of education are more likely to have succession plans. In general, a higher level of education implies greater skills which, if employed for farming, entail a greater farm profitability that renders farming more attractive relative to off-farm jobs for prospective successors and increases the probability of succession.

Other factors that increase the likelihood of having a succession plan are assets and agricultural policy like the presence of government farm program payments. Farm assets are comprised of the farmland, farm machinery and equipment, farm buildings, livestock and all other resources needed to run the farm. Larger farms tend to have higher farm assets, resulting in higher earned incomes for the operators which further results to farm work becoming more attractive for the successor of the farm business relative to other occupations or relative to working off the farm (Mishra and El-Osta,, 2008).

Government agricultural support payments increase returns and may also ease liquidity constraint, thus contribute to a farm's viability. This makes agricultural occupation more attractive relative to other occupations for the successor, especially if alternative occupations are in different locations or if they require higher human capital and training.

In a study on Belgian farms (Calus, et.al, 2008), total farm assets were used as a tool to identify farms with a higher probability of transfer. Results of the study showed that lower total farm assets often result in farm discontinuation because the total farm value approaches the value of liquidation. At the moment of farm transfer, the total assets available on the farm will be more influential in the decision to continue farming.

2.3.2 Factors Influencing the Choice of Successors

Conditional on having a succession plan, the successor may be a family or non-family member. Factors influencing the choice of a family member successor are the following: farm ownership, educational attainment, and marital status of the operator. Married farm operators were likely to have a successor designated from within the family (Mishra and El-Osta, 2008).

Meanwhile, off-farm work, presence of other sources of income, children's educational attainment influence decisions towards having non-family member as successor. Off-farm work by the operators, spouses, or both, increases the likelihood that the successor would be a non-family member. In the presence of alternative

sources of income, for example, retirement income from passive sources (e.g. social security, unemployment and other benefits), parents are less likely to have a family successor, as established in the study by Mishra and El-Osta (2008). The finding of the study is contrary to the conventional wisdom of parents' altruistic motives and that the farm is treated as a source of retirement income. The theory that bequests of farm are motivated by altruism means that parents care about the well-being of their children and distribute their assets to maximize the utility of heirs.

2.3.3 Factors Influencing Children's Decision to Succeed

The characteristics of each of the farmer's children such as educational attainment may influence the likelihood of his/her entering farming. The higher the level of formal education is, the less likely intergenerational succession is to take place. This suggests that, regardless of farm structure and household characteristics, youngsters with a higher level of education, within and across households, do not opt to remain on the farm (Ochoa, et.al, 2007).

Combining higher education among the youth and increasing job opportunities in other sectors, the result is reduced appeal of farm work and the rural lifestyle as a career option for young people. Staying on the farm involves an opportunity cost directly proportional to the potential wage that each potential successor could earn in the off-farm labor market. This implies the need for incentives to encourage the young generation to go into farming.

One factor that can motivate children to go into farming is the size of the farm. If farm is bigger and has more assets like machinery, children are more likely to be attracted into farming since they will be able to obtain higher income from their efforts. Proximity to urban centers is also a factor for children to remain on the farm since there is the tendency of young people to combine farm-work with other jobs. Ochoa (2007) explains that young people deciding to work on the family farm take into consideration the set of conditioning factors that such a decision imposes on their lifestyle. These include not only the income they can obtain from the farm but also the degree of satisfaction or hardship involved.

2.3.4 Succession Perspectives

Farms can be distinguished between farms with intended successor and farms without a successor (also includes farms where succession is still uncertain). In a study on the rate of increase in total farm assets (TFA) of the two different succession perspectives (Calus, et.al, 2008), farms with a designated successor have a higher increase in TFA than farms still uncertain about succession. Conversely, higher asset farms have better succession perspectives, while farms with less assets face more difficulty in being transferred. This supports that certainty about a successor influences farm management by stimulating new investments.

On farms where the successor has not been designated and where there is still uncertainty about the long-term continuation of the farm, the study found no significant changes in the farm assets. If no successor is designated, the TFA does indeed decrease toward the liquidation value of the farm. In cases like these, the study (Calus, et.al, 2008) proposed that the farmers should be directed towards policies or support schemes that may either help them increase the farm size or assist their smooth exit from the sector, such as in early retirement schemes.

The presence of successor, as suggested by studies, serves as the driving force in building up assets and accumulating capital over the family life cycle, affecting not

just day-to-day decisions but also long-term planning (Commins and Kelleher, 1973; Hastings, 1983; and Lifran, 1988 cited in Potter & Loblely, 1992). Handing over to a successor is not just about transferring land and farm property. Succession is a matter of equipping successors with the necessary tools and skills to continue farming as well as the material assets necessary to be a farmer.

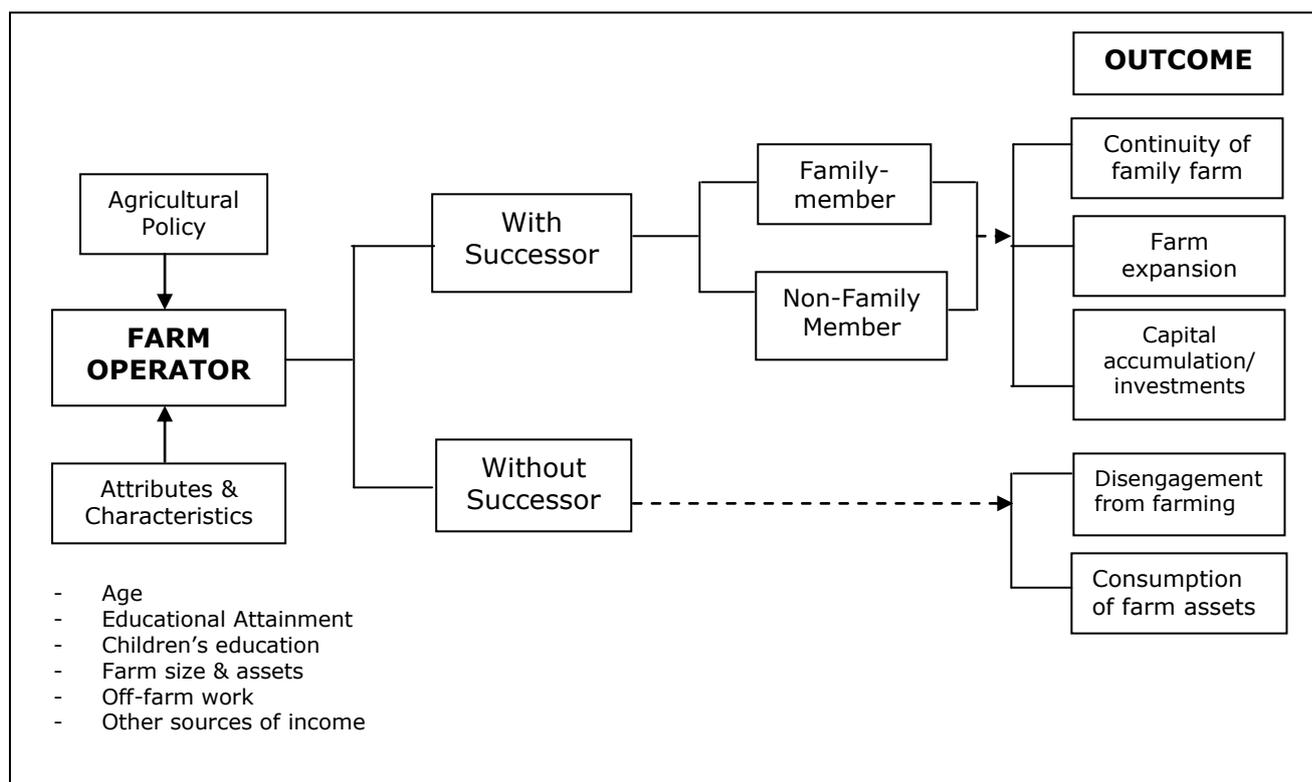
For farmers without successors and particularly those who lack heirs, their behaviour and decision making will be different as they approach and pass retirement age. They normally lack the incentive and motivation to continue expanding the business and accumulating capital in old age. Elderly farmers without successors may thus proceed not to attend to their businesses and begin consuming material assets and capital in old age, if only to reduce the workload or indebtedness in the later stages of the life cycle. They gradually disengage from farming as an income source which began earlier in their farming careers.

There are many reasons why succession does not take place: the farmer may be unmarried, he may be married without children or he may have children who are unable or unwilling to take over the farm.

In the study (Potter & Loblely, 1992) which highlighted the differences between successor and non-successor farms by examining land use and the land management decisions made by elderly farmers, farmers without successors tend to have lower capital investments, farm on smaller holding, have simplified or reduced their enterprise mix compared to farmers with successors. The study noted though that distinguishing cause and effect may be a problem since farms may lack successors because they are too small and under-capitalized to earn a reasonable livelihood which serve to discourage children from taking over the farm.

Figure 2.3 is a summary representation of the discussion above based from findings of several studies on farm succession.

Figure 2.3. Farm Succession Patterns



2.3.5 Intergenerational Transfer of Asset in Poor Families

A study by Quisumbing (2006) on the accumulation and intergenerational transfer of wealth which refers mainly to physical and human capital described that fewer resources by parents mean lesser asset transfers to children. It suggests that fewer parental resources mean lower investments in the children's human capital (e.g. education, health and nutrition). It also means that parents with lower levels of initial assets are less able to make larger asset transfers to children.

Thus, for the poor to transfer assets to the next generation they have to be able to accumulate a stock of assets over time. To help them in asset accumulation, strengthening of property rights is important such as the land distribution program in the Philippines which provides the poor access to land. Without legal rights to land or other forms of property, it is difficult to make investments to sustain and improve one's asset base.

Other approaches may seek to help the poor accumulate its initial asset and use such asset as a springboard for accumulating larger assets. In many cases, the children's education is viewed to spur the accumulation of other assets in the household.

Incidentally, as economies urbanize and employment shifts from agriculture to non-agriculture, investment in the next generation's human capital will increasingly become the most important type of intergenerational transfer that the poor can make (Quisumbing, 2006).

2.4 POST-AGRARIAN REFORM

2.4.1 Introduction

As a solution to the widespread poverty in the rural areas mainly attributed to inequalities in income and landownership, the Republic Act No. 6657 or the Comprehensive Agrarian Reform Law (CARL) was enacted in 1988. The law spells out the mechanism for the implementation of the CARP which covers all private and public agricultural lands regardless of commodity produced and tenurial status of the tiller. Considered a landmark legislation being the most comprehensive agrarian reform program ever formulated in the country since 1963, CARP has been extended twice because of the delayed implementation of its targets. It was first extended in 1998 for another 10 years and the second extension, this time for five years, was in 2009 under the Comprehensive Agrarian Reform Program Extension with Reforms (CARPER).

Agrarian reform was viewed to address insecurity in rural livelihoods anchored on the assumption that the insecure access to productive resources has led to unstable livelihoods and lack of investments (Borras, 2007). By redistributing land, it was hoped that an equitable distribution of wealth will take place, as well as greater farm productivity. Land ownership serves as an incentive for the farmer-beneficiaries to increase their productivity as they now capture all the benefits of their farm yields (Adriano, 2008).

2.4.2 Issues and Gaps in Agrarian Reform

After over twenty years since it was implemented, evidences have shown that CARP fell short of its objective and did not result to increased farm productivity as shown by the lackluster performance of the agriculture sector which has grown only 0.13% per year during 1980-1998, compared to 0.87% per year in Thailand and 1.49% in Indonesia. Low productivity translates to low farm income, which partly explains the continued prevalence of poverty in the rural areas, including agrarian reform beneficiaries (ARBs). This situation only supports the assertion by UK's Department of International Development's (DFID) that "...land is a fundamental livelihood asset [and] secure, safe and affordable land is a necessary, but not always sufficient condition for reducing poverty (Rigg, 2006).

That land reform does not offer a fixed solution to rural poverty is due to the fact that the nature and direction of growth is progressively eroding the central role of land in rural livelihoods, as indicated in many studies. Not only are non-farm activities becoming central to rural livelihoods but also that an increasing number of rural households have no commitment to farming whatsoever (Rigg, 2006).

The lack of commitment to farming, triggered by the low productivity of land causing farmers to veer away from farm work to, is evidenced by the rampant selling of land despite the legal prohibition under. Nonetheless, the waning interest in farming may be explained by the increase in income now that households have the freedom and choices to diversify brought by their access to land. Increase in income contributes to poverty alleviation for the household members in the long run through its effect on improvements in the human capital of children.

Consequently, the increase investment in human capital leads to avoidance of farming which is normally viewed as a low status occupation (Rigg, 2006). This shift in view towards agriculture clearly has implications on the continuity of farming which

would be interesting to examine in the context of agrarian reform especially in areas where farmer-beneficiaries have already surpassed the ten-year prohibition from selling the land as stated in CARL.

2.4.3 Agrarian Reform and Poverty Alleviation

However, despite its shortcomings, studies showed that CARP made significant contribution in addressing the inequity and poverty in rural areas. According to a study by Reyes (2002), agrarian reform has led to higher real per capita incomes and reduced poverty incidence between 1990 and 2000. The same study showed that being an agrarian reform beneficiary tends to increase one's chances of being non-poor as ARBs have better access to safe water and sanitation facilities, credit and irrigation facilities. Further, members of ARB households tend to have higher educational attainment than members of non-ARB households.

A recent study on CARP (APPC, 2007) supports the idea that land ownership matters as shown by the significant difference in per capita income and net per capita net farm incomes of farmers with lands, whether in ARCs or non-ARCs, than those of their counterparts with no land. It further established that for ARBs and even non-ARBs, there is some advantage to being in an ARC.

Other studies on the impact of CARP point to higher human capital investments, thus higher educational attainment for children of ARBs (Pangandaman, 2006). While this trend builds the household's asset to attain economically viable ventures and incomes, it also explains the tendency of more educated youth in rural areas to leave agriculture. As further explained by Ballesteros & Dela Cruz (2006), beneficiaries of land reform were provided with opportunities to improve their incomes through overseas employment and non-farm activities. And with higher incomes, some beneficiaries have managed to increase their landownership holdings as well.

It should be noted that the studies conducted which showed positive impact of CARP were true only in selected ARCs, not in all ARCs. Out of the 1,800 ARCs organized by DAR, around 59% or 1,054 ARCs received a comprehensive package of assistance. Further, DAR noted that beneficiaries in these covered ARCs total to only a third of the ARBs in the country. This means that only 3 out of the 10 ARBs were provided support services, leaving 7 ARBs to fend for themselves (Adriano, 2008).

2.4.4 Impact of Agrarian Reform on Land Ownership Structure

As stated in the law (Sec 26 of RA 6657), the lands acquired by beneficiaries are prohibited from being sold or transferred except through hereditary succession for a period of ten years (Llanto & Ballesteros, 2003). However, this legal impediment has not prevented the sale of awarded lands. In fact, "rampant selling and mortgaging of lands awarded to farmer beneficiaries" had been reported to the DAR. In a 1996 report by DAR, the proportion of farmer beneficiaries in a village in 23 provinces covered by land reform which had sale transactions range from a low 7% to a high of 100% (Ballesteros & Dela Cruz, 2006)

Considering the low income from agriculture, agrarian reform beneficiaries are tempted to sell their land for the right price. Despite the legal prohibition, land has become even more a tradable asset especially in areas where development pressure is intense and land conversion is imminent. A major danger of this is that it can potentially lead to rural squatting. A new crop of landless rural households may emerge because of the sale of "rights" of agrarian land (Llanto & Ballesteros, 2003).

The emergence of new breed of landowners was evident in some rice-growing areas in Nueva Ecija, Central Luzon covered by the land reform program. In a study by Crosby (2008), the agrarian reform sites did not experience much change since the farmer beneficiaries eventually re-sold or pawned their lands not necessarily to their old landlords but to new land buyers. A study by APPC (2007) observed the emergence of “other” forms of tenure and noted that these developments need to be studied carefully as they may be indicative of an evolving but adapting tenorial relations.

Selling and transferring ownership of their lands by farmer-beneficiaries is also driven by the demand for overseas employment (Ballesteros, 2006). This action is not necessarily regressive but has in fact led to an increase in investments of rural households in education (Estudillo, et al 2004).

These studies suggest that access to land provided households with freedom and choices to diversify, hence the increase in income which in turn contributes to poverty alleviation for the household members in the long run through its effect on improvements in human capital of children. Consequently, the increased investment in human capital means veering away from farm work. Farmer beneficiaries who were awarded with land ten years ago can now freely decide to sell their land as provided by law. In an area where there is strong pressure to sell the land, a change of land ownership structure is looming.

III. RESEARCH PROBLEM AND CONCEPTUAL FRAMEWORK

3.1 RESEARCH PROBLEM

After over twenty years since it was implemented, the CARP has been hailed to have achieved modest gains such as improvement of tenurial relations (Ballesteros & Dela Cruz, 2006), higher income and lower poverty incidence (Reyes, 2002), and higher human capital investments, thus higher educational attainment for children of ARBs (Pangandaman, 2006). However, according to Ballesteros and Dela Cruz (2006), the effects of land distribution and subsequent land transfer actions of farmer-beneficiaries on landownership are not known. There has not been any systematic effort to monitor ownership of awarded lands. Despite the legal prohibitions under CARL, farmer-beneficiaries in many areas have resorted to the sale of awarded lands and other forms of transfer actions which were attributed mainly to the low productivity of agriculture, thus the need to look for employment outside the farm.

The lack of systematic monitoring on landownership is also evident in Palico ARC. Monitoring and documentation was difficult during the time that the legal case filed by the former land-owner was pending at various courts since full ownership by either party could not be determined. As such, transfer actions made by the ARBs, within or outside the household members, formally or informally, have not been monitored. Now that the ARBs have gained full ownership of the land after two decades since it was awarded to them, the DAR has been mandated to conduct a re-survey for the subdivision of CLOA into individual CLOAs or titles. It is by then that transfer action made or the absence of it, and/or transfer actions to be made, will be determined and properly recorded.

Amidst this development is an opportune time to conduct a study that aims to understand and determine factors influencing decisions by the ARBs in transferring landownership to their children or the next generation. This study aims to determine plans or decisions on farm succession as influenced by the changes in human capital assets, livelihood strategies and outcomes. The results hopefully will provide humble contribution in addressing the gap of information with regard to land transfer and ownership of awarded lands by the farmer-beneficiaries.

The information will be useful to our organization, Philippine Social Enterprise Network (PhilSen) and our partner-organization, the KAMAHARI Agri-Based Cooperative, and to the to the Department of Agrarian Reform (Provincial and Municipal Offices) as well, as they continue to improve the programs and services for farmer-beneficiaries in response to the changing demands of the environment.

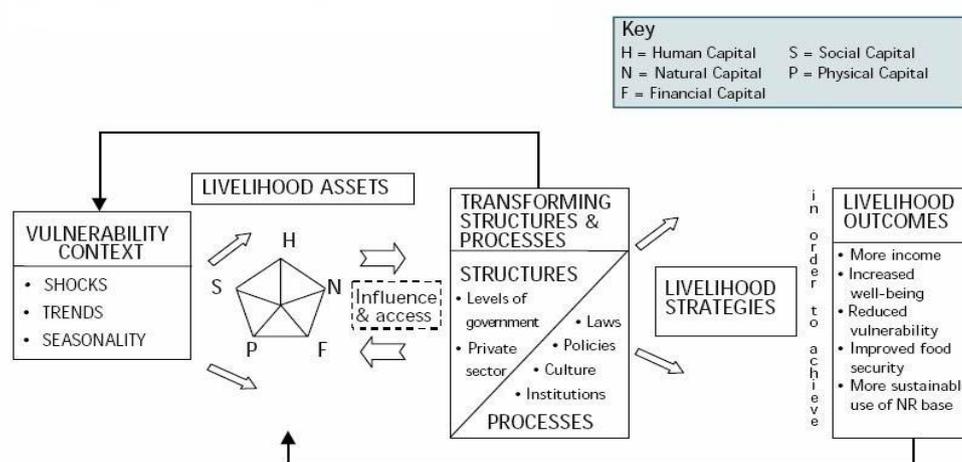
3.2 CONCEPTUAL FRAMEWORK

Studies (Ellis, 2000; Rigg, 2006; Roa, 2007; Takashi and Otsuka, 2007) have indicated that the central role of land in rural livelihoods is progressively eroding and is being replaced by non-farm activities, which in turn is associated with the increased investment in human capital. Consequently, the higher the human capital endowment is as a result of increased investment, the greater opportunity to diversify and engage in non-farm activities and as opportunity for non-farm activities increases, the less likely it is for young generation to engage in farming. This trend clearly has implications on farm succession, especially in small farms.

This study presupposes the inter-relations of human capital which refers specifically to education attainment and livelihood strategies. To better understand the interplay of human capital and livelihood strategies, the study utilizes the Sustainable Livelihood Framework (SLF) developed by the Institute of Development Studies (IDS), and later modified and adopted by DFID.

The framework provides a holistic and integrated view of the processes by which people achieve (or fail to achieve) sustainable livelihoods. To analyse a sustainable livelihood involves analysis of a number of basic elements, such as the particular context (policy setting, politics, history, agro-ecology and socio-economic conditions), combination of livelihood resources or 'capital' and livelihood strategies (agricultural intensification/extensification, livelihood diversification and migration), and the ability to carry out strategies and achieve (or not) the desired outcomes (Scoones, 1998).

Figure 3.2-1. Sustainable Livelihood Framework (DFID, 1999)



However, according to Scoones (1998), investigating each element laid out in the framework will require huge effort to uncover all aspects of sustainable livelihoods in a given area and such exhaustive analysis may not be appropriate in all cases. In any intervention in support of sustainable livelihoods, the key is to identify the institutional matrix which determines the major trade offs (between, for example, type of 'capital', livelihood strategies and sustainable livelihood outcomes) for different groups of people and across a variety of sites and scales and so the variety of livelihood pathways available. Thus, Scoones (1998) stressed to seek out only what is necessary to know in order for informed action to proceed.

DFID (1999) also advises to use the framework as a flexible tool and modify it as necessary. Analysis may be done by focusing on any part of the framework, and not necessarily all of its components. Nonetheless, it is important to keep the wider picture in mind.

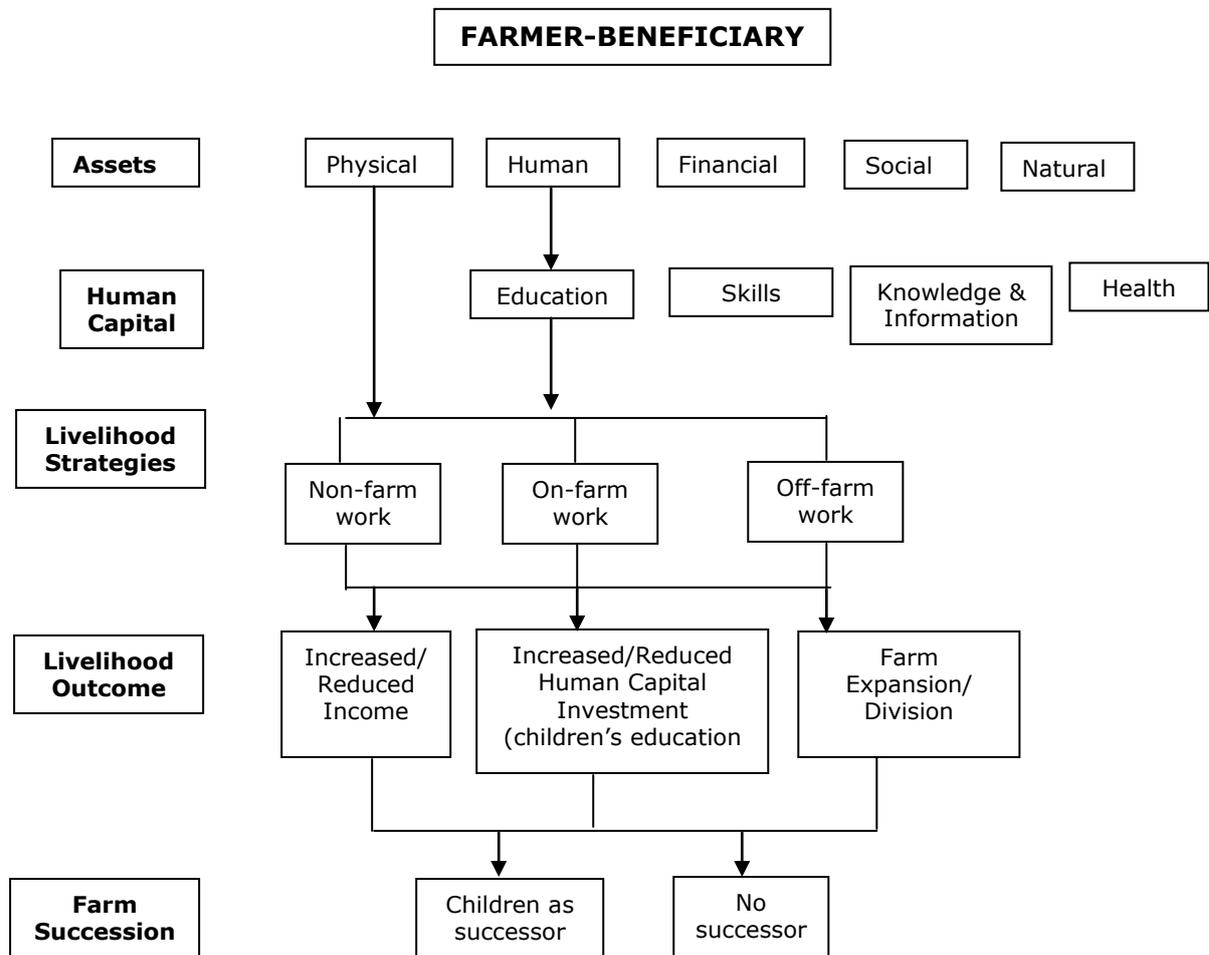
The thesis holds that human capital is an asset that can influence the choice of strategy and in combination with other factors and processes, lead towards further enhancing (or deterioration) of the human capital. As pointed out by Chambers and Conway (1991), capabilities are both an end and means of livelihood: a livelihood provides the support for the enhancement and exercise of capabilities (an end); and capabilities (a means) enable a livelihood to be gained. This was supported by

DFID's view that human capital as a livelihood asset is a building block or means of achieving livelihood outcomes. Its accumulation can also be an end itself, for instance overcoming lack of education or ill-health, which are core dimensions of poverty, may be one of the primary livelihood objectives (DFID, 1999). This supports the close relationship between Livelihood Outcomes and Livelihood Assets, the two being linked through Livelihood Strategies.

Thus for this study, emphasis will be given on the interrelations between Livelihood Assets, particularly Human Capital Assets, Livelihood Strategies and Livelihood Outcomes. It will attempt to explain that human capital assets influence the choice of livelihood strategies and consequently the corresponding outcomes of said strategies. Outcomes may either contribute to further enhancement or deterioration of the human capital assets. The interaction of the assets, strategies and outcomes may influence other conditions, in this case plans or decisions related to farm succession, is highlighted. Access to land (physical capital) will serve as an initial asset common to all ARBs and is used as springboard to accumulate larger assets.

The figure below (Fig. 3.2-2) illustrates how farm succession comes into play in the human capital-livelihood strategies-livelihood outcome matrix. As shown in the figure below, the research will examine how the level of education, as one of the elements of human capital asset, determines the choice of livelihood strategies and its corresponding livelihood outcome in terms of income, investments on human capital and farm assets. The livelihood outcome in turn will influence decision or plans on farm succession – whether children will succeed or not will succeed the parents in working directly or managing the farm.

Figure 3.2-2. Conceptual Framework of Farm Succession in Small Sugarcane Farms



IV. RESEARCH OBJECTIVE, QUESTIONS AND METHODOLOGY

4.1 RESEARCH OBJECTIVE AND QUESTIONS

In line with the research problem mentioned in the previous chapter, this study aims to enhance understanding of the relations between the changing livelihood strategies and educational attainment (human capital asset) to farm succession in small-scale sugarcane farming households.

The conduct of the study shall be guided by the following main research question:

Main Research Question:

To what extent do the educational attainment (human capital) and livelihood strategies affect or influence plans or decision on farm succession?

In order to find the answer to the main research question, the following sub-research questions shall be addressed:

Sub-Research Questions:

1. How is the educational attainment utilized in building livelihoods?
2. What are the changes in educational attainment since the farmers were awarded ownership of land?
3. What are the changes in the livelihood strategies of the farmers since they were awarded ownership of land?
4. What have been the outcomes of the livelihood strategies by the farmers?
5. To what extent do livelihood outcomes determine farm succession?
6. How is farm succession viewed in the household?

4.2 RESEARCH METHODOLOGY

This section discusses the methodology and strategies to carry out the research. It explains the choice of the methodology based on the nature of the research. It describes the research population and the basis in selecting the interview participants. The processes involved in collecting and analysing the data are also presented.

4.2.1 Methodology

The main concern of this research is to describe, explore and explain a phenomenon in a natural setting, which is farm succession by sugarcane farmers who were awarded with land. For this study, the qualitative method of data collection and analysis is used because it is consistent with the objective of qualitative research that seeks to provide insights and understanding of situations by drawing interpretation on social phenomena within the context of the participants' perspectives and experiences (Flick, 2009). The nature of the research problem and questions focused on "what", "how" and "why", the answers of which are provided by the interview participants through semi-structured interviews. Their accounts and testimonies were

then interpreted and analysed in line with the research questions. This research method makes it open to contextual interpretation, thus the qualitative approach was adopted.

4.2.2 Research Population

The study focuses its population to the two hundred and forty (240) members of the KAMAHARI ABMPC who are all beneficiaries of the agrarian reform program. They comprise seventeen percent of the total farmer-beneficiaries in Palico ARC which is over 1,400. Most of them are founding or original members of the cooperative when it was organized in 1995. As members of the cooperative, they have access to support services like credit, training and other livelihood support channelled by government agencies mandated to support the farmer-beneficiaries.

Male farmer-beneficiaries outnumber their female counterparts as parents normally favour male children to own the land over the female children. The average land size per ARB is estimated at 1.5 hectares which are planted mainly with sugarcane. Average income from sugarcane production per hectare is around PhP40,000 or (666 Euro) per year. To augment their income for the whole cropping season, they also work as farm labor. Some also work as drivers, carpenters, construction workers and factory workers in the nearby province of Cavite and also in Metro Manila.

Majority of the ARBs are 55 years and older and are found in Barangays Tumulim and Banilad which have the largest area and the most number of ARBs compared to the five other villages that comprise Palico ARC.

4.2.3 Selection of Interview Participants

From the research group of 240 farmer-beneficiaries who are members of KAMAHARI, a group of thirty was selected as interview participants of this study through purposive sampling. The sample size accounts for 12% and is considered representative of the total research population. Random sampling technique was

Figure 4.2.3. Village-level meeting by KAMAHARI members



Source: Fieldwork, August 2011

viewed not feasible since most of the members are found in remote or interior villages that are not readily accessible during monsoon season. During the field work period, two typhoons hit Luzon Island which produced heavy rains in the province and momentarily affected the data-gathering schedule.

The participants were identified with the help of the KAMAHARI officers who supplied the names of members who fall under the following criteria: a) farmer-beneficiary; b) currently works or manages the farm; c) with three hectares or less; and d) have children.

Since the study is about farm succession

among ARB households, it was deemed appropriate to base the selection on the said criteria so as to establish some common denominators and eliminate other factors in the analysis of results.

The purposive sampling was evident in the selection of participants since preference was given to members with who KAMAHARI officers are familiar with or have regular interaction with.

The three different age groups (senior, middle-aged, and young generations) were also taken into account in the selection of participants. However, there was no intention to get equal number of participants from each age group since there are only few known to belong to the young generation of farmers. The location of the farm was also taken into account to make sure that farmer-beneficiaries from remote or interior barangays are included in the interview and not only those who are close to the road.

On one hand, while there was a conscious effort to get an equal representation of men and women as participants in the survey, male participants (20) still outnumbered the female participants (10). This is due to the fact that there are more male farmer-beneficiaries than their female counterpart.

4.2.4 Data collection

The permission to conduct the research was sought from the officers of KAMAHARI as early as December 2010, which was immediately granted. Prior to actual field work, the manager of the cooperative was kept informed of the research schedules and other requirement so as ensure that the field work is carried out according to plan.

The fieldwork activities focused on primary data collection in five out of the seven villages covered by the Palico ARC. Data gathering activities were carried out for a period of three weeks from July 18 to August 5, 2011. During this time, the farmers were no longer busy with their farm work as the fertilizer application phase had already been completed. Half of the participants were interviewed at the KAMAHARI Office since the schedule of interview coincided with their visit to the cooperative. This proved to be efficient as it saved some travel time, not to mention that interior roads are impassable during rainy season. The other half of the participants was interviewed at their homes, particularly in Barangays Cogonan, Tumulim and Banilad.



Figure 4.2.4-1. Field work in Barangay Banilad accompanied by a staff of KAMAHARI

Aside from the 30 participants, key informants were likewise interviewed to obtain information relevant in understanding the context or factors that currently affect or impact the participants' livelihoods. Key informants were officials from the Municipal Planning and Development Office (MPDO), Provincial Agrarian Reform Office (PARO) and the Sugar Regulatory Administration (SRA).

The study covered five villages to make sure that the participants represent the different conditions in the ARC. Some participants live in accessible parts of the

villages; some live in interior or remote villages where roads are typically in poor condition. The two villages not covered in the study have the least number of farmer-beneficiaries in the whole ARC.

The interviews conducted at KAMAHARI Office were held either at its meeting room or waiting area, when the former was not available. Still, there was minimal distraction since the other people in the office left the researcher and interview-participant alone. Interviews for each ARB were done one at a time.



Figure 4.2.4-2. The house of an interview participant in Barangay Banilad.

As for the interviews at the village level, the researcher was accompanied by a staff of KAMAHARI. Locating the houses were easy since the staff was familiar with the ARBs' addresses. Except for few occasions, most of the interviews at the village level were done in the presence of some family members who would occasionally add information during the interview. Nevertheless, it was more helpful rather than a disruption.

4.2.5 Interview Content

The interview questions were divided into five parts. The first part deals on the ARB's individual characteristics (e.g. age, education, size of land, experience in farming, etc.); second part on the household characteristics which include questions about the children's educational attainment and involvement in farm and other types of work; third part is on the livelihood strategies carried out by the households over the past years, and fourth refers to the livelihood outcomes in terms of increase of investments in school, house improvements, investment in farm and others. The last part contains questions about the succession plans by the households. The structure and content of interview questions point towards the interplay of educational attainment, livelihood strategies and farm succession which is the subject of this study.

Since the interviews were semi-structured, the research prepared checklist of questions or topic which was used as a guide (Appendix 1). Each interview lasted about 45 minutes to 1 hour. All interviews were recorded to make sure that no single detail of information was missed during transcription. Since the participants have known the researcher for years, the permission to record the interview was readily granted by them.

As for the key informants, the MPDO was asked about the local government's plans and priorities. The PARO discussed about the department's plans for Palico ARC in accordance with the decision by the Supreme Court and also in lieu of the CARPER's provision that land distribution will cease by 2014. The key informant from SRA provided information on the issues and trends involving the sugar industry and sugarcane farmers in Western Batangas.

4.2.6 Data analysis

Data analysis revolved around the three selected components of the Sustainable Livelihood Framework, as indicated in the conceptual framework of this study. These components are the Human Capital Assets, Livelihood Strategies and Livelihood Outcomes. Other components of the framework such as vulnerability context, transforming structures and processes are mentioned but not given emphasis.

To analyse the answers to the research questions, the data was processed at four levels namely: a) General information about the participant and household, e.g. age, education, household size, children's education; b) Livelihood strategies; c) Livelihood Outcomes, and d) Emerging succession pattern. From the individual interviews, mini-cases were drawn and cited as examples in the discussion of results to illustrate a pattern or highlight a unique experience.

V. RESULTS

This chapter presents the results from the interview of thirty farmer-beneficiaries. The first section discusses the ARBs profile and characteristics. The second section provides a description of the ARBs human capital endowment with emphasis on their education level, while the third section deals with the livelihood strategies undertaken by the ARBs.

5.1 PROFILE OF INTERVIEW PARTICIPANTS

The interviewees came from five villages out of the seven villages covered by the Palico Agrarian Reform Community. These are the villages or barangays of Bilaran, Cogonan, Reparo, Tumulim and Banilad. Half of the respondents are from Barangay Banilad which is the largest barangay in terms of land area and has the largest number of total ARBs in the whole ARC.

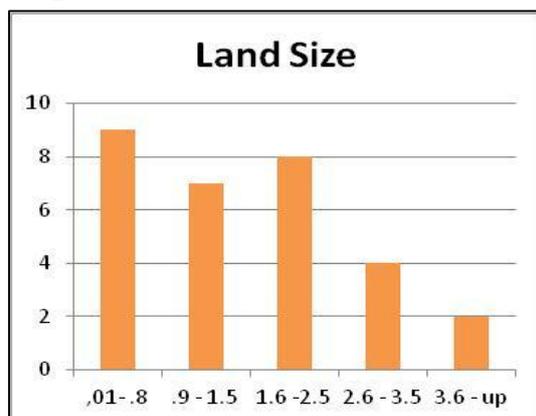
Table 5.1. Villages covered in the study

Village	No. of ARBs
Banilad	15
Bilaran	2
Cogonan	4
Reparo	3
Tumulim	6
Total	30

5.1.1 Landholding Size

The farmer-beneficiaries interviewed for this research are children of the original tenants of the Roxas plantation. The subdivision of land by their parents left most of the farmer-beneficiaries with land size of 2.5 hectares and below. Half of the farmers have 1.5 hectares and below, though a considerable number of those interviewed only have .5 hectares each. Only two have farms with area of around five hectares. Those awarded with larger portion of the land (more than 2.5 hectares) are mostly the eldest among the siblings, and have been entrusted by their parents to continue farm cultivation having shown their interest in farming. In some cases, parents tried to equally subdivide their land among the children, thus their children get 1.5 to as small as .5 hectares.

Figure 5.1.1. Land Size



Source: Field Interviews, August 2011

5.1.2 Age Grouping

Most of the interviewees are relatively young as sixty three percent belong to the age group 59 and below. The oldest ARB interviewed was 76 years old and the youngest was 29 years old. For this research, the farmers belonging to the age group 60 above will be referred as the first generation of ARBs, those in age group 46 to 59 as second-generation of ARBs and those under age 45 and below as the third generation of ARBs. Back in 1993 when the land reform program took effect in Hacienda Palico and Banilad, the first generation of ARBs were in their late 40s or early 50s and active in community gatherings/mobilization on land tenure issues even prior to the coverage of Roxas plantations in the land distribution program. Most of them are founding members of KAMAHARI ABMPC.

Table 5.1.2. Age Grouping

	Age Group	No. of ARBs	Sex	
			Male	Female
First Generation	60-above	11	8	3
2nd Generation	46-59	10	7	5
Third Generation	45 – below	9	5	2
Total		30	20	10

Source: Field Interviews, August 2011

Most of the second-generation of ARBs became active on land tenure-related concerns and as a cooperative member towards the end of 1990. Most of them were listed as beneficiaries by their parents in the Mother CLOA, thus their names are up for inclusion in the re-survey to be conducted in DAR this year. The younger-generation, classified as the third generation, were in their teens back in 1993, thus became aware about land issues only in mid-2000. Of particular interest under this group are the three young farmers aged 35 years and below. Two have been assigned a piece of land by their parents by force of circumstance – they are starting their own family – and also because they have shown interest in cultivating the farm. The other one still works in his father’s farm but the father plans to designate his son as his successor.

5.1.3 Experience in Sugarcane Farming

Sugarcane farming has defined the way of life of the ARBs. All the 20 male-farmers interviewed grew up helping their parents cultivate sugarcane. The same is true to the female-farmers, except for four of them who came to Nasugbu only because they married a local from the town and since then have adapted to the local culture and learned about sugarcane cultivation over time.

5.1.4 Household size

The household size has reduced across generations. Compared to their parents who were born to a relatively large family with household size ranging from five to 12, the interviewees’ average household size is smaller. More than half have three children and below. Only four of them have more than seven children. More children in the household means that more hands available to help in the farm – at least that was how most of the male ARBs perceived it since their parents relied on them for support at the farm. However, less children means more resources can be allocated for each of them.

Table 5.1.4. Household Size

No. of Children	No. Of Respondents	%
None	1	.03
1-3	16	.53
4-6	9	.30
7-10	4	.13
Total	30	100

Source: Field Interviews, August 2011

5.2 HUMAN CAPITAL ENDOWMENT

This part of the interview questions refers to some components of human capital assets such as the ARB's educational attainment, and labor or skills available in the household. Other aspects like involvement in local organisations, access to trainings and personal aspirations were included to gain better understanding of the ARB's background and other human capital resources.

5.2.1 Education level

The educational level of the ARB serves as the initial human capital asset of the household which may be a factor in determining the type of livelihood strategies. No one among the farmers interviewed finished college, although two of them managed to reach college up to junior year. One of the two is from the first-generation of ARBs; the other is from the third generation of ARBs. Those who finished vocational, high school and elementary education are eleven, eight and nine ARBs respectively. During early times, elementary schools were located only in or near the town center that children from interior villages like Tumulim and Banilad were forced to stop schooling and instead help their parents in the farm. This may explain why most of the first generation farmers have low educational attainment compared to the second and third generation of farmers. Over time, the figures below show that educational attainment improves across generations.

Fig. 5.2-1. Education Level of ARBs

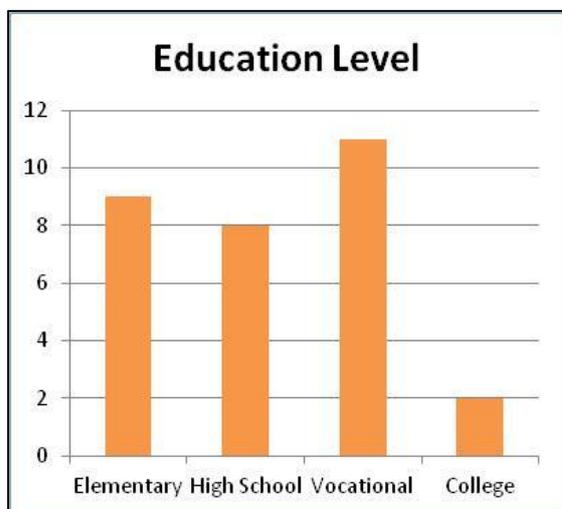
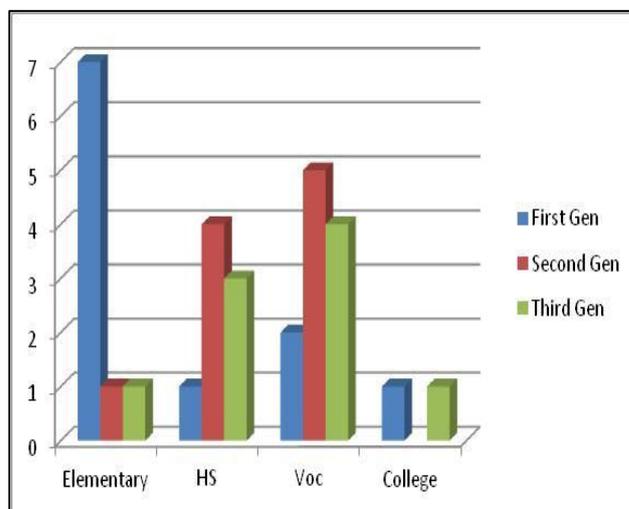


Fig. 5.2-2. Education Level of ARBs Across Generations



Source: Field Interviews, August 2011

5.2.2 Children working in the farm

Twenty (20) of the participants have at least one adult child (19 years old and above). However, only six of them have children who currently work in the farm. Of the six, two ARBs have already allocated a piece of land to their children (who work in the farm). The other four have children who work as farm labor. Some of the ARBs' children who have non-farm work would occasionally help in the farm when they visit the parents (interview participants) who all claimed that they taught their children, especially the males, to help them in the farm when they were young. The reason is for the children to develop appreciation of farming since they will be the ones to inherit it later on.

Table 5.2.2. Number of Adult Children Working in the Farm

	No.
ARBs with children aged 18 years and below	10
ARBs with children aged 19 years and above	20
• Adult Children working in the farm	6
• Adult children with non-farm work	11
• Children still in school	3

Source: Field Interviews, August 2011

5.2.3 Involvement in a Cooperative

Except for one who is the son of a member of KAMAHARI, all of them are members of the cooperative; more than half of them have been a member for over ten years already while the rest are have become members of KAMAHARI for not less than five years except for the two who have recently just joined the cooperative. As members of the cooperative, they are able to obtain loan for sugarcane production through the credit facility from the Land Bank of the Philippines (LBP). The facility provides credit support for each activity in sugarcane production (e.g. clearing, land preparation, planting, fertilizer application, weeding, harvesting/cutting) and is available to all ARBs that are members of the cooperative.

Similarly, most of them have attended trainings on agricultural production through KAMAHARI. Most of the ARBs who were able to attend trainings are those who had been active members of the cooperative before 2004. From 1999 to 2004, KAMAHARI was a recipient of a capability-building project funded by the Inter-Church Organisation for Development Cooperation (ICCO) thus trainings were available for the members. Members who have not attended any training on agricultural production from KAMAHARI were mostly new members. According to them, they learned about sugarcane farming as they were growing up from their parents and by asking from help or information from neighbours and relatives.

Table 5.2.3. Participation in Trainings on Agricultural Production

No. of trainings	No. of ARBs
More than 2 trainings	14
One or Two	7
None at all	9
Total	30

Source: Field Interviews, August 2011

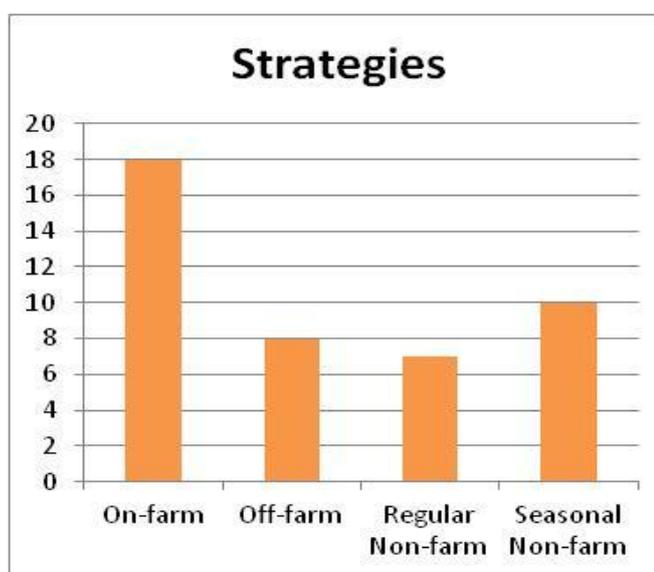
5.2.4 Personal aspirations and goals

Increasing the household income and sending the children to school were the participants' main aspirations and goals. Improving the farm productivity was identified as the strategy to increase household income though some of them recognize that they cannot just depend on sugarcane alone. While they also value education for their children, four (4) of them shared that they did not push their children to continue or finish studying mainly because the children themselves were not interested to go to school.

5.3 LIVELIHOOD STRATEGIES

Sugarcane farming remains to be the major source of income for the farmers interviewed in the study, though all attested that they cannot just depend on sugarcane. Income is not enough to support the family throughout the year, especially for those who only have less than 1 hectare of farm. As such, they engage in other activities just to augment their income, foremost of which is on-farm work which consists mainly of livestock-rearing and planting of other crops. Off-farm work, either by the ARB or interview participant himself/herself or his/her spouse, refers to farm labor.

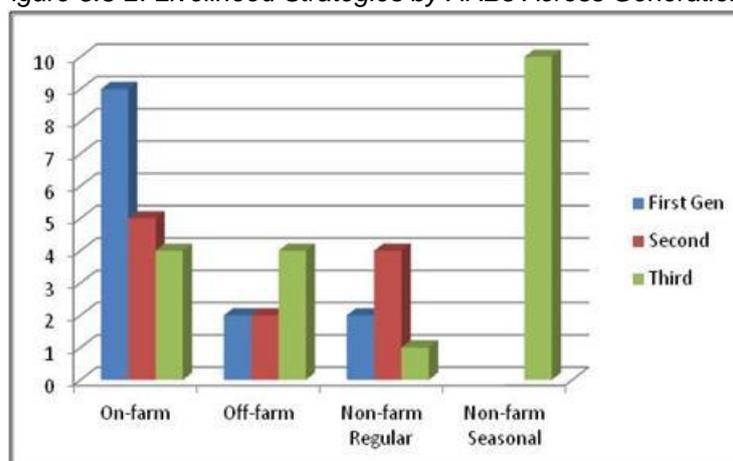
Figure 5.3-1. Livelihood Strategies by the ARBs



Source: Field Interviews, August 2011

While half of the ARBs have non-farm work, only seven have regular or steady income. Two of them have both husband and wife engaged in non-farm work. One of them belongs to the second-generation of farmers whose children have all finished college education. The other one belongs to the third generation of farmers whose children are still in primary and secondary education. Not one among the first-generation of ARBs has non-farm work except for the two whose spouses have non-farm work. The first generation of farmers are more involved in non-farm work while the third generation in non-farm work, albeit seasonal. Their involvement in non-farm work leaves them with little time to engage in on-farm or off-farm work. As shown in Figure 5.3b, involvement in non-farm work has increased across generations.

Figure 5.3-2. Livelihood Strategies by ARBs Across Generations



Other non-farm activities that provide seasonal or minimal income to the household are truck driving during milling season, store-keeping (small store), food vending or catering, buy and sell of livestock, factory work and other casual work. The two ARBs who work as truck drivers during milling season are paid well. In fact according to them, income is much higher than what they normally earn from sugarcane production.

Table 5.3. Type of Livelihood Strategies

		No of ARBs
Sugarcane Farming		30
On-farm work		16
Off-farm work		8
• ARB/Participant	6	
• ARB's spouse	2	
Non-farm work		17
- Regular income		7
• Both husband & wife	2	
• ARB/participant	3	
• Spouse only	2	
- Seasonal/minimal		10
• Driving (truck)	2	
• Store-keeping	1	
• Food catering	1	
• Driving (vehicle for rent)	1	
• Factory/casual work	5	

Source: Field Interviews, August 2011

Labor-migration

Eight of the ARBs had once worked outside the town; three of them worked abroad. Of the three, only one had managed to acquire an asset through his income from working abroad when he came back. The five-hectare rice land he acquired provided substantial income to the household which enabled him to send his children to

college. All seven ARBs came back to Nasugbu and decided to attend to the farm as they were not earning much from their work anyway.

Leasing-out of Land or Arriendo

Another strategy that is commonly practiced in the ARC is leasing out of land or *arriendo*. This is an informal transaction where the ARB leases out the land for a fixed cash payment (usually at the beginning of a cropping season over a specified duration). Five of the farmers interviewed leased out their land for a period ranging from four to twelve years, at a price of P8,000 to P12,500 (133 to 208 euro) per hectare. Price varies depending on the farm location, with proximity to the road infrastructure as preference. Three of them were compelled to lease out their land to pay for medicines or hospitalization when a family member had a serious accident or illness; one had to pay for her son's wedding expenses and one bought a vehicle which he now uses for his vehicle rental business.

Despite the high input requirements of sugarcane farming, shortage of working capital was never a reason for the members of KAMAHARI to enter into *arriendo* since the coop provides loan for their production requirements, unless of course the member has defaulted his/her loan payments which render him/her unqualified to obtain additional loans. Still, in cases of default, KAMAHARI offers its 'investment scheme' to prevent members from leasing out or pawning their land. Under this scheme, the cooperative takes over the management of the farm starting from land preparation up to harvesting.

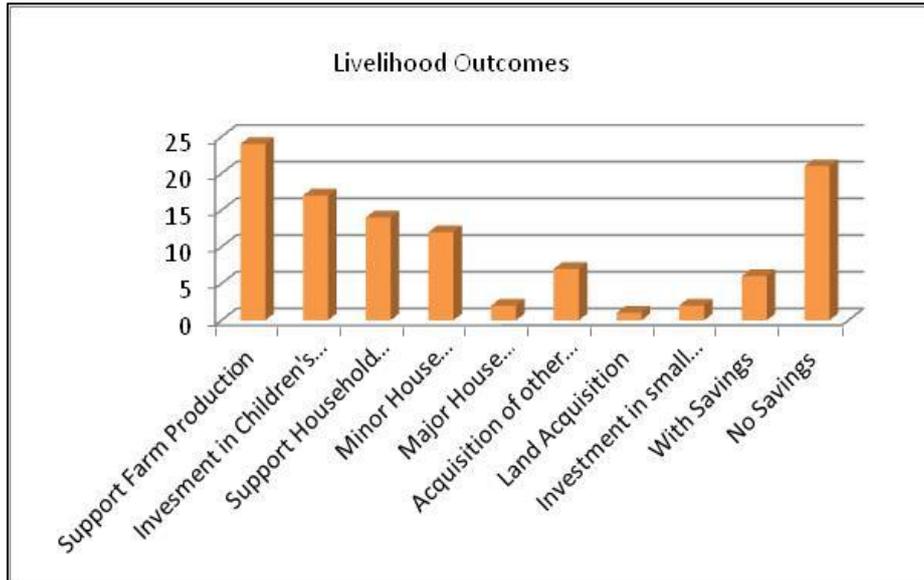
At the end of the season, all expenses incurred by KAMAHARI will be deducted from the gross proceeds and the net proceeds will be divided equally by the cooperative and the farm-owner. The farm-owner's loan from the coop will be deducted from his share, the amount of which will be subject to negotiation by the cooperative and the farm-owner. Two of the farmers interviewed are considering the scheme so as to reduce their loan from KAMAHARI.

5.4 LIVELIHOOD OUTCOME

Returns or income from the ARB's livelihood activities were utilized mainly to support the children's schooling and sustain farm production. While the ARBs struggled to send their children to school, very few have managed to send their children to school after high school. About half of the ARBs are still supporting their children's schooling to date. Also half of the ARBs were able to make improvements on their houses but only two can be considered major improvements. In fact, they were also able to construct a new house for their children.

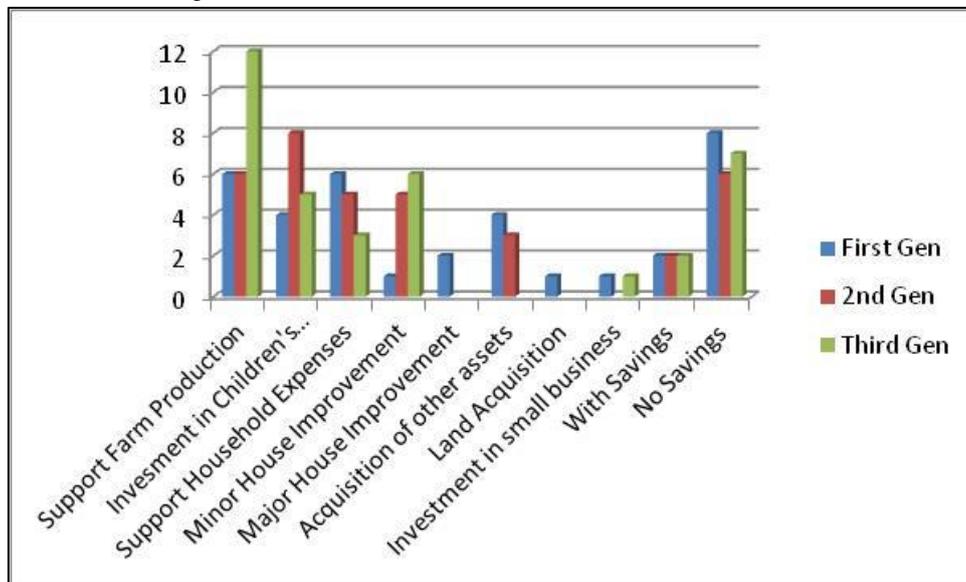
Only one ARB was able to acquire a new piece of land which was made possible through his income from working abroad many years ago. The new asset acquired by seven ARBs is a vehicle. While most of them may not have acquired a single asset or generated even some savings, they said that their hard work was still put into good use by being able to help a family in need, either for hospital needs or even for consumption needs by their children who continue to depend on them.

Figure 5.4-1. Livelihood Outcomes



The second generation farmers use most of their income to support their children's education as most of their children are in secondary schools or college, while the third generation farmers on farm production. Over-all, the farmers have low capacity to generate savings.

Figure 5.4-2. Livelihood Outcomes Across Generations



5.5 FARM SUCCESSION PLANS

The ARBs do not have clear succession plans yet, though at the same time they claim that they will most likely to transfer it to their children and/or leave it up to the children to decide what to do with the piece of land. Most are adamant that they will not sell the land, being the only asset they inherited from their parents that they can

pass on their children. Two however are open to the idea of selling it, depending on the circumstances in the future.

For the first-generation of ARBs, two of them have allocated a portion of their own land to their sons who have started their own families and have no other source of income except farming. All the other ARBs in the first and second generation whose children are no longer living with them and/or working elsewhere shared that they have no idea yet as to who will succeed them in farming but in any case, the land will be transferred to their children. Should the children decide to build their houses or sell it later, the decision is entirely up to the children for as long they agree and/or have equal share to the benefits from the land.

Figure 5.5-1. Farm Succession Plans

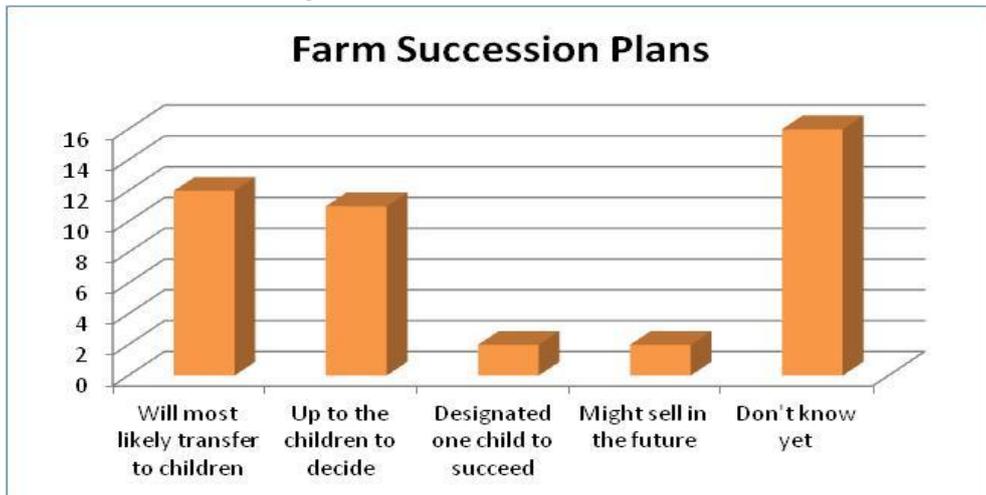
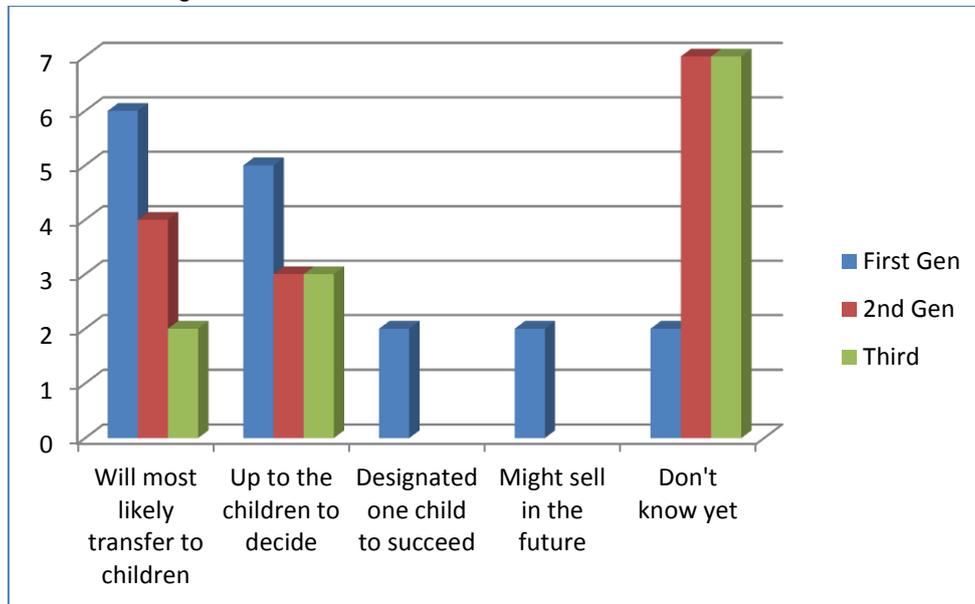


Figure 5.5-2. Farm Succession Plans Across Generations



VI. DISCUSSION

This chapter deals on the findings of the study in relation to the sub-research questions. The findings are also compared to findings from other related studies

6.1 RELATION OF EDUCATION LEVEL AND CHOICE OF LIVELIHOODS

This study has established that farmers or households with higher education has more opportunity to diversify their livelihood portfolio, thus have more chances to diversify their income sources and not just depend on sugarcane or other farm-related work. They are able to gain employment that provides steady income to the household as shown by the few ARBs who have non-farm work. With diversified income sources mean higher or more regular or steady income means higher income, thus improved capacity to send children to school and/or invest in home or farm improvement.

Meanwhile, those with minimal education are most likely to depend on farming given their limited opportunities to diversify their income sources. Their non-farm work is often confined to odd or seasonal jobs like driving, construction work, carpentry, etc. which simply provides minimal income, except perhaps for truck driving during milling season that pays well, even higher than the average income from sugarcane production.

It can be said therefore that the decisions made by families on which type of activity to pursue depends on the asset endowments of the household. The same pattern was observed in a study by Prince (2010) involving small-scale farming households wherein households endowed with human capital (e.g. higher education) tend to put less emphasis on sugarcane cultivation and family members are more involved in formal sector employment. In contrast, families with less human capital endowments appeared to depend more on sugarcane cultivation as their source of income. Their involvement in non-farm work was limited to the informal sector which does not require specialized skills or higher education.

According to Estudillo et al. (2006), while access to land is a major determinant of farm income, schooling attainment is a key factor affecting non-farm income. This suggests that access to land provided households with freedom and choices to diversify, hence the increase in farm income which in turn contributes to poverty alleviation for the household members in the long run through its effect on improvements in human capital of children. However, the increase investment in human capital means veering away from farm work (Crosby, 2008).

6.2 CHANGES IN HUMAN CAPITAL ASSETS

There are two pathways to the change in human capital endowment by the households since the land was awarded to them. One pathway is progressive or positive; the other one is static, if not deteriorating. Twenty years after, the children of the ARBs have all grown up. Some have managed to finish college education and have found jobs with steady income. In table 5.4, it was indicated that there are three ARBs whose children, most or if not all, have finished college education. These children now have stable jobs compared to children of other ARBs. Consequently, their parents are living a relatively better-off condition than before.

The investment on the children's education can be attributed to the livelihood strategies employed by each of the three ARBs. One has a five-hectare rice land that provided significant income to the household; the second has a non-farm work as well as her husband, and the third simply capitalized his social capital assets to support the children to school.

Such is the case of Ka Rading but unlike the other two households who have initial human capital endowment in terms of higher education, Ka Rading was more of an exemption than the rule. He belonged to the ARBs with less/minimal education, thus depended solely on sugarcane for his source income. However, by enhancing his social capital (e.g. membership in cooperative, networks, contacts, etc.) he was able to put his children through school (see Appendix 2).

Meanwhile, children who have managed to finish secondary education because of limited resources by their parents have no regular job; some are even dependent on their parents especially for those who still live with their parents. For some ARBs, life is even harder now since they still have to support or help their children raise the latter's family.

Unlike the first to generation and second generation of ARBs who grew up tilling the farm with their parents, the third generation grew up with little knowledge about sugarcane cultivation except for those who stopped schooling after finishing high school and have no other choice but to work in the farm. After all, their parents (second generation of ARBs) did not encourage them to follow their footsteps as farmers. By sending them to school, the parents hoped that their children will pursue other jobs or economic activities that will provide them sufficient income to support their family.

It should be noted that second-generation farmers who finished high school or less did not have much opportunity to gain employment or engage in activities with steady income, thus they tended to rely on sugarcane for their needs. Aside from working in their own farm, they also provide manual labor services for other farms. With little income to support their children's education, their children would simply manage to finish high school. Some of the children tried to work in Manila but with insecure jobs, they eventually opt to go back to their parents and help them in the farm. This is true in the case of the three third-generation of farmers interviewed in this research whose age is below 35. Two of them have been awarded land by their parents and one is being groomed to eventually manage his father's farm in due time.

The second-generation farmers who have some steady income through employment (or other investment) were the ones who were able to send their children to college. While they claimed to have taught their children to work in the farm as they were growing up, their children did not practically experience what their parents experienced. The second generation farmers who have higher level of education knew the value of education that's why they persisted on sending their children to school, and continued to find ways to increase their income even if it means leasing out a portion of their sugarcane farm.

As a whole, non-farm employment opportunities have significantly expanded across generations. Similarly, educational attainment has also increased over or across generations. As younger generations improve their educational attainment over time, less and less of them will pursue farming for their occupation. As indicated by Ochoa, et. al (2007), a better educated youth and increasing job opportunities in other sectors have lessened the appeal of farm work and the rural lifestyle as a career option for young people. The increased investment in education is made possible by

the diversified income sources of households which reflect the increasing importance of non-farm contribution over farm income (Ellis, 2000).

6.3 CHANGES IN LIVELIHOOD STRATEGIES

The farmers continue to depend on sugarcane as the main source of income but unlike their predecessors or the original tenants of the plantation, the ARBs did not have to share their income with the land-owner. This however means that ARBs had to source their own production inputs unlike before where the landowner provided everything they needed – from farm inputs up to their household's consumption needs. The transition from tenant to small land-owner was not easy for the first generation of ARBs. Two decades after, a farming household's livelihood portfolio includes non-farm activities though generally, most households are still dependent on on-farm work.

6.3.1 Sugarcane Production

Role of the Cooperative

Through the cooperative, a credit facility for the ARBs was made available by the Land Bank of the Philippines (LBP). For a hectare of land, the amount that a member can borrow ranged from P30,000 to P40,000 (500 to 667 euro) subject to review by the cooperative based on the member's previous performance in meeting his financial obligations. Normally, members with loan from KAMAHARI assigns the cooperative through a Special Power of Attorney (SPA) to collect their quedan, the farmer's proof of ownership of sugar indicating the amount and classification of sugar stored in the sugar central's warehouse. The quedan is a negotiable instrument and sugar is traded using this. The cooperative consolidates the member's quedan and sell them collectively to traders. The member's total amount of loan is deducted from the proceeds of the quedan sale.

Benefits of Credit Support

The availability of the credit facility allow farmers to hire labor when needed. It also helps to tide them over their consumption needs during cropping season. Farmers do not normally spend all the allocated amount for each activity. It is a common practice among cooperative members to use part of the loan for their consumption needs. For instance, they would avail of the budget allocated for cane points but which they do not use for its intended purpose. Cane points are replaced after 3-4 years and normally, farmers would just ask from neighbours or relatives for new ones instead of buying them.

Increase in Production

Over the years, the average production (TC/ha) in the province in the area has increased which may be attributed to availability of new technologies and the relative capacity of the farmers to provide for their production inputs since credit support is available. The farmers estimated that their production is more or less within the reported average production in Batangas which is 60 ton cane per hectare, slightly higher than the national average production of 57.51 TC/ha. According to SRA, farm productivity can still be improved if farmers follow its recommended processes.

Farm Management Practices

While there are several factors that affect productivity in sugarcane like environmental conditions, use of new cane points, farm management practices, harvesting schedule, etc., the amount of fertilizer applied usually spells the difference in improving the yield of a sugarcane farm. The farmers explained that there are times when they have to reduce the amount of fertilizer due to budget constraints. In 2008, the ammonium sulphate used in sugarcane farms was up by 55 % (NCSB, 2008).

The amount of fertilizer needed varies depending on the soil condition. Since most of the farms in Nasugbu have become acidic based on the soil mapping done by the Sugar Regulatory Administration (SRA), the recommended amount of ammonium sulphate is around 20-25 bags to get the maximum production of 60 tons or more per hectare. However, as shared by the farmers, the high cost of fertilizer prevents them from applying the recommended amount of fertilizer. Some merely estimate the number of bags of fertilizer to be applied in which they will at least break-even should the price of sugar drop come harvest time.

To improve soil condition, the SRA has recommended to the sugarcane planters to apply mud press, a by-product of sugarcane which is available at no cost from the CADP. The farmers only have to request for a schedule and pay for the gasoline costs in delivering the mud press to their farm. However, farmers still have not availed of such for lack of information and for the usual 'to see is to believe attitude'. Of the farmers interviewed, only four of them have shared their plan of using mudpress in the next cropping season after observing the increase in yield of the farms managed by KAMAHARI under its investment scheme.

Even within KAMAHARI, the use of mudpress is not popular because information is hardly disseminated especially to farmers living in interior villages. Another reason that prevents the widespread use of mudpress is the unavailability of the trucking facilities at the time when they need to apply the mudpress over the sugarcane farms. This period coincides with the peak of the milling season in which trucks are used to haul sugarcane.

Issues and Challenges

For the past crop season (CY 2010-2011), the composite millsite price of sugar per bag (Lkg) went up as much as Php 2,411.43/Lkg (40.20 euro) in December 2010, an increase of forty-nine percent from the previous crop season's composite price. According to SRA, the spike of domestic sugar prices was fueled by the escalation of world market prices and a delay in the start of milling season (Ang, 2011). However, for farms located in interior villages where roads were inaccessible due to occasional rains around that time, cutting and hauling of cane was not possible. This means that they had to wait until March, the start of dry season. By that time, sugar price per bag had reduced to Php 1,827.76 (30.46 euro) to Php 1,406.28 (23.43 euro) when the milling season ended in May.

The need to diversify has been raised time and again due to the fluctuating price of sugar which is dictated by the world market. At the end of the crop season 2010-2011 when sugar prices dropped dramatically, the SRA in Batangas warned the farmers that prices may not increase anymore in the coming crop years. This is in line with the reduction of tariff rates as the country fulfils its commitment to international trade agreements. While they recognize the need to lessen their dependence on sugarcane, farmers are on a standstill as far as diversifying their crop production at present for reason that there is no viable substitute yet to sugarcane. Secondly, they are willing to take the risks in sugarcane because they believe that the industry

remains viable for as long as the sugar central in Nasugbu is operating. And since the CADP has been reported to have invested in modern facilities and equipment recently, it only means that the sugar industry will continue to thrive in the district.

To address the threat of declining sugar prices, the DAR, SRA and planter's associations in the mill district are collaborating to introduce the block farming concept and strategy to the small-farmers which involves the clustering of contiguous individual farms into one single farm covering a minimum of thirty hectares. The block farm will be managed by one entity with the view that the needed scale to make it productive and viable will be attained. Technical and input support (fertilizer at zero-interest, cane points, etc.) will be provided by the governments agencies to lessen the cost of production. By increasing the farm yield and productivity, the measure aims to increase the farmer's income as well. KAMAHARI has been identified as one of the recipients of the said program provided it mobilizes its members who will voluntarily join the block farm.

6.3.2 Other On-farm Activities

Other on-farm sources of income are livestock-rearing (e.g. cattle, hogs and goat) and cultivation of other crops. Livestock-rearing is on a backyard scale usually between 1-4 heads for hogs and goat. Cattle-raising is usually by 'paiwi' system where the farmer raises a calf on the owner's behalf until it is ready to be sold. Proceeds are divided equally by the owner of the calf and the farmer after deducting the cost of purchase of the calf. Livestock-raising is viewed as similar to a savings scheme where farmers can draw on in times of need. However, most of them have not been able to sustain the activity since no one is helping them in the farm anymore. Those with non-farm work such as regular employment have little time spent in the farm.

Meanwhile, other crops like vegetables, banana, mango, coconut, palay, and maize are grown in rolling or forested areas. Farmers opt to plant those crops instead of sugarcane for lack of financial and labour resources needed to clear and cultivate the area. Except for some who are able to sell banana and other fruits occasionally, these crops are mainly for domestic consumption. Those who live near the main roads can readily sell their bananas to traders or directly to the town's central market; otherwise, they just sell it to their neighbours.

One of the interviewees, Ka Jaime, an employee of KAMAHARI, plans to plant more banana, coconut and other fruits in the years to come. He projects that demand for this type of crops would increase as more projects in the town catering the tourists are expected to be built. He has been selling banana and other fruits grown from his farm and though income is minimal, it has contributed in augmenting his family's needs. He was one of the members of KAMAHARI who availed of free coconut seedlings accessed from the Philippine Coconut Authority (PCA) as part of the cooperative's effort to promote diversification of crops among its members.

6.3.3 Leasing out of Lands

Since the land was awarded to the farmers, there have been reports of farmer-beneficiaries selling their land, albeit unofficial. Understandably, farmers who sold their land will never admit it openly since selling within the ten-year period is prohibited by law. According to KAMAHARI officials, there is no known land-selling case among its members. In times of need, members resort to leasing their land for a period of time. Lease price of land varies depending on its location and other conditions.

Leasing out of land is not unique among sugarcane farmers in Nasugbu. According to APPC (2007), *arriendo* is widespread in sugarcane lands in other areas like Negros Occidental, the major sugarcane-producing province in the country. The ARBs as described in APPC report may have engaged in *arriendo* as a response to a production shock (e.g. typhoon) or a consumption shock (e.g. hospitalization expense). They may also be motivated by the need to continue schooling of their children, or to finance farm improvements.

With no savings or social security system, farmer-beneficiaries end up selling their livestock, leasing or pawning their land, and borrowing when faced with unforeseen events or emergency situation such as accident, illness or death by a household member, and even wedding expenses by the children as the case of one of the farmers interviewed in the study. Two members also shared that they borrowed from private money lenders that charge as much as 20% interest, on top of their loans from the cooperative.

This practice, if unabated, might result to the emergence of new crop of landless rural households because of the sale of 'rights' of agrarian land (Llanto and Ballesteros, 2003). The emergence of new breed of landowners was in fact becoming evident in other agrarian areas as ARBs pawned their lands to new land buyers (Crosby, 2008).

6.3.4 Role of Children in the farm

During the time of the first generation of farmer-beneficiaries, farmwork was relatively easier because their children helped them in the farm, thus cost was much lesser. According to them, life was much simpler since the children then had nothing much to do but work in the farm after school. These children, who now belong to the second-generation of farmer-beneficiaries, share a different experience with their own children though.

The current young generation has less interest to work in the farm. They can be requested to help in the farm occasionally but not in the same manner that their parents did. This leaves the parents with no choice but to hire labor, adding costs to the production. Nevertheless, hiring labor has become more common these days as most of the farmers have grown older, thus they don't have the agility to work in the farm anymore. But even for the middle-aged farmers, they say that hiring labor is necessary especially if the land is bigger than one hectare. But for one interviewee, Ka Boni, a 47 year-old farmer, prefers to hire labor to work on his one hectare farm because he doesn't want to exposure himself to health risks. He would rather hire labor, after all the money used to pay labor is loaned from KAMAHARI and is paid back after harvesting.

6.3.5 Summary

Evidence from fieldwork showed that the small-scale farmers depend largely on sugarcane as their source of income which is barely sufficient to provide for their needs. They engage on other activities like off-farm and seasonal non-farm work to augment their consumption needs especially during lean months but combined income is not enough to significantly improve their condition and even sustain the children's education. Households dependent on sugarcane and off-farm work can hardly afford to send their children to college.

Consequently, those with limited resources have limited capacity to absorb shock and as a coping mechanism, they lease out their land for a number of years, denying

them future returns from the land in exchange for some resources to meet their urgent needs. All farmers exhibit vulnerability to shock particularly that involves major hospitalization of a family member. Nonetheless, selling of land appears to be a non-option even for those have suffered major financial setback. Perhaps, the presence of a cooperative where they can access some support, however minimal, serves as a cushion from taking any drastic move such as selling of land during desperate times.

6.4 LIVELIHOOD OUTCOMES

Nearly two decades after the land was awarded to them, the living conditions of some farmer-beneficiaries have improved but for most of them, they think that nothing much has changed. It should be noted that only few households in the study have diversified livelihood portfolio. In fact, those who are relatively living a better life compared to before were those who have managed to work abroad or those who have at least reached college level, thus were able to find jobs with steady income. This only suggests that in order to secure their food and other needs, rural households maintain a diverse livelihood portfolio combining farming with off-farm wage work and a variety of non-farm income-earning activities as a strategy (Roa, 2007).

6.4.1 Discussion of Individual Cases

Outcome from Farm Expansion

To illustrate this is the case of Ka Bena, now age 76 and is one of the founders of KAMAHARI. Prior to the land reform program in 1993, Ka Bena, who finished junior year in college, was working as a government employee for four years. Afterwards, he worked in the Middle East for eleven years from 1980-1991. When he came back, he used his earnings to acquire a five-hectare agricultural land in Mindoro Oriental, an island province south of Batangas, where he grows palay with the help of a caretaker.

Through the land reform program in 1993, Ka Bena received three hectares of land from his father, the original tenant of the Roxas plantation. His income both from sugarcane and rice production were what put his five children to school. (The sixth child is physically handicapped). Had he depended on sugarcane alone, Ka Bena wouldn't have been able to send his children to college.

Outcome from Non-Farm Work

Another similar case is Aling Mhel's who received only half hectare of land from her father-in-law, in behalf of her husband who works as a military personnel since the law provides that qualified beneficiaries are only those who work directly in the farm. Mhel also works at the KMHR cooperative. The couple's salaries were the main source of household income. By managing their cash and loans from various sources (e.g. employer's benefits, cooperative, etc.), they were able to send their children to school, make house improvements and acquire a residential lot. As a whole, they view the children's education as the most-prized outcome of their labor and hardships.

Nevertheless, ARBs whose children have stable jobs (3 out of the 11 first generation of farmers) have managed to put some savings for retirement, improve their house, pay their loans and/or acquire new assets (e.g. vehicles). Interestingly, no one

among their children has plans to buy new farmland since no one has the time or interest to manage it anyway.

Less Asset Transfer to Children

As for the first and second generation of farmer-beneficiaries who have little education to begin with, life for them has not really improved much. While some of them have managed to send their children to high school which in itself is already a product of their hardships, they continue to feel the burden of supporting their family - this time their children's family. This clearly demonstrates that fewer parental resources mean lower investments in the children's education and other human capital assets (Quisumbing, 2006).

Most of the cases encountered from the interviews revealed that life becomes harder for the earlier generation of farmers when their children start to have a family and continue to stay with them. The burden of supporting the children's family is passed on to the (grand) parents, thus comparing their situation from before and now, nothing really has changed. In some instances, they had to sell whatever assets they have managed to acquire for instance livestock, or to ask for more loan from KAMAHARI to pay for the expenses of their children's wedding. The situation is even worse to those whose household members had suffered from illnesses or accidents that required hospitalization.

This is illustrated in the case of Ka Enteng who at the age of 75 years old, has no source of income after he leased out half of his .8 hectare of land for 7 years to pay for his medicines when he got sick. He gave the other half of his farm to his son who also leased out the land when the son needed money. Until the end of the lease period, the son derives his income as farm labor.

Fourteen years ago, his wife succumbed to breast cancer after five years of suffering during which he sold his livestock (cattle and carabao) and worked as a janitor to pay for her medicines. Earlier, when one of his four children died, he and his wife then took care of his deceased daughter's son. Now his grandson has a family of his own but is still dependent on him.

To pay for his medicines, Vicente asks the municipal office for assistance and also practically everybody around him – friends, relatives, and colleagues in KAMAHARI. Unfortunately in KAMAHARI, he's not qualified to avail of its loan programs because he has long over-due loans. His children are unable to support him because they too have no regular job. Many times he felt like crying when he thinks about his miserable condition. The only hope he has is that the lease period on his land will end after this crop year. He is hoping that he will be able to work on his farm, with the support of KAMAHARI, in next year's crop season.

Second-generation ARBs

For the second generation of farmer-beneficiaries, they still cannot determine the product or outcome of their labor as their children are still going to school. They are still in the middle of making ends meet so as to make sure that they can send their children, at least some if not all, to college. They say that they may not have savings at this point, but they know where their money is being spent, e.g. children's education, hospitalization of family members, financial assistance to relatives, household consumption, etc.

6.4.2 Livelihood Outcomes in relation to Farm Succession

As already emphasized in the previous sections of the report, the level of education is a determining factor in farm succession. Previous studies have indicated that the probability of farm succession by children diminishes as their educational level rises (Ochoa et.al., 2007; Rigg, 2006; Ballesteros & dela Cruz, 2006).

However, other factors cited in studies that can motivate the young generation to succeed in farming include size of land or farm assets (Mishra & El-Osta, 2008; Ochoa et.al, 2007) and presence of favourable agricultural policy (Mishra & El-Osta, 2008). If the farm is bigger, children may be motivated to join farming. However same study by Ochoa (2007) indicated that regardless of farm structure, the young generation's main preference is to find an occupation that provides higher income for their efforts.

As such, the presence of government agricultural policies that will increase the viability of the farm will likely encourage the young generation to enter farming, perhaps even regardless of their educational attainment.

6.4.3 Views on Farm Succession by the Households

Farm succession connotes a process whereby the farm operator prepares the potential successor from eventually taking-over the farm. The process, which may take many years, entails socialization of children into farming and involvement in farming decisions as they grow older (Taylor et.al, 1998). For the ARBs in this study, farm succession is viewed as the passing-on of the land or property to their children as they approach retirement and old age. Succession may take the form of dividing the land, or its corresponding benefits equally among the children.

As observed in this study, the farming households have no succession plan yet. Some have not even thought about it. As one ARB aptly puts it, "the size of the land is just too small to even think about how to transfer it". This explains their general attitude that "it's for the children to decide later". Whether the children continue farming or not is no longer their (parents) concern. As long as they have done what they could in sending the children to school, their 'mission' is already accomplished.

As for the second-generation ARB, transferring the land to their children is still far from their minds since they are still working directly on their farm. But they are aware as early as now that today's young generation, at least based from their observations, is not interested on farming. The young generation is not exposed to farming in the same way that their parents were. Secondly, their parents themselves prefer that they spend their time more on their studies than help in the farm; after all they can hire labor when they need help in the farm.

With the issuance of individual CLOAs and titles to the farmer-beneficiaries soon, farmers are free to decide what to do with their lands, not to mention that the ten-year prohibition under the law has been surpassed already. However, all farmers interviewed are certain that they will never sell the land passed on to them by their parents. Selling the land is farthest from the mind especially for the first generation of ARBs, and a handful of the second generation of ARBs, who actively joined mobilizations to rally behind their case against the former-landowner. All of them said that it's entirely up to their children now to decide what to do with the farm when they finally pass it on to their children.

The lack of succession planning may be explained by the fact that the parents' priority is for their children to have steady and viable source of income, which is not possible in farming given the small size of the land. As the land will eventually be passed on to a generation that has no interest, commitment or skills in farming, then it's most likely that the land awarded will not be used for farming in the long run. Either the land will be sold to landowners who want to consolidate farmlands or be divided as residential lots among the children. The latter is becoming the trend in many households.

6.4.4 Post-AR Issues and Challenges

As they finally secured their land ownership after the Supreme Court's decision to their favour, the farmers continue to face challenges that may influence their decisions on their livelihood strategies in the future.

6.4.4.1 Payment of Land Amortization and Real Property Tax

The farmers' jubilation for winning the land tenure case is accompanied by a reminder that it's time to pay land amortization to LBP. The ARBs stopped paying land amortization to the LBP when the land-owner filed a case to contest the coverage of Palico ARC from the land distribution program. But even prior to the filing of the case in 1998, some of the farmer-beneficiaries included in the Mother CLOA released between 1993 to 1995 reportedly failed to make initial payments due to insufficient income.

As per agreed value of the land back in 1993, each hectare is valued at P75,000 or 1250 euro payable in thirty years. As of research time, the LBP has not released any advisory or notice yet on whether the thirty year period starts in 1993 or at the time when the final decision on the land case was released. It is assumed that LBP's notice will coincide with the finalization of the survey to be conducted by DAR as admonished by the Supreme Court. The survey is a pre-requisite in the issuance of individual CLOAs to farmer-beneficiaries.

Farmer-beneficiaries who have barely enough from their current source of income expressed concern on their capacity to pay the land amortization as well as the real property tax to the local government. Nevertheless, they all assured that they will do their best to pay the amortization; after all it's now their duty to fulfill. But for ARBs like Ka Enteng and his son who leased out their land and with no other source of income except for farm labour, the financial obligation is an added burden.

6.4.4.2 Urbanization and Development Pressure

Classified as a tourist zone by virtue of PD 1520, the Municipality of Nasugbu is undergoing rapid change and growth. More development projects are expected to be built in the town in addition to the already existing tourism projects. Today, many prime beach properties have been converted to private residential beach resorts. New road infrastructures are being opened to make the town more accessible. All these developments are expected to increase the demand for land especially along or near the highway. As expected, the high price of land is viewed to add pressure to the farmers to sell their lands.

Still, farmers who were interviewed and are living near the highway vowed to never sell their land, having seen the outcome of those farmer-beneficiaries who sold their land before. According to them, the short-term term benefits are indeed attractive but in the long run their lives will turn out miserable. Another practical reason why they

think selling the land is unwise is because those who sell the land become victims of borrowings by relatives and neighbours who will most likely not pay the loan back. However, they expressed that other ARBs (not covered by the study) may not completely share their sentiments, particularly those in dire need of money.

6.4.4.3 Low sugar prices

Another issue that challenges the viability of farming is the nature of the sugar industry itself. Should the price of sugar go down or continue to dive in the coming years, farmers will be forced to explore other crops or possibly other uses of the land. But for now, they are optimistic that the industry will not head to extinction, at least not in the near future. Thus, they do not see the urgency yet to take major changes in their current farming system. However, they admitted that the inherent uncertainty of the industry drove them not to invest in production inputs for fear that they might not be able to recover at least their expenses if sugar prices drop.

On one hand, last crop year's high price motivated some farmers to invest on necessary production inputs while at the same time keeping their fingers crossed that the industry will fare well this coming cropping season.

VII. CONCLUSION AND RECOMMENDATIONS

This chapter addresses the main research question and also includes recommendations for future research and action by the farmer's cooperative that provides services to the ARBs.

7.1 ADDRESSING THE RESEARCH QUESTION

To what extent do human capital assets and livelihood strategies determine or influence plans or decisions on farm succession?

Human capital assets (or the education level which is the main focus of the study) determines or influences farm succession to the extent that the higher the human capital is, the higher probability for the young generation to veer away from farming as their occupation considering that it is not viable. Higher education (or skills) means more opportunities to engage in non-farm sector that offers better and more secure rewards for their hard work. Meanwhile, the less-educated or low-skilled young generation are most likely to succeed their parents in attending the land for lack of other option. However, there is the possibility that the effort will not be sustained as the young farmers may not have sufficient skills or resources to manage the farm in the long run.

Similarly, livelihood strategies determine farm succession to the extent that a more diversified livelihood portfolio implies higher income and with higher income is an improved capacity by the household to make investments. In this study, households prefer to secure the children's education than to increase their current level of production inputs given the risks involved in sugarcane farming.

The farmers' access to land as the starting point enabled them to enhance their initial level of assets. But over time, the schooling attainment of household members played a significant role in improving living conditions in the recent period. While the trend is deemed progressive, the future of farming is uncertain as the younger generation is moving its attention away from farming. The presence of government policies that will increase the viability of the farming sector will help abate this trend.

7.2 IMPLICATIONS FOR FURTHER RESEARCH

Several studies on agrarian reform that had been conducted in the past which focused on the impact of the land distribution program in relation to poverty alleviation. Some of these studies had indicated the changing landownership structure as farmers, out of poverty, have been compelled to sell their lands but there has not been a study about succession patterns in farming communities.

This research served as an initial study on farm succession in the context of post-agrarian reform implementation. Opportunities for further research that were revealed from the results of the study may include issues relevant to gender differences, integration of social capital in the analysis and a more detailed analysis on the changes of livelihood activities and income portfolios for households with adult children. It would also be interesting to study the children's views and perceptions on farm succession. A more in-depth study of young farmers may as well be important to determine the support they need to develop their assets or resources towards enhancing food security.

7.3 RECOMMENDATIONS FOR KAMAHARI ABMPC

Lastly, the study concludes by presenting some recommendations in line with its objective of contributing to the enhancement of the cooperative's role in improving the conditions and ensuring food security of its farmer-members. The main recommendation is for the cooperative to segment or classify its farmer-members as those dependent on sugarcane and off-farm work from those who have non-farm work on top of their on-farm activities. It is important to create this segmentation as farmers who are dependent on sugarcane (with small size of land) are usually the members who need assistance the most. Cooperative services should prioritize this group. These services include its Farm Investment Scheme which provides options to farmers who are cash-strapped and on the brink of selling or pawning their lands.

An example of a service that the cooperative may consider for this group is to facilitate their enrolment to medical insurance by tapping government programs intended for indigent communities. This insurance is very helpful for households to tide them over when a family member is hospitalized.

Another segment of its farmer-members that the cooperative should start giving serious attention to is the group of young farmers or the children of the 'original' cooperative members. Normally, the adult children do not consider about joining the cooperative. They thought that they don't have to since their parents are already members of the cooperative. But encouraging them to join the cooperative will serve to develop their social capital as well as human capital through trainings and exposure to community activities. Becoming a member may serve as a training ground for them as they assume responsibility in working or managing their parent's farm.

The concept of block farming should also be pursued by the cooperative where small individual farm lands will be grouped and managed as one single farm to achieve economy of scale. Aside from improving productivity, this will free the farmers from working on their farm and enable them to engage in other work.

Finally, the cooperative may have to create mechanism or facility in coordination with DAR and LBP to ensure timely collection of payments for land amortization by the ARBs. The farmer-beneficiaries have to be made aware of their duty to pay the amortization and by playing a role between the ARBs and the bank, the cooperative will be able to address specific concerns of ARBs who face difficulty in meeting their financial obligations, and hopefully prevent them from entering into negotiations like selling or leasing out their land which in the end threatens their food security.

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APPENDIX 1. TOPIC LIST FOR THE SEMI-STRUCTURED INTERVIEW

1. *Individual characteristics*

- Age of household head and/or the direct farmer-beneficiary
- Years of schooling
- Size of awarded land and cultivated farm
- Location of farm
- Total number of years in farming
- Number of years of farming the: i) land awarded under CARP; and ii) sugarcane crop
- Family or group network; membership in associations or cooperatives
- Involvement in the land reform advocacy
- Household size: how does it affect economic condition
- Number of working age children
- Primary (livelihood) objective or motivation as household head

2. *Household Characteristics*

- Years of schooling or educational attainment by household members/children
- Children currently helping in farm cultivation
- Children currently working outside: type of work
- Role of parents in motivating children to work in the farm, or not to work in the farm
- Did you encourage your children to work in the farm? Why?

3. *Livelihood Strategies (Before and After)*

- Type or nature of on-farm activities
- Type or nature of off-farm activities
- Type or nature of non-farm activities
- Problems encountered
- Reasons or motivations for selecting such activities
- Source of credit or financing for each activity
- Source of labor in each type of activities
- Main source of income
- Recent trends in sugarcane farming (and other on-farm activities)

4. *Livelihood Outcome (Before and After)*

- Changes in household income over the years (increasing or decreasing)
- Major improvements in the household over the years: income, children education, housing, health, savings, etc.
- Type of household investments
- Source of investments

- Changes in utilization of land (awarded land)
- Interests, reasons and motivations for the changes in land utilization (determining factors)

5. *Farm Succession Issues*

- Current utilization of awarded land
- Planned utilization of awarded land (future)
- Role and interest of household members in the current and future utilization of the awarded land
- Future plan for the family/household

APPENDIX 2. THE CASE OF KA RADING

Now seventy years old, Ka Rading embodies contentment in life with all of his eight children have stable jobs and able to support him and his wife in their retirement age. Having finished only elementary education and completely dependent from the income of his 2-hectare farm which was assigned to him by his father even before the land reform program, Ka Rading's success story is rather an exemption.

Ka Rading grew up helping his father in sugarcane cultivation who works as a tenant of the Roxas plantation who was awarded 3 hectares by his land-owner. The farm was then allocated to three of the five children since the other two children had jobs at CADP. Ka Rading got the biggest share of two hectares since he was the eldest and he was the one helping his father until it was transferred to him in 1988, with the consent of all the siblings. The arrangement was made in writing.

While working on the farm left to him by his father, Ka Rading also worked in the Roxas plantation as a tenant from 1988 to 1993. His income from the plantation was used to support his children's education while income from the farm was to provide for the daily household needs. As a tenant of the plantation, everything was almost provided by the landowner – from farm inputs, to the children's education, hospitalization, etc. Net income was equally shared by the landowner and tenant. When the plantation was covered by the land reform program in 1993, Ka Rading only had his income from the 2-hectare farm to depend on.

Knowing that his dependence on the land-owner had ceased, Ka Rading realized that he needed to gain access of government services or programs available to farmer-beneficiaries like him. He was one of the core leaders who were instrumental in the formation of a cooperative of farmer-beneficiaries called the KAMAHARI Agri-based Multi-Purpose Cooperative, under the auspices of the DAR. Cooperatives in agrarian reform communities being formed by DAR served as conduit of support services for the farmer-beneficiaries. One such support service is the provision of credit facility for the farmer's sugarcane production by the Land Bank of the Philippines (LBP).

KAMAHARI suffered a slump in its operations from 1997 to 1998 because of mismanagement but was able to recover as it was supported by an NGO starting 1999. Its credit line was reopened and gradually over the years, its credit support to members was broadened to include non-sugarcane economic activities. According to Ka Rading, he practically availed all, if not most of the services made available by KAMAHARI to its members – from the sugarcane production loan, cattle-raising project, and other regular credit facilities. Ka Rading made sure to pay his loans so as to qualify him to borrow again or more. This was Ka Rading's strategy to make ends meet and provide for his children's education.

Just like what most, if not all, borrowers of KAMAHARI's production loan do, Ka Rading would use some of the money for household needs especially during the lean months. The production facility from LBP allocates certain amount to each borrower for each activity in sugarcane production per hectare. These activities are clearing, land preparation, planting (cane points) fertilizer application, weeding, cutting, hauling/harvesting. Loan release for each activity is timed according to the schedule. But not all of the borrowed amount is spent for its intended use, out of necessity by the farmers especially during lean months.

Ka Rading attributed the credit support from KAMAHARI as very helpful in meeting his household's financial needs since sugarcane was his only source of income. He also made use of his contacts to avail of our support services available to KAMAHARI such as scholarships for his children, and water pump at a lower cost. Having obtained the water pump enabled him to plant other crops such as banana, mango, and lemon. Income from these crops, albeit minimal, supported other daily needs.

He availed of livestock-raising projects made available by the Sugar Industry Foundation Inc. (SIFI) and even enrolled his farm in the model farm program by the Mill District Development Foundation Inc. (MDDFI) which provided all the production inputs in exchange for 100 tons of sugarcane.

All years of hardwork by Ka Rading have paid off now that his children have finished education with stable jobs. From the onset, Ka Rading wanted his children to finish their education so they don't have to experience what he experienced. An aspiration that has finally come true.