CHAPTER III

PROFILE OF STUDY AREA AND ANGKOR KASEKAM ROUNGREUNG CO. LTD CASE STUDY

This chapter details a profile of the study area in Kampong Speu province, and *Angkor Kasekam Roungreung* Company (AKR) as a case study. Kampong Speu was selected as the target study area because AKR contracts with farmers in 5 districts in this province, namely: Kong Pisei, Basedth, Samrorng Tong, Phnom Sruoch, and Oudong (AKR, 2005). AKR has been established for almost 10 years, and its main business is organic rice processing and export. AKR works with more than 30,000 contract farmers, and is the only company in Cambodia that has a formal rice contract farming agreement with the government to export organic rice (Hang Chuon Naron, 2008). As such, AKR is a perfect company to study to understand the context and practice of organic rice contract farming in Cambodia and its impact on contract farmers' livelihood.

3.1. Overview of Kampong Speu province

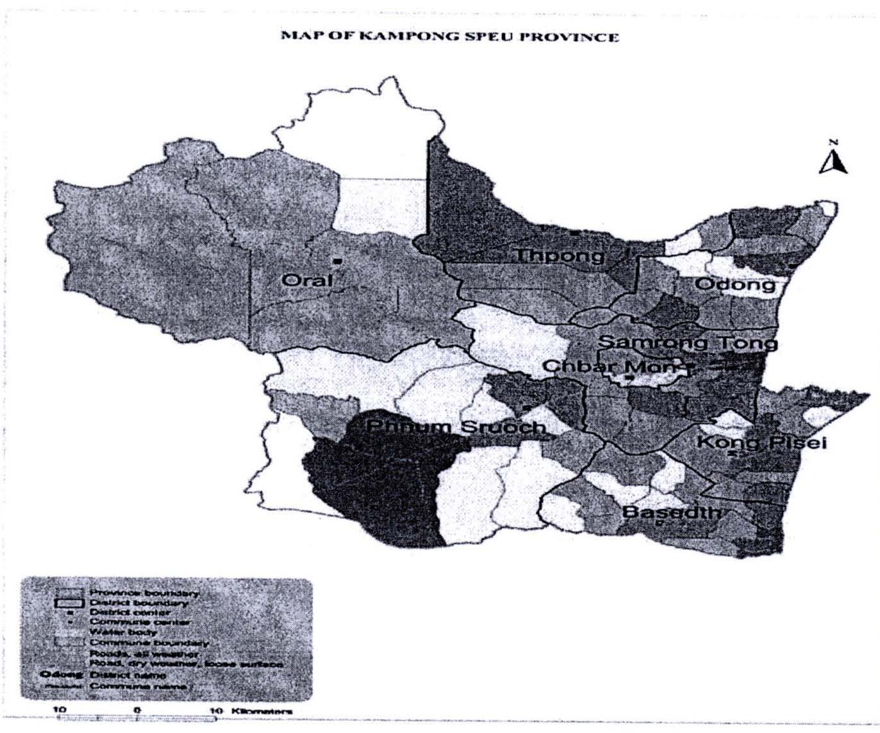
Speu is the Khmer word for star fruit, although Kampong Speu province is actually famous for its palm sugar and wine. Kampong Speu is located 40 kilometers (km) to the west of Phnom Penh and can be reached within an hour by motor bike from Phnom Penh. It borders with Kampong Chhnang and Pursat to the North, Phnom Penh to the East, Kampot and Takeo to the South and Koh Kong to the West. It is located along the main transport corridor between Phnom Penh, the country's capital, and Sihanoukville, Cambodia's only deep sea port.

With a large area of paddy fields in the east in lowlands and in the upland forested areas in the west, Kampong Speu is a province with abundant land suitable for both agricultural production and industry (United States Agency for International Development [USAID], 2008). Kampong Speu's total land area is about 7,017 km^2

and it is classified as a rural province. Its economy depends on rice farming, fruit cropping and fisheries, especially the local economies of rural households that depend on agriculture and its related sub-sectors. The main commercial commodities produced in this province are rice, palm sugar, and wine. It also produces mangoes, watermelon, cassava and cashew nuts. In the fishery sector, the province produces fish and shrimp for local consumption and the export market. Kampong Speu is also famous for its beef soup since many villagers breed cows.

Based on general population census in 2008, the total population in Kampong Speu is 716,517 person, consisting of 347,594 males (48%) and 368,923 females (52%) (National Institute of Statistics [NIS], 2008). That women make up the majority of the population may be a reflection of Cambodia's turbulent past; many of them are widows or female-headed household who live below the poverty line with limited access to basic health, education, and social services (European Commission for Humanitarian Aid Office [ECHO], 2002). The people of Kampong Speu live in 8 districts, composed of 87 communes and 1.358 villages (see Map 3.1).

Map 3.1. Kampong Speu Province



3.2. Overview of Tangkrouch Commune, Samrorng Tong District, Kampong Speu province

Tangkrouch commune is located in Samrorng Tong district, Kampong Speu province (see map 3.1). This commune is located 15 km from Kampong Speu city and can be reached in an hour by motorbike. This commune was selected as the study area because AKR works with many farmers in this commune. Field work was undertaken in three villages in Tangkrouch commune, namely: Kres Thom, Thum Phiem, and Chong Tnol. AKR Company has been working with farmers in these villages since 2004.[10] The characteristics of the three villages are detailed in table 3.1 below.

Tangkrouch commune has 21 villages with total of 1,733 households, the majority of which are Khmer people.[11] The total land area of the commune is 3,675 hectares (Ha), including 1,532 Ha of rice field and 1,447 Ha of forest land. Only 142 of the 1,733 households have officially issued land titles. Despite the fact that the majority of the villagers do not possess land titles, according to the commune chief, conflict over land seldom occurs in this commune.

Table 3.1. Characteristics of Village Study Area

Characteristic	Kres Thom	Thum Phiem	Chong Tnol
Number of households	74	70	40
Number of contract farmers (households)	More than 20	7	5
Average age of household head	48	51	40
Average education	Grade school	Grade school	Grade school
Average number of family members	6	6	7
Average area of agricultural land	4 Ha	3 Ha	3 Ha

[10] Interview with contract farmer 12, Thum Phiem village, July 14, 2010
[11] Interview with commune chief. Tangkrouch commune. July 15, 2010

From table 3.1, **Kres Thom** village has 74 households and more than 20 farmers are contract farmers. On the average, the head of household age is 48 with grade school education background, and an average of 6 family members. Some families has more than 8 family members, so they have enough labor to work their farms and also they also dare to cut into forest land to expand their rice field area, as well as to collect wood to make charcoal. The average paddy field area in Kres Thom village is 4 Ha per household, ranging between 2 and 5 Ha.

Thum Phiem village has 70 households, but only 7 farmers have entered into a contract farming agreement with AKR company. Farmers in this village have less land than Kres Thom village, with an average of 3 Ha per household. The villagers were not so keen to participate in contract farming this year because of the high requirements stipulated by the company.

Chong Tnol village has 40 households and only 5 households who have become contract farmers with AKR. The total agriculture land in this village is 68 ha. An interview with village head[12] revealed that the farmers did not sign a contract with the company this year because there had been little rain, so they were worry about the rice yield. Moreover, a limited number of farmers wanted to test the rice seed from the company first to determine whether is it good or bad.

3.2.1. Social and Economic Status in the case study villages

In order to categorize the general wealth status in three villages study area, I use observations of annual income, land holdings, fixed assets ownership, and household goods data to categorize the groups of villagers into 4 general categories,

[12] Interview with village head. Chong Tnol Village. July 15, 2010

namely: *neak mien* (people who have); *neak kuesom* (people with enough), *neak kroo* (poor folk) and *neak toal* (poorer than poor). In the villages surveyed[13]:

- *Neak mien* have houses on stilts with tiled roofs, made from cement and wood, have a lot of rooms, good toilets, larger plots of land, and greater quantities of medium and large livestock. They also have ploughing machines, vehicles, water pump machines, and household goods such as TVs, refrigerator, and generators. They produce enough rice for their own consumption, have a better income, and have a good education (at least grade 9). They have visions for the future and want to expand their businesses.
- *Neak kuesom* houses are small, thatched, made of wood and cement, tiled roofs, and some are ground dwelling rather than on stilts. They have not more than 2 ha of land and a small amount of cattle. They have vehicles, such as motor bikes, and some household goods, such as TVs and generators.
- *Neak kroo* houses are small, made from wood, ground dwelling, roofs from wood or leaves, cement floor, and lack of sanitation facility.
- *Neak toal* houses are made from bamboo with leaves for the roofing, soil floors, and they do not have kitchen and sanitation facilities. The very poor households usually do not have land, cattle, and assets. They rely on hired labor as a source of income and are prone to food insecurity.

The general challenges for households in the villages studied are the lack of piped water, no electricity, and poor sanitation infrastructure. Some houses do not have a proper bathroom and toilet. All households collect clean water for cooking and drinking from rainfall and keep it in large jars. Each house generally has more than three large jars to store water. Besides rainfall, they can also recover clean water from the groundwater using a water-pump. Only a limited number of villagers can access this water because not everybody have water pump at their houses and rely on water from stream or ponds. Therefore, sometimes water must be brought in from

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[13] Personal observation, 3 villages study area, July 12-17, 2010

neighboring villages. The villagers also lack access to electricity since there is no electricity transmission from Kampong Speu city to these villages. For lightning at night, the villagers often use generators (for less than 6 hours). Some better off household have TVs/ radio and water pump machine, but poorer household do not have these assets.[14]

The infrastructure in these villages, such as road, school, and health care facilities, is poor. The access roads to the villages are soil roads and are very difficult to pass in the rainy season. The villagers use ox-carts to transport their paddy rice, or seedlings and fertilizer to the rice fields. Wealthier households (*Neak mien*) have at least 2 cows to help them to cultivate the rice fields, while poorer households (*Neak kroo*) do not have any cattle. Beside ox-carts, the villagers also use motor bike for transportation if they own one.[15]

Education and health services for these villages are located quite far from the villages themselves. The nearest health center is in the *Wat* (Pagoda), but for serious illnesses the villagers must go to the hospital in Kampong Speu city or Phnom Penh. Children attend a primary school that is about 1.5 km away, traveling by bicycle or walking. Only a few children can attend high school because the school is 10 km away. The girls in these villages have a higher incidence of high school dropout than boys since the high school is located far away from the village and the parents worry for their safety.

Kres Thom, Thum Piem and Chong Tnol village of Tangkrouch commune receives very little aid from the government.[16] The government has helped the commune to build roads and some other communal infrastructure. There are also some non-government organizations (NGOs) working in the commune, including the

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[14] Personal observation, 3 villages study area, July 12-17, 2010
[15] Personal observation, 3 villages study area, July 12-17, 2010
[16] Interview with commune chief, Tangkrouch commune, July 15, 2010

Center for Education and Development of Agriculture in Cambodia (CEDAC), United Nations Children's Fund (UNICEF), Micro Finance Institutions (MFIs), and Srey Khmer. For example, CEDAC has helped establish a self-help group project in these villages, including MFIs that provides credit to farmers to start planting season or expand their business.

3.3. *Angkor Kasekam Roungreung* (AKR) Co. Ltd

The main rice contract farming companies in Cambodia are: *Angkor Kasekam Roungreung* Co. Ltd. (AKR); CEDAC Enterprise which work in 8 provinces (Kampong Cham, Svay Rieng, Prey Veng, Kampong Chhnang, Takeo, Kampot, Kampong Speu, and Sihanoukville); *Apiwat Bandanh Kasekar* (ABK) which work in Takeo and Prey Veng provinces; Center for Livestock and Agriculture Development (CELAGRID), work in 5 provinces: Takeo, Kandal, Kampong Speu, Kampong Cham, and Pursat; and *Khmer Kasekar Roungreung* (KKR) which operates in Kampong Thom.

Angkor Kasekam Roungreung Co. Ltd. (AKR), however, is the largest rice contract farming operation in Cambodia. AKR is a private firm established in 1999 by Cambodian shareholders. The company's headquarters and milling house are located on 15 hectares of land, about 3 km off National Road 4 in Ang Snuol village, Kandal province. Its main business is to export **non-certified organic** *Neang Malis* rice, a fragrant, long grain, high-quality rice variety from Cambodia to overseas markets at a premium over the competing Jasmine rice from Thailand (Agrifood and CamConsult, 2006; Cai, *et al.*, 2008). In order to compete effectively, AKR specializes in the production of organic *Neang Malis* rice and it enters into contractual agreements with farmers to produce this pure variety. AKR has sought to create a well-organized supply chain with a network or farmers and suppliers under contract farming schemes in several provinces of Cambodia (Kandal, Kampong Speu, Takeo, and Kampot) which were selected based on their agronomic conditions that are suitable for the cultivation of *Neang Malis* (Cai, *et al.*, 2008). Contract farmers grow *Neang Malis* rice in a traditional way without chemical pesticides or fertilizers. On average, they are able to harvest approximately 2 tons of rice per hectare, or up to 3 tons per hectare with improved irrigation systems (AKR, 2005).

3.3.1. AKR's Contract Farmers

According to Cai *et al*'s (2008) findings, at first AKR only worked with approximately 100 contracted farmers since the farmers did not trust the company's contract arrangement and the company's milling capacity was also low, until larger rice milling machines were acquired. However, based on interviews with villagers in this study, some farmers stated that they decided not to join AKR company at first because the rice seeds from the company were of poor quality at that time and they experienced delays in payments from the company, sometimes having to wait up to 2 days to receive payment from the company.[17] The total number of contract farmers has increased significantly from 27,346 in 2003 to 32,005 in 2004, but then reducing slightly in 29,403 in 2005 (see Table 3.2).

Table 3.2. Growth of AKR Contract Farming 2003-2005

Province	2003		2004		2005	
	Families	Percentages	Families	Percentages	Families	Percentages
Kampong Speu	22,668	82.89	27,122	84.74	25.181	83.4
Kampot	474	1.73	461	1.44	474	1.6
Kandal	1,520	5.56	1,666	5.21	2,752	9.1
Phnom Penh	169	0.62	259	0.81	1,604	5.3
Takeo	2,515	9.20	2,497	7.80	179	0.6
Total	27,346	100.00	32,005	100.00	30,190	100.00

Source: AKR, 2005.

[17] Interview with contract farmer 1, Kres Thom village, July 12, 2010

From the table above, more than 80% of the contracted farmers are located in Kampong Speu since it is located close to the AKR headquarter and rice mill, and the road infrastructure conditions are generally good (AKR, 2005).

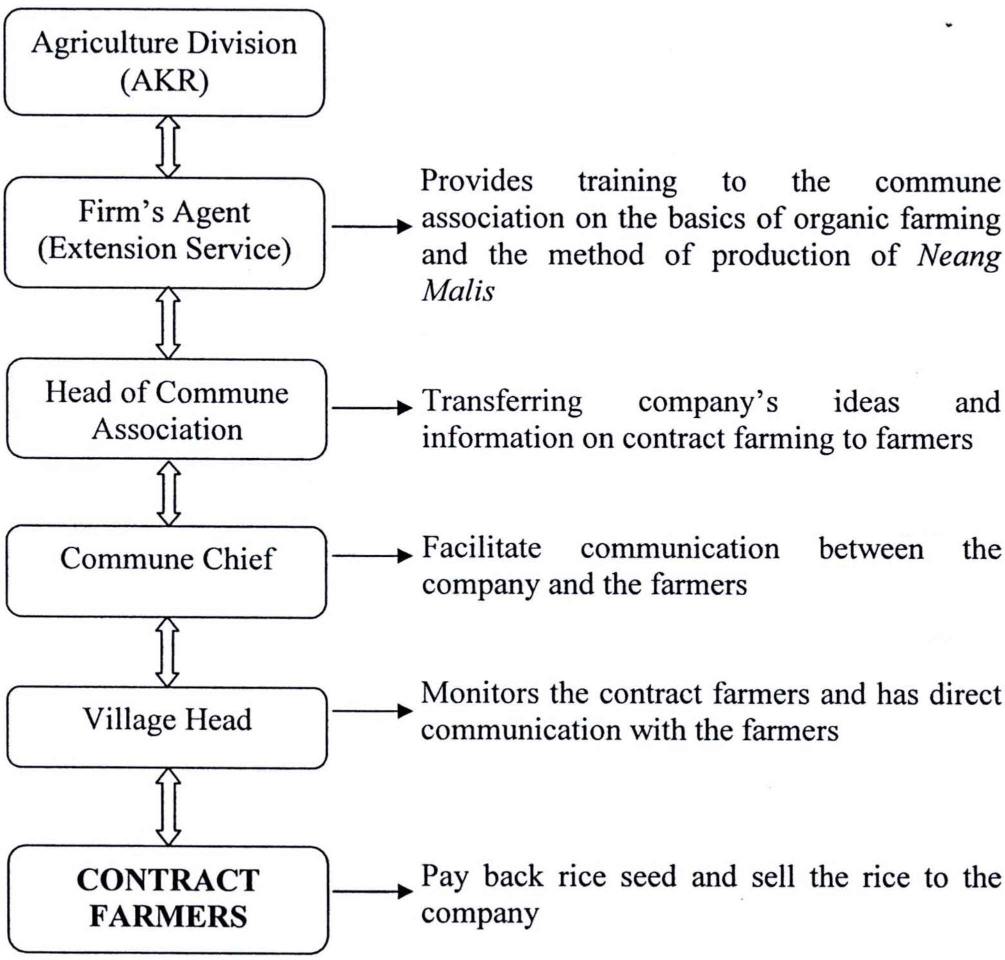
Based on Agrifood and CamConsult (2006) study on AKR, the growing number of contract farmers is in response to improved operations by the company, including the installation of a new milling machine and a better management system that has reduced payment delays and prepared better contract arrangements. The farmers have also responded to the contract price, now that they know that AKR's *Neang Malis* organic rice price is higher than the conventional rice price. In addition, farmer's knowledge about growing organic rice is also improving since the company has approached them and they got information from other sources including CEDAC, government officials, and the mass media.

3.3.2. Overview of AKR's Contract Farming System

Generally, before becoming contract farmers, farmers in Kampong Speu province plant conventional rice. They start to learn about contract farming when the company comes to their village and introduce them to their operation. During the visit, the company's staff explains about the contract farming system including the benefits for the farmers, such as how the company will provide rice seeds, a higher price, and technical training about how to grow the rice, and they also explain the terms and conditions of the contract itself. From the interview with contract farmers, if the farmers are interested to join the company's arrangement they become a contract farmer voluntarily.

As a first step to becoming a contract farmer for AKR, the farmer must apply to be a member of the commune association, which in turn requires approval by the association head. Once approval has been granted, the farmers are subject to strict contractual obligations that are detailed in the contract paper. The contract farmer can also sign directly with the company and then automatically becomes a member of the association. After signing or affixing their thumb print to the contract paper, each farmer enters into an agreement with AKR voluntarily and commits to closely follow the company's instructions and only grow the company's rice seed (see figure 3.1).[18]

Figure 3.1. AKR Contract Farming System Hierarchy



In general, most farmers do not only plant company rice seed, but also their own rice seed for domestic consumption.

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[18] Interview with contract farmer 2, Kres Thom village, July 12, 2010

3.3.3. AKR Commune Association

In order to enforce contracts and monitor the farming process, AKR establishes commune associations (Cai, *et al.*, 2008). The commune association is the locus where contracts are signed, seeds are distributed, basic technical advice is provided, and paddy is collected for AKR. Since they work at a lower hierarchical levels, to the commune association concentrates on issues of production, building trust, and contract enforcement. Each commune association consists of an association head, commune chief, village head, and village representatives who are members of the association (see figure 3.1).

Working in the farm-level base, the commune associations routinely observe the progress of the members and report every stage of production, including plowing, transplanting, water management, and harvesting to AKR (Cai, *et al.*, 2008). Besides monitoring the farmers' work, the association has several roles. This includes reporting to AKR any issues related to the production process, such as drought, flood, disease, insect and other significant issues that affect the production cycle. This is important because when the contract farmers default the contract and fail to repay the rice seed and sell rice to company due to the causes above, the company is less likely to punish the contract farmers.

The policy of the company is implemented through these associations and extension services are provided via its agents. According to Cai, *et al* (2008), at present these associations are tightly controlled by the company and have little bargaining power towards the company. From the interviews in this study, it is found that the company selects directly the representatives who become members of the commune association from the members of the commune council and make sure that they will able to work with company. This practice has given the association considerable influence and authority to enforce decisions. In return, the company provides profit sharing for the head and the association as an incentive, related to the amount of rice sold to the firm. Based on interview with village head, the company provides 60 Riel/ kg of output to the village head and 70 Riel/ kg to the commune chief. But, the village head also receives a penalty if a contract farmer (under their supervision) fails to sell their output to the company and defaults on the agreement. The village head must compensate AKR 1,000,000 Riel (US$ 250) per defaulting farmer.

Regarding this penalty, the village head selects the farmers in the village who want to join the contract. In order to reduce risk, the village head will choose farmers who have ability to fulfill company's requirements and little risk to default the contract. In this process, the social capital in term of trust between the village head and contract farmer is established. The contract farmers feel bad if their leader in the village gets into trouble with the company, so they will try their best to accomplish the contract requirements. On the other side, the village head will help his contract farmers if they have problem with the company and try to protect his villagers. This situation improves the mutual relation between the village head and farmers and discourages the contract farmer from defaulting on the contract. It seems that the company benefits from the existing local administrative and informal relationships as a form of "invisible capital" to enforce the contract agreement and monitoring the contract farmer at the farm level.

3.3.4. AKR Contract Arrangement

According to AKR's contract arrangement, the contracting begins when the company distributes the *Neang Malis* seeds on a credit basis during July and ends when they buy back the output during October-January of the following year.[19] After harvesting, the farmers are required to repay the credit seeds and transport the harvested paddy to the company's rice mills. The contract also states the amount of seeds that the farmer must return and the minimum guaranteed price above the

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[19] Interview with contract farmer 3, Kres Thom village, July 12, 2010

domestic rice market price, as well as the possible penalty to the farmer for non-performance of the contract. However, there is no clause in the contract on penalties for the company if it does not buy the rice at guaranteed price.

Interviews with the contract farmers revealed that the terms of the AKR contract schemes change year to year. The scheme in 2010 can be divided into two main points, requirement and punishment, as detailed below:

- **Requirement**

According to the AKR contract scheme in 2010, farmers are provided credit rice seed of 30 kg for 1 Ha of rice field, 60 kg for 2 Ha, or 90 kg for 3 Ha of rice fields (depending on how much area they commit to plant). After harvesting, the farmers are required to return the same weight of rice seeds to pay back this credit. In other words, for every 30 kg of seed distributed, they have to return 30 kg of rice seed back to AKR (see table 3.4). Then, as mention in the contract paper, the farmers also have to sell 1.5 ton of good quality rice to AKR, meaning that the rice is clean, dry enough, and of good grain. In exchange, the farmers are guaranteed a premium price for their paddy rice of 30 Riel higher than market price for each 1 kg of rice.[20]

Table 3.4. AKR Contract Farming Requirements in 2010

Rice seed credit	Required land	Rice seed which have to return	Contracted rice which have to sell	Guaranteed price
30 kg 60 kg 90 kg	1 Ha 2 Ha 3 Ha	30 kg 60 kg 90 kg	1.5 ton 3 ton 4.5 ton	30 Riel/ kg higher than market price

In addition, the company contributes 40,000 Riels (US$ 10)[21] to cover the transportation costs of each farmer who transports rice by themselves, but usually the

[20] The price of rice in Cambodia is 1.300 – 1.500 Riel per kg for organic rice (approximately)
[21] US$ 1 = 4,000 Riels

contract farmers in the village rent a truck and the company pays the cost. The company also maintains a private extension service which works with commune associations to promote proper farming techniques and to monitor supply.

This year's contract farming requirements are heavier and more difficult for members than previous years because they have to repay the rice seed and commit to sell to the company 1.5 tons of rice. In the previous contract schemes, the contract only mentioned that the farmer had to repay double the rice seed given to them on credit, but they we're not committed to sell to the company 1.5 tons of paddy rice. According to FGD[22] with farmers in Thum Phiem village, the company first approached the village in 2004, and the farmers started to join the company in 2006. 32 contract farmers signed contracts in 2006 and they planted *Neang Malis* rice seed. The contract stated that the company would provide the farmer with 25 kg of rice seed and the contract farmers should pay back to the company 25 kg of rice seed after harvest. However, that year there were problems with drought and disease and the contract farmers were unable to sell rice to company. As a penalty, the contract farmers were required to return to the company double the amount of rice seed (50 kg) credited.

In the second contract in 2007, there were 32 contract farmers too and they planted *Champa Meas* (Golden Champa) rice seed. The company provided rice seed again and the contract farmers were able to sell rice to company, but this time in return for the credited rice they were required to pay back to the company 3 times the originally credited rice seed (75 kg). If the contract farmer failed to sell their output to the company, the farmer was required to compensate AKR at the rate of 100 Riel/ kg of output, based on the volume harvested reported by village head, the association or the company who evaluated the quantity of output. In other words, the company did not stipulate how much rice was to be sold to the company, but they did expect all output to be sold to them.

During the third year of contract in 2010, only 7 families signed a contract with the company and they planted *Kong Neang Soy* rice seed. The significant reduction in the number of contract farmers in the village this year is because the villagers were afraid about the high requirements from the company, namely the commitment to sell at least 1.5 tons of rice per hectare planted. The farmers were also worried about the rice yield from their farm this year due to drought. In the earlier years of contract farming, whilst the farmers were required to sell rice to company, the company was more lenient with their requirements because the farmers suffered from natural disasters (drought and disease) and the farmers' crops had failed. Moreover, it was also the early years of the company working in the village and they were still testing the rice seeds.

- **Penalty**

The company sets a penalty for contract farmers in order to prevent contract default and maintain output quality. Yet, the contract in 2010 does not mention any punishment for company if they default on purchasing the rice or reject the output from the contract farmers.

A penalty to the contract farmers occurs if the rice does not meet the rice quality standard required, or if farmers default on the contract. If the farmers' rice does not meet the standards required by company, the company will deduct 10 percent of the total rice weight in calculating its payment to the farmer. To maintain the output quality, AKR expects that the rice should be dry enough (contain 5 percent moisture), a mature grain, and clean with "no strange matters". However, these specifications are not clearly defined in the contract. As a result, some contract farmers misunderstand the quality standards expected by AKR and are unhappy when they get penalty.[23] To test rice quality, the company uses machines that cannot be understood by the farmers. In effect, the quality of rice is judged solely by the

[22] Focus Group Discussion with village head, contract farmer and non-contract farmer, Thum Phiem village, July 16, 2010

company, which puts the farmers at a disadvantage and with virtually no bargaining power.

According to the 2010 contract, when contract farmers fail to sell their contracted rice as stated in the contract paper, they are required to pay to AKR US$7 per 1 kg of rice seed not returned. Furthermore, if contract farmer default the agreement then the company will exclude them from membership to the commune association and bars their membership in future. This heavy penalty for contract farmers is hindered farmers to join with contract farming.

3.4. Summary

Angkor Kasekam Roungreung (AKR) is the largest rice contract farming operation in Cambodia and its main business to export non-certified organic *Neang Malis* rice. The AKR Company works with contract farmers in 5 districts in Kampong Speu province. The majority of the company contract farmers come from this province because it has sandy soil which is suitable to plant *Neang Malis* rice seed and it is located near to the company rice milling. The social economic status of contract farmer in this study area shows that the villagers have unequal land distribution and most of them depend on rain fed cultivation. The education and health facility in these villages are poor and they lack of access to clean water and electricity.

In order to enforce contracts and monitor the farming process, AKR establishes commune associations which work in the farm level base. At present, these associations are tightly controlled by the company and have little bargaining power towards the company. Village head plays an important role in the commune association because he monitors the contract farmers and communicates directly with

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[23] Interview with contract farmer 4, Kres Thom village, July 12, 2010

the farmers. As a result, the company provides 60 Riel/ kg of output to the village head, but he also receives a penalty if a contract farmer (under their supervision) fails to sell their output to the company and defaults on the agreement. The penalty to village head discourage contract farmer to default the contracting and working hard to fulfill the company's requirement because they does want their village head get troubles with company. It can be concluded that the company benefits from the existing local administrative and informal relationships as a form of "invisible social capital" to enforce the contract agreement and monitoring the contract farmer at the farm level.