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# Situation on Livelihood Capital of Hired Khmer Households for Rice Production under Agricultural Mechanization in Thoi Lai District, Can Tho City

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# Situation on Livelihood Capital of Hired Khmer Households for Rice Production under Agricultural Mechanization in Thoi Lai District, Can Tho City

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**Abstract-** Agricultural mechanization is always an indispensable process in the modern agriculture. At the same time, the hired labor groups were marginalized. The case of the hired Khmer households in agriculture in Thoi Lai of Can Tho is a typical example for this study. Data of study was collected through interviews of households by Key informants, and group discussion. the interviews of Key Informants (KI), the interviews of the households and the group discussions. This study was analyzed on the livelihood and its outcomes of 101 hired Khmer households for rice production by the quality and quantity methods.

The study results showed that (1) The livelihood of the hired Khmer households has not been improved such as low education, plenty of children, more dependent labors, limited physical capital/property; (2) The participation of the household members in the local associations was limited; (3) Many households had less farmland for agricultural production; (4) The income of the households was still low and there was problem to access to the credit. Those households had the adaptable strategies through the livelihood change and livelihood diversification. However, the financial status of the hired Khmer households has reduced compared to the previous period. The income sources of the hired Khmer households were less diverse and their unstable employment.

Some solutions were suggested for improving the livelihood capital and creating the employment for the hired Khmer households in order to adapt with the limited status of the hired employment in agriculture.

## I. INTRODUCTION

The Mekong Delta (MD) is the biggest granary of Vietnam with more than 2.8 household millions for the farming and the hired employment in agriculture. Therefore, the agricultural mechanization has been developing in the agriculture of the region. Nevertheless, this event has the employment limited and has negatively impacted on the livelihood of the hired households in the rural area (Vo and Ho, 2012). In recent years, this problem has been the challenge in the provinces/cities of the country, especially in the Mekong

Delta, which having got getting the quite high rate of the hired labors in agriculture.

The hired labor in agriculture has been impacted on the process of mechanization in MD, the hired Khmers were paid more attention by most of the hired Khmer households in agriculture were the poor. Many previous studies showed that the property and the ability to approach on the capital of the poor Khmer households in MD were minimized. Thus, Khmer people got difficult to adapt with the shocks and the influences of the multiple factors such as marketing, policy, institution. Hence, they were hard to set up the appropriate livelihood strategies in the context as such. (Vo and Tran, 2011; Nguyen T.A and Nguyen, T.N, 2013; Vo and Ho, 2012; Dang, 2013; Pham and *et al*, 2008).

Thoi Lai district in Can Tho is also the place where many poor Khmers have lived from the hired labors in agriculture. In the previous period, the hired employment in the seasonal agriculture created the important opportunity in the livelihood of the poor Khmer labors. At present, this activity has become unstable due to many affects including the impact of the agricultural mechanization. (Tuyen, 2012). Just now, many Khmer households in Thoi Lai employ in agriculture as the hired labors. Therefore, they perhaps face the risks or the difficulty in the livelihood being an unavoidable thing.

Thus, evaluating the livelihood resources of the households to understand the livelihood strategies and the livelihood outcomes of the households is necessary. The comprehensive study helps recommending on the technology and the policy for improving the suitable livelihood strategies and minimizing the failure in the development of the livelihood households.

## II. STUDY OBJECTIVES

- Evaluating the livelihood resources of the hired Khmer households in the rice production.
- Analyzing the outcome of livelihood of the hired Khmer households.
- Suggesting some feasible solutions for improving the resources of livelihood to increase the income for the hired Khmer households.

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### III. STUDY METHODOLOGY

#### a) Analytical framework

The study based on the livelihood analysis (DFID, 1999) to understand the livelihood resources of the hired Khmers for setting the strategies of the poverty reduction in the long term. The livelihood resources of Khmers included the human, natural, physic, social and financial capitals.

#### b) Selection of Study site and Households

Can Tho city had 22.718 Khmers who lived in Co Do, Thoi Lai and O Mon districts, in which Thoi Lai had 4.158 Khmers; most Khmer households were poor, their livelihoods were mainly from doing farming and hiring in agriculture. (People's Committee of Can Tho city, 2013). This typical site of Thoi Lai was selected for the study.

There were 101 study samplings selected in the four villages of Thoi Lai. The hired Khmer households who had employed for rice production were selected in the study.

#### c) Data collection and Analysis

The primary data were collected by interviewing the KI, the hired Khmer households and the group discussions.

SPSS software 20.0 was applied for analysis. Data were analyzed by the methods of the descriptive

statistic, verification of Paired samples T-test and Independent T-test.

### IV. RESULTS AND DISCUSSIONS

#### a) The livelihood

##### i. Human capital

The education of the householder (i.e.household head) obtained the fourth grade of the twelfth grades. There are four people in the family in which there were two dependent labors. The results confirmed the real situation of Khmers in MD was low education, a household with high number of family members and high dependent labors, (Nguyen T.A and Nguyen, T.N, 2013). It is/was very difficult to create the employment and increase the income for households here

Labor source of the Khmer households has considerably changed five years ago. The development of the combine harvesters marginalized the the hired Khmer households for rice harvesting since 2010 (Tale 1), so the hired employment for the rice production (i.e. most hired labors in harvesting rice) until now has been shifted to the hired employment for non-farm activity in most Khmer households by strengthening mechanization in the agricultural sector.

**Table 1:** Verifying the number of labors in the Khmer household by Pair-Samples T-test

Kinds of labors	2010 (No.of labors)	2014 (No.of labors)	P-value
Rice farming	0.63	0.45	0.016
Hired employment in rice farming	2.07	0.95	0.000
Hired employment in agriculture	0.10	0.14	0.287
Hired employment in non-agriculture	0.26	1.07	0.000

The agricultural mechanization impacted on shifting the form of hired employment of the household members. In general, the human capital of the hired Khmer households still faces more difficulties.

##### ii. Physical capital

Concrete house is an important property for the Khmer households. About 21.8% of the total households had the concrete houses, 65.3% had the semi-concrete houses and 12.9% had the temporary houses. In addition, more than 46.5% of the total households, people said that their houses have been downgraded but they have not been enough money to repair. The rate of the households increasingly possessed televisions, fans, and cookers in five years ago but the life condition of Khmers still faces many difficulties at present. The tools in the hired employment are the necessary properties in the livelihood of the hired Khmer households. The main farm tools of the Khmer

households are hook, sprayer, small boat and bicycle in 2010. However, more hooks and small boats were replaced by bicycle, Honda and mobile phone in 2014 because many hired Khmer households demanded buying the means of transportation and the communication. The changes were interpreted that the hired employments of the hired Khmer households in rice harvest season were reduced too much due to the development of the combine harvesters. Therefore, the households had to buy those useful means for travelling and contacting with the various social actors to improve their incomes in the process of their livelihood changes to adapt with development of mechanization in MD (Table 2).

**Table 2:** Rate of the households possessing the tools and means for the hired employments

Tools and means	2010 (%)	2014 (%)
Hook	87.3	37.5
Small boat	33.3	15.9
Bycicle	17.5	71.6
Spayer	19.0	20.5
Medium boat	9.5	6.8
Honda	4.8	45.5
Mobile phone	1.6	65.9

### iii. Social capital

The social capitals were considered on the relationship of the social actors in the community and the participation of the households in the formal associations and informal groups. The formal associations in the study site were very diverse including the association of farmers, the women union, the association of elders, the Red Cross, etc. These associations importantly contributed in improving the household livelihood such as providing credits, necessary information, supporting production, etc. However, the fifty percents of Khmer households participated in the associations, most households had farmland. It meant that the Khmer households perhaps have not recognized the profit which was brought from the participation of the associations. This was also the disadvantage of their livelihoods.

In the informal groups in the study site, the groups of hired households played the important role in the decision making of the hired employments. Before the year of 2010, some informal groups of the hired Kinh households and the hired Khmer households were organized to do services in the rice harvest seasons in the study site. Each informal group was divided by many teams separately with the different works including the team for cutting and gathering rice, team for threshing rice and team for transporting rice from the rice fields to the farm gate. The employees worked very professional in the chain of rice harvest activities (Tuyen, 2012). Since 2010 the rice fields of the farmers have been gradually harvested by the combine harvesters by the model of agricultural mechanization in MD. At present, the informal groups of the hired labors for harvesting rice have reduced considerably due to the process of mechanization. However, these hired groups have still played the important role in the production process in the rural area. Study result showed that 27.7% of the hired Khmer households participated in the informal groups and the selection of the group members became strict. Therefore, the informal group leaders selected their relatives or their close neighbors. The relationship of the hired Khmer households were determined that more than a half of them have increased the social communication each other to create the opportunities for finding the hired employments in the community in the context of influencing the agricultural mechanization in the five

years ago. This matter reflected that the hired Khmer households adapted in their social relationship for improving their livelihoods.

### iv. Natural capital

Khmers' livelihoods in the MD mainly were based on farming. Hence, farmland was their important natural capital. However, the study results showed that 36.6% of the hired Khmer households possessed farmland with small farmland size of 0.26 hectares. Vo and Ho (2012) asserted that farmland played an important role in the life of the hired Khmer households, though farmland size was not large but it provided food enough for their families and reduced a part of expenditures in the households.

The hired households possessing farmland had the total of incomes was 1.350.900 VND/person/month while the hired households without farmland had the total of incomes were only 1.010.900 VND/person/month. Therefore, the income of the hired households possessing farmland was higher than that of the ones without farmland. Farmland helped the livelihood of the hired Khmer households be stable. Thus, the agricultural mechanization lost the employment opportunities of the hired Khmer households without farmland more than the case of the hired Khmer households having farmland.

About 15% of the hired Khmer households said that the scale of their farmland was reduced in five years ago which was caused by reducing their hired employment in agriculture leading to the low income and the difficult living condition. Hence, they had to sell or mortgage their farmland.

The agricultural mechanization development in the study site impacted indirectly on decreasing the farmland area of the hired Khmer households. These hired Khmer households faced more difficulties when their employments have become scarce in the rice harvest seasons by using the combine harvesters. Thus, the solutions shifting the works in the livelihoods of the hired Khmers are needed to improve their life.

### v. Financial capital

In the previous years, the hired Khmer households had the main income from harvesting rice, besides, they still had the other incomes such as production of rice, catching the natural fish and some hired employment in rice farming such as broadcasting rice, retransplanting rice and hand weeding, etc. At present, the hired Khmer households have to change the works to improve their incomes because most hired Khmer households have no more farmlands while the resource of aquaculture is scarce and the process of mechanization in rice farming is replacing most hired employments of the hired Khmer households. Therefore, they have changed the work and have diversified also the work in their livelihoods for improving their incomes. Now, the income from hired employment in agriculture of the hired Khmer households is considerably reducing,

meanwhile, the income from hired employment in non-agriculture of the hired Khmer households becomes the main income. The main income of the households having the farmland is from the agricultural production.

Though the source of incomes changed but the income of the hired Khmer households is not improved considerably at present. The income of the household obtained 1.135.468 VND/person/month which was two times lower than in MD and was 2.3 times lower than in Vietnam.

About 86% of the farm households asked for a loan in both the governmental sector and the private sector. In fact, the few of the hired Khmer households effectively used the loans due to the income of many hired Khmer households for rice farming reduced. Hence, most hired Khmer households asked for loans to spend for their expenditures, buying the farming tools, paying their debts, only spending a little of loan for production. Thus, they were hard to pay back the loan in a year round. In fact, about 50% of the hired Khmer households faced more difficulties to access the credit.

**Table 3:** Proportion of the hired Khmer households having opinion on changing their incomes in five years ago

Level of change	Proportion of opinion on income from hired employment in rice farming (%)	Proportion of opinion on total of incomes (%)
More reduction	63.4	13.9
Less reduction	28.7	31.7
No change	3.0	30.7
Less increase	5.0	22.8
More increase	0.0	1.0
<b>Total</b>	<b>100</b>	<b>100</b>

However, about 40% the hired Khmer households said that their employments were unstable occupying 40% while the seasonal employments comprised 50%. It showed though the households had the strategies for the livelihood diversification, the labor migration and the livelihood have changed but the livelihood of the hired Khmer households was still very unstable.

**c) Some solutions for improving the income of the hired Khmer households**

The short occupation training courses and the training courses of the medium term should be organized accordingly with the demands of the non-farm labors market in the study site. Besides, the occupation training centers should cooperate effectively and closely with the employers to create the employments for the labors after training. This solution will help the Khmer labors shifting gradually from the farm to the non-farm in the cases that the employments in the agriculture sector have reduced strongly by processing mechanization.

The living condition and housing condition of Khmer labors should be improved through the support programs of government, the non-government

**b) The livelihood outcomes**

The livelihood outcome was reflected clearly by the income of the household. The incomes of the hired Khmer households were decreased in five years ago. With 63.4% of the hired Khmer households asserted that the process of the agricultural mechanization reduced considerably the income from hired employments for the rice production in Thoi Lai district (Table 3).

With 45.6% of the hired Khmer households said that the income total of the household reduced due to the loss of the hired employment in rice production, particularly in the rice harvest seasons. Besides, about 23.8% of the hired Khmer households asserted that their incomes increased in processing the mechanization in agriculture. The results showed that the certain hired Khmer households had the strategies of the livelihood diversification and the shift of livelihood to obtain the incomes which could compensate for loss of hired employments in rice farming and in the rice harvesting by the combine harvesters (Table 3).

organizations, the charitable organizations and the sponsors.

The role of the formal associations in the study site should be promoted to enhance the ability of the community and strengthen the relationship of social actors in the community. Then, the connection among households will be created for helping together, sharing information of employments and also experiences in production.

The special support program of credit for the hired Khmer households should be organized to help them buy tools and invest production. Besides, the program for supporting, monitoring and evaluating should be established to ensure the use of loan of the households effectively.

## V. CONCLUSIONS

The livelihood capital of the hired Khmer households changed in five years ago. However, most changes did not bring the active trend on the five livelihood capitals of the households.

The human capital was weak such as low education, plenty of children and dependent family members.



The physic capital was shortage. The properties for living only demanded basically. The households shifted from possessing production tools to possessing production equipment.

- In the social capital, the participation of the household members in the local associations was limited. Nevertheless, Khmer households paid more attention on strengthening their relationships in community.
- The farmland was most important natural capital of Khmer households which reduced so much. Therefore, a lot of Khmer households had no more farmland for farming.
- The financial capital had not improved much. The income was low and the ability of accessing loan faced more problems.

The hired Khmer households adapted through changing the livelihoods, diversifying the livelihoods and strengthening some capital sources of livelihoods in the context of mechanization. However, the livelihood outcomes of the hired Khmer households had not improved actively yet in terms of income and living standard due to low incomes and unstable employments.

Based on the study findings, some feasible solutions were recommended following: (1) Being short training for occupation and introducing the employments for Khmer labors; (2) Improving the living condition or knowledge about life and the housing condition through the support programs of government, non-government and sponsor; (3) Enhancing the ability of the community and strengthening the relationship of the community through the formal organizations in local area; and (4) Supporting the loan and monitoring the effect of using the loan of the Khmer labors.

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