

GENDER ROLES IN AGRICULTURAL DIVERSIFICATION IN O MON AND CO DO DISTRICTS, CAN THO PROVINCE, MEKONG DELTA, SOUTH VIETNAM.

Truong Thi Ngoc Chi¹, Franz-Michael Rundquist², Duong Van Chin¹, and Magnus Jirstrom²

¹ Cuu Long Rice Research Institute (CLRRI)

¹Lund University, Sweden

ABSTRACT

This study on gender roles in agricultural and income diversification showed that in male-headed households male family members obtained higher education than female family members. The study also demonstrates that there are gender specific tasks or activities related to farm and non-farm enterprises. Both male and female family members are involved in cultivation. More male family members are involved in fishery and services such as transportation, while more female family members participated in husbandry, small trading and handicraft. Male members mostly did rice threshing, land preparation, and hauling, while female family members did hand weeding and rice gap filling, also on other farms as hired labors. In terms of wages men obtained higher wages than women. Men contributed more labor and were the main actors in rice production, fruit tree management and in fishery activities. Women contributed more labor and were the main actors in upland crop production and husbandry.

A larger number of male than female farmers were members of social organizations, with the exception of women's associations'. The majority of the women did not contact the extension worker or agricultural staff for technical information, as did the men. Women obtained technical information primarily from television, village loud speakers, radio, leaflets, experienced old men, male neighbors, relatives and other women in the village. Women's main problems in diversification were market price information, lack of capital, lack of and not sufficient knowledge of technology, lack of knowledge of rice varieties, limited land, lack of family members/labor, acid sulfate soil, difficulty in seeking for and hiring labor and theft. Women felt disadvantaged when they did not have information. Women also found difficulties in access to formal credit. They can, however, get loans fairly easy from the Women Credit Scheme and private lenders.

Diversification in agriculture made women feel that they had an increased workload, that they got less sleep, and had no time for leisure due to the bulk of the work that had to be performed. They felt tired and worn out with aching backs, legs and arms. Women also felt that their beauty faded away with an increasingly tanned skin. However, at the same time, women noted that the family nutritional and clothing situation was better after diversification.

Women hoped to have suitable jobs for middle-aged women and their daughters, and wanted their children to reach colleges or universities in their education. They wanted to learn technologies related to crop and animal production. Hence, extension programs should include women farmers in labor-saving technology training and dissemination.

INTRODUCTION AND THEORETICAL CONSIDERATIONS

Gender concerns the social relations and interrelations of differential positions between males and females in certain contexts. In reality, gender research does not isolate women, but rather look at the social relation between men and women. Gender research usually tries to assess roles and social positions (in a broad meaning) of women. In the development of society nowadays, based on a conception of gender, establishing social and gender equity with more a favorable evaluation of women's roles and positions in all spheres – in society, in the family, in the community – is rational and should be in line with the norms of social development regulations (Van, 2002). Particular points in regard of gender discourses concern the biological and social connotations of the concepts of sex and gender. The distinction is highlighted by the quote below. In the present paper the social and cultural aspects of the concept of gender are in focus.

“Females and males are born, but women and men are products of enculturation.” (Bonvillian 2007:4)

Incorporating gender in the analysis is part of the process of a change in thinking about, social relations, ways of working, and ways of looking at as well as behaving towards both men and women. The National Policy for the Sake of Women's Progress meant to increase the quality of life for women, effectively implement women's basic rights and enhancing women's roles in all aspects of life, policy, economy, culture and society (VIE 01-015-01, 2004). In fact, women are frequently seen as subordinated to men, and hence cannot have equal rights to men. Women are looked upon as having functions in maintaining the human race, and thus should involve themselves in so called reproductive work. Since women nowadays have to find work for survival, they bear a sense of inferiority in terms of physical constitution, perception and interest compared with men.

In earlier economic development programs and policies the gender angle was seldom considered, though both men and women have their own aspirations and needs to do well in their respective roles. In more recent approaches, however, it is

recognized that the gender concept should be included in poverty alleviation research in rural areas (Hanh and Anh, 2002). This is also underscored by a very recent and major World Bank publication on gender and agriculture. In the introductory sections of the publication it is stated:

“Gender issues must be addressed in development. First, gender dimension is crucial for economic reasons and from the efficiency point of view. This is especially true in the agriculture sector, where gender inequalities in access to and control over resources are persistent, undermining a sustainable and inclusive development of the sector. Second, equity or distributional issues are related to gender differences in outcomes. Gender differences, arising from the socially constructed relationship between men and women, affect the distribution of resources between them and cause many disparities in development outcomes. Third, gender roles and relations affect food security and household welfare, critical indicators of human development. Last, but not least, gender equality is a basic human right, one that has value in and of itself.” (World Bank, FAO & IFAD 2008:2).

On a more specific level Tac (2002) claims that the role of women is not given its due value even though they frequently have to do all house work and other burdensome activities for the household long term maintenance and survival. In the report of Vietnam Women Union (2003), it is stated that the average hours used per day for production and business by women is the same as men (4.9 and 5.0 hours respectively). However, the average hours used per day for household work by women is 2.5 times higher that of men in urban areas, and 2.3 times higher in rural areas. Thus, increased hours used by men for household work in urban and rural areas would improve the sharing of family burdens between men and women and increase equality.

With respect to gender aspects and agricultural and rural, development – the main concern of the present paper – the World Bank in its recent sourcebook on gender and agriculture points out a number of important and strategic aspects that should be considered.

“For each of these key areas [... Diversity – both in the types of crops grown and in the genetic makeup of specific crops ...] for intervention, the following points should be kept in mind:

Women and men, depending on their cultural and social backgrounds, perform different roles and have varying responsibilities in agriculture – in crop production as well as crop management. A better understanding of these differences will help to address the prevailing gender issues.

In making decisions about their livelihoods, men and women have different perceptions of what is important. Men and women base their decisions on information from different sources.

The unequal power relationships between rich and poor, men and women, must be understood to achieve equitable development and full participation of women.

Interventions must be developed based on a comprehensive understanding of the needs that women and men identify to improve their situations. The strategic interests of women and most disadvantaged groups need to be addressed to improve overall crop production and reduce poverty.” (World Bank, FAO & IFAD 2008:526).

More specifically, regarding to gender in agriculture and rural development in Vietnam Chi et al. (2002) and VIE 01-015-01 (2004) emphasize that a lack of gender equity in agricultural extension services cause difficulties for women to achieve good crop and animal production results. Agricultural diversification aims at increasing household incomes with different farm enterprises. At the same time, it may increase the role of women in various activities on their farms and in their households. The analysis of gender in farming households presented in this paper assist in these endeavors and can help to develop strategies for sustainable agricultural diversification. Against the theoretical background this paper aims to assess gender roles in agricultural diversification at household level and is based on individual interviews and discussions in women focus groups.

METHODS OF DATA COLLECTION AND ANALYSIS

The study constitutes a sub-study within the framework of a larger study on agricultural diversification in the Mekong Delta carried out in cooperation between researchers from Lund University, Sweden and Cuu Long Rice Research Institute, Can Tho, Vietnam. Quantitative data related to gender components was collected by direct interviewing and by using a semi-structured questionnaire. In all the survey consisted of 170 farm households that were interviewed in 2005 in the three villages of Thoi Long, Phuoc Thoi and Thoi Lai, Can Tho Province. The households were selected from the list of households used in the larger study on agricultural diversification, and was based on the list of households that participated in the 2005/2006 study on diversification¹.

Qualitative data related to women’s perspectives on agricultural diversification was collected through the method of focus group discussions, discussed by, for example, ASA (1997). The focus group discussions were conducted with women farmers who actively participated in most of the activities in farm production. The active women farmers joining the group discussions were identified selected and invited with the assistance of village and hamlet leaders. Each group comprised of 10-12 women farmers. The women in the focus group discussions were not necessarily from the list of households in the 2005/2006 survey. In order to get reliable and frank answers during the focus group discussions with women farmers, the leaders of the villages and hamlets (usually male leaders) were asked to not be present at the discussions.

The quantitative data on gender components in the survey was analyzed by using descriptive statistics in the forms of means, frequencies and

¹ The study forms part of larger study on agricultural diversification, a collaborative project between researchers from Lund University, Sweden and Cuu Long Rice Research Institute, Can Tho, Vietnam. The project entitled: *Agricultural Diversification in Vietnam – changes at the farm level in the Mekong and Red River Deltas* is a long-term project that is built on following a panel of respondents for a longer period. The main project is presently being reported parallel to the presentation of a number of sub-studies from the project.

percentages. The qualitative data from focus group discussion was integrated into the main text and used to enhance, clarify and enlighten the analysis.

RESULTS AND DISCUSSION

1. Gender analysis in diversification at household level

A clear difference in levels of education between male and female family members is noted. More male family members obtained higher education than female family members. More female family members were illiterate, or only reached primary school levels while more male members reached secondary and high school (Table 1). According to McDonald (1995), women in Vietnam have not yet reached the same level of literacy and education as men. In general, Vietnamese women have lower educational attainment than men and male school enrollment is higher for all age groups. This indicates that girls leave school earlier in order to contribute to the household economy and help support the family. In addition,

cultural biases also influence the decision to take girls out of school. Many parents, particularly in rural areas, believe that a few years of schooling are sufficient for girls. If a choice has to be made between a son or a daughter in leaving school, it seems that it is more likely to be a daughter that will have to leave school.

Regarding occupation and livelihood, more than 40% of the male and female family members make their living from crop cultivation. More female than male family members had occupation in husbandry and small trading. On the other hand, more male than female family members worked in services and fishery. Male and female family members also worked in handicraft, and as workers and hired labors. The family members without job were mostly students followed by aged and ill persons and infants. The rests were female family members working as housekeepers/homemakers and being unemployed (Table 2)

Table 1: Education of male and female family members' (N=170 farming households)

Education	Male		Female	
	No.	%	No.	%
Illiterate	7	2	24	6
Primary school (grade 1 - 5)	176	38	179	43
Secondary school (grade 1 - 9)	163	36	125	30
High school (grade 10 -12)	93	20	67	16
Above high school	-	-	1	<1
Children under six years old (not yet in school)	19	4	21	5
Total	458	100	417	100
Average number of years in school	6.7		5.6	

Table 2: Occupations of male and female family members

Occupation	Male		Female	
	No.	%	No.	%
<i>With job</i>				
Crop cultivation	231	46	181	41
Husbandry	9	2	34	8
Fishery	37	7	15	3
Handicraft	8	2	11	3
Small trading	14	3	32	7
Services	54	11	25	6
Worker	27	5	19	4

Occupation	Male		Female	
	No.	%	No.	%
Hired labor	12	2	2	<1
Bricklayer	6	1	-	-
<i>Without job</i>				
Student	64	13	56	13
Infant	13	3	10	2
Unemployed	2	a	3	1
Aged and ill persons	20	4	29	7
Housekeeper/Homemaker	-	-	22	5
Total	497	100	439	100

Most of the households surveyed in 2005 were male headed, and the household head managed the farms. The male headed and managed-farms made up 89% of all households (Table 3). Of the occupations for the male household members in the study, farming on their own farms dominated. Besides working on their own farms, male and female family members were also involved in other income generating activities. More male household members (78%) worked as hired labors in agriculture than female household members (22%). Male members were mostly involved in rice threshing, land preparation, and hauling while

female members were mostly involved in hand weeding and rice gap filling.

More female than male household members looked for earnings from commerce and handicraft. They also invested more time in these types of work than male household members. On the other hand, more male than female household members participated in transportation and service activities. This indicates that there are gender specific tasks, or activities, related to farm and non-farm enterprises (Table 3).

Table 3: Heads of households, male and female participation in income generating activities beside farming

Activity	Male	Female	Total
<i>Household head and managed farms</i>			
No. of persons	151	19	170
Percentage (%)	89	11	100
<i>Hired labors in agriculture</i>			
No. of persons	61	17	78
% of male and female participation	78	22	100
Time of male and female participation (days/year)	226	106	332
% of time of male and female participation	68	32	100
<i>Others</i>			
Commerce			
No. of persons	15	36	51
% of male and female participation	29	71	100
Time of male and female participation (days/year)	326	415	741
% of time of male and female participation	44	56	100
Handicraft			
No. of persons	5	14	19
% of male and female participation	26	74	100
Time of male and female participation (days/year)	378	362	740

Activity	Male	Female	Total
% of time of male and female participation	51	49	100
Transport			
No. of persons	13	2	15
% of male and female participation	87	13	100
Time of male and female participation (days/year)	290	240	530
% of time of male and female participation	55	45	100
Services			
No. of persons	38	33	71
% of male and female participation	54	46	100
Time of male and female participation (days/year)	335	410	745
% of time of male and female participation	45	55	100
Other			
No. of persons	27	6	33
% of male and female participation	82	18	100
Time of male and female participation (days/year)	254	284	538
% of time of male and female participation	47	53	100

Because the majority of households surveyed were male headed, labor inputs in rice production were also dominated by men. The inputs of female family labor in rice production were mostly secondary. The persons who initiated and directed rice production were male rather than female. In addition, most of the male household members were the main recipients of information on rice production. However, female household members largely controlled selling of rice products because they were the *purse keepers*. Similar trends and gendered division of labor were found in fruit and fishery production.

With respect to upland crop and animal production labor inputs were predominantly female, while male labor inputs were secondary. In the latter enterprises, female household members were the persons who mainly initiated work. The female members were also predominantly controlling

sales of the products. However, and at the same time, male members were the main recipients of information on upland crop production (Table 4b). Overall the information provided in Table 4a and 4b indicate a lack of gender equality in terms of labor input, initiating work, access to work related information and control of the selling of products from most farm enterprises.

This, again, underscore the persistence of gender biases in transferring and accessing technical information. According to Feldstein and Jiggins (1994), there are a number of factors that may impede learning from, and extending information to women – culturally prescribed gender roles in communication between men and women, lack of female field officers trained in agriculture, men's domination of the public domain and literacy levels due to lower female educational levels.

Table 4a: Contribution of male and female labor by main or secondary roles in farm production

Activity	Labor input					Who initiated the activity				
	No.			%		No.			%	
	Male	Female	Total	Male	Female	Male	Female	Total	Male	Female
Rice cultivation										
Main	112	2	114	98	2	128	4	132	97	3
Secondary	1	93	94	1	99	2	76	78	3	97
Equal	20	20	40	50	50	2	2	4	50	50
Total	133	115	248	54	46	132	82	214	62	38

Activity	Labor input					Who initiated the activity				
	No.			%		No.			%	
	Male	Female	Total	Male	Female	Male	Female	Total	Male	Female
Upland crop										
Main	33	-	33	100	-	42	-	42	100	-
Secondary	-	21	21	-	100	-	6	6	-	100
Equal	11	11	22	50	50	1	1	2	50	50
Total	44	32	76	58	42	43	7	50	86	14
Fruit tree										
Main	15	1	16	94	6	17	1	18	94	6
Secondary	1	10	11	9	91	-	6	6	-	100
Equal	2	2	4	50	50	-	-	-	-	-
Total	18	13	31	58	42	17	7	24	71	29
Fishery										
Main	44	3	47	94	6	46	3	49	94	6
Secondary	1	24	25	4	96	1	14	15	7	93
Equal	2	2	4	50	50	-	-	-	-	-
Total	47	29	76	62	38	47	17	64	73	27
Husbandry										
Main	5	50	55	9	91	20	29	49	41	59
Secondary	28	4	32	88	13	15	16	31	48	52
Equal	2	2	4	50	50	8	8	16	50	50
Total	35	56	91	38	62	43	53	96	45	55

Table 4b: Contribution of male and female labors by main or secondary roles in farm production

Activity	Who controls selling of product					Who receives information				
	No.			%		No.			%	
	Male	Female	Total	Male	Female	Male	Female	Total	Male	Female
Rice cultivation										
Main	114	126	240	48	53	126	6	132	95	5
Secondary	10	4	14	71	29	4	49	53	8	92
Equal	7	2	9	78	22	2	2	4	50	50
Total	131	132	263	50	50	132	57	189	70	30
Upland crop										
Main	-	44	44	-	100	44	-	44	100	-
Secondary	4	-	4	100	-	-	4	4	-	100
Equal	-	-	-	-	-	-	-	-	-	-
Total	4	44	48	8	92	44	4	48	92	8
Fruit tree										
Main	2	15	17	12	88	17	1	18	94	6
Secondary	4	1	5	80	20	-	3	3	-	100
Equal	-	-	-	-	-	-	-	-	-	-
Total	6	16	22	27	73	17	4	21	81	19
Fishery										
Main	13	33	46	28	72	42	3	45	93	7
Secondary	9	8	17	53	47	1	10	11	9	91

Activity	Who controls selling of product					Who receives information				
	No.			%		No.			%	
	Male	Female	Total	Male	Female	Male	Female	Total	Male	Female
Equal	3	3	6	50	50	2	2	4	50	50
Total	25	44	69	36	64	45	15	60	75	25
Husbandry										
Main	2	53	55	4	96	21	27	48	44	56
Secondary	19	1	20	95	5	16	13	29	55	45
Equal	2	2	4	50	50	9	9	18	50	50
Total	23	56	79	29	71	46	49	95	48	52

Regarding membership in organizations', more male farmers were members of IPM Clubs (Integrated Pest Management Club), Animal Husbandry Clubs, Fishery Clubs, Co-operatives, Farmers' Association, and Extension groups than female farmers. Female farmers were only members of the Women Association (Table 5). This indicates that men were more involved in the public sphere than women. It also reflects what Rosaldo (1976) and Kettel (1990) state, viz. that an assumed category of the nature of women is

their so-called femininity while for men it is their so called masculinity and aggressiveness. The characteristic tasks, manners, and responsibilities associated with men are different from those of women. In gender stratification, women in every culture are, in some ways, subordinated to men – men have authority over women. Also, women are portrayed as housewives and their workplace is the domestic or private sphere, while men, or husbands, are involved in the public sphere outside the home.

Table 5: Gender analysis of membership in organizations

Item	Male		Female	
	No	%	No	%
Member of IPM club	41	31	3	6
Member of animal husbandry club	10	7	-	-
Member of fishery club	7	5	-	-
Member of Co-operative	6	4	-	-
Member of Farmers' Association	57	43	-	-
Member of Women's Association	-	-	48	94
Member of Extension group	13	10	-	-
Total	134	100	51	100

2. Women's perspectives related to diversification

2.1. Access to services.

Very few women in the households with diversified farm enterprises did contact extension workers or agricultural staff to decide what crop to plant or animal to raise as they were too busy with farm and household chores. Men dominated in going out to seek information. Extension workers, or other agricultural staff, usually invited the men when they received directions on dissemination of agricultural technologies and information. Most of

the women were not giving any guidance to agriculturally related technology. Women felt that they were handicapped by not being invited by the different agricultural support staffs', while men were favored by being mostly invited. Moreover, a majority of the women did not know where to find extension workers and other agricultural staff. The women said that after the husband had been contacted by the above mentioned staff, they usually did not discuss the information with the wife unless she asked him directly.

Very few women contacted the technical staff, or extension agents, to ask for information related to pig raising. Those who did, asked about the variety of pig they should raise, about feeding and about the suitability of different industrial pig-fodder.

As most women did not contact extension workers or other agricultural staff, they searched for information on what crop to plant, which animal to raise, and how to plant or raise animals by watching television, reading leaflets, asking experienced old men, male neighbors or relatives. In addition, discussions among women during social events such as weddings, funerals, or memorials over deceased relatives, were important sources of information on agricultural and economic matters for women.

With respect to women's access to market information, the women interviewed said that information on market price is available daily from television, village loud speakers and the radio, and most of them heard it. However, some of the women who lived in the remote area of the village did not get the information from these sources because of poor connections and power deficiencies. Those women felt disadvantaged by not having clear market and price information.

At the same time women did not base their decisions on crops and animals to raise on the market information, as they felt they did not have sufficient capital and technical knowledge on crop or animal enterprises that they could associate with market price information. The women claimed that they like crop and animal enterprises with less capital inputs, but with high selling prices at harvest. However, women did not plant the crops or raise the animals which were reported to sell at high prices in the market. In their experience, to start planting or raising animals that were reported to give high prices at one time often led to low prices at the later harvest. This was because many farmers based their decisions on the same market information leading to surplus production the specific commodities. Such investment decision failures had caused large losses for many farmers in the past. Some women, for example, said that many people made losses from pig raising as they started to raise pigs when prices were high, and then, after having fed the pigs for 4 to 6 months,

prices fell at selling time. The capital investment for pig raising was large because of high investment costs, a piglet cost about 600,000 Vietnam Dong to buy, to which should be added the cost of fodder. In addition some women said that even when even the prices fell down they still continued to raise pigs and then, maybe, the prices would be better at selling time. Pursuing a farm enterprise, they said, was similar to taking or getting chances; they might face a risk of low down prices or be lucky with high prices. For example, one woman in Thoi Lai planted the vegetable called "rau nhuc"² when the market price was only 2,000 Vietnam Dong per kg, when she harvested the price was 4,000 Vietnam Dong per kg.

Women also, based on the information on market prices from different sources, attempted to sell their products on time in order to obtain good profits. Beside singularly depending on more official market information, they also used their own experience to sell products at good prices. In fact, they combined information from the mass media with their experiences in order to sell their products for as good profit as possible.

Women, who did not have access to the market and technology information, felt disadvantaged. They felt they lacked a right and were only subordinated to their husbands. Men have privileged access to market and technology information, as they go out to have meetings and also have a more direct contact with different technical staff. Though women thought that if they attended meetings they would get more information, they still feared scolding from their husband's if they could not convey to him all information obtained from the meetings.

² "Rau nhuc" called by farmers is actually "rau nguc" with the scientific name as *Neptunia oleracea* Lour. It is a floating, creeping, annual herb. Stem cylindrical, often purplish, branched; white spongy tissue develops at the internodes and pinnate aquatic roots from the nodes. Leaves alternate, long (5-8cm) petiolated, bipinnate. Flower heads yellow, ovoid, 1.5cm in diameter, on axillary peduncles of 4-20 cm long. Prefers canals, ponds, swamps. Young foliage and pods used for vegetables (Suk Ji Koo et al., 2005).

With regard to access to credit, women found it difficult to get access to formal credit (Table 6). It is not easy for them to get loans from the bank because they do not have their names on the certificates of land use/land right, where instead the husbands' names would appear. To get a loan they, therefore, need the husband's authority. Otherwise the husband signs the papers at the bank and receives the money, if he has not authorized the wife to get a loan. The staff from the bank examines the economic situation of households to know whether farmers, who want to get a loan, have rice fields, animal raising or not in order to establish the credit worthiness of the applicants and because the bank is afraid of not getting loans back due to too poor people. Many women who are not members of Women's Association (Table 5) cannot get loans from the Women Credit Scheme, while women who are members easily

can get loans from the Women Credit Scheme at 2.7% interest.

Getting loans from private money lenders was easy because of high interest rates. Women borrow money from their neighbors at 10% interest. In borrowing from neighbors, however, they must be perceived as reliable and credit worthy to the money lenders.

Borrowing money from relatives is not easy because most of these in the rural areas are poor. Some women can borrow money from relatives on a short-term basis – with duration from only a few days to one week without interest – though.

Finally, some women expressed that they expected the State to help poor women, and poor people in general, in up-grading their incomes and also in reducing the cost of electricity and water.

Table 6: Sources of women's credit

Source	Easiness	Why easy	Why difficult
Bank	Difficult	If the husband gives the woman authority with his signature and certified by the local government with red stamp	Bank staff examined whether households were having rice fields, animal raising or not. Too poor households are not allowed to borrow because the Bank is afraid that they cannot pay back. Women do not have their names on land use right certificates
Women's Credit Scheme	Easy	Member of Women's Association and are member of credit scheme. Each scheme comprises of 30 members. Each member contributes to the budget. One by one gets loan when the turn comes to her. The interest is 2.7%	Difficult due to not being member of the Women's Association and credit scheme
Neighbors	Easy	Have prestige and is regarded as trustworthy to the money lenders. Paying 10% interest	
Relatives	Difficult		The relatives are also poor. If a loan is received it has to be paid within a few days or one week

2.2. Labor distribution

Regarding family labor distribution in rice production, women generally had a higher labor input than men. Men did the heavy tasks, such as

spraying, fertilizer application, hauling, and hoeing. Women participated in most of the field tasks, such as hand weeding, field gap filling, spraying, fertilizer application, harvesting, drying

and sacking. In some families, the wife and husband worked together and shared equally in all tasks. Adult sons and daughters contributed their labors equally in rice production.

Women participated more than the husbands in vegetable, mungbean and soybean production. Men were more involved than the wives in fruit production.

Men to a larger extent than women were involved in fish and duck rearing. However, and on the other hand, more women than men did pig and chicken raising. Adult sons and daughters contributed their labors equally in pig raising.

Women were involved more than men in small trading. The men worked more as hired labor in rice hauling and as on-farm hired labor. The women worked as hired labor in hand weeding, gap filling in the rice fields. Adult sons and daughters frequently worked as non-farm labor in factories. Overall the daughters were mostly involved in non-farm activities such as tailoring, working in beauty parlors and beauty saloons.

In terms of wage differences, men got higher wages than women in carrying out the same task because of the perception of physically stronger men compared to women by the bosses who hire labor. The wage was 60,000 Dong for a man-day and 40,000 dong for a woman-day. With respect to other incomes, women kept the money after selling agricultural products. The women claimed that their husbands usually drink if they get the money and will over-spend.

2.3. Source of income

The income from rice was seen as the basic income of the family, even though in some households this income is lower than incomes from other sources. The farmers can be better off, or become richer depending on other income generating activities. However, income from rice was the most favored by both men and women as rice can be used for home consumption, and for selling. The latter observation is very much in line with the findings of Jirström and Rundquist (2004) who, in spite of strong and active attempts at agricultural diversification, notice the strong focus on rice incomes as the backbone of household incomes.

Income from animal raising (usually pig raising) was more advantageous than others because of time short time of investment (about 4 months) before the costs could be recovered. Income from animal raising is used for kitchen wares, household supplies, and for social events such as attending weddings, memorials over deceased relatives' and one-month, or one year, old baby celebration.

The income from small trading was preferred by women because they can have small amount of net-return daily.

The income from vegetable is small because they harvest to sell little by little daily, and have some income daily. Also, life cycles of vegetables are short, only one month.

Fish raising might be facing more risks than other enterprises and, hence, it was less preferred by women. Farmers sometimes gain, sometimes lose from fish rearing. Fish can be lost because thieves can catch and steal fish. Also, fish must be reared at large scale, in big ponds in order to make reasonable profits. Farmers with small scale fish rearing in small ponds will generally not gain very much.

Income from working as hired labor at non-peak farming seasons can contribute to the household income, but it less preferred because the work is hard and burdensome.

Women contributed to the household income through different income sources such as rice growing, vegetable and animal production. They also obtained incomes from small trading and through working as hired labor on other farms. The social status of women who had contribution to the household income increased. In this the social status of women increased quite a lot in the family, but also increased some in the larger community. Moreover, women's empowerment in terms of being decision makers increased when they contributed more to the household income. The husband and the people on the husband's side praised the women for their earnings and were looked upon with a higher regard. The women also felt proud of themselves when they were in contacted with their neighbors, who also respected them due to their hard working. The women felt

free, happy, and they could sleep nicely – they had earned by their labors, they held the money and felt in good health by their manual labor.

It is said that a happy family can be found if the women keep the money. Also, the women said – “[a] man keeping money will drink more, and

easily has a woman outside the home”. Further the women said: “*Dan ong so vo thi khon, Vo nat het hon tien cua con nguyen*” meaning “The man being in fear of his wife is wisdom; Money and assets are intact if husband being panic when wife browbeating.”

Table 7: Sources of income

(a): 1 is the most preferred

Source	Women involved	Ranking based on women's preference (a)	Why do women prefer such a rank?
Rice	✓	1	Rice is the basic income; rice can be used for home consumption and for selling.
Animal (pig, chicken, duck)	✓	2	Short time for retrieving money of both investments and net returns (4 months). Incomes from animals are used for kitchen wares, household suppliers, and for social events such as attending wedding, such as attending weddings, memorials over deceased relatives' and one-month, or one year, old baby celebration.
Small trading	✓	3	Can earn small amounts of money daily
Vegetables	✓	4	Short life cycle (1 month), can earn small amounts of money daily
Fish	Less involved	5	Sometimes gains sometimes losses from fish rearing. Thieves can catch the fish. Fish must be raised at a large scale in big ponds in order go generate significant profits. Small scale rearing in small ponds will generally not be profitable.
Work as hired labor at non-peak period of farming	✓	6	Working as hired labor is very hard and burdensome.

2.4. Diversification models observed by women

There were many models of diversification pursued by women farmers. Also, generally women have a positive attitude to diversification because their families, in most instances, get higher incomes from it. The most preferred models were those of Rice- Pig- Chicken/Duck or Rice plus small trading. According to the women, pigs, chickens and ducks are easy to raise, and small trading gives benefit daily. The second rank of women's preferences was Rice- upland crop (sesame or mungbean or soybean) - Pig- Chicken/duck. They said that pigs can be fed by the left-over food from the households beside purchased animal fodder and, thus, the profit is

high. The third ranks of women's preferences were Rice- Orchard- Pig- Fish or Rice. The lower ranking of diversification based on integrating fish production is because they have to go far to buy feed for the fish which takes time and is costly in terms of transportation. It is also labor demanding as the left-over food they get from Frozen Meat Companies need to be chopped if catfish and/or mud fish are raised. In addition, raising fish intensively generally demands more capital and a large land size if the farmers want to get good profits from the fish production. Finally, diversification models including vegetables were less preferred by women because incomes from vegetables are small.

Table 8: Diversification models

Model	Ranking by women's preference	Why?
Rice- Pig- Chicken/duck; Rice + Small trading	1	Pig, chicken and duck are easy to raise. Trading gives benefit daily.
Rice- sesame or mungbean or soybean - Pig- Chicken/duck	2	Pig and fish can be fed by the left-over food from the household beside bought feed, thus the benefit are high.
Rice- Orchard- Pig- Fish; Rice - fish	3	Have to go to buy feed for the fish, it takes time and cost of transportation. It also needs labors to chop the left-over food received from the frozen meet companies if catfish or mud-fish is raised. Raising fish need more capital and large land size for intensive production if farmers want to obtain large gain from fish.
Rice- Pig	4	
Rice + Vegetable- Fish	5	Vegetables for home consumption, daily income from vegetable is small.
Rice + Vegetable; Rice only	6	Rice is for food of the household and for sale.

2.5. Problems of diversification – women's perspectives

- Women found that there were several problems with diversification. The most important ones were lack of capital and technical support for women:
- Lack of capital – farmers' have to get loans and have to pay interest.
- Lack of technology or knowledge of technology – women did not attend the technical training and could work based on the experience from such training.
- Small land size.
- Acid sulfate soil – they have to apply phosphorous fertilizer to reduce problem of acid sulfate soil. Crops cannot develop well established root systems leading to slow growth, plant height is reduced, plants become stunt and yield is low. Upland crops and vegetables cannot grow well on this soil.
- Land at relatively low altitude – cannot rotate rice with upland crops such as soybean and mungbean because of drainage problems.
- Lack of family labor.
- Difficulties in seeking hired labor due to labor migration to cities.
- Market price – low market prices cause losses from farm production. If losses are encountered, the women reduced the scale of their production. For example, they raised 10 pigs if market prices were low, instead of 20 pigs as they used to raise before. Sesame and soybean were lost due to low prices and typhoon damages. Still, women plant these crops the following crop season because they do not want to see the land lying fallow.
- Weather – long periods of rain, strong winds, and typhoon damages reduced crop yields.
- Rice varieties – some rice varieties shatter grains near the time of harvest if there were thick fog, heavy rain and/or strong winds.
- Theft – women did not want to invest in fish rearing because they were afraid of theft. Theft of fish was carried out by using electricity.

Diversification is not always successful and failures do take place. Farmers have experienced

duck and pig diseases and deaths. The upland crops have wilted away or have developed very poorly due to bad weather. They have also faced low prices at the time of selling and have made losses. Some of farmers invested 60 million Vietnam Dong in pig raising and lost 4.5 million Dong due to low prices.

Even though some farmers failed in their diversification endeavors due to risks, several women still said that they would continue and try again by borrowing money or getting more formal loans. They did not want to give up their work as they were afraid of not getting any incomes if they did not continue to work. They still believed, and hoped, that prices would increase at the following harvests. If they failed in pig raising, they tried to improve the shelters and kept them very clean. They also tried to change to better sperm for insemination of their sows. In the latter they consulted the veterinary staff, and discussed with other farmers. If they failed in their upland crop production, they changed to other kinds of upland crops. If they failed in rice production due to diseases, they consulted the pesticide selling agents and other farmers.

2.6. Impacts of diversification on women's welfare

As discussed above, women found that there were several practical and economic problems with diversification. In addition the women also experienced that diversification affected dimensions of their situation that could be labeled a welfare dimension. Points raised with respect to the latter are presented below.

- Impact on time-use and time arrangements – diversification made women busier. And adult sons and daughters could not help because they frequently worked outside the home. They had to arrange to finish the household chores alongside farm enterprises. Women had to go to sleep late and wake up early. Women usually wake up at 4:00 am and go to sleep at 9:00 pm. Some of women even wake up at 3:00 am and go to sleep at 10:00 pm. The majority of women had no time for leisure. Their priority is to do farm work first and then household chores later.

Only some of them had time for any leisure – viz. watching television from 6:30 to 10:00 pm.

- Impact on health and beauty – women participated in farm work from morning to late afternoon. After this the women felt tired, and that they were being slack in doing any additional work. They had aching backs, legs and arms. The health was deteriorating and they felt sick after diversification. They worked hard and had not sufficient time for sleep, and felt the lack of sleep. Though they were very tired from the bulk of work, they pulled themselves together and tried to finish as because they felt they had to overcome for the sake of the family. Among other things, some women felt that the hard work made their beauty fade away as their skin was tanned due to sun exposure during farm work.
- Impact on nutritional status – the nutritional situation for the families was better after diversification. Before diversification, the diet consisted of fish (caught in fields and rivers), chicken and duck (raised at home), pork (bought from the market), vegetables planted on the farm. To this they drank coconut water, clean fresh water, and alcohol or beer at social occasions. After diversification the diet has been improved and more varied and they have eaten beef, fish, chicken, duck, pork, soup from pig stock (the pigs mostly bought from the market), vegetables (both planted on the farm and from the market); and they have drunk coconut water, fruit juice, clean fresh water, and beer at social occasions.
- Purchase of new clothes – after diversification, all category households (poor, medium and better-off households) have afforded to buy new clothes for the family members every year (Table 9).
- Impact on income and children's' education – income after diversification increased. Before diversification they were able to invest in education for their children to study up to grade 6. After diversification they have been able to invest in education for their children to study up to grade 12.

Table 9: Impact on new clothes

Category of household	Before diversification	After diversification
Poor	No new clothes/year	1-2 sets of new clothes for kid/year
Medium	1 set of new clothes/person/year	2 sets of new clothes/person/year
Better-off	2-3 sets of new clothes/person/year	3-6 sets of new clothes/person/year

2.7. *Women's skill in food processing*

Women can process food for their families and for special occasions from most of their farm products. In addition, many kinds of processed products from rice, sticky rice, sesame, jackfruit, durian, coconut, banana, beans, vegetables, fish, pork, chicken, and duck were used in food processing in the households. However, women felt they did not have sufficient skills for processing of different kinds of fruit. The majority of the women mainly prepared food for the family only because they were so busy.

However, they claim they can learn how to process food among the women in the community, and be able to cook for wedding parties in the villages. They also hoped and expected to learn skills at higher levels for processing of farm products.

2.8. *Women's expectations*

Women would like to have factories in the village and a larger availability of suitable jobs for middle-aged women and their daughters. They would like to have food processing companies near to the village in order to be able to sell their raw farm products directly to the factory without having to go through middle-men. They also indicated that they can buy processed food directly from these companies when they have visitors. At the same time they also expected that these factories and companies should not cause any pollution in their villages.

They expected their children to study at college or university levels. Presently, it is still difficult for them to do this because of the costs for transportation, room rent and tuition fees that are high.

Finally, women would like to learn technologies related to crop and animal production from the technically oriented extension workers because

they now only pick-up and learn technical skills from neighbors.

SUMMARY AND CONCLUSIONS

The households/farms with agricultural and income diversification (rice, animal, fish, small trading, upland crop, and off-farm and non-farm labors) were mostly male headed and male-managed. More male family members in the households obtained higher education than female family members. There existed clear gender specific tasks, or activities, related to farm and non-farm enterprises. More than 40% of the male and female family members made their living from crop cultivation. More male than female family members were active in fisheries and in service sectors, e.g. transportation. On the other hand, more female than male members participated in animal husbandry, small trading and handicraft. In working as hired labors on other farms, men were mostly occupied in rice threshing, land preparation, and hauling while women did hand weeding and rice gap filling. Men's wages were higher than the women's wages.

In male-headed households with men contributed more labor and were the main actors in rice production, fruit tree production and in fisheries. They were also the recipients of technical information related to these enterprises. Women contributed more labor and were the main actors in upland crop production (vegetables, mungbean and soybean) and in animal husbandry (mostly pigs and chickens).

More male than female farmers were members of the majority of social organizations, with the exception of Women's Association. Most women did not contact extension workers or agricultural staff in order to decide what crops to plant or animals to raise. Moreover, women were generally not given advice on relevant agricultural technologies by them. The sources of technical

information for women were mainly television, village loud speakers, radio, leaflets, experienced old men, male neighbors, relatives and other women.

A major problem for women concerned information on market prices. Women felt disadvantaged when they did not have technical information and information on market prices. Other problems related to diversification identified by women included lack of capital, limited availability to and lack of knowledge of technology, knowledge of different rice varieties, limited land, lack of family members, acid sulfate soils, difficulties in seeking hired labors and theft.

In cases of failures in diversification enterprises, women still continue to try and pursue the projects again by borrowing money or getting loans. Women found difficulties in accessing formal credit because their names did not appear on the certificates of land use rights. The names on these documents were generally the husbands' names. Still, they can get loans fairly easily from the Women Credit Scheme, at 2.7% interest if they are members of Women's Association.

Diversification made women busier, led to less sleep and no time for leisure due to the bulk of the work. They felt tired, and that they were being slack in doing any additional work. Their backs, legs and arms ached and they felt that their female beauty was fading away. Their skin was tanned from working in the fields. Still, the nutritional and clothing situation for the family was better after diversification.

Women hoped to have factories in the village and a larger availability of suitable jobs for middle-aged women and their daughters. They expected their children to study at college or in universities. They wanted to learn technologies related to crop and animal production. Hence, extension programs should include women farmers in labor-saving technology training and dissemination.

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Vai trò giới trong đa canh tại Ô Môn và Cờ Đỏ, Cần Thơ

Khảo sát vai trò của giới trong đa canh ở nông hộ với phần lớn là nam chủ hộ cho thấy trình độ học vấn của các thành viên nữ trong hộ gia đình thấp hơn nam giới. Có sự đặc thù công việc liên quan giới. Cả hai nam và nữ đều tham gia canh tác cây trồng. Nam tham gia nhiều hơn nữ trong việc nuôi cá và dịch vụ như vận chuyển, làm thuê nông nghiệp như suốt lúa, làm đất, khâu vá. Nữ tham gia nhiều hơn nam trong các công việc chăn nuôi heo gà, buôn bán nhỏ, và công việc thủ công, làm thuê nông nghiệp các việc nhổ cỏ và cấy dặm. Nam đóng vai trò chủ chốt trong sản xuất lúa, trồng cây ăn trái, nuôi cá và thả vịt chạy đồng. Nữ đóng vai trò chủ chốt trong sản xuất cây trồng cạn như rau, đậu xanh, đậu nành và chăn nuôi heo gà.

Nam tham gia nhiều hơn nữ trong các tổ chức xã hội của địa phương ngoại trừ hội phụ nữ. Phần lớn nữ không tiếp xúc với cán bộ khuyến nông hoặc cán bộ nông nghiệp để hỏi thông tin kỹ thuật như nam giới. Nữ tìm hiểu các thông tin từ ti-vi, loa phát thanh, radio, tài liệu bướm, các nam nông dân lớn tuổi, hàng xóm nam, bà con và phụ nữ khác. Các vấn đề khó khăn của nữ liên quan đa canh gồm có thông tin giá cả thị trường, thiếu vốn, thiếu hoặc không biết kỹ thuật, giống lúa, đất ít và đất nhiễm phèn, thiếu lao động gia đình, khó tìm lao động thuê, và trộm cắp. Nữ gặp khó khăn trong vay tiền ngân hàng vì không có tên trong giấy chứng nhận quyền sử dụng đất mà chỉ có tên của chồng. Họ vay tiền dễ dàng ở tổ tín dụng cho phụ nữ và tư nhân.

Đa canh làm cho nữ nông dân bận rộn hơn, ngủ ít, không có thời gian giải trí. Họ thấy uể oải, nhức mỏi lưng và chân tay. Nhan sắc phụ nữ giảm, da nám. Tuy nhiên có sự cải thiện cuộc sống của các thành viên trong gia đình về dinh dưỡng và quần áo tốt hơn sau khi áp dụng đa canh.

Phụ nữ mong muốn có việc làm phù hợp tại xã cho phụ nữ trung niên và con gái của họ. Họ mong muốn con cái học hành đến bậc cao đẳng hoặc đại học. Họ mong được học tập kỹ thuật trồng trọt và chăn nuôi. Vì vậy, các chương trình khuyến nông phổ biến về các kỹ thuật tiết kiệm lao động cần có ưu tiên nữ tham dự.