

HOUSEHOLDS' NET INCOMES AND FOOD CONSUMPTION IN SUBURBAN HANOI

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The research was conducted, among 240 households with various income levels, in Phu Xuyen and Chuong My districts of Hanoi City, from March to September 2009, aiming at documenting household food consumption in the context of present economic crisis. A question has been raised: how could the rural areas be against this economic crisis? Incomes of 82% of households are still mainly from agricultural production or from between agriculture and off-farm activities. There are three principal household groups in these zones: (1) pure agricultural production households, (2) agricultural production households with off-farm activities, monthly salary and (3) trade households. A wide income disparity exists, 7.9 times higher of the big trade households compared to the small farmers. Income's households with extra-agricultural activities are 2.3 times lower than the highest income households but these incomes are 3.5 times higher than the small agricultural households. The average food consumption is between 62.94kg and 82.89kg per capita per year. The expenditures of food consumption account for up to 65.23% of total incomes in the lowest income households. However, the self-products are still important, occupied from 18% to 28% in households. In order to rural sustainable development, it is necessary to supply the good scientific knowledge or good practical agricultural production to farmers.

Keywords: Mixed agricultural income, off-farm activities, food consumption, Hanoi suburban areas

1. INTRODUCTION

According to the General Statistics Office (GSO, 2008), Vietnam's population is 86.2 million, with the annual growth rate of about 1.22%. Recent years witnessed a remarkable economic growth, which then raised the demand of food consumptions and the expenditures of food products in the households. In the period of 1992 - 1993, the total expenditures of food consumption of the country reached about US\$ 3.4 billion. The expenditures of food consumption were doubled in 2002, reaching approximately US\$ 7.2 billion (GSO, 2002). The average food consumption a year in urban areas is about 2.2 million of Vietnam Dong (VND) per person and the rural areas is about VND 1.1 million (M. Figuié and N. Bricas, 2003). The role of food self-sufficiency in rural areas plays an important part by supplying food, vegetables and crops. In addition, a part of food from eggs and poultry meat is mainly from the self-sufficiency in households, in general. The self-sufficiency accounts for 36% in a family (Nguyen Duc Truyen, 2003).

A high proportion of daily expenditures for food consumption can be seen in the households with low and average incomes, accounting for 92% of total incomes in Hanoi (IPSARD and FUSAGx, 2008). The foods consumed are often pork, fish, poultry and sometimes beef, etc. Pork consumption per capita is about 29.7 kg per year of living pork (MARD, 2008). Therefore, the consumption habits of fresh meat are still common in households. However, consumers have difficulties concerning hygiene and food safety, labeling, products traceability, etc. (Phan Dang Thang, 2007). There are some researches on the incomes and expenditures of foods in household such as Vietnam living standards survey (VLSS) every two years. This research aims to reply a question on the

incomes and food consumption in household through an approach of identification of various income levels from agricultural production and off-farm activities and the expenditures of food consumption at household level in Hanoi rural areas in the context of present global economic crisis.

2. MATERIALS AND METHODS

2.1. Site selection

Phu Xuyen and Chuong My districts are selected in this research. Phu Xuyen district is situated in the South, which has the national highway No.1 connecting Hanoi with the Southern provinces; therefore, the district provides a large quantity of fish and poultry products; whereas Chuong My district, with the national highway No.6 connecting Hanoi with the Northwest region, supplies a large quantity of pork and industrial poultry products for Hanoi City.

The sampling households are surveyed by a variety of agricultural activities or off-farm incomes at different scales and by the diversity of small geographic areas in these districts. The surveyed communes in Phu Xuyen district include Phuc Tien, Dai Xuyen, Hoang Long and Hong Thai; and the surveyed communes in Chuong My district consist of Dong Phuong Yen, Truong Yen, Trung Hoa and Tot Dong. The research is carried out from March to October 2009, a period of most grave global economic crisis.

2.2. Research methodology

2.2.1. Data collection

The research began with the collection of official data concerning the household economic activities and household food consumption from the reports of the Ministry of Agriculture and Rural Development, General Statistics Office, etc.

Also, there are some direct interviews with local authorities such as Departments of Agriculture and Rural Development, Offices of Agriculture at the districts, and the leaders of communes or villages of households selected based on the diversification of household structure in these zones.

A diversification of household economic types was determined by some discussions with the key persons at the research fields. 30 households at least per a household type are interviewed. But the households without labour force are not interviewed. 240 households are investigated following a structured questionnaire through random stratified sampling methods and a variety of economic types of household to get to know the resources of household incomes and the food consumption level.

The interview of food consumption is confined to the foods mostly used every day such as eggs, beef, pork, chicken, duck, fish and tofu. Consumed foods quantity is interviewed by a table according to a day, a week and a month in a year. This quantity is also included the food for the holidays.

2.2.2. Data analysis

The collected information allows the characterization of the recent economic activities and the net income level, as well as the food consumption level and the quantity of daily, weekly or monthly food consumption.

The principal incomes in the households are calculated such as cropping, animal production at different scales and the incomes of off-farm activities such as hired labour, handicraft, transformation of agricultural products, transport services, small tractors, commerce and monthly

salary, etc. The survey data is preliminarily treated by the software of Excel 2003 and of Minitab 15.

Different distribution models were associated to the incomes and each consumed food type by logarithmic or square root according to the sale or purchase prices at household level.

The agricultural incomes are calculated by the method of value-add:

Net Values Add (VAN) = Brut Values Add (VAB) - Depreciation Costs (Amt) ; in there: VAB = Gross Products (GP) - Intermediate Costs (IC)

The incomes of off-farm activities is the net income by VND coming from hired labour, handicraft, transformation of agricultural products, monthly salary, etc. per household a year.

The consumed food quantity is the products that are purchased or self-products including in household by daily, monthly and a year.

Expenditures of food consumption are the quantity of all types of food by the carcass meat consumed in the household a daily, a weekly, a monthly are purchased in the market (with self-products including and with self-products none including in household).

3. RESULTS AND DISCUSSION

3.1. Household types

The net incomes of the households are really diversified and complicated. Most of the incomes of the households surveyed are still partly from agricultural production. This crop aims at satisfying the demand of self-consumption and at buying a small part. Therefore, the cash income comes from the extra-agricultural activities such as seasonal hired labours, less qualified workers, civil services, artisans, agricultural services of transport or of small tractors and traders at different scales, etc. There are from two to three economic activities in most surveyed households. The results of this analysis of 237 households at these districts are presented in Table 1.

Table 1. Household types by income resource

Household types		No of surveys (household)	Rate on all household in district [#] (%)	Surface (sao*/household)	
				Agriculture	Garden, Fishpond
Simple agricultural households	Small scale	35	21.00	5.06	1.00
	Commercial scale	32	3.20	20.59	21.13
Agriculture with extra- agricultural activities	Hired labour	30	40.80	6.80	4.30
	Artisans	42	15.00	6.80	3.10
	Service of transport	20	1.60	10.13	3.65
	Monthly salary	32	5.40	3.94	2.03
Commercial households	Small trader	23	8.50	5.37	4.43
	Big trader	23	4.50	2.81	1.00
Total		237	100.00	-	-

[#] According to statistical yearbook office (Phu Xuyen & Chuong My, 2007) and key persons;

* Sao: 1 sao is equal with 360m²

There are three different household types based on the importance level and the features of familial economic activities such as the simple agricultural production households, the agricultural and extra-agricultural activities and the traders at different scales.

+ **Simple agricultural production households:** the principal incomes are from vegetal production, animal production and fish production. The small production scale has an agricultural surface of 5 sao/household and the income of animal or fish production is really limited. The surface of fish pond is presented in few households with an average surface of 1 sao/household. According to local authorities, this group has a low and average economic level or at the poor threshold. The average age of householder is 46.2 years old, which is higher than other groups.

The commercial agricultural production scale is households with a large accumulation of rice-fields, with an average surface of 20 sao/household and there are 21 sao/household of fish-pond production surface. In addition, the animal production is at high commercial scale. These households are richer in communes. The average age of householder is 41.4 years old. There are 4.22 persons and 2.28 actives per household.

+ **Agricultural incomes with extra-agricultural activities:** under the pressure of work and cash for diversified demands in the household, most of household incomes also from one or several extra-agricultural activities. The most popular works are seasonal hired labour, carrying bricks, mason or artisans at Hoang Long and Dong Phuong Yen communes; whereas, few households who have an agricultural service of transport or of small tractors. Few households have income from aquatic products, with an average surface from 1 - 4.5 sao per household. However, the rice production brings low income, therefore, some households spent their agricultural surfaces for other purposes. There are from 4.50 to 4.63 persons and from 2.20 to 2.56 actives per household.

+ **Trade households:** the principal incomes of this group are from commercial activities such as selling animal aliments, agricultural inputs and general stores. Whereas small traders have also a mixed income from agricultural and off-farm activities, big traders leave their agricultural surface. There are from 4.39 to 4.57 persons and 2.30 actives per household. In addition, the big traders also have to employ 2.19 workers per household.

3.2. Sources of household incomes

The sources of income of surveyed households are very diverse, so most of them have a mixed income between the crops - animal production with the extra-agricultural activities. The incomes of most households is still met with grave difficulties caused by global economic crisis during the research period, particularly economic results of poultry and pig production households are very unsettled. The small agricultural production households just have income of VND 15,775 thousand per household per year, equivalent of VND 4,059 thousand per person per year. So, the crop production income accounts for 48.78%, from animal production 41.62%, and from fish pond only 9.60%. Whereas, the commercial agricultural production households have a income of VND 107,883 thousand per household per year, or VND 26,945 thousand per person per year (Table 2, Table 3). So, the crop production occupies 17.19%, animal production 35.20% and fish pond 47.60%. According to Vietnam living standards survey (VLSS, 2007), the monthly average income in whole country is VND 636 thousand per capita, in there, the monthly income in rural areas was VND 506 thousand per capita.

Table 2. Diversified income sources of household (VND 1.000/household/year)

Household types		Agriculture			Hired labor	Arti-san	Tractor service	Trader	Salary
		Crops	Animal	Fish					
Agriculture	Small	6,727	7,033	2,014	0	0	0	0	0
	Commer.	18,533	35,303	54,047	0	0	0	0	0
Agriculture with off-farm activities	Labor	9,691	18,543	8,373	15,954	0	0	0	0
	Artisan	8,298	16,258	14,440	0	12,590	0	0	0
	Service	12,781	13,072	5,250	0	2,160	25,640	0	0
	Salary	8,518	19,166	10,313	0	719	0	0	20,923
Commer. Households	Small	7,308	15,941	11,804	0	0	0	19,643	0
	Big	0	12,782	0	0	0	0	94,348	17,148

The crop production aims at food's self-sufficiency in every household but the extra-agricultural activities play an important role for the cash. There is why the economic crisis influenced greatly to national economy but in this research the rural areas are not greatly influenced. The annual stable income per household comes VND 59,638 thousands in the group who has a monthly salary. As a result, the crop production takes up from 15.73% to 22.49%, from 21.90% to 34.07% for animal production, and from 7.86% to 17.56% from fish pond. The incomes of extra-agricultural activities in this group occupies from 30.89% to 44.02% of total incomes per household per year.

Table 3. Average incomes per household and those per capita (VND 1.000)

Household types		VAN/year /person	VAN/month /person	VAN/month /household	VAN/year /household
Agricultural households	Small scale	4,059 ^c	338	1,315	15,775 ^c
	Commercial scale	26,945 ^a	2,245	8,990	107,883 ^a
Agriculture and off-farm activities	Hired labour	12,137 ^b	1,011	4,380	52,562 ^b
	Artisan	11,060 ^b	922	4,299	51,587 ^b
	Service of tractor	13,248 ^b	1,104	4,909	58,904 ^b
	Monthly salary	15,321 ^b	1,277	4,970	59,638 ^b
Commer. Households	Small trader	12,567 ^b	1,047	4,558	54,697 ^b
	Big trader	29,068 ^a	2,422	10,356	124,277 ^a

Statistical significant difference ($P < 0.05$) if the values which have different letters in a column

There are large fluctuations within the incomes among different household groups. Consequently, the small agricultural production households have a low income or a little higher than the national poverty threshold. The monthly income of this group is lowest, with only VND 338 thousand per capita. An income disparity is wide accounting for 7.9 times between the big trade households and the small farmers. These economic results are higher than economic results of VLSS 2006 (the monthly income of poorest households in whole country reached VND 184 thousand and of richest households reached VND 1,542 thousand per capita). The monthly income per capita in a commercial agricultural production household is about VND 2,245 thousand, or higher 6.6 times than a small agricultural household. The incomes of extra-agricultural households or small traders is about VND 1 million per capita per month. While the big traders get the highest income, up to VND

29,068 thousand per capita per year or VND 2,422 thousand per capita per month or 7.2 times higher than small farmers.

This result is the same with the coefficient in whole country. Comparison between 20% of richest households with 20% of poorest households in whole country, a wide income disparity was 8.4 times in 2006 and from 7.6 times in 1999 to 8.3 times in 2004 (VLSS, 2007). Thus, an inequality in income trends to increase between the households in the same region.

3.3. Consumer tastes and food consumption quantity

The principal foods usually consumed are pork, fish, tofu, eggs, poultry meat and sometimes beef, etc. Therefore, pork and poultry meat occupy an important position in almost households. The rate of beef only occupies 2.58%, to 35.66% of pork, 15.83% of chicken meat, 18.41% of duck meat and 27.53% of fish of the total meat consumed.

In fact, the consumption of beef and pork can increase according to the familial incomes. The food consumption of poor households is usually lower than that of rich households. The higher income households may often reduce the demand of poultry consumption, while average income households may often increase the poultry consumption. The self-sufficient level of poultry products is very important in almost households. Especially, the poultry are not usually purchased in many agricultural production households.

The rate of beef consumption of pure agricultural production households and farm-households with extra-agricultural activities such as artisan, seasonal hired labour, and small trader occupies only 1.4%, so that the pork consumption occupies between 32.55% and 38.69%, the chicken meat occupies between 11.89% and 19.35% and the fish consumption occupies from 26.93% to 32.65% (Table 4).

Table 4. Annual food consumption of household per year

Household types		Carcass meat (kg/household/year)						Eggs /year
		Beef	Pork	Chicken meat	Duck meat	Fish	Average total	
Agricultural households	Small scale	2.43 ^a	97.72 ^a	30.94 ^a	39.59 ^a	87.06	257.74 ^a	512.91
	Com. scale	4.60 ^a	96.98 ^a	49.27 ^a	58.46 ^a	90.29	299.60 ^a	387.31
Agriculture with off-farm activities	Hired labour	3.24 ^a	130.84 ^a	57.40 ^a	60.32 ^a	97.91	349.70 ^a	661.40
	Artisan	5.66 ^a	107.61 ^a	40.36 ^a	52.57 ^a	76.02	282.22 ^a	547.81
	Tractor	11.30 ^a	147.78 ^b	60.42 ^a	57.43 ^a	92.40	369.32 ^b	645.00
	Salary	8.39 ^a	111.76 ^a	59.90 ^a	49.10 ^a	86.09	315.25 ^a	635.88
Commer. households	Small scale	4.12 ^a	103.87 ^a	53.21 ^{ab}	61.66 ^{ab}	94.52	317.39 ^a	458.70
	Big scale	29.48 ^b	120.52 ^a	70.42 ^b	106.07 ^b	71.57	398.05 ^{ab}	819.13

Statistical significant difference (P<0.05) if the values which have different letters in a column

The big trade households and the households with a monthly salary or agricultural services consuming beef accounts for from 2.94% to 7.55%, from 30% to 39.65% for the pork, from 16.12% to 26.36% for the poultry meat and from 19.58% to 27.52% for the fish.

Table 5. Quantity of food consumption a year per capita per year

Household types		Carcass meat (kg/capita/year)						Eggs /year
		Beef	Pork	Chicken meat	Duck meat	Fish	Total	
Agricultural households	Small scale	0.64	24.18	7.64	9.91	21.82	64.19	126.98
	Commercial scale	1.09	23.28	10.04	14.65	22.49	74.35	91.82
Agriculture with off-farm activities	Hired labour	0.72	28.96	12.95	14.21	22.56	79.40	150.30
	Artisan	1.25	24.14	8.97	11.29	17.30	62.94	128.34
	Tractor service	2.59	32.49	13.95	12.93	20.94	82.89	143.62
	Monthly salary	2.25	25.19	14.04	12.09	21.63	75.20	166.49
Commer. households	Small trader	0.95	22.98	11.21	14.02	21.16	70.32	107.68
	Big trader	4.80	20.57	12.02	17.78	13.32	67.90	144.25

The food consumption of agricultural production households is lower than that of the other groups, with an average food per capita of 64.19kg for a year in comparison with 82.89kg per capita per year in the small tractor service households (Table 5).

Average pork consumption is from 20.57kg per capita a year in the big traders to 32.49kg per capita in the households with extra-agricultural activities. Therefore, beef consumption is higher in the big trade households, up 4.80kg per capita a year. The beef consumption is lower or insignificant in the pure agricultural households or associating with extra-agricultural activities. In addition, eggs consumption largely contributes to the familial repast. Egg average consumption is from 91.82 to 166.49 per capita per year. But, egg and poultry meat consumption distributes an important self-sufficient role of households. The food consumption in this research is more some times than the whole country in 2006. Average pork consumption in whole country is 29.7 kg of living pork; 4.5 kg of poultry meat; 1.89 kg of beef and 60 eggs per capita a year (MARD, 2008). According to the research of IPSRAD and FUSAGx (2008), average food consumption per capita a year in Hanoi urban area is 23.2 kg of pork meat, 16.2 kg of fish, 15.8 kg of chicken meat and 8.54 kg of beef meat (not calculate for consumption in the holidays).

3.4. Knowledge and concern to food consumption

The food demand increases rapidly, which has contributed to reducing the malnutrition in rural areas, but food safety and hygiene and food quality are the most concerns. However, most of consumers still lack of necessary knowledge. Only 2.76% of households are interested in food products sealed in quarantine or having traceability certificates. Only 19.66% of consumers care for antibiotic residues in foods, whereas, only 11.38% of consumers pay attention to good hygiene at food shops and only 1.38% of households may usually buy foods in supermarket or frozen meat.

Most of consumers rely upon an individual sensorial evaluation when deciding to buy food (32.76% of consumers). In addition, food price is always of great importance for determining food consumption. As a result, 29.66% of consumers always buy cheap products. Only 22.41% of consumers are interested in the origin of products. Up to 15.17% of consumers often buy food based on close relationships with vendors. In fact, the food hygiene knowledge of consumers is still limited. The sick animal is mainly consumed or sold at low prices.

When epidemic diseases occur on animal flocks, around 41.38% of households don't buy related foods because they are warned not to eat these products on the means of public information. However, about 20.34% of households still consume these foods without vigilance and 38.28% of households buy these products with more vigilance.

Because of food consumption habits and rural typical conditions, up to 73.10% of households only accept fresh food consumption. Only 5.17% of consumers require the products with labels or certificates of quarantine agencies. There are 12.41% of households requiring the products which

must be packed and stored in cold chains. Therefore, there are 9.31% of consumers only consuming the products of their own households, particularly with eggs, poultry and fish.

3.5. The self-sufficient level of food consumption

While beef, pork and tofu are mainly bought at kermis or vendors, eggs and poultry meat occupy an important self-sufficient part in most of households, especially in agricultural production households. The self-sufficient level with chicken occupies from 75.10% to 84.47% in these households. And the self-sufficient level with duck, Muscovy duck occupies over 74% in pure agricultural production households and 62% in the households with extra-agricultural activities.

The self-sufficient quantity of egg consumption in pure agricultural production households occupies up 70.84% and occupies 62% in the households with extra-agricultural activities. As a result, this quantity of egg is not important in trade households and households with monthly salary.

In addition, fish products occupy also an important part in agricultural production households. The self-sufficient level with fish occupies from 21.25% to 33.48% in agricultural households at small scale and agricultural households with extra-agricultural activities. This level is especially highest in agricultural production households at commercial scale, up 94%.

Therefore, the self-sufficient level with fish, eggs and poultry meat products is very important in households; and many households only consume their self fish and poultry. So, the small agricultural production plays still an important role for supplying additional nutrition in many rural households.

3.6. The expenditures of food consumption in households

In whole country, the proportion in expenditures for food consumption occupies 53.50% in 2004 and 52.80% in 2006. In rural areas, this cost of food consumption occupies 50.20% in total expenditures for living (VLSS, 2007). These expenditures occupy about 58.5% in Hanoi urban area (IPSARD & FUSAGx, 2008). The total expenditures of food consumption occupy up to 88.39% of total incomes in pure small agricultural production households. These expenditures are self-products including according to the sale prices at households. But the expenditures of foods occupy between 14.03% and 21.22% of total incomes in commercial agricultural production households and big trade households. Other households have the expenditures of foods are from 34.72% to 40.60% of total household incomes.

The rate of expenditures for food is a good indicator to assess the living conditions. In whole country, the monthly average expenditures reached VND 511 thousand per capita, in which expenditure for daily life in rural areas reached VND 359 thousand per capita (VLSS, 2007). The average expenditures of food consumption per household are maximum at VND 22,920 thousand in the big trade households, other families have the expenditures of foods are between VND 14,347 thousands and VND 16,915 thousands per household a year (Table 6a).

Table 6a. Expenditures of food consumption in the households (with self-products including)

Household types		Expenditures of food consumption (VND 1.000 /household/year)							Food /VAN (%)
		Beef	Pork	Poultry	Fish	Eggs	Tofu	Total	
Agricultural households	Small scale	258	4,886	3,898	1,741	1,014	648	12,445 ^a	88.39
	Comm. scale	539	4,849	5,848	1,806	770	535	14,347 ^a	14.03
Agriculture with off-farm activities	Hired labor	361	6,398	6,341	1,958	1,284	573	16,915 ^a	35.40
	Artisan	625	5,380	5,197	1,520	1,082	977	14,782 ^a	40.60
	Tractor	1,248	7,389	6,729	1,848	1,305	617	19,136 ^{ab}	35.86
	Salary	841	5,588	6,043	1,722	1,134	815	16,141 ^a	35.78
Trade households	Small trader	470	5,193	6,169	1,890	917	464	15,105 ^a	34.72
	Big trader	3,254	6,331	10,039	1,588	999	708	22,920 ^b	21.22

Statistical significant difference (P<0.05) if the values which have different letters in a column

The expenditures of pork and poultry meats are the highest, so the expenditures of pork consumption occupy 35.27% and poultry meat 37.71% of total expenditures in the households for food consumption while the expenditures of beef meat only occupy 5.26%. The expenditures of tofu and eggs occupy only from 4.17% to 6.58% and the expenditures of fish consumption occupy 11.01%.

The expenditures of food consumptions among the households in this region are fairly similar, but the tendency of beef consumption is higher with households who have higher and stable income such as big trade households (14.20% of total expenditures for foods), the households with stable monthly salary (5.21% of total expenditures for foods) or the households with agricultural services (6.52% of total expenditures for foods) ; whereas, the other pure agricultural production households mainly consume pork, fish and eggs or poultry meat in their self-sufficiency. The expenditures of beef consumption in small pure agricultural production households occupy only 2.57% of total expenditures for food consumption.

Therefore, the food expenditures are very great compared with total incomes in small pure agricultural households, especially in the context of current economic crisis. An income disparity is wide between small agricultural households and others. As a result (Table 6b), while the self-products occupy only 7.20% in total food expenditures at big trade households, but this level occupy from 17.93% at small pure agricultural households to 28.18% of total expenditures at commercial agricultural households.

Table 6b. Expenditures of food consumption in the households (with self-products none including)

Household types		Expenditures of food consumption (VND 1.000 /household/year)							Self-pro. (%)
		Beef	Pork	Poultry	Fish	Eggs	Tofu	Total	
Agricultural households	Small scale	258	4,886	2,449	1,324	707	648	10,290 ^a	17.93
	Comm. scale	539	4,849	4,090	96	414	535	10,523 ^a	28.18
Agriculture with off-farm activities	Hired labor	361	6,398	3,771	1,131	842	573	13,075 ^a	24.10
	Artisan	625	5,380	2,382	1,072	647	977	11,082 ^a	25.37
	Tractor	1,248	7,389	3,398	1,290	846	617	14,789 ^a	23.59
	Salary	841	5,588	3,841	1,338	766	815	13,188 ^a	18.32
Trade households	Small trader	470	5,193	3,358	1,311	605	464	11,402 ^a	24.65
	Big trader	3,254	6,331	8,737	1,457	766	708	21,254 ^b	7.20

Statistical significant difference (P<0.05) if the values which have the different letters in a column

Thus, the self-products in households play an important role. The expenditures of food consumption in households with self-products none including occupy only from 65.23% of income in small agricultural households. These expenditures occupy from 20.85% in trade households to 25.11% in agricultural households with extra-agricultural activities, but only 9.75% of total incomes in commercial agricultural households. However, the current economic crisis influenced greatly to small agricultural production households, but thanks to the self-sufficient food products, the rural areas could be passed these grave difficulties.

4. CONCLUSION

The household incomes are really diversified, so the agricultural production activities have still ever played an important role in most of households (occupying 82% of households). There remains a high disparity between big traders with higher incomes and small farmers with lower incomes, about 7.9 times. The rural areas play an important role, in this research thanks to the self-sufficiency of food in every household; this rural area could be against better the current economic crisis. But

agricultural incomes are very unsettled, so almost households have to seek extra-agricultural activities, up to 72% of households in these districts. These off-farm activities are principally concentrated in the field of manual labours. In order to sustainable development in the next years, it is necessary to supply the good scientific knowledge or good practical agricultural production to farmers.

The tastes of food consumption are mainly fresh products and the decision to buy the products is based on their sense organs. However, the living standards about food consumption in households are really high but, the sick animal is popularly consumed in the households. So it is necessary to establish a network of food supply chains with good traceability. The average level of food consumption per capita per year is between 62.94kg to 82.89kg, so the principal foods are pork, poultry meat and fish. The beef consumption is little and there is a high disparity between the households with lower and higher incomes. The eggs and poultry meat of self-sufficiency still play an important role.

The expenditures of food consumption with self-products none including occupy up to 65.23% of total incomes in the small agricultural production households, while other families with off-farm activities occupy from 9.75% to 25.11% of total incomes. Or almost incomes in households, about 21% of small agricultural households, are reserved for food consumption.

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