

**FISHERMEN AND DISTRIBUTION SYSTEM IN THE FISHING SECTOR OF THE SOUTH
CENTRAL VIETNAM**

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ABSTRACT

In the past several years, the fishing sector of the South Central Vietnam have been developing sharply, generating over 226 thousands employments. The sector has contributed a share of approximately 70% to the production value of the fisheries nationwide. The primary aim of this research paper is to assess the factual status of labour and income distribution pattern in fishing activities through some aspects: quantity of labors, education levels of fishermen and skippers, and income distribution methods. The results show the most of households in the fisheries are large in size, and the average income of fishermen is high but they almost live in difficult situations. As a result, their life has been dependent on fishing activities, and educational levels remain to be low. Research results are expected to provide policy-makers with useful information regarding development orientations, specially relevant to eliminating hunger and reducing poverty

Keywords: Fisherman, income fisherman.

DEFINING PROBLEM

It is sometime said that fishermen are rich, sometime is poor, low educated, and a lots children. However these statements have not yet proved by statistical data. It is necessary to investigate the life of labour in fisheries in some aspects: income distribution of fishermen and skippers, education and income level, size of fishing households in South Central Vietnam. Results of the research will provide useful information for policy makers in fishery sector, especially in fishery development orientation, and in eliminating and reducing poor of fishermen in South Central Vietnam.

RESEARCH OBJECTIVES

- Research on labor in fisheries in South Central Vietnam in some aspects: income and education level, size of fishermen household.
- Research on the pattern of income distribution in some fisheries in South Central Vietnam.

RESEARCH METHODS

The secondary data was collected from statistic yearbooks, from Fisheries and Agriculture department of the provinces in the areas, and from the Fisheries Ministry. The primary data was collected through direct interview with the support of officials in the provincial fisheries departments. The sample was chosen according to horse power along the provinces. The research uses mainly the descriptive analysis with the support of SPSS package. The results from analysis process are structure, frequency, the changes in variables, and then these were compared with other statistic numbers and general regulations. Lastly, the conclusions about labour and income distribution in fisheries in South Central Vietnam was extracted.

THE RESULTS

The South Central area includes the provinces from Danang to Binhthuan with having areas of 44,257 km², population of 8,76 millions (2005), population density of 198 persons/km² which is lower than average number of the country (252 persons/km²). The area has 5 cities belong to provincial authority, 6

districts of Danang city, 5 towns, 67 districts of other provinces, 155 awards, 58 small towns, and 844 communes. The product value from industry sector is about 36,306 billions VN\$ (accounting for 4% of the sector of the country). The product value from agriculture sector is about 9,209 billions VN\$ (contributed to 6,71% share of the nation product). The product value from forest sector is 546,4 billions VN\$, accounting for 8,9% the product value of the country). The product value from fisheries and aquaculture sector is 5,298.5 billions VN\$, about 13,7% of the country. The rate of unemployment in cities is 5,52% which is higher the average number of the country (5,31%). In rural area, the rate of working hours of people at working age is 77,81% that is lower than the average number of the country (80,65%).

Labour force in fisheries in the area

The labour status is one of decisive factors for fishery productivity and efficiency, and also a social issue. The fisheries and aquaculture sector in the South Central area is well developed, the contribution of the sector for GDP of the area is 8,66% (of the country is only 3,86%). The change and entrance into the fisheries are presented in Table 1.

Table 1: The change of labor in fisheries in South Central Area

No.	Province	2000	2001	2002	2003	2004	2005
1	Đà Nẵng	19.000	14.108	14.089	13.033	13.100	12.850
2	Quảng Nam		16.352	17.921	18.957	19.100	19.310
3	Quảng Ngãi	22.520	27.820	32.962	34.496	35.000	35.300
4	Bình Định	35.369	40.848	41.457	46.946	47.052	43.741
5	Phú Yên	22.120	23.710	24.542	25.114	25.940	26.430
6	Khánh Hoà	30.030	30.000	30.500	29.500	30.789	29.450
7	Ninh Thuận	9.280	11.200	11.569	11.707	12.100	12.400
8	Bình Thuận	38.600	38.600	40.200	40.500	42.200	46.700
	Total	176.919	202.638	213.240	220.253	225.281	226.181

Source: Fishery, agriculture and forestry department of the provinces, the ministry of fisheries

The fisheries development of South Central region have generated a high number of employment for the area. The number of labour in the sector increased from 176,919 in 2000 to 226,181 in 2005, equivalent to an increase rate of 28%. The increase of labour number is not significant, some provinces had the decreased numbers such as Danang and Khanhhoa. This is a significant contribution of the sector for the local development in the situation of high unemployment.

The pattern of income distribution of skipper and fishermen

The investigation showed that labour enrolment in vessels and boats is based on decision of boat owners and skippers. The skippers and workers in fishing vessels have not any contract or relevant documents that tie them down to the owners. Some employers in large and off-shore vessels pay insurance for their workers during working time according to the regulation of fisheries ministry. The insurance payment of small vessel owners is rational and dependent on their finance ability. The pattern of income distribution between vessel owners and workers are subjective to types of fisheries. The law of Vietnam social insurance regulates “ the labours who have working contract or working time over 3 months have to buy health and social insurance”. The Article 2, Term đ of the Degree 44/203/ND-CP, May 9th 2003 regulates: “ For co-operatives (not regulated for official members), household and individuals who hire employees have to sign working contract”. In fact, the hiring employees in fishing vessels is very self-willed, many

owner don't sign working contract with workers and don't pay any social insurance. The fisheries season is often over than three months and dependent on the type of fishing gears and other works outside fishing activities of the skippers and vessel owners. Due to lack of contract between the owners and skippers, the skippers don't have any subjective and incentive that they become fond of vessel owners and this make difficulty for managing the skippers, and relevant beneficiaries of skipper is not insured.

In the fishing line fisheries, the boat owners often earn 30-35% of net profit that equal to the total revenue reduce cost of fishing trip (energy, ice, bat, food, and relevant cost for maintaining vessel machine). The rest of that net profit will be divided into 12-16 shares for number of skippers and fishermen in the boat. According to our investigation, there were 80 boats which divide net profit, which is the rest of the profit after reducing the owner shares, into 14-15 shares, only 4 boats divide it into 16 shares. Each worker is distributed one shares which is not dependent on the his position as captain, machine chief, or normal skippers. The share distributed to workers is not involved other individual income or income outside official jobs.

In the trawling fisheries, the labours in boat are distributed by 35% of net profit that equal to revenue subtracting total cost. The share is low due to high cost of fishing gears in trawling fisheries. The total income of the labour is divided equally to workers without concerning their positions or type of job in boat. Beside the official income from the fishing revenue, the workers may earn on the catch that is not involved into total revenue of the fishing trip. The costs related to worker's life in boat such as food, water, and others are added to the cost of fishing trip.

In the single trawling fisheries, the difference between revenue and cost of a fishing trip is divided into the shares of 5-5, or 6-4, in which boat owners earn 50% (or 60%) and skipper crew earn 50% (or 40%). A part from the official income, the workers also are distributed some fish caught from the trip as food for their family.

In general, the pattern of income distribution between the boat owner and fishing workers has advantage in controlling the working activities, fastening the benefits and responsibility of the workers with business results, and it also shares the risk between the owners and fishermen. However, because the fishing job is very risky, if the continuously fishing trips don't have expected results the fishermen families would don't have income. This explains why the fishermen are not fond of the owners, especially in the low efficient boats. According to our investigation, only 27 boats in 80 investigated boats explain that the fishers return to work for the former boat over seasons.

The size of fisher household

The investigation of number of people in household was taken place to know the household size and compare to the numbers from statistics yearbook 2006 of Vietnam Statistical Bureau. The author investigated 160 households of fishers in South Central in which 80 households acting in fishing line in Phuyen, 80 in Khanhhoa in which 40 acting in single dredging and 40 in tuna trawling fisheries. The results show that average household size is 6.29 persons, the household size in fishing line is lowest of 6.1, and the highest numbers is in dredging fisheries with 6.9 persons. The most popular numbers of members in a household is 4-8 persons (accounting for 85.63%), 12 households have more than family members (accounting for 6,26%) (see more detail in Table 2).

According to the results from the investigation in Agriculture, Rural, and Fisheries sectors in 2001, the average household size of the country is 4.47 members per family, in which majority (King) people is 4.43 and minority people is 5.30. The results of investigation in 2006 shown the average size is 4.36, in which urban area is 4.20, and rural area is 4.41. There are 4.24 individuals in a family in South Central area.

Table 2: Number of persons in a fisher household

N. individuals in a household	Fishing line		Bottom dredge		Trawl		Total people	Total households	Percentage household (%)
	N. households	N. people	N. households	N. people	N. households	N. people			
3		-	-	-	2	6	6	2	1,25
4	14	56	2	8	4	16	80	20	12,5
5	21	105	8	40	8	40	185	37	23,13
6	20	120	9	54	14	84	258	43	26,88
7	7	49	8	56	6	42	147	21	13,13
8	10	80	2	16	4	32	128	16	10
9	2	18	9	81		-	99	11	6,88
10	6	60	1	10	1	10	80	8	5
11		-	1	11		-	11	1	0,63
13		-		-	1	13	13	1	0,63
Sum	80	488	40	276	40	243	1.007	160	100
Average		6,1		6,9		6,08	6,29		

Our results compared to data from Statistic Bureau show that the household size in fisheries is larger of 44% than the overall average house size of the country and larger of 48% of the average number in the area. This reflects the characteristics of high number of children in fishing family, the population policy should target this group.

Average income of fisherman

The average income of fisherman was calculated and average income per individual in fishing household was estimated based on the results of investigation over 160 households. The average income of fishermen were calculated by distributed income from fishing trips, number of fishing trips. The result from average income per fishing trip was then used to calculate the annually average income. The annual income was compared to the numbers in the area and of the country.

Table 3: Average income of a fisherman in 2005

Annually average income of a fisherman	Longline	Gillnet	Fishing trawl	Total
Below 5 million VN\$	3	2	2	7
%	3,75%	5,00%	5,00%	4,38%
5 ÷ 10 mill	44	14	10	68
%	55,00%	35,00%	25,00%	42,50%
10 ÷ 15 mill	15	24	17	56
%	18,75%	60,00%	42,50%	35,00%
15 ÷ 20 mill	12	0	5	17
%	15,00%	0%	12,50%	10,63%
Above 20 mill	6	0	6	12
%	7,50%	0%	15,00%	7,50%
Sum	80	40	40	160

The income of a fisherman family is from many sources such fishing activities, small trade, service for fishing activities (making net, sewing net, fish middlemen...), aids from oversea Vietnamese, working outside the fisheries sector. A rate of 100% of households confirmed that their main incomes are from fishing activities, major labours in family work in fisheries. Almost workers in fishing boats are exceed 15 years old, which is within the working age. There are some boats (about 15) of fishing dredge have labours under 15 years old. The boat owners explained us that these teenage labours are their children in their family or relatives who can not continue studying in school due to their ability and lack of finance support from the large member family.

The average income in 2005 of a fisherman is in range of 5-15 millions VN\$ (accounting for 77.5%), the income above 15 millions VN\$ account for 18.33%. The income involves only the share from the fishing trips, not included the other earnings such as food and relevant revenues from the owner to accommodate fishing trips or price of fish that fisherman is shared or caught by themselves during the trip. The author doesn't have the data to calculate and add these earnings into total income.

In single dredge, almost fishermen have income in range of 10-15 millions VN\$ per year (accounting for 60%). There is not any fisherman who has income exceeding 15 millions VN\$ due to this fishery operates in coastal area, fishing trip is short and the target species have low value. The annually average income of a fisherman is 15.1 millions and fishermen have to work full time over year. The monthly average income is about 1.2 million VN\$.

In tuna fishing line, average income of a fisherman is popular in range of 5-10 millions per year; some outstanding fishermen have significantly high income of about 20 millions/year. This fishery is seasonal and long trip, target species have high value. So, even fishermen is off in some months but the average income per year is still high. Average income of a fisherman is 11.5 millions/year. The average income is calculate based on one fishing season so that the annual income is lower than this number in fishing dredge. However, the monthly income in fishing seasons is much higher, which is in range of 2-5 millions VN\$.

In trawl fishery, average income is in range of 10-15 millions VN\$ (account for 42.4%). Numbers of fishermen have high income of above 20 millions and in range of 15-20 millions are significant (account for 27.5%). The high income in the fishery due to the long length of fishing time of about 8 months/year, and target species have high value, and the landing catch is increasing significantly. The annual and monthly incomes are about 12.5 millions and 1.5 millions VN\$, respectively.

The average income of other sector outside fisheries is about 0.419 millions/month (in 2004), and about 1.229 millions/moth in public sector (in 2005). The income in fisheries sector is equivalent to the public sector. In fishery household, the main labour is fishermen (account for 80%), the rest of labour in family including women and old persons (over 50 years old) live on their husband and son income. Some of those labours work as small trader or fish middlemen. The major income of the household is from fishing activities so that even the fishermen income is high, the average income of family member is low. The household size is large and many members can not contribute in fishing activities.

Education levels

In this research, the author only investigated the education of fishermen and skipper. The relevant information of fishermen are the highest and lowest education that he passed. The skipper information is at what the school year he reached.

The investigation results show the low education level of fishermen. The number of fishermen who are illiterate account for 10.63% on average. More specially, the percentage of illiterate fishermen is 15% (10

boats) in Otter Trawl, 15% (6 boats) in longline, and 1.25 % (1 boats) in Drift Net . The number of boats having fishermen graduated primary school (equivalent to 5fith class) is few (accounting for only 21.88%). The lowest education is in dredge fishery and highest in Drift Net .

Table 4: The highest education level of fishermen and skippers

Class		fishermen								skippers
		Otter Trawl		Drift Net		Long Line		Total		
		The Lowest education level	The highest education level	The Lowest education level	The highest education level	The Lowest education level	The highest education level	The Lowest education level	The highest education level	
0	N ₀ .Boat	10		6		1		17		
	%	25	-	15	-	1	-	11	-	-
1	N ₀ .Boat	6		-		9		15		
	%	15	-	-	-	11	-	9	-	-
2	N ₀ .Boat	2		2		26		30		2
	%	5	-	5	-	33	-	19	-	1
3	N ₀ .Boat	15	2	6	-	15	-	36	2	4
	%	38	5	15	-	19	-	23	1	3
4	N ₀ .Boat	4		12		11		27		20
	%	10	-	30	-	14	-	17	-	13
5	N ₀ .Boat	3	7	6	-	14	2	23	9	18
	%	8	18	15	-	18	3	14	6	11
6	N ₀ .Boat	-	10	8	2	4	5	12	17	38
	%	-	25	20	5	5	6	8	11	24
7	N ₀ .Boat		8		5		5	-	18	16
	%	-	20	-	13	-	6	-	11	10
8	N ₀ .Boat		5		3		5	-	13	10
	%	-	13	-	8	-	6	-	8	6
9	N ₀ .Boat		3		4		11	-	18	32
	%	-	8	-	10	-	14	-	11	20
10	N ₀ .Boat		2		10		10	-	22	12
	%	-	5	-	25	-	13	-	14	8
11	N ₀ .Boat		2		6		11	-	19	2
	%	-	5	-	15	-	14	-	12	1
12	N ₀ .Boat		1		10		31	-	42	6
	%	-	3	-	25	-	39	-	26	4
	N ₀ .Boat	40	40	40	40	80	80	160	160	160
	%	25		25		50		100		100

There are some boats having fishermen graduated highest education in only primary school. The Drift Net and longline have higher education level of fishermen than those in otter trawl. The numbers of fishermen graduating the high school account for 65% (26 boats) in the Drift Net, 65% (52 boats) in the longline, and only 12.5% (5 boats) in the otter trawl. However, the education levels are still low that limit the ability of fishermen in accessing the fishing technology as well as other social issues.

There is 27.5% of skipper having highest education level at 5th class, and 87.5% having education level in range of 5-9th. All most of skippers have highest education at secondary school, especially in 6th class, the numbers in 9th class is few. Generally, the education of skippers is low, this is an obstacle for kipper in accessing the modern fishing technology and in awareness of protecting resource and environment. The central government has policy to make compulsory to everyone general education at primary school, however this is not meet the requirement in fishery sector. This problem has reason of a part from the large size of households (an average of 6.29 persons/household), the low income and depending mainly on fishing activities.

CONCLUSION

Through the investigation on labour and income distribution in fisheries in South Central Vietnam, the author explored the following conclusions:

- The fishermen working as employees on fishing boats don't have contracts and social insurance. Some boat owners don't buy safety insurance for their employees.
- The income distribution pattern link the responsibility and benefits of fishermen with fishing results, this reduces the risk for the owners. However, the fond of fishermen with boat owners is not sustainable due to fishermen don't have fixed income to ensure their family life.
- The household size of fishery is high and larger than the household size in other sectors. The labour in households work mainly for fish exploitation.
- The fishermen income is equal to the income in public sector in the area. The income of fishermen family is 100% from fishing activities, the life is difficult, women and old persons are all unemployed.
- The level of education of fishermen, especially of skippers, is low. This limit the ability to access the new technology in fishery and awareness of protecting resource and environment.

REFERENCE

1. The law of social insurance, June 29/2006
2. The Degree of government 128/2005/ND-CP, October 11/2005 about treat regulations for violation in fisheries.
3. The Degree 44/2003/ND-CP, May 9/2003, regulation and guide for application of Labour Law.
4. Website of Statistical Bureau of Vietnam:
<http://www.gso.gov.vn/default.aspx?tabid=395&idmid=3&ItemID=5380>).