Original paper

ANALYSIS OF FAMILY PROSPERITY AND INCOME CONTRIBUTION OF FISHERMAN'S WIVES AT CILACAP VILLAGE, CILACAP

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ABSTRACT

The objective of this research is to know level of family prosperity and income of fisherman's wives and to know amount of income contribution of fisherman's wives in Cilacap. Case study method was used in this research. Result of research indicates that level of family prosperity of labor fisherman's wives with ERF = 1,26 is lower compared to level of family prosperity of entrepreneur fisherman's wives (ERF = 1,47). Income of labor fisherman's wives Rp.292 000 is lower compared to income of entrepreneur fisherman's wives (Rp 742 500). Income contribution of labor fisherman's wives is 39,22 %, while income contribution of entrepreneur fisherman's wives is 46,05 %.

INTRODUCTION

The area of fishery study is very wide. Fishery study does not only limit to fish in biological meaning but also socioeconomic problems of fisherman. Social study of fishery economics for example includes study of family prosperity of fisherman and fisherman's income (Heruwati, 2002) Government's effort to increase activity of development of economics, especially in fishery, aims at increasing living standard of fisherman and at the same time to improve community nutrition, so that the prosperity and income of fisherman's community can increase (Mangga Barani, 2004).

Generally, fisherman's wives do not differ from other women, they have problems that share in development such as limited knowledge and skill resulted in low income and their condition of poverty under line. To make the ends meet in family life they take income jobs.

Fisherman's wives represent one of the human resources having role in improving prosperity and income of family. Employing their skill, ability, efficiency and knowledge, they can improve their income (Susastra and Suryadi,2004).

The research result of Kusuma-wardhani (2002) in East Java, indicates that generally most of Fisherman's wives participated in social activities, such as activity of *PKK, POSYANDU, KUD, arisan*, and economic activities, especially local economy. Rural women taking part in economic activity because the income of their husbands was not enough to fulfill demand of their family.

When the condition of family economy can not answered the demand requirement of family, fisher's women will assist to work as peddlers of fish in market, of fish grill at retail or as broker fish, and as labor in small informal sector activities. Based on the above description, the real problem is how far the role of women (both workers and entrepreneur) on the improvement of prosperity and family income. The question is whether they have a good life? Do they have enough family income? Or, their income only enough for basic living, or even they still live under poverty line? Therefore, this study is needed in order to investigate the family prosperity and women's income as well as to investigate the contribution of their income within their family's income

This research had been conducted for one month, in March 2004, at PPS (Ocean Fish Harbor) in Cilacap village, District of Cilacap, Central Java.

The result of this research is expected to be useful information regarding prosperity level and income of fisherman's wives, and also input to policy makers determine priority and programs in socioeconomic development, in the effort of human development.

MATERIALS AND METHODS

The study used survey method. Two kinds of data were collected i.e. the primary and secondary data. The primary data were collected using Participatory Rapid Appraisal (PRA)'s technique (Daniel, 2002). Respondents were sampled using Stratified Random Sampling; number of respondents calculated by using formula (Suparmoko, 1985) as follow:

$$n = \frac{NZ^2 P(1-P)}{Nd^2 + Z^2 P(1-P)}$$

n = number of respondents
Z^2 = Normal variable $(1,96^2)$
P = Percentage of variance $(0,05)$
d^2 = Maximal error accepted $(0,1)^2$
N = number of women fishers in population

Number of fisherman's wives population in sub-district of Cilacap counted 1035 persons who consist of 471 labors and 564 entrepreneurs. The total respondents of 40 persons were selected by sampling method from women fishers; they were classified into labors and entrepreneurs, each category consisted of 20 respondents.

Data Collecting

Primary data collecting were taken by direct interview and observation. The survey applied structured and not structured questionnaires, in order to take deeper valid information related to this research (Nur Bambang, 2003).

While the secondary data were taken documents related to the study. Secondary data regarding the amount of residents, work, age and education level were obtained and collected from *Monography Sub-District of Cilacap*. While the secondary data concerning fishery information were taken from *Marine and Fisheries Office Cilacap.*

Data Analysis

Primary and secondary data obtained were processed and presented in the form of tables or graphs. Techniques of analyses were as follows
1. Prosperity level analyses uses Exchange Rate Fisherman formula

(ERF) according to Nikijuluw and R.Basuki (2001), which runs

$$ERF = \frac{Yt}{Et} \qquad Y_t = Y_{Ft} + Y_{NFt}$$
$$E_t = E_{Ft} + E_{Kt}$$

Y_{Ft} = Total income of fisherman from fisheries activity (Rp.)
Y_{NFt} = Total income of fisherman from non fisheries activity (Rp.)
E_{Ft} = Total expenditure of fisherman in fisheries (Rp.)
E_{Kt} = Total expenditure of fisherman for the consumption of family (Rp.)
t = Period of time (month)

2. Income contribution analyses of fisherman's wives uses formula (Nur Bambang, 2002) as the following

$$Kf = \frac{If}{If + \text{Im} + Io} \text{ x } 100 \text{ \%}$$

Kf = Income contribution i of fisherman's wives to income of family
If = Income of fisherman's wives
Im = Income of husband
Io = Income of other sources

RESULTS AND DISCUSSION

General condition

District of Cilacap represents coastal region of south central Java, which consist of fishery catch and fishery products. Fishery catch in Cilacap is supported by many facilities, like fishing ports and fish landing centre (PPI), Fish Auction Place (TPI) and Port of the Ocean Fisheries (*Pelabuhan Perikanan Samudra*). Fish Auction Place represents basis landing of

fish, loading and unloading of ships in PPS (Port of the Ocean Fisheries) at Cilacap Harbor (Dinas Kelautan dan Perikanan Cilacap, 2003).

Sub district of Cilacap area has 171.364 Ha consisting of 85 RT and 15 RW, and 4.448 KK (family head). Total of resident is 15.876 persons, 7.932 men and 7.944 women (Kelurahan Cilacap, 2004). Sex Ratio was 1: 1,002, that means that every 1000 resident of men in sub-district of Cilacap, there is 1002 women. While number of Dependency Ratio is 55%, which means that every 100 persons who work, 55 persons do not work.

Age and Education of Fisherman's Women

Result of secondary data analysis indicated that fisherman's women exist in the study area comprises labors and persons who do not work. Labor population of fisherman's women in district of Cilacap is 1035 persons who consist of 471 labors and 564 entrepreneurs

Table 1. explains all respondents are 20 years old and more, split into to types of livelihood,labors and entrepreuneurs. The lower level of education population in coastal area region is common phenomenon as in all Indonesia region.

Result of research concerning education of fisherman's women (**Tabel 2**), indicates that most of them passed elementary schools (60% at labor and 70% for entrepreneur). The big percentage of elementary school education caused by a lack of expense for school, so that in general they do not continue school after passing elementary school; most of them directly looked for work.

Table 1. The Age and Types of Livelihood

Age (years old)	Respondents / Fisherman's wives			
	Labor		Entrepreneur	
	persons	Percentage	persons	Percentage
20 – 27	7	35	3	15
28 – 35	6	30	5	25
36 – 43	4	20	8	40
44 – 51	3	15	4	20
Jumlah	20	100	20	100

Source: Research result in 2004.

Table 2. Respondents Education

Level of Education	Respondents / Women Fisherman			
	Labor		Entrepreneur	
	persons	Percentage	persons	Percentage
Not Pass Elementary	5	25	-	-
Pass Elementary	12	60	14	70
Not Pass SMP	-	-	-	-
Pass SMP	3	15	2	10
Not Pass SMA	-	-	-	-
Pass SMA	-	-	4	20
Total	**20**	**100,00**	**20**	**100,00**

Source: Research result in 2004.

Prosperity of and entrepreneur labor respondents, as expressed in Exchange Rate Fisherman (*ERF = Nilai Tukar Nelayan*) in March 2004 presented at **Fig 1 and Table 3**. Prosperity of labor fisherman women family have ERF around 1 that is with average value is 1,26. This value indicates that most of labor income are can only to answer the demand of requirement of its life
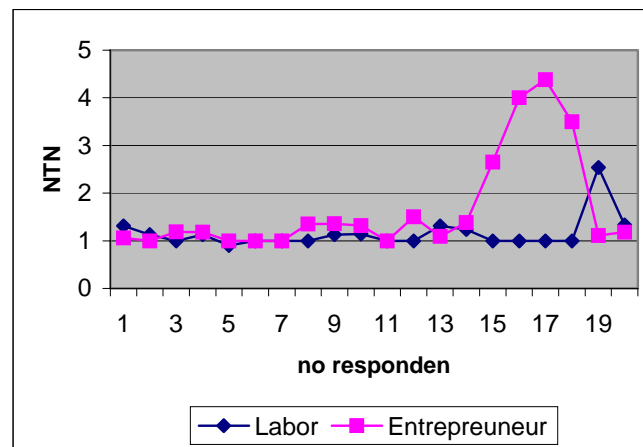

Fig. 1. Values of prosperity represented in ERF (*Nilai Tukar Nelayan*)

While Exchange Rate Fisherman (ERF) of entrepreneur fisherman equal to 1,47 , bigger than ERF of labor fisherman (only 1,26), the income of most entrepreneur

fisherman family is enough to fulfill of primary needs; even 4 entrepreneurs or 25 % of the samples have enough prosperity level. Its means they have potency to meet

basic needs demand or they have opportunity to make saving, especially for entrepreneurship who have ERF values greatest 2 (two)

Table 3. Result of Enumeration ERF, Income, and Income Contribution of Labor compared and Entrepreneur

No	Labor						Entrepreneur					
	If	Im	Yt	Et	ERF	Kf	If	Im	Yt	Et	ERF	Kf
1	600	450	1050	800	1.31	57	1500	300	1800	1700	1.06	83
2	150	300	450	400	1.13	33	500	300	800	800	1.00	63
3	150	150	300	300	1.00	50	450	500	950	800	1.19	47
4	300	150	450	400	1.13	67	300	1000	1300	1100	1.18	23
5	240	300	540	600	0.90	44	300	400	700	700	1.00	43
6	400	300	700	700	1.00	57	750	150	900	900	1.00	83
7	300	700	1000	1000	1.00	30	1000	1000	2000	2000	1.00	50
8	300	250	550	550	1.00	54	500	3000	3500	2600	1.35	14
9	300	150	450	400	1.13	67	750	750	1500	1100	1.36	50
10	150	250	400	350	1.14	37	300	3000	3300	2500	1.32	9
11	150	150	300	300	1.00	50	300	600	900	900	1.00	33
12	250	300	550	550	1.00	45	300	750	1050	700	1.50	29
13	600	450	1050	800	1.31	57	200	1000	1200	1100	1.09	17
14	600	450	1050	850	1.24	57	450	100	550	400	1.38	82
15	150	400	550	550	1.00	27	750	1500	2250	850	2.65	33
16	200	250	450	450	1.00	44	1500	500	2000	500	4.00	75
17	300	200	500	500	1.00	60	3000	500	3500	800	4.38	86
18	150	300	450	450	1.00	33	1500	250	1750	500	3.50	86
19	300	3000	3300	1300	2.54	9	300	700	1000	900	1.11	30
20	250	550	800	600	1.33	31	200	1100	1300	1100	1.18	15
X	292	452.5	744.5	592.5	1.26	39	742.5	870	1612	1097	1.47	46

Boldness :

If = Income of fisherman's women   X = Mean

Im = Income of husband

Y_t = Total pendapatan nelayan (Rp 000/bulan).

E_t = Total pengeluaran nelayan (Rp.000/bulan).

Yt = Total [of] income of fisherman (Rp.000 / months).

Et = Total of] expenditure of fisherman (Rp.000 / month).

ERF = Exchange Rate Fisherman *(Nilai Tukar Nelayan)*

Kf = Income contribution of fisherman women to income of family

According to Nur Bambang (2002) the role women activities will be able to improve live standard and prestige of human being. Fisherman's women participate to maintain the continuity of family life, by having role as wife and also as income earner for the family like assisting husband in selling fish, as processor of fish and other activities related to fisherman's life.

According to Heruwati (2002), women basically have important role in household economy. They sacrifice time and energy in taking double roles in

domestic sector and trade. Even women are capable to be self-supporting having equal position with men in making decision. The role of women as individual can be seen from her ability to make decision, especially for those who became entrepreneur women. The labors could work in processing of fish, (like fish salting, labor processor of briny fish), fish-net labor (treatment and repair of fish-net) and also household labor. While becoming entrepreneur women, generally they work

in processing of fish, merchant (ish broker), or open a small-shop.

Income Contribution

Income earned by fisherman's women were diverse according to types of work.

Result of this study indicates that the women of labor earned income between Rp.150.000 - Rp.600.000 per month, for 4-8 hour work per day. Those who worked as labor of fishing-net could earn Rp.150 000 to Rp.300 000.
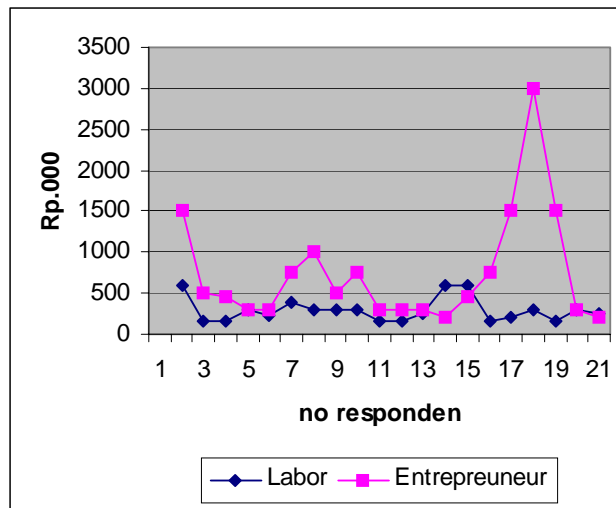

Fig. 2. Income of Labor compared to Entreupreurneur

Labor in processing of fish could obtain more income, depending on type of work and skill one owned. Compared to Regional Minimum Wage (*UMR*) in Cilacap in 2004 Rp.255 000 per month, their incomes were still under minimum wage. One reason is that they did not work every day and their wage really depended on their skill. Income of labor fisherman women is lower than that of entrepreneur fisherman women, caused by difference of education, experience, skill, ability and ownership of capital. Capital owned by labor is only energy or service.

Most women of entrepreneur obtained income more Rp.750.000 per month. Incomes of some entrepreneur women who worked as merchant of fish or held a shop could reach millions of rupiah per month (**Table 3** and **Fig. 2**).

Most entrepreneurs became fish merchant or fish processor from self experience, self apprenticeship or hereditary. According to Farida (2002), motivation pushing fisherman's women to work was economic pressure, assisting husband and look for additional income of family.

Pursuant to result of calculation of income contribution of labor fisherman's women respondents equal to 39,22 %; while income contribution of entrepreneur fisherman's women to income of her family equal to 46,05% (**Fig. 3**). Income contribution of labor fisherman's women was lower, because time used to work was limited while entrepreneur women was free to manage the time to work, so that her income was higher.
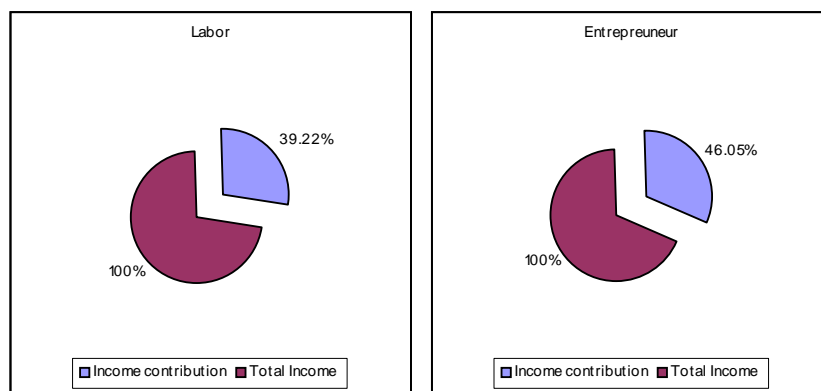
Fig. 3. Income Contribution of fisherman's women

CONCLUSION

Prosperity level of family of labor fisherman's women with ERF = 1,26, is lower compared to entrepreneur fisherman's women which is in ERF = 1,47. Income of labor fisherman's women Rp.292 000 is lower compared to income of entrepreneur fisherman's women which is Rp.742 500 due to differences of education, experience, skill, ability and ownership of capital. Capital had by labor only energy or service.

Rate of income contribution of labor fisherman's women = 39,22% is lower compared to entrepreneur fisherman's women which is 46,05%. Although income contribution of labor women is smaller than entrepreneur women, this income contribution can be meaningful to increase living standard and prosperity of fisherman's family.

It is suggested that there should be some trainings especially on fisheries related skills and entrepreneurship for these women in order to improve their knowledge on trading. Therefore, they will be able to improve their role in increasing family's income and prosperity.

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