

Fishermen Satisfaction towards Set net fishing at Mae Rumphung beach of Tapong sub-district, Meaung district Rayong province

Jariya Sornkliang and Suvalack Sathumanusphan, Technology for environmental management, Faculty of Environmental and resources, Mahidol University. Salaya, Nakornpathom, 73170, Thailand. Corresponding author's e-mail: jariya@seafdce.org

I. Introduction

Set net is a kind of big stationary fishing gear that was transferred from Japan to Thailand, it was installed in Mae Rumphung beach of Muang district, Rayong province from 2003 to 2014 under experiment projects among Thai, Department of fisheries(DOF), SEAFDEC and fishermen with aimed of installation are tool for fisheries co-management and resource enhancement. After experiment duration have been finished, fishermen in set net group would like to continue this activity but announcement's ministry of Agriculture and cooperative ministry number 4 on 14 September 1978 was promulgated to ban stationary fishing gear anyway Thai fisheries' law have article 12 and 30 to allow fishermen to have permission area for fishing (stationary category). Therefore, this study would like to collect data on fishermen perception on set net through satisfaction and obtain the attitude of fishermen on set net installation to identify which is should be improve of set net for more acceptance from all fishermen.

II. Methodology

For data collection will use standardized interview to gather the data with total sample from 122 person by 13 person from set net fisher and 109 person from other fisher a long Mae Rumphung beach the sample estimate by used Krejcie and Morgan (Krejcie and Morgan, 1970 reference in Teerawut Akekakul, 2000) for estimate sample size which exactly know population size and it is not too much as 135 of fishermen (data from fisheries district office of Muang district) a long Mae Rumphung beach.

The satisfaction assessment will use Likert technique on attitude measure by divided to 5 levels as following; Most satisfy is 5 score, satisfy is 4 score, Fairy satisfy is 3 score, less satisfy is 2 score, Least satisfy is 1 score. Average score of each question will use to analyze satisfaction of fishermen on set net by how much average will express fishermen satisfaction to each question by divided criterion of each average as following; Score 1.00-1.49 mean Least satisfy, score 1.50-2.49 mean Less satisfy, score 2.50-3.49 mean fairy satisfy, score 3.50-4.49 mean satisfy and score 4.50-5.00 mean most satisfy.

Attitude of fishermen on set net installation for analysis, descriptive Statistic on percentage, average, maximum, minimum and other with suitable one will be used to explain attitude of fishermen to set net installation.

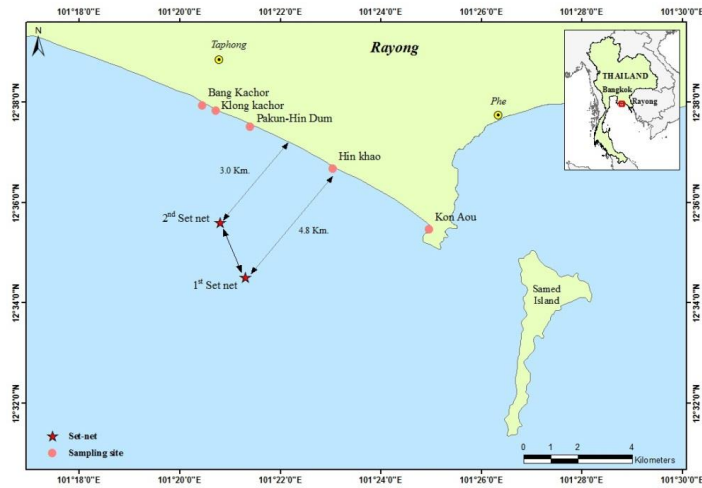


Fig 1: the location of two set net stationary fishing gear and landing site of small scale fishing at Mae Rumphung beach(Ban Kacher, klonkachor, Pakan-Hindum, Hin Khao, and Kon Aou) of Tapong sub-district, Meang district, Rayong

III. Results

Fishermen satisfaction on set net installation at Mae Rumphung beach in Rayong was divided in to three with three components are environmental, resources and socioeconomic the results as in below table.

Table 1 Satisfaction's level of fishermen along Mae Rum Phung beach on set net installation

Issue	Is it related with set net installation? If it related pleas specific your satisfaction level		Satisfaction level		No idea
	Related	Not related	Average	STD	
Environment					
1. Are you satisfy water quality of Mae Rum Phung beach after set net installation	5.7%	91.8%	2.11	0.96	2.5%
2. Are you satisfied sea bottom water condition after set net installation?	2.5%	91.5%	1.86	0.36	2.5%
3. Do you think that set net installation have change water current at Ma Rum Phung beach?	1.6%	95.9%	1.00	0.00	2.5%
Resources					
4. Do you think set net can be fish habitat?	86.1%	10.7%	3.30	1.71	3.3%
5. Did fisheries resources increasing after set net installation?	45.9%	51.6%	3.74	1.58	2.5%
6. Did your catch increasing during set net installation of each year?	28.7%	68.9%	2.77	1.82	2.5%
Socioeconomic					

7.Are you satisfy on set net can protect coastal fisheries from commercial fishing?	54.9%	44.30%	3.59	1.60	0.8%
8. Did your income increase after set net installation?	26.2%	71.3%	2.97	1.82	1.6%
9. Dis you satisfy with income from set net group?	92.3%	-	3.83	1.27	7.7%

99 Fishermen from 122 provide the opinion on set net installation that 54.5% need set net and 45.5% are don't need set net with reason that show in table two.

Table 2: Attitude of fishermen a long Mae Rumphung beach on set net.

Attitude on set net	Frequency	Percent
Set net needed		
Fish habitat and nursery ground	20	37.02
Increase fisheries resources	10	18.51
Increase their fishing ground for squid and fish	9	16.66
Commercial fishing protection	8	14.85
Set net member need to maintain their income	7	12.90
Total	54	100
Set net no needed		
High catch efficiency	29	64.40
Set net catch small size of fish	6	13.30
Set net provide benefit for set net group	6	13.30
Obstacle for their sailing	4	8.90
Total	45	100

IV. Conclusion and Discussion

Study on satisfaction for three components on environmental, fisheries resources and socioeconomic can summarize in following;

- Environmental condition: Almost of fishermen said that set net are not disturb environment condition on water quality, sea bottom and water current of Mae Rumphung beach it is relevant with monitoring data on water quality during October 2013 to April 2014 while set net were install show that water around set net are in standard of water quality (Yoshikawa, 2014).

- Resources status : Fishermen are divide in to two group with in similar amount first group is need set net in the area because set net is located for juvenile with fair satisfaction and they said Fish are more abundance after set net installation with satisfaction it is relevant with attitude on set net is fish habitat and nursery ground it can be fishing ground also,

moreover the study on abundance of juvenile around set net shown that set net is the place for spawning and food for juvenile fish(Kamolrat and team, 2005). For fishermen who are not need set net in Mae Rumphung beach said that set net reduce catch of other fishing gear because fish were caught by set net and set net also caught small fish anyway they just want set net change or improve mesh size of net for catch more big size of fish.

- Socioeconomic aspect: also, have two idea from fishermen are advantage and disadvantage of set net for fishermen who are see advantage said that set net can protection coastal are from commercial fishing and increase income for set net fisher group with most satisfaction and when we look at the location of set net it is in border of small scale and commercial area (SEAFDEC, 2008). For disadvantage of set net, it is from fishermen who are catch at night they said they are not clear with set net boundary but anyway they suggest that set net group should put more light to see clear at night they thing set net not relate with their income only set net group are satisfy income from set net.

V. Acknowledgements

I would like to give thank for funding from RIHN project for support data and budget for social survey and fishermen who kindly reply all question.

VI. References

Kamolrat Phuttharaksa and team (2005). Abundance of Juvenile around set net of Rayong province. Bangkok: Ministry of Agriculture and cooperative.

Teerawut Akekakul. (2000). Research methodology on behavior and social scientist. Ubonrachthani: Ubonrachthani University.

SEAFDEC/TD. 2008. Set-net fishing technology transfer for sustainable coastal fisheries management in Southeast Asia, TD/RP/107; 214.

Takashi Yoshikawa and other. 2014. Coastal environment of human activity in Thailand. Research Institute for Human and Nature Workshop on “Trans-disciplinary research on Asia” and Coastal Area-Capability Enhancement in Southeast Asia Project joint seminar 2014;17-19.