

REPORT OF THE MONITORING SOCIO-ECONOMIC SURVEY IN COMMUNE TEUK THLA, SIHANOUKVILLE

Integrated Coastal Resources Management in Sihanoukville (ICRM-SV)



Southeast Asian Fisheries Development Center



Fisheries Administration

TD/RP/136 ICRM-SV No. 15 January 2010



**Integrated Coastal Resources Management in Sihanoukville
(ICRM-SV)**

**A collaborative project between the Fisheries Administration of Cambodia
and SEAFDEC/TD**

Report
of the
Monitoring Socio-Economic Survey
in
Commune Teuk Thla, Sihanoukville

**Prepared by SEAFDEC/TD
17 September 2009**

FOREWORD

Under the Fisheries Consultative Group (FCG) of the ASEAN-SEAFDEC Strategic Partnership collaborative mechanism, the SEAFDEC Training Department (TD), as the lead department for the integrated coastal resources management (ICRM) program, has implemented ICRM projects starting in 2001, which were mainly supported by the Japanese Trust Fund. The first project was conducted in Pathew District in Chumphon Province, Thailand in 2001 in collaboration with the Department of Fisheries of Thailand and the Chumphon Marine Fisheries Research and Development Center. This was followed by a similar project in Pulau Langkawi, Malaysia in 2003 with the collaboration of the Department of Fisheries Malaysia and other local agencies as project partners. The third ICRM project was initiated in 2005 in Sihanoukville, Cambodia in collaboration with the Fisheries Administration of Cambodia.

Under the ICRM program, TD and the Fisheries Administration (FiA) of Cambodia jointly implemented the collaborative integrated coastal resources management in Sihanoukville. Known as the ICRM-SV project, its long-term goal lies in promoting and achieving sustainable use of the fisheries resources. Specifically, the project aims to develop the capacity of local human resources by empowering them to manage the coastal resources and sustain community development, encourage the participation of local people in community activities, and alleviate poverty in coastal fishing communities.

As part of the major activities of the project, socio-economic survey was conducted prior to the commencement of the project. Considering that the involvement of SEAFDEC in the project would be completed in December 2009, another socio-economic survey using the same indicators was conducted in February 2009, to compare the socio-economic data before and after the implementation of the project and to provide inputs to the evaluation of the impacts of the project on the coastal fishing communities. It should be considered that the ultimate goal of the ICRM program is to transfer the technologies, accumulated knowledge and lessons learned from the three ICRM projects to the other SEAFDEC Member Countries. The information contained in this report offers insights and suggestions for the SEAFDEC Member Countries to consider during the formulation of their respective policies and new direction for the cost-effectiveness of the implementation of their coastal fisheries resources management plans.



Chumnern Pongsri, Ph.D.
Secretary-General

PREFACE

Prior to formulation of the project on “Integrated Coastal Resources Management in Sihanoukville (ICRM-SV)”, a base-line socio-economic survey was conducted in March 2005 in Commune Teuk Thla, Sihanoukville, Cambodia by SEAFDEC/TD staff in cooperation with a team from the Fisheries Office of Phnom Penh and Sihanoukville of FiA Cambodia. Based on the findings of the said survey, the project plan was finalized and the project eventually commenced in November 2005.

After more than four years of continued support of the Japanese Trust Fund, the involvement of SEAFDEC in the ICRM-SV project would be terminated towards the end of 2009. A final project evaluation is therefore deemed necessary in order to assess the marine biological impacts of the project on the coastal fishery resources as well as its socio-economic impacts on the fishing communities which could provide inputs for the necessary steps to be undertaken by FiA Cambodia when it takes over the implementation of the project after 2009. In order to attain such objectives, a monitoring socio-economic survey was conducted on 9-12 February 2009 prior to the project evaluation which took place in August 2009. The results of the survey was analyzed and compiled in this report which includes the findings derived from the analytical data of the survey, comparing the current socio-economic status of the fishing communities with those prior to the commencement of the project.

Sei Etoh and co-authors
17 September 2009

Contents

	<u>Page</u>
Acknowledgment	v
1. Background	1
2. Objectives of the survey	1
3. Expected outputs of the survey	2
4. Survey design and methodology	2
5. Scale of the survey and target sample groups	3
6. The Interview	3
7. Results	3
8. Findings and analytical observations	12
9. Conclusion and recommendations	19
 <u>Annex</u>	
Annex 1: The questionnaire design format	23
Annex 2: The questionnaire	25
Annex 3: List of analytical data and information sheets	31
Annex 4: Statistic data on population	33
Annex 5 - 1: Analytical result – Part I	35
Annex 5 - 2: Analytical result – Part II	49
Annex 5 - 3: Analytical result – Part III	61
Annex 5 - 4: Analytical result – Part IV	67
Annex 5 - 5: Analytical result – Part V	71
Annex 5 - 6: Analytical result – Part VI	75
Annex 6: Comparison of analytical data and information	81
Annex 7 - 1: Comparison – Part I	83
Annex 7 - 2: Comparison – Part II	91
Annex 7 - 3: Comparison – Part III	97
Annex 7 - 4: Comparison – Part IV	101
Annex 7 - 5: Comparison – Part V	103

ACKNOWLEDGEMENT

The Authors would like to express sincere appreciation to all colleagues named below for their assistance and cooperation during the conduct of the Monitoring Socio-economic Survey in Sihanoukville, Cambodia.

Special thanks go to Mr. Ing Try, Deputy Director, Fisheries Administration (FiA), Phnom Penh, Cambodia, for his efforts specifically in making the pre-arrangements for the conduct of the survey.

Thanks are also due to Mr. Duong Samath, Chief, Kampong Som FiA Cantonment, Sihanoukville, Cambodia, for coordinating with the Sihanoukville Municipal Office and to Mr. Rim Mousoeur, Chief, Community Fisheries Prey Nup II, Sihanoukville for the local arrangements made during the conduct of the survey at the project site.

Fisheries Administration, Phnom Penh

- | | |
|--------------------|---|
| 1. Ms. Heng Ponley | Fisheries Officer (Project Socio-economist) |
|--------------------|---|

Kampong Som FiA Cantonment, Sihanoukville

- | | |
|----------------------|------------------------------------|
| 1. Mr. Yos Chanthana | Dpt. Chief (Project Team Leader) |
| 2. Mr. Nen Chamreaun | Dpt. Chief (Project Aquaculturist) |
| 3. Mr. Khin Saravuth | Fisheries Officer |
| 4. Mr. Samret Keila | Extension Officer |

SEAFDEC/TD

- | | |
|-----------------------------|---------------------------------------|
| 1. Mr. Seiichi Etoh | Project Leader / Snr. Socio-economist |
| 2. Ms. Sumitra Ruangsivakul | Section Head, Socio-economic Section |
| 3. Ms. Jariya Sornkliang | Researcher, Socio-economic Section, |
| 4. Ms. Thanyalak Suasi | Researcher, Socio-economic Section, |

The Authors: SEAFDEC/TD Coastal & Small-scale Fisheries Management Division Group

Seichi Etoh	Project Leader
Thanyalak Suasi	Socio-economist

1. BACKGROUND

The implementation of the program on “Capacity Building of Human Resources and Participation in Integrated Coastal Resources Management” was approved during the 27th Meeting of the SEAFDEC Program Committee in December 2004. Component 2 of the program encompasses the “Extension of the project concept to other member countries” which implies that the knowledge and experience gained through the CBRM project operation and management in Chumphon Province, Thailand and in Langkawi Island, Malaysia, would be disseminated to the other SEAFDEC Member Countries. Thus, when the other Member Countries including Brunei Darussalam, Indonesia, Cambodia and Myanmar, expressed interest in initiating a CBRM project, it was decided that the 3rd CBRM project would be implemented in Cambodia after taking into account the various advantages over those of the other countries.

In November 2005, the project on Integrated Coastal Resources Management in Sihanoukville (ICRM-SV) was therefore initiated in Prey Nup II, Sihanoukville, Cambodia. Prior to the initiation of the project, a preliminary base-line socio-economic survey was conducted in March 2005 and after the results were analyzed, the report was published in September 2005 in English and Khmer languages. The ICRM-SV project document was then formulated based on the data and information obtained from such preliminary socio-economic survey. In line with the orientation described in the project document, various activities have since then been implemented. During the project operation, some tangible socio-economic impacts have already been gained by the fishing communities.

As a collaborative project with SEAFDEC/TD and FiA Cambodia, the ICRM-SV project would be terminated towards the end of 2009 after 4.2 years tenure. The final project evaluation was planned to be conducted in July 2009 by an out-sourced consultant, in order to verify the impacts of the project to the communities during the project operation and to identify the needs for follow-up actions to be undertaken by FiA Cambodia. Prior to such evaluation, the monitoring socio-economic survey was carried out to provide the relevant data and information to the consultant during the evaluation. Hence, the monitoring socio-economic survey was conducted in the project operational area in Prey Nup II Commune from 9 to 12 February 2009. This report is therefore compiled to include the findings derived from the analytical data of the survey.

2. OBJECTIVES OF THE SURVEY

The survey aimed to:

- a. Compare the current socio-economic status of the fishing communities with those prior to the commencement of the project;
- b. Compare the current status of adoption of coastal resources management practices with those prior to the commencement of the project;
- c. Compare the current gender roles in community economic development and coastal resources management with those prior to the commencement of the project;
- d. Compare the current functions of the Community Fisheries (CF) and involvement of its members in community development and coastal resources management with those prior to the commencement of the project;
- e. Identify the current problems, basic needs and local people’s interests in order to verify the improvements made during the project implementation; and
- f. Evaluate the beneficiaries’ reaction and perceptions of the project operation for future

follow-up actions.

3. EXPECTED OUTPUTS OF THE SURVEY

The expected outputs of the survey are:

- a. Socio-economic development resulting from the project operation is verified
- b. The embodiment of coastal resources management practices as a result of the project operation is confirmed
- c. The significance of gender roles in community economic development and resources management as a result of the project operation is advanced
- d. The function of Community Fisheries(CF) in community development and coastal resources management as a result of the project operation is enhanced
- e. Improvement of the problems and achievement of the communities' requirements and interests resulting from the project operation are demonstrated
- f. The degree of acknowledgement, perception and reaction towards the project operation among beneficiaries is assessed

4. SURVEY DESIGN AND METHODOLOGY

In principle, the survey made use of the rapid rural appraisal method, which comprises a range of approaches in collecting information and identifying problems in local communities.

Learning from the experience during the conduct of the base-line survey in 2005, the interview this time was conducted by Cambodian interviewers only. Prior to the conduct of the survey, orientation was held to brief all those concerned on the methods of the interview especially in filling out the questionnaires. The main component of the survey included interviewing the stakeholders in local language along with a questionnaire, which was originally prepared in English and translated into the Khmer language. The interview was carried out by Cambodian interviewers along with the Khmer version of the questionnaires and the responses were entered in the questionnaire in the Khmer language as well. Entries in the questionnaires were translated into English by the Cambodian project staff for subsequent analysis by SEAFDEC/TD.

The topics investigated in the fishers' communities are as follows:

- Population
- Economic activities
- Fishing practices
- Fisheries resources and landings
- Marketing and processing
- Conflicts
- Credit
- Earnings
- Asset ownership (boats, houses, land etc.)
- Labour (time required, different activities, etc.)
- Organizations
- Living conditions
- Outside linkages
- Women's roles

In addition to the above topics, the views and perceptions of the respondents on the project operation conducted in the last 4 years were also sought from the respondents.

The questionnaire used was similar to the one employed during the preliminary base-line socio-economic survey in March 2005 in order to facilitate comparison of information. The framework of the questionnaire design is shown as Annex 1 and the sample questionnaire in English is attached as Annex 2.

The target respondents were selected at random from among the fishers, with equal number of respondents in each village. The interview was conducted by household unit.

In addition to the above questionnaire, the basic statistical data on population and the number of households in the target villages were initially collected from the Sangkat Office. These data were used to determine the scale of the survey.

5. SCALE OF THE SURVEY AND TARGET SAMPLE GROUPS

The survey sample groups were fisherfolk from four villages in Commune (Sangkat) Teuk Thla, namely Pre Pros, Prek Sangke, Prek Tal and Kampong Chin. A total of 115 respondents were chosen based on the number of households in the villages (Table 1). The representation of the survey target groups vary from 9.7% to 14.5% with an average of 12.4%. The number of respondents in Kampong Chin should have been increased by 5 in order to collect more accurate data.

Table 1: Interviews conducted in 4 villages

<u>Village</u>	<u>Population</u>	<u>Household</u>	<u>Respondents</u>	<u>Representation</u>
Prek Pros	1,871	336	40	11.9%
Prek Sanke	1,038	214	31	14.5%
Prek Tal	863	183	25	13.7%
Kampong Chin	1,088	195	19	9.7%
Total :	4,860	928	115	12.4%

6. THE INTERVIEW

The interview was conducted for 4 days from 9 to 12 February 2009, by 5 interviewers listed below:

Name of interviewers

- | | |
|----------------------|------------------------------------|
| 1. Mr. Nen Chamreaun | Dpt. Chief, Kampong Som FiA |
| 2. Mr. Ok Samrong | Fisheries Officer, Kampong Som FiA |
| 3. Mr. Khin Saravuth | Fisheries Officer, Kampong Som FiA |
| 4. Ms. Heng Ponley | Socio-economist, FiA, Phnom Penh |
| 5. Mr. Rim Moseur | Chief, CF Prey Nup II |

7. RESULTS

Population movement

The shifting population in the four villages between 2005 and 2009 is shown in Annex 4.

1. The population seemed to increase slightly in all villages except in Kampong Chin where a remarkable decrease of about 24.0% was noted resulting in the decrease of the total population in the commune of Prey Nup 2 by 2.2%.
2. In general, the female population increased while the male population decreased, a trend which was more notable with the work force population over 18 years old. In the village of Kampong Chin for example, as much as 44.3% of male over 18 years old have left the village.
3. The number of households increased in all villages, more conspicuously in Kampong Chin and Prey Tal.
4. Consistent with the above trend, the average number of family members decreased, a trend which was more noticeable in Kampong Chin village.

Other analytical data

The raw data was compiled and processed by topic in line with the categorized analytical data and information sheets (Annex 3). Results of analysis are shown in detail in Annex 5. Based on the data gathered, the narrative analysis is shown below:

Part –I: General information

Part I-1: Variation in fishermen’s age

The age group distribution of the respondents are shown below:

<u>Age group</u>	<u>Respondents</u>	<u>Ratio (%)</u>
16 – 25	23	20.0
26 – 35	28	24.3
36 – 45	34	29.5
46 – 55	24	20.9
56 – 65	4	3.5
66 – 75	1	0.9
76 – 85	1	0.9
Total	115	100.0

1. Part 1-1 which indicates the age variation of the respondents, does not exactly indicate the variation of the fishermen’s age groups. Still, the average age range of the fishermen varies from 34 in Prey Sangke to 40 in Kampong Chin and Prek Tal with mean age level of 38 years old.
2. As a whole, the highest number of fishermen was in the 36-45 years old age group (29.5%), followed by 26-35 years old (24.3%), 46-55 years old (20.9%), 16-25 years old (20.0%), 56-65 years old (3.5%) and 66-75 years old (0.9%).

Part I-2: Marital status

1. Most of the fishers are married (92.1%), while some are either single (4.4%), widow (1.6%) or widower (1.8%).
2. There was no significant change in the marital status between the observations recorded during the surveys in 2005 and in 2009.

Part I-3: Occupation of fishermen

1. Most of the respondents in Prey Pros and Prey Sangke are exclusively engaged in fisheries

at 47.5% and 35.5%, respectively. In Prey Tal and Kampong Chin most of the respondents are engaged in fisheries combined with agriculture at 68.0% and 84.2%, respectively. In Prey Pros and Prey Sangke, fisheries combined with agriculture ranked the second occupation at 40.0% and 25.8%, respectively. In Prey Tal, other occupations followed at 16.0%, while in Prey Sangke exclusive fisheries followed at 15.8%.

2. In general in the Commune Teuk Thla, the most common occupation of the fishers is fisheries combined with agriculture (49.6%) followed by exclusive fisheries (31.3%), fisheries combined with livestock (8.7%), others (7.8%), general labor (1.7%), and trading (0.9%).
3. By age group, many of the fishers in the age range of 36-45 years old are involved in several occupations, followed by the 25-35 age group, 46-55 age group, and the 16-24 age group.
4. From among the respondents, no fisher has been engaged in aquaculture business and fish processing, not even in their combined form.
5. The ratios of full-time and part-time fishers by age group are: 39.1% against 61.9% in the 16-25 age group, 42.9% against 57.1% in 26-35 age group, 26.6% against 74.4% in 36-45 age group, and 21.7% against 78.3% in the 46-55 age group.
6. By village, the ratios of full-time fishers from among the respondents are 47.5%, 35.5%, 12.0% and 15.8% in Prek Pros, Prek Sangke, Prek Tal and Kampong Chin, respectively.

Part I-4: Number of family/child(ren) per household

1. Kampong Chin village has the highest number of family with child(ren) (89.5%), followed by Prey Sangke (80.6%), Prek Tal (68.0%) and Prek Pros (62.5%).
2. In total, the percentage of families with child(ren) is 73.0 % while the remaining 27.0% had no children.
3. The average number of children in a household varies from 1.8 (Prey Sangke) to 2.1 (Prek Pros) with an average of 2.0.
4. The average number of family members is 4.0 varying from 3.6 to 4.1.

Part I-5: Educational level of fishermen

1. By village, the number of fishers having no formal education is dominant in Prek Tal (44.0%) followed by Prek Sangke (32.3%) and Prek Pros (15.0%). The number of fishers completing up to primary school was highest in Kampong Chin (100%) followed by Prey Sangke (96.8%), Prek Pros (85.0%) and Prek Tal (56.0%). The number of fishers educated up to lower secondary school was highest in Prek Tal (12.0%) followed by Kampong Chin (10.5%), Prek Sangke (6.5%) and Prey Pros (0%). There are only two fishermen, both from Prek Sangke who have studied up to upper secondary level.
2. As a whole, majority of fishers have been educated in primary schools (84.5%) followed by lower secondary schools (6.1%) and upper secondary school (0.2%), while 15.7% of the fishers have not gone to school.
3. By age group, the age range of 16-25 years old represents the 21.2% with no formal education followed by the 26-35 (17.9%) and 36-45 age groups (17.6%), and the 46-55 age group (8.3%).
4. Similarly, majority of the fishers in the age range 46-55 years old received primary school education (91.7%) followed by the 36-45 age group (82.4%), 26-35 age group (82.1%) and 16-24 age group (78.3%).
5. Only 6.1% of fishers have gone to lower secondary schools.

Part I-6: Average monthly income of fishers

1. For the average monthly income by age group, fishers in the age range of 36-45 years old

enjoy the highest monthly income (USD 179.6) prominently followed by the 46-55 age group (USD 137.2), 26-35 age group (USD 122.7) and the 56-65 age group (USD 110.6), with the least income occupied by the 16-25 age group (USD 97.0).

2. Fishers working in combined other businesses like construction and boat building fetch the highest income at USD 182.7 followed by part-time fishers combined with agriculture (USD 148.1), with general labor (USD 124.9), with livestock raising (USD 120.9) and with trading (USD 101.5).
3. The monthly average income of full-time fishers is USD 98.8, while for the part-time fishers the average income is USD 135.6 exceeding by about 37.2% (*Note: there are some differences in the figures of the total average incomes between the data by village and age. This is simply because of the calculation margins in averages.*)
4. In terms of averages, Kampong Chin is enjoying the highest average monthly income (USD 265.6) followed by Prey Pros (USD 113.1), Prey Sangke (USD 99.9) and Prek Tal (USD 95.7).
5. The mean monthly income for a fisherman's household is in the range of USD 129.5-143.6.

Part I-7: Relationship between educational level and monthly incomes

1. The average monthly income of a fisher with no formal education, attended primary school and attended lower secondary school are USD 149, 141 and 181, respectively.

Part I-8: Ownership of assets by fishermen

1. Prek Pros village comprises a highest number of boat owners (97.5%) followed by Prek Sangke (90.3%), Kampong Chin (78.9%) and Prek Tal (60.0%), making up the 84.3% of the total boat owner ratio.
2. Apart from boats, the other assets that most fishers own are houses (93.6%) and land (69.3%), followed by farmland (41.9%), cattle (33.9%), buffalos (16.5%), chickens (8.6%), motorbikes (20.0%), and bicycles (9.3%).
3. From among the respondents, no one owns a vehicle.
4. Ownership of house and land varies at 95.7%, 96.4%, 91.2%, 95.8%, and 100% for the 16-25, 26-35, 36-45, 46-55 and 56-65 age groups, respectively.
5. There is no conspicuous trend for ownership of other properties by age groups until the fishers reach 55 years old.

Part I-9: Religion

1. Of the 115 respondents, 56 fishers (48.7%) are Buddhists, 58 (50.4%) are Muslims and only one (0.9%) is Christian.
2. Almost all people in Prek Pros (92.5%) and Kampong Chin (100%) are Buddhists while Muslims are overwhelmingly predominant in Prek Sanke and Prek Tal (100% for both).

Part II: Engagement in the Fisheries Sector

Part II – 1: Fishing boats

1. Out of the 115 respondents, 18 persons (15.7%) are engaged in fishing without boats. The remaining 97 fishers (84.3%) do fishing with boats all of whom are the self-owners of boats.
2. Out of the 97 self-owned boats, 55 boats (56.7%) are motorized with either outboard motors (OBM) or inboard motors (IBM), and the remaining 42 boats (43.3%) are not motorized.
3. None of the motorized boats are licensed although under the FiA Cambodia regulations,

there is no need for non-motorized boats to be licensed. (*Note: Strangely, as many as 53 respondents (46.1%) did not respond to this question, probably because of their reluctance to admit the illegality of owning boats and therefore it is also most likely that all of their boats are unlicensed.*)

4. The length of the most commonly used fishing boats is 6 – 7.5 m at the average purchase price of USD 205. Only 3% of the fishers are using larger boats over 9 m long. The average age of their boats vary from 3.5 to 6.0 years which seems rather new, but the actual ages of the boats after construction are not known as some of them were procured as second-hand boats.

Part II – 2: Fishing gear used

1. The 9 different types of fishing using different gears that prevail in the project operational area are: swimming-crab trap (38.5%), mud-crab trap (20.5%), crab gill net (13.1%), shell hand fishing (9.0%), fish gillnet (5.7%), hand push net (4.9%), mullet gillnet (4.1%), shrimp gillnet (2.5%), and hook and line fishing (1.6%). (*Note: Although it is obvious that some other fishing methods like hand crab fishing, set bag-net/stow-net and cast net are also practiced in the area, but these practices did not appear in the responses of the respondents.*)
2. Fishing by shrimp gillnet, hand push-net and shell hand-fishing is exclusively operated by non-motorized fishing boats.
3. Most of hand push-net and shell hand fishing, and to the lesser extent mud-crab trap fishing, are operated by foot fishers.
4. Swimming crab trap fishing is the most popular fishing method in Prey Pros and Prey Sangke, while mud-crab trap fishing is most prevalent in Prey Tal and Kampong Chin.

Part II – 3: Fishing gear used/type of fishing boat and number of crew

1. As a common practice, 2 crew are onboard a fishing boat for the swimming crab trap fishing, fish (mostly mackerel) gillnet, (swimming) crab gillnet and hook and line fishing.
2. Otherwise, fishing operations are mostly carried out by only a single crew.

Part II – 4: Fishing season/fishing day/fishing hour by fishing method

1. Most respondents answered that the fishing seasons could be throughout the year except for shell hand fishing which is from April to October. (*It was noted that the question on the fishing season was answered rather vaguely or inaccurately.*)
2. The highest number of fishing days per year is 304 days for shrimp gillnet fishing followed by 253 days for the (swimming) crab gillnet, 252 days for mud crab trap, 227 days for hand push net and 223 days for mud crab trap and swimming crab trap as well as for other fishing. The number of fishing days for fish (mostly mackerel) gillnet and hook-and-line fishing is rather short, about 189 and 201 days, respectively.
3. The average fishing hour per day for every gear varied from 5.6 to 11.0 hours.
4. The average fishing hour per year for shrimp gillnet is the highest followed by the mullet gill-net and crab gill net fishing.

Part II – 5: Average fish catch per type of boat/day

1. The average fish catch per trip (day) varies from 2.2 to 12.0 kg. Specifically, the average catch of the crab gillnet is 5.2 kg/trip; shrimp gillnet: 2.3 kg/trip; mud-crab trap: 2.2 kg/trip; swimming crab trap: 4.7 kg/trip; fish gillnet: 5.2 kg/trip; mullet gillnet: 4.0 kg/trip; hand push net: 6.5 kg/trip; hand shell-fishing: 11.4 kg/trip; and hand and line fishing: 12.0 kg/trip.

Part II - 6: Disposal of fish catch

1. Fish catch is disposed in two ways: family consumption – 10.9% and for sale - 89.1%.
2. The fish catch is not meant for fish processing nor used for the manufacture of fish feeds for aquaculture.
3. More than 95% of the catch in case of swimming crab, over 99% in case of shrimp and over 88% in case of mud-crab are sold, while almost 15-30% of catch in the case of common fishes and shells are for the family's subsistence and consumption.

Part II – 7: Average fish sale

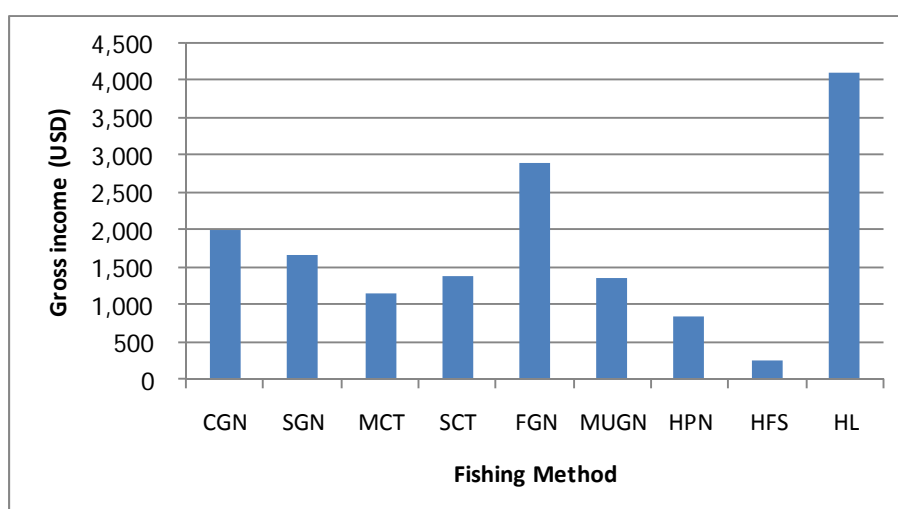
1. The average fish sale per boat/day by different types of fishing methods varied from 1.6 to 14.8 kg, with the average from swimming crab gillnet at 2.0-4.6 kg depending on whether the crab is collected by foot fishers or fishers with fishing boats, swimming crab trap at 4.0 kg, shrimp gillnet at 2.5 kg, mud-crab trap at 1.6-3.6 kg depending on the types of fishing boats, fish (mackerel) gillnet at 5.0 kg, mullet gillnet at 2.7 kg, hand push net at 4.0-6.0 kg, hand shell-fishing at 9.7-14.8 kg, and hook and line fishing at 11.5 kg.

Part II – 8: Economics of fishing operations

1. The economic gain from fishing operations is summarized and shown in Table 2.

Tab 2: Annual gross income by fishing methods

No.	Fishing method	Daily sales (USD)	Av. fishing dys/year	Av. Sales per m. (USD)	Expenditure per year (USD)					Gross income (USD)
					Operational cost		Gear maintenance cost	Boat maintenance cost	Sub-total	
					Daily	Yearly				
1	Swimming crab gillnet (CGN)	10.1	253	2,555	2.0	506.0	11.6	26.3	544	2,011
2	Shrimp gillnet (SGN)	6.0	304	1,824	0.5	152.0	3.1	7.5	163	1,661
3	Mud-crab trap (MCT)	7.1	223	1,583	1.8	401.4	3.6	22.4	427	1,156
4	Swimming crab trap (SCT)	8.8	223	1,962	2.2	490.6	37.7	52.7	581	1,381
5	Fish (mackerel) gillnet (FGN)	17.0	189	3,213	1.5	283.5	7.9	15.1	307	2,907
6	Mullet gillnet (MUGN)	6.0	252	1,512	0.5	126.0	3.8	10.3	140	1,372
7	Hand push net (HPN)	4.3	227	976	0.5	113.5	19.0	0.0	133	844
8	Hand shell fishing (HFS)	2.8	202	566	1.3	262.6	0.0	36.7	299	266
9	Hook & line fishing (HL)	23.8	201	4,784	3.1	623.1	1.0	37.5	662	4,122
	Total average	9.5	230	2,199	1.5	328.7	9.7	23.2	362	1,838



Part II – 10: Source of credit and amount of loans

1. The data gathered indicated that 52.2% of fishers avail of loans in one way or another, while the remaining 47.8% do not.
2. There are two sources of credit; i.e. commercial banks (55.0%) and middlemen (45.0%), while no loans have been availed from other sources like relatives and friends nor from government loan agencies.
3. The amount of loan from commercial banks used for fisheries purposes varies from USD 175 to 4,575 and USD 250 for non-fisheries purpose. The amount of loans received from middlemen for fisheries purpose varies from USD 50 to 1,833 and from USD 125-500 for non-fisheries purpose.
4. By village, the Prek Pros village avails most of the credit scheme with a participating ratio of 82.5% out of total fishers' households followed by Prey Sangke with 61.3%, Kampong Chin with 36.8%, and Prey Tal with only 4.0%.
5. Similarly, Prey Pros is enjoying the highest amount of loans (USD 6,430) followed by Prey Sangke (USD 1,843), Kampong Chin (USD 1,550), and Prey Tal (USD 50).
5. From the total loans availed by the four villages, 91.1% is for fisheries purposes while the remaining 8.9% is for non-fisheries purpose.

Part III: Gender role and time devoted to fisheries-related works

Part III – 1: Involvement of women in fisheries

1. Almost 90% of the women in Kampong Chin are involved in the repair and preparation of fishing gear, 48% in Prey Sangke and 15% in Prey Pros, but none in Prey Tal.
2. The women from Prey Pros are involved in fishing gear repair and preparation almost every day for as much as 171 hours per month, followed by the women in Prey Sangke (84 hours) and Kampong Chin (27 hours).
3. About 32% of the women from Kampong Chin are involved in fishing activity but in other villages, there is minimal involvement of the women (less than 10%).
4. Involvement in other works like fish processing, fish trading and general labor are minimal for all the villages, except in Prey Sangke where over 22% of the women are involved in fish trading.
5. By total, the involvement of women in fisheries can be divided into fishing gear repair and preparation at 34%, fishing at 12% and fish trading at 6%.

Part III – 2: Involvement of women in household works and other businesses

1. In almost all households, housewives are involved in household works every day without break for 6.6 hours a day or 191 hours per month.
2. It is noticeable that the average working hours of women in the village of Kampong Chin is 10 hours while in other villages it is only from 4 to 6 hours.
3. No housewives are involved in any labor other than fisheries.

Part III – 3: Involvement of men in fisheries

1. About 62.6% of the men are involved in fishing gear repair and preparation for 2.5 hours a day or 11.2 days a month on the average, followed by 48.7% for fishing activity at 7.5 hours a day or 21 days a month. Involvement of the men in other jobs like fish trading and other works is minimal.

Part III – 4 : Involvement of men in household works and other businesses

1. No men are involved in labor or works as side business other than fisheries.
2. About 51.3% of the men perform household work for their families for 3 hours a day or

20 days a month on the average. However, variations by villages are significant like 100% of the men in Kampong Chin are involved in household works followed by Prey Sangke (91%) and Prey Tal (40%), while in Prey Pros it is only 5%.

Part IV: Fishermen's participation in Community Fisheries (CF) activities or other fishery or community related activities

Part IV – 1: Membership in Community Fisheries (CF) and other groups

1. By village, membership in Community Fisheries (CF) is high in Prek Sangke (100%), followed by Prek Tal (92%), Prek Pros (88%) and Kampong Chin (42%).
2. In total, membership in CF is 84% for the four villages while 16% are non-CF members.
3. From among the respondents, no fisher belongs to any other group except in the CF.
4. In total, about 22% of the fishers participate in the project activities of the ICRM-SV.

Part IV – 2: Involvement in organizational activities (day/hour per month/year)

1. In total, 6% of the CF members are involved in the patrolling activity and 43% are involved in the CF meetings. The members participating in the patrolling activity come only from Prey Sangke and Prey Tal.
2. The CF meeting is normally summoned as much as 4 times a year and a meeting could last for 5 hours per day. As for patrolling activity, it is normally conducted for 20 days per month and for 10 hours a day on the average, which is noticeable.

Part IV – 3: Incentives for members' participation in CF activities

1. A small incentive (USD 1.3) is given to each participant for attending the CF meeting. The average frequency of the meeting is 4 times a year, which means the total incentives gained is about USD 5 per member.
2. The same rule is also applicable in the case of meetings organized by the ICRM-SV project.
3. For participation in other group activities, some incentives are also provided in kind like free lunch or T-shirt, etc.

Part V: Problems, interests, needs and future expectations

Problems

Issues in fishery

1. The most serious problem that the fishers in Teuk Thla Sangkat are currently facing is the “intrusion by illegal or industrial fishing boats” of which almost 51% of the respondents reported.
2. More than 17% of respondents are concerned about the decline in fisheries resources and the impact of climate change.
3. Over 12% are concerned about climatic change, which was particularly conspicuous in Kampong Chin.
4. Similarly, over 12% of the respondents complained about the stagnation of fish prices.

Issues in socio-economic/infrastructure

5. About 14% of the respondents complained about the lack of medical care facilities followed by lack of water supply system (9%).
6. About 5% complained of the shortage of income to support their families followed by no job opportunities for family members (2%).

Issues in agriculture and livestock

7. The most serious problems identified include small paddy field area (2%) and livestock being stolen (2%).

Immediate needs

Issues in fisheries

1. Over 45% of the respondents put forward the need for the authorities (FiA) to intervene in the prevention of illegal fishing.
2. Over 18% complained about the non-existence of any public credit system and asked for the immediate establishment of such system in their commune.
3. Many respondents expressed the need to procure more fishing gear (8%) and motorized/larger fishing boats (4%).
4. Some of them (2%) suggested that aquaculture development could be promoted.

Issues in socio-economics/infrastructure

5. About 63% of the respondents advanced the acute need to construct clinics/hospitals (16%) followed by installation of a water supply system (4%), establishment of funds for initiating new business (4%), and promotion of employment opportunities (35).
6. It is noteworthy that about 3% unexpectedly asked for more support from agencies like FiA, NGOs, SEAFDEC.
7. In addition, road construction (1%) and installation of electrical supply system (1%) were also requested.

Issues in agriculture and livestock

8. About 6% of the respondents requested for more heads of livestock.
9. About 2% asked for more spacious land to cultivate crops.

Future expectations

Topics in fisheries

1. About 30% of the respondents expressed their wish to eradicate illegal fishers' invasion, followed by enhancing the fishery resources and improving the fish catch (23%).
2. The number of fishermen wanting to continue their fishing occupation (8%) exceeded those who wish to change to other occupation (1%).
3. Some respondents expressed the need for aquaculture development in the area (1%).

Topics in socio-economics/infrastructure

4. About 10% of the respondents requested for more assistance from the government or NGOs.
5. About 5% requested for the creation of job opportunities in order that they could earn sufficient income to support their families.
6. Some respondents were concerned about the needs of their families like providing job opportunities (2%).
7. It is uniquely stressed that about 4% asked for more support for women.

Topics in agriculture/livestock

7. About 2% of the respondents expected to obtain more animals.

Other issues

8. Although this may not be relevant, some of the respondents (8%) requested to continue

the technical inputs provided by SEAFDEC, which should not be ignored.

Part VI: Supplemental question for the project operation

Taking the occasion of carrying out the monitoring (terminal) socio-economic survey, additional questions were posed to the respondents to get the views and reactions of the project beneficiaries on the impact of the project operation.

Awareness of the project

1. Almost all (99.1%) of the respondents are aware of the project operation.

Observations and suggestions on the project operation

2. All project activities have been positively appreciated by the respondents. The most preferred is the activity on fish refugia (1.67) followed by women's activity (1.64), training (1.56) and the project operation in general (1.52). On the contrary, the activity of mud-crab culture was not much appreciated (0.76) followed by cage culture (0.91).

Proposal for the future activities of the project

3. On future activity proposal, about 94% of the respondents proposed the activity on resources management followed by the training activity (86.3%) and women's activity (76.5). The activity related to volunteer group work was least proposed (49.5%).

Any suggestion to the project

4. Among the 17 suggestions raised by the respondents, 52% suggested that SEAFDEC should continue the project operation. This is noteworthy to record.
5. The second suggestion is to continue the aquaculture experiments (17%) followed by continuation of crab culture (12%), continue training course for the women's groups (7%), to support providing fishing gear (7%) and to support the private sector (6%).

8. FINDINGS AND ANALYTICAL OBSERVATIONS

Based upon the above analytical results, the following findings and observations could be derived.

Unlike in the case of the baseline survey in 2005, the current interview was conducted without any assistance from the SEAFDEC staff. The outcome however, was rather poor in general compared with that of the 2005 survey. This time, many questionnaires remained unanswered. For example, in the VI B-2 question, only 2 responded out of 19 respondents. Also, the fishing ground survey was omitted for the reason that the map sheets were left behind. The interviewers should have been more attentive during the briefing on the interview methodology which was made prior to the conduct of the survey so as to obtain more reliable and accurate data and information from the respondents.

For easy reference, the comparative information between the analytical data obtained through the previous base-line socio-economic survey and those of the monitoring survey are shown in Annex 7. The observations mainly focused on the changes of the features that occurred during last 5 years since the previous base-line survey which took place in March 2005.

Part I: General information

Population movement

1. As shown in Annex 4: movement of population, there appears to be a certain phenomenon of workforce drain, especially in the village of Kampong Chin. It is a serious case for one village where its male population over 18 years old decreases by 42.3% within 5 years, although the number of household has increased by 18%. The main cause of such trend could be attributed to the fact that many work forces have left their villages in an attempt to look for odd jobs in urban areas. As a whole, an increasing trend in the number of households and female population, and a decreasing trend in the male population, could be observed.

Age groups of fishermen

2. In the previous survey, the 36-45 years old age group was prominently larger by as much as 46% of the total population. Still, this age group occupies the highest number with 34%, but such a peculiarity has been diminishing. This may have resulted from the aforementioned workforce drain. However, the main fishermen workforce in the 36-45 years old age group is almost 10 years younger compared with those in Malaysia and Thailand. Fishermen under 45 years old comprise 74% while for over 45 years old, there was only 26% (Comparison with the national average age should be made.)
3. It is noteworthy that there have been quite conspicuous population movements during the past 5 years. There must be some underlying reasons for this phenomenon in addition to workforce drain, which should be clarified.
4. The average age of fishers surveyed is 38 years old which is the same as with the previous survey. This means that some new younger generations may have joined the fishing occupation to some extent during the past 5 years.

Marital status

1. Most (92%) male heads of the households surveyed are married, five are single, and two were widows and widowers, a status of which is more or less same as with the previous survey.

Occupation

2. About 31% of the fishers are exclusively engaged in fisheries, which had increased compared with 23% during the previous survey. Similarly, part-time fishers with agriculture have also increased from 44% to 50%. In contrast, part-time fishers with other occupations like trading and livestock raising have notably decreased.
3. There is a clear trend in the occupation pattern among the villages; i.e. part-time fishers with agriculture are by far dominant in Prey Tal and Kampong Chin while the ratio of full-time fishers and part-time fishers is more or less similar in Prey Pros and Prey Sangke
4. There is a clear correlation between the full-time fishers against part-time fishers by age group. The aged fishers tend to opt for combined occupations, a tendency which has remained unchanged since the previous survey.
5. Compared with the status of occupation in the previous survey, the diversification of occupation pattern in this survey has been dwindling.

Family structure

6. About 27% of the fishing households surveyed have no children (an increase of 7% compared with the previous survey).
7. The average number of children in the households surveyed is 2.0 persons varying from 1.8 to 2.1, showing a decreasing trend from 2.9 children in the previous survey. This is commonly happening in most developed countries.
8. The average number of family members is 4.0 persons per household, showing a drastic decrease from 6.4 persons in the previous survey. This may not be simply due to the workforce drain but also for some other reasons, possibly resulting from a sampling bias.

Education

9. The current data showing that 85% of the fishermen surveyed had completed primary school, 6% percent had completed lower secondary and less than 1% in the upper secondary school, had seemingly improved compared with the data from the previous survey which indicated that only 54% graduated from primary school.
10. There is an evident tendency of increasing educational level by village. The highest educational level is enjoyed by the fishers of Kampong Chin followed by Prey Sangke, while the lowest educational level is with the fishers of Prey Tal.

Monthly income

11. The average monthly income for the target group in the project operational area is USD 137 per household, which has by far seemingly improved compared with the previous survey (USD 28.6). It is evident that the income level of each household has increased, although such leap is beyond the comprehension of the project staff even taking into account the prevailing inflation factor.
12. The most active age group; i.e. 36-45 years old enjoy the highest income, while the younger age group (16-25 years old) earns the least, which is a natural trend.
13. The part-time fishers with combined occupations like construction of houses and building boats enjoy higher income than the others. In general, part-time fishers enjoy higher income than full-time fishers, which is USD 136 against USD 99 per month.
14. There were wide variations in the income levels among the different occupations ranging from USD 148 per month (part-time fishers working with construction work) to USD 102 (part-time fishers working with trading).
15. There is some difference in the income levels in the four villages; i.e. varying from USD 266 per month in Kampong Chin followed by Prey Pros (USD 113), Prey Sangke (USD100), and Prey Tal (USD 96).
16. There is no evident trend that more educated fishers earn more, except those who graduated from lower secondary level.

Ownership of fishing boats and other assets

17. Based on the result of the survey, 84% of fishermen are boat owners, varying from 98% in Prey Pros to 60% in Prey Tal. The current status of fishing boat ownership has increased compared with the previous survey (69%).
18. Most of the fishermen (96%) surveyed lived in their own homes with land, a trend which is similar with the previous survey.
19. More than half of the fishermen (70%) own the farm lands where they are living on, which has increased by 8% compared with that of the previous survey.
20. The major means of transportation in the villages are bicycles and motorbikes but the possession of such transport means is limited to only 20% and 9% for motorbikes and bicycles, respectively. Ownership of bicycles has increased by 6% compared with the previous survey, while for motorbikes the number has remained at the same level.
21. About one third of the fishers own cattle.

22. There is no noticeable difference in the ownerships of properties by age group.
23. There is no noticeable difference in the distribution of properties among the 4 villages except for pigs and buffalos.

Religion

24. In the area, 48.7% of the fishers are Buddhists, 50.4% are Muslims while Christian is negligible (0.9%).
25. Buddhist population is extremely predominant in Prek Pros (93%) and Kampong Chin (100%), while majority of the Muslim population are living in Prek Sangke (100%) and Prek Tal (100%).

Part II: Engagement in the fisheries sector

Fishing boats

1. Almost 84% of the fishers (as a unit of household) are boat owners and do not employ other crew for their boats.
2. Almost 16% of the fishers are engaged in capture fishing without using boats, a number which decreased from the 30% reported in the previous survey.
3. Of these boats, more than 57% are motorized. The ratio of motorized boat has decreased by 23% compared with the previous survey.
4. Almost 100% of the fishing boats are unlicensed, a trend which is the same as in the previous survey.
5. The most commonly used boats are 6-7.5 m long which cost about USD 205.

Fishing methods

6. There are 9 fishing methods being employed in the project operational area (*NB: Actually 12 fishing methods were recorded in the previous survey*). These include the swimming crab trap, hand push net, hand shellfish collection, fish gill-net, swimming crab gillnet, mullet gillnet, hand crab fishing, hook & line fishing, and shrimp gillnet.
7. Most fishing operations using fishing boats are carried out by a single crew except in shrimp gillnet fishing, swimming crab trap, fish gillnet and hand line fishing, where boats are operated by 2 crew who normally come from the same family as the boat owner (captain).

Fishing seasons and effort

8. Most fishing is carried out throughout the year except for shell fish collection which is limited to only 7 months.
9. The fishing days per year vary from 304 days to 187 days depending on the fishing methods, with an average of 245.5 days.
10. Fishing hours per a fishing trip varied depending on fishing methods, which is from 5.6 hours to 11.0 hours in one day.

Fish catch

11. The mean fish catch per boat/day in 2005 and 2009 are listed in Table 3.

Table 3. Fish catch in 2005 and 2009

<u>Fishing methods</u>	<u>Catch in 2005 (kg)</u>	<u>Catch in 2009 (kg)</u>
- Crab gillnet	5.0	5.2
- Shrimp gillnet	10.0	2.3
- Swimming crab trap	1.0 – 5.1	2.2

- Fish gillnet	4.1 – 4.7	5.2
- Mullet gillnet	6.0	4.0
- Hand push net	3.4 – 4.2	6.5
- Mud crab trap	1.7	2.2
- Hand shell fishing	2.0 – 6.0	11.4
- Hand lining	-	12.0

Consistent with the fishers' views, the shrimp catch has noticeably decreased. For other fish catches, no significant changes have been observed.

Fish prices

Naturally, fish prices vary due to many factors. Table 4 shows the estimated fish prices calculated based on the fish catches and the gross sale.

Table 4: Estimated fish prices

No	Kind of fish	Ave. Fish catch per day (kg)	Ave. Sale of fish per day (USD)	Price of fish per kg (USD)
1	Swimming crab (caught by gillnet)	5.2	10.1	1.9
2	Shrimp	2.3	6.0	2.6
3	Mud crab	2.2	7.1	3.2
4	Swimming crab (caught by trap)	4.7	8.8	1.9
5	Fish (caught by gillnet)	5.7	17.0	3.0
6	Mullet (caught by gillnet)	4	6.0	1.5
7	Small fish (caught by hand push net)	6.5	4.3	0.7
8	Shell (caught by foot fishing)	11.4	2.8	0.2
9	Fish (caught by H & L)	12	23.8	2.0

Fish distribution and marketing

12. Majority of fish catch are disposed for sale leaving only on the average, 11% for family consumption.

Economics of fishing operations

13. The annual gross income by different fishing operations per boat or fisher in the case of the foot fishing is shown in Table 5.

Table 5: Annual gross income per boat by fishing operation

<u>Fishing methods</u>	<u>in 2005(USD)</u>	<u>in 2009 (USD)</u>	<u>Increase (Decrease)</u> <u>(USD)</u>
- Swimming Crab gillnet	1,321	2,011	690
- Shrimp gillnet	3,822	1,661	(2,161)
- Mud-crab trap	576	1,156	580
- Swimming crab trap	428	1,381	953
- Fish gillnet	1,094	2,907	1,813
- Mullet gillnet	344	1,372	1,028
- Hand push net	731	844	113
- Hand shell fishing	336	266	(37)
- Hook & line fishing	-	4,122	-

14. It is noticeable that a huge reduction in gross income appears in shrimp fishing since 2005.

15. Among all types of fishing methods, the yield from hook & line fishing gave the highest

income, followed by the fish gillnet and swimming crab gillnet fishing.

16. Hand push net fishers and hand shell fishers can hardly sustain as full-time fishers but could be considered as combined part-time fishers.
17. In general, the income of fishermen has increased based on the inference derived from the above table, which supports the assertions made by the respondents (Ref. Part I – 11).

Credit scheme

18. Almost half of the fishers (52%) avail of loans in one way or another, while the rest did not.
19. There are two sources of the fishers' loans, i.e. commercial banks (55%) and middlemen (45%), but no credit scheme from appropriate government agency is functioning.
20. The amount of loan varies from USD 175 to USD 4,375 for fisheries purposes and for purposes other than fisheries the amount is USD 125 to USD 500.
21. In general, about 91% of the loan is used for fisheries purpose.
22. The average amount of loan has tripled from USD 71 to USD 218 within 5 years.

Part III: Gender roles

1. The involvement of housewives in the repair and preparation of fishing gear varies depending on the village, e.g. from 90% in Kampong Chin to 0% in Prey Tal. It is strange that the involvement of housewives in fishing gear repair and maintenance in Kampong Chin was none in the previous survey. This drastic change should be clarified.
2. Involvement in fishing activity also varies from village to village; e.g. 32% in Kampong Chin while minimal in the other three villages.
3. No housewives are involved in any other labor.
4. Housewives dedicate themselves in doing household works for more than 6.6 hours a day for a total of 191 hours a month. In the previous survey, they worked 7.6 hours a day or 228 hours a month. The burden being handled by housewives has been slightly alleviated.
5. Almost 51% of the fishermen take part in the household works of their families for 3 hours or 20 days a month on the average. In the previous survey, 80% of the fishermen spent 3-4 hours a day for over 20 days a month on household work. This means that the men's contribution to household work has been dwindling by year as well.

Part IV: Fishermen's participation in social organizations

Membership in Community Fisheries

1. About 84% of fishers surveyed are members of the CF, denoting that membership in the CF greatly increased from 58% in the previous survey.
2. The fisher-respondents are exclusive members of CF, and it seems that no other group exists in the communities. This trend has been unchanged.
3. About 22% of the fishers participated in the activity of ICRM-SV in one way or another.
4. The proportion of membership in the CF is higher in Prek Sangke (100%), followed by Prey Tal (92%) and Prek Pros (88%) but lower in Kampong Chin (only 42%). This order is more or less the same as in the previous survey, except in the case of Prey Tal (47% before).

Activity of Community Fisheries

5. In the previous survey, about 3/4 of the CF members dedicate their time with the patrolling activity for around 3 hours a day and 20 days per month. However, this

contribution has been reduced to 6% of the members during the current survey. This could be the reason why the members have to patrol for 10 hours a day, 20 days a month. Also, only CF members from Prey Sangke and Prey Tal are participating in the patrolling activity as of the present.

6. In the previous survey, the CF meetings were frequently held, about 30 times a year. However, in this survey the CF meetings are held 4 times a year. The reason could be due to the fact that in 2005, the CF had just been established and therefore all the members need to meet more frequently unlike in the present.
7. The most dedicated village in terms of participation in the community activities is Kampong Chin except in the patrolling activity, followed by the other three villages which show more or less the same degree of participation.

Part V: Problems, interests, needs and future expectations

Problems

1. The most serious problem of the fishers in the area is encroachment by illegal or industrial fishing boats. This has remained unchanged since 2005.
2. The fishers feel that the authority has put little effort in preventing illegal fishing.
3. The fishermen still feel concerned about the dwindling fisheries resources and environmental degradation. Although this is the major goal of the project, it seems that the positive impact has not yet been experienced.
4. It seems that the fishers still feel that more serious problems lie in the improvement of basic infrastructures necessary to enjoy civilized lives like water and electricity supply as well as sewage systems, public transportation system, schools and hospitals.
5. In general, the fishers feel that their income is insufficient to support their families.

Immediate needs

6. The fishers expressed the acute need for the authorities to take urgent action in protecting their fishing grounds from invasion of illegal fishers.
7. Most fishers are willing to procure larger or motorized fishing boats and fishing gear to expand their fishing activity.
8. The fishers need a public credit scheme that can provide them with loans at lower interest rates.
9. The fishers suggested that basic infrastructures like water and electricity supply, and medical service facilities, should be improved. Such suggestions have remained unchanged during the past 5 years.

Future expectations

10. The result of the previous survey indicated some degree of pessimism on the part of the fishers. In fact more than one-half of the fishers were willing to change their occupation to other jobs like agriculture, animal husbandry, etc. while only 10% fishers offered to stick to fisheries. This trend has been reversed in the current survey as 8% of the fishers want to continue fishing while only 1% consider changing to other occupation.
11. Some are expecting sustainable fishing under a well controlled coastal resources management regime. This should be fulfilled by all means as this is the ultimate goal of the project.
12. Most fishers are concerned about limited opportunities of obtaining jobs for their family members.

Others

13. This question was not specifically asked to the respondents but some of them requested the continuation of the SEAFDEC project. This should be additionally noted.

Part VI: Supplemental questions on the project operation

1. Almost all fishers are aware of the ICRM-SV project operation.
2. Among all activities, establishment of fish refugia, women' local business development and training program have been most appreciated while mud-crab fattening and cage culture are also appreciated to some lesser extent.
3. As the future course of the project, most fishers want to put more emphasis on resources management activities.
4. Most fishers requested to continue the SEAFDEC project in future, although this was out of the scope of questionnaire.

9. CONCLUSION AND RECOMMENDATIONS

1. In general, it should be admitted that some parts of the interview was not conducted in a professional manner, leading to the inaccurate data gathered affecting the analysis especially in some portions of the questionnaire.
2. It is evident that workforce drain in the fishing communities has taken place during the last 5 years. Such a phenomenon is most conspicuous in Kampong Chin village.
3. In spite of the abovementioned workforce drain, the average age of fishermen is about 38 years old, which is still younger than those in Thailand and Malaysia.
4. It seems that there have been movements of the villages' inhabitants during the last 5 years, this should be clarified.
5. The number of fulltime fishers and part-time fishers with agriculture increased, and a diversification of occupations within the part-time fishers has dwindled. It is quite contrary to the conventional trend.
6. The trend that aged fishers tend to opt for combined occupation has been unchanged.
7. The number of children in a family has decreased from 2.9 to 2.0. This phenomenon is common in developed countries, but 31% decrease within 5 years could be too extreme.
8. Similarly, the number of family members has decreased from 6.4 to 4.0 within five years. Such a drastic change is unthinkable in a normal situation. This should be further clarified in connection with the workforce drain.
9. Most (85%) fishers graduated from primary school at least. This trend has improved.
10. There is an evident difference in the educational level by village with fishermen from Kampong Chin attaining the highest education level.
11. The average monthly income in each household is USD 137 which seems to be reasonable. This is a quite a big leap compared with the data from the previous survey (USD 29).
12. The part-time fishers earn more than the full-time fishers, which is USD 136 against USD 99.
13. There are some variations in the income level by village, the highest income of USD 266 is observed in Kampong Chin.
14. There is no clear correlation between the income level and educational level.
15. Most (84%) fishers are self-boat owners. The ratio of boat owners has increased.
16. Most (96%) fishers live in their own houses.
17. The availability of means of transportation seems to be a problem. Only 20% and 9% of households own bicycles and motorbikes, respectively.

18. The Muslim and Buddhist populations are almost balanced at 49% against 51%, respectively. Muslims dominate in Prek Sangke and Prey Tal, while Buddhists dominate in Kampong Chin and Prey Pros.
19. About 16% of the fishers are engaged in capture fishing without using boats, this ratio has decreased from the last survey.
20. Over one-half (57%) of boats are motorized.
21. Boats are not licensed, but actually it is not necessary for a boat without engine to be registered.
22. The boat most commonly used is 6-7.5 m long which could cost USD 205.
23. There are 9 fishing methods prevailing in the area, actually a few more fishing methods existed but these are not much popularly used.
24. Most fishing operation is carried out by a single crew except in hand & line fishing, shrimp gillnet, swimming crab trap and fish gillnet, which are operated by 2-3 crew from the same families.
25. Most fishing activities are carried out throughout the year except hand shell collection which is limited to 7 months from April to October.
26. The average fishing days is 245.5 days per year. Fishing hours per day varied from 5.6 to 11.0 hours depending on the fishing methods.
28. Catches from most fishing methods have been increasing except those from shrimp gillnet, which has noticeably decreased.
29. The prices of fish vary from USD 0.2 to 3.2 per kg depending on the species. The changes in fish prices during the past five years could not be traced.
30. The annual gross income in fishing operation varies from USD 266 for the hand shell fishing to USD 4,122 for hand & line fishing. The income levels have generally increased since the last 5 years except for shrimp fishing.
31. Hand push net fishing and hand shell fishing can hardly be classified as fulltime fishing.
32. More than half of the fishers (52%) avail of loans from either commercial banks or from middlemen. The amount of loan varies from USD 175 to USD 4,375 for fisheries purposes and USD 125 to USD 500 for purposes other than fisheries.
33. The average loan received has increased three times since 2005.
34. About 90% of the housewives in Kampong Chin are involved in fishing gear repair and preparation, although it was nil in the previous survey. Such drastic change should be further clarified.
35. Similarly, 32% of the housewives in Kampong Chin are involved in fishing activity. This has almost doubled compared with the previous survey (17%). It seems that women's participation has been progressively encouraged in the project operational area, particularly in Kampong Chin.
36. Housewives generally dedicated themselves to household works for 6.6 hours a day or 191 hours per month. Since it was 228 hours in the previous survey, the current result shows a slight improvement.
37. Similarly the involvement of men in the household work also decreased.
38. Membership in CF (84%) has been greatly increased from 58% in the previous survey.
39. No other institutional groups exist in the fishing community.
40. As much as 22% of the fishers are participating in the activity of ICRM-SV as they are the direct beneficiaries of the project.
41. The main participation of the members in the CF activity lies in patrolling, where in the previous survey 29% members participated, but it has decreased to only 6% in the current survey. This reduction of manpower has forced the current participating members to carry heavy burdens for the excess engagement hours. This matter should be properly coordinated.

42. In those days the CF meetings were held as frequently as 30 times a year. But currently it has been reduced to only 4 times a year. This may be due to the fact that the CF meeting had to be held frequently during the inception period of the CF organization in 2005, but now since the CF has been well organized, frequent meetings may no longer be necessary except the routine ones.
43. For the fishers, the most serious problem is encroachment by illegal or industrial fishing boats. The fishers feel that the authorities have put little efforts on this matter. This situation has kept unchanged in spite of much efforts exerted by the project. The project should therefore put more efforts in order to alleviate the situation.
44. The fishermen are still concerned about the dwindling fishery resources and environmental degradation.
45. The fishers feel that more serious problems still lie in the improvement of basic infrastructures necessary to enjoy civilized lives like water and electricity supply as well as sewage systems, public transportation system, schools and hospitals, which are beyond the scope of the project mandate.
46. Creation of a public credit system with marginal interests is also necessary.
47. Previously, it noted that more than half of the fishers were willing to change to other occupations like agriculture, animal husbandry, etc., with only 10% of the fishers wanting to stick to fisheries. This trend has been reversed; i.e. 8% fishers want to continue fishing but only 1% consider changing to other occupations.
48. Among the activities promoted by the project, establishment of fish refugia, women's group activity and training program have been most appreciated.
49. As future course of action of the project, most fishers requested that more emphasis should be placed on fisheries resources management and enhancement.

Annex 1

Questionnaire Design Format

Components of questionnaire	Parameters	Rationale	Output of the Component
Part I: General information	<ol style="list-style-type: none"> 1. Age 2. Religion 3. Marital status 4. Family composition 5. Educational level 6. Occupation 7. Source of monthly income 8. Asset ownership 	Correspondent to Objective (a)	Generally views information of fishers in the project area to compare the trend prior to initiation of the project
Part II: Engagement in fisheries Sector	<ol style="list-style-type: none"> 1. Type of engagement 2. Fishing boat: length and license 3. Type of fishing gear, seasons and numbers 4. Fishing ground 5. Catch disposal: by source, species and purpose of distribution 6. Total expenditures of fishing operation: by type of fishing gear 7. Gross income from sale of fish products: by species 	Correspondent to Objective (b)	Views capacity of fishers in capture fisheries, characteristics in fishing operation by different types of fishing gear and any measures taken for coastal resources management and compares with the trend prior to initiation of the project in 2005
Part III: Gender role through time-consuming in employment	<ol style="list-style-type: none"> 1. In fishing operation, harvesting and house-keeping 2. Duty in household 3. Participation in social and religious ceremonies 	Correspondent to Objective (c)	Views role of fisher, fishers' wives and women in community economic development and resource management, including strengthening of family relationship and compares with the trend prior to initiation of the project in 2005
Part IV: Role of Community Fisheries' members and its functions in community development and resource management	<ol style="list-style-type: none"> 1. Members status: member of committee, regular member 2. Members participating in Community Fisheries (CF), its activities and other group activities 3. Categories of CF's activities and status 	Correspondent to Objective (d)	Views functional performance of Community Fisheries and its activities, how active and effective it is to contribute community economic development and resource management and compares with the trend prior to initiation of the project in 2005
Part V: Any problem encountered, any interests envisaged, any needs desired and any expectation in the future dream	<ol style="list-style-type: none"> 1. Clarification of problems, needs, interests and expectation in the near future 	Correspondent to Objective (e)	Views fishers' perspectives, problems currently facing, future plans and dreams, that can measure the degree of negative or positive life styles and compares the trend prior to initiation of the project in 2005
Part VI: Monitoring project impact	<ol style="list-style-type: none"> 1. Popularity of the project 2. Suggestion for the project operation 	Additional useful information	The information can be used for the project evaluation in judging the project popularity.

Annex 2

**Questionnaire sheets for Monitoring Socio-economic
Community Survey in Prey Nup II**

Name of interviewer:

Name of Respondent:.....

Village.....

Date of interview:.....

Part I: General Information

1. Age: year	
2. Religion: 1. Buddhist 2. Muslim 3. Christian 4. Others	3. Marital status: 1. Single 2. Married 3. Widow 4. Widower
4. Composition of family Number of Children	1. Adult (Male....., Female....., Total.....) 2. Child under 15 (Male....., Female....., Total.....)
5. Educational Level (The master of the family only)	<input type="checkbox"/> Primary school <input type="checkbox"/> lower secondary school <input type="checkbox"/> Upper secondary school <input type="checkbox"/> None , other.....
6. Occupations (The source of income for the household)	<input type="checkbox"/> Fishing only <input type="checkbox"/> Fisheries and agriculture <input type="checkbox"/> Fisheries and trading <input type="checkbox"/> Fisheries and laboring <input type="checkbox"/> Fisheries and processing <input type="checkbox"/> Fishing and livestock <input type="checkbox"/> Others (Specify)
7. Source of total monthly income	<input type="checkbox"/> Fisheries (.....Riel) <input type="checkbox"/> Agriculture (.....Riel) <input type="checkbox"/> Trading (.....Riel) <input type="checkbox"/> Laboring (.....Riel) <input type="checkbox"/> Processing (.....Riel) <input type="checkbox"/> Aquaculture (.....Riel) <input type="checkbox"/> Live stock (.....Riel) <input type="checkbox"/> Tourism (.....Riel) <input type="checkbox"/> Others (.....Riel)
8. Monthly expenditure	1. Water (.....Riel), 2. Electricity (.....Riel) 3. Foods / beverage (.....Riel), 4. Clothing (.....Riel), 5. Education (.....Riel), 6. Social affair (.....Riel) 7. Entertainment (.....Riel), 8. Transportation (.....Riel), 9. Others, pls. specify (.....,Riel)
9. Asset ownership (current prices)	<input type="checkbox"/> Fishing boat (.....unit), <input type="checkbox"/> House (.....Unit), <input type="checkbox"/> Land (.....ha) <input type="checkbox"/> Farmland / paddy field (.....ha) <input type="checkbox"/> Live stocks (cow , buffalo....., pig) <input type="checkbox"/> Car (.....unit), <input type="checkbox"/> Motorbike (....unit) <input type="checkbox"/> Others, pls specify.....

Part II: Engagement in Fisheries Sectors

1. Type of engagement

- a) Capture fisheries (Boat owner....., Employee.....) b) Aquaculture (Owner..., Employee....)
 c) Fish processing (Owner....., Employee)
 d) Fish trading (Owner....., Employee.....)
 e) Others (Please specify, if more than one).....

2. Fishing boat (only for boat owners)

(1). Fishing boat	(2). With or W/O engine	(3). made (Wooden or FRP)	(4). Overall Length (m)	(5). Price of boat when purchased (Riel)	(6). Age of boat after construction (year)	(7). Licensing register (licensed or unlicensed)	(8). No. of crew	(9). Main fishing gear used *
No.1	W, W/ O	W, F	.....m	.....	.....	Yes , No,,,,,
No.2	W, W/ O	W, F	.....m	.....	.....	Yes , No,,,,,
No.3	W, W/ O	W, F	.....m	.....	.....	Yes , No,,,,,

* (9). Crab gillnet (CGN), Mud-crab trap (MCT), Swimming crab trap (SCT), Shrimp gillnet (SGN), Fish gillnet (FGN), Mackerel gillnet (MGN), Mullet gillnet (MGN), Hand push net (HPN), Crab hand fishing (HFC), Shell hand fishing (HFS), Hook and line (HL), Set bag-net (SBN) and Cast net (CN)

3. Fishing season and fishing ground by type of fishing gear

Type of Gear * (9)	(1). Fishing season (indicate by month like 1,2,7 & 8 etc.)	(2). No. of fishing days per month	(3). Fishing hours a day (from departure to return)	(4). Quantity of Catch (Kg) (Average catch per trip)	(5). Fishing ground (please indicate on map)
a. ....			.....hrs	.....kg	
b. ....			.....hrs	.....kg	
c. ....			.....hrs	.....kg	
d. ....			.....hrs	.....kg	

4. Catch utilization per trip

4a. Disposal of Consumption

Type of major species of fish *	Utilization (%)			
	1. For family consumption	2. Sale	3. Processing – what form?	4. For feed for aquaculture
a.				
b.				
c.				
d.				
e.				

* (1) Major species of fish: Swimming crab (SC), Mud crab (MC), Blood Cockle (BC), Bivalve shell (BS), Mullet (ML), Mackerel (MK), Shrimp (SR), Squid (SQ) and Other mixed (MX)

4b For sale of daily catch per trip (average quantity and market price)

Species of fish	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Swimming Crab	Mud crab	Blood cockle	Bi - valve	Mullet	Mac-kerel	Shrimp	Squid	Other mixed
Q'ty (kg)									
Unit Price (Riel/kg)									
Sale(Riel)									

5a Operational cost and returns per trip (day)

Type of fishing gear	Operational costs (Riel)						(7).Total expenses (Riel)
	(1) Fuel & oil	(2) Food	(3) Crew	(4) Bait	(5) ice	(6) Others	
a.							
b..							
c.							
d.							

5b Maintenance costs

a) Fishing gear.....Riel/month b) Boat.....Riel/year

5c Do you have any loan taken and from whom and how much for what and monthly repayment?

(1).Source of loan taken	(2).For what	(3). How much (Rile)	(4) Interest (Riel/month)
a. Government			
b. Commercial bank			
c. Friend / relative			
d. Other			

Part III: Gender role through time-consuming in working for a month

1. Activity	Male		Female	
	2. Working day per month	3.No. of hours per day	4. Working day per month	5.No. of hours per day
a. Fishing gear repair & preparation				
b. Fishing				
c. Fish trading				
d. Fish processing				
e. Fish culturing				
f. Laboring other than fisheries				
g. Household works				

Part IV: Role of fishermen participation in Community Fisheries (CF) activities or other fishery or community related activities

1. Participation in CF and group activities

Group	Position held	Participation		
		No.of days per month	Hours per day	Any Incentive provided? If yes, how much per month or in kind?
a. CF				
b. Project (SEAFDEC/FiA)				
c. Others				
d. Others				

Part V: Problems, needs and expectations in the future after incomes have increased.

Problems: (not only in fisheries sectors)

- 1.....
- 2.....
- 3.....

Immediate Needs: (for example infrastructure construction, access to credit scheme etc.)

- 1.....
- 2.....
- 3.....

Future Expectation (any vision, interest, hope etc.)

- 1.....
- 2.....
- 3.....

PART VI: Supplementary questionnaire for the project operation

A. Awareness on the project

- 1. Do you know the SEAFDEC/FiA project operational in Prey Nup II since 2005.
 Yes, No.

B. Observation and suggestions for the project operation

- 1. If you reply to “yeas” how do you evaluate the project activities?
 - (1) Planning in general: Very good, Good, Not good, very bad
 - (2) Operation in general: Very good, Good, Not good, very bad
 - (3) Training: Very good, Good, Not good, very bad
 - (4) Women’s activity: Very good, Good, Not good, very bad
 - (5) Mud-crab culturing: Very good, Good, Not good, very bad
 - (6) Cage culturing: Very good, Good, Not good, very bad
 - (7) Crab bank: Very good, Good, Not good, very bad
 - (8) Fish refugia: Very good, Good, Not good, very bad

- 2. What do you want the project to do more in future?
 Resources management, Local business, Women’s activity, Training,
 Volunteer group work

3. Any suggestion to the project

- 1.....
.....
- 2.....
.....
- 3.....
.....

Thanks for cooperation !

Annex 3

List of Analytical data and information sheets

<u>No</u>	<u>Data number</u>	<u>Particulars</u>	<u>Remarks</u>
01.	Part I-1	Fishermen's age variation	by village/total
02.	Part I-2	Marital status of fishermen	by village/total
03.	Part I-3	Occupations of fishermen	by village/total
04.	Part I-4	Number of family/child(ren) per household	by village/total
05.	Part I-5	Education level of fishermen	by village/total
06.	Part I-6a	Monthly income (in USD) of fishermen	by age/village
07.	Part I-6b	Average income by age group	by age
08.	Part I-7	Relation between education level and income	by age
09.	Part I-8a	Owner of fishing boats	by village
10.	Part I-8b	Asset ownership of fishermen (except fishing boat)	by age
11.	Part I-9	Religion	by village/total
12.	Part II-1a,b	Number of fishing boats by licensed/unlicensed	by village/total
13.	Part II-1c	Length, price and age of fishing boats	by village/total
14.	Part II-2	Fishing gear used	by village/total
15.	Part II-3	Fishing gear used/type of fishing boat and number of crew	by total
16.	Part II-4a	Fishing days and fishing hours by fishing method	by total
17.	Part II-4b	Fishing seasons by fishing methods	by total
18.	Part II-5	Average fish catch per boat	by total
19.	Part II-6	Disposal of fish catches	by total
20.	Part II-7	Average fish sales	by total
21.	Part II-8a	Economics of fishing operation in average per fishing trip	by total
22.	Part II-8b	Economics of fishing operation in average maintenance cost per year	by total
23.	Part II-9a	Source of credit	by total
24.	Part II-9b	Total amount of loan	by total
25.	Part II-9c	Source of credit by village	by village
26.	Part II-9d	Total amount of loan by village	by village
27.	Part II-9e	Mean amount of loan taken by each fisher	by village
28.	Part III-1a	Involvement of women in each engagement	by village
29.	Part III-1b	Involvement of women in fisheries by village and age group	by village/age
30.	Part III-2	Involvement of women in household work	by village
31.	Part III-3a	Involvement of men in each engagement	by village
32.	Part III-3b	Involvement of men in fisheries	by age
33.	Part III-4	Involvement of men in household work	by village
34.	Part IV-1	Membership of Community Fisheries (CF) and other groups	by village
35.	Part IV-2	Involvement in organizational activities (days/hour per month/year)	by village
36.	Part IV-3	Incentives for members, participation in CF activities	by village
37.	Part V-1	Problem	by village/total
38.	Part V-2	Immediate needs	by village/total
39.	Part V-3	Expectation	by village/total
40.	Part VI-1	Awareness on the project	by village/total

41. Part VI-2 Observations and suggestions for the project by village/total operation
42. Part VI-3 Proposal on the future activities of the project by village/total
43. Part VI-4 Any suggestion to the Project by village/total

Annex 4

Movement of population between 2005 and 2009

Village	Survey		2005	2008	Increase/decrease		Remarks
	Item	Sex			Number	Percent (%)	
Prek Pros	Population all	Male	932	922	-10	-1.1	
		Female	901	949	48	5.3	
		Total	1,833	1,871	38	2.1	
	Population over 18	Male	486	588	102	21.0	
		Female	499	614	115	23.0	
		Total	985	1,202	217	22.0	
	Household		317	336	19	6.0	
Average Nbr/family		5.8	5.6	-0.2	-3.7		
Prek Sangke	Population all	Male	459	510	51	11.1	
		Female	465	528	63	13.5	
		Total	924	1,038	114	12.3	
	Population over 18	Male	453	253	-200	-44.2	
		Female	240	274	34	14.2	
		Total	693	527	-166	-24.0	
	Household		201	214	13	6.5	
Average Nbr/family		4.6	4.9	0.3	5.5		
Prek Tal	Population all	Male	337	408	71	21.1	
		Female	442	455	13	2.9	
		Total	779	863	84	10.8	
	Population over 18	Male	403	239	-164	-40.7	
		Female	229	298	69	30.1	
		Total	632	537	-95	-15.0	
	Household		156	183	27	17.3	
Average Nbr/family		5.0	4.7	-0.3	-5.6		
Kampong Chin	Population all	Male	962	555	-407	-42.3	
		Female	470	533	63	13.4	
		Total	1,432	1,088	-344	-24.0	
	Population over 18	Male	515	287	-228	-44.3	
		Female	266	293	27	10.2	
		Total	781	580	-201	-25.7	
	Household		165	195	30	18.2	
Average Nbr/family		8.7	5.6	-3.1	-35.7		
Total	Population all	Male	2,690	2,395	-295	-11.0	
		Female	2,278	2,465	187	8.2	
		Total	4,968	4,860	-108	-2.2	
	Population over 18	Male	1,857	1,367	-490	-26.4	
		Female	1,234	1,479	245	19.9	
		Total	3,091	2,846	-245	-7.9	
	Household		839	928	89	10.6	
Average Nbr/family		5.9	5.2	-0.7	-11.6		

Annex 5-1

Analytical Result-Part I

Part I : General Information

Part I-1 Fishermen's age variation

a) Fishermen's age variation by village

Age group	Fishing village				Total
	Prek Pros	Prek Sanke	Prek Tal	Kampong Chin	
16-25	6	11	6	0	23
26-35	11	5	6	6	28
36-45	13	10	5	6	34
46-55	8	5	4	7	24
56-65	2	0	2	0	4
66-75	0	0	1	0	1
76-85	0	0	1	0	1
total	40	31	25	19	115
Avg.age	38	34	40	40	38

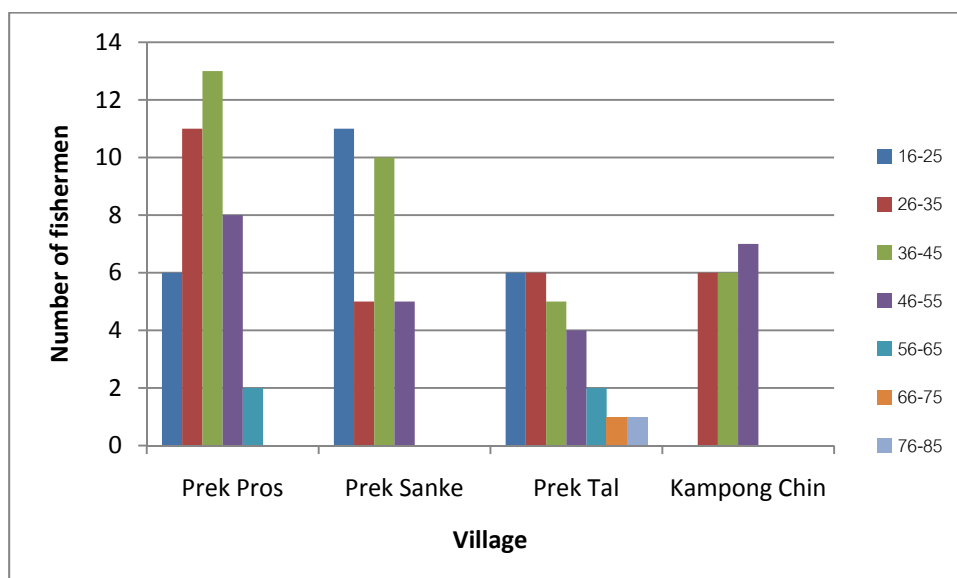


Figure 1. Fishermen's age variation by village

b) Fishermen's age variation by village (in percentage)

Age group	Fishing village				Total
	Prek Pros	Prek Sanke	Prek Tal	Kampong Chin	
16-25	15.0	35.5	24.0	0.0	20.0
26-35	27.5	16.1	24.0	31.6	24.3
36-45	32.5	32.3	20.0	31.6	29.5
46-55	20.0	16.1	16.0	36.8	20.9
56-65	5.0	0.0	8.0	0.0	3.5

66-75	0.0	0.0	4.0	0.0	0.9
76-85	0.0	0.0	4.0	0.0	0.9
total	100.0	100.0	100.0	100.0	100.0

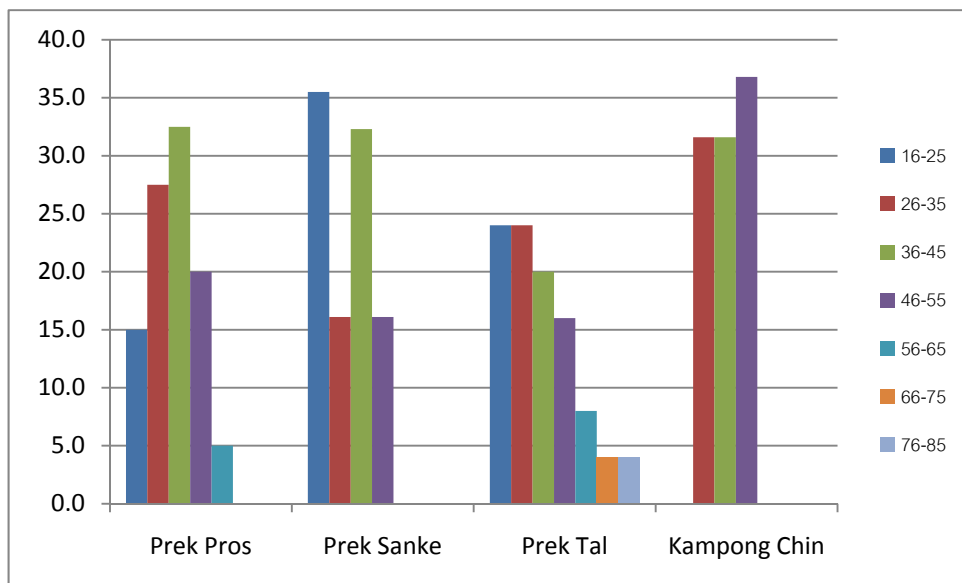


Figure 2. Fishermen's age variation by village (in percentage)

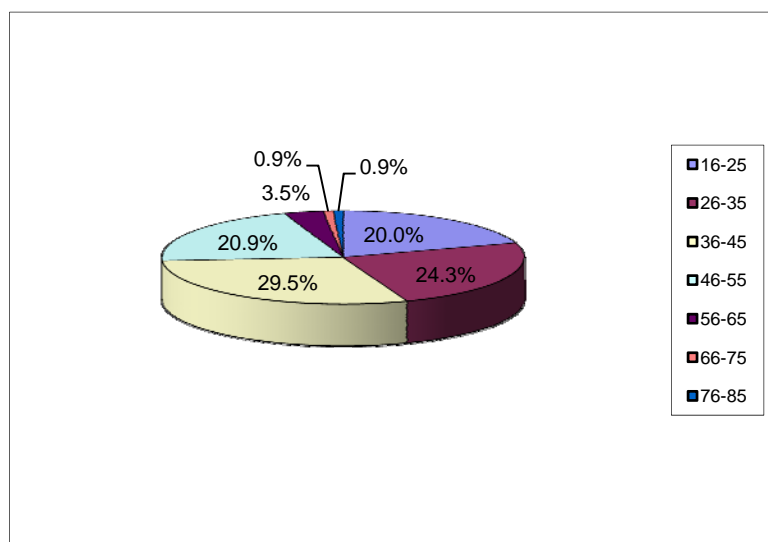


Figure 3. Fishermen's age variation by total (in percentage)

Part I-2 Marital status of fishermen

a) Marital status by village

Village	Marital Status				Total
	Single	Married	Widow	Widower	
Prek Pros	3	35	2	0	40
Prek Sanke	1	29	0	1	31
Prek Tal	1	23	0	1	25
Kampong Chin	0	19	0	0	19
Total	5	106	2	2	115

b) Marital status by total (in percentage)

Village	Marital Status				Total (%)
	Single	Married	Widow	Widower	
Prek Pros	2.6	30.4	1.7	0.0	34.7
Prek Sanke	0.9	25.2	0.0	0.9	27.0
Prek Tal	0.9	20.0	0.0	0.9	21.8
Kampong Chin	0.0	16.5	0.0	0.0	16.5
Total	4.4	92.1	1.7	1.8	100.0

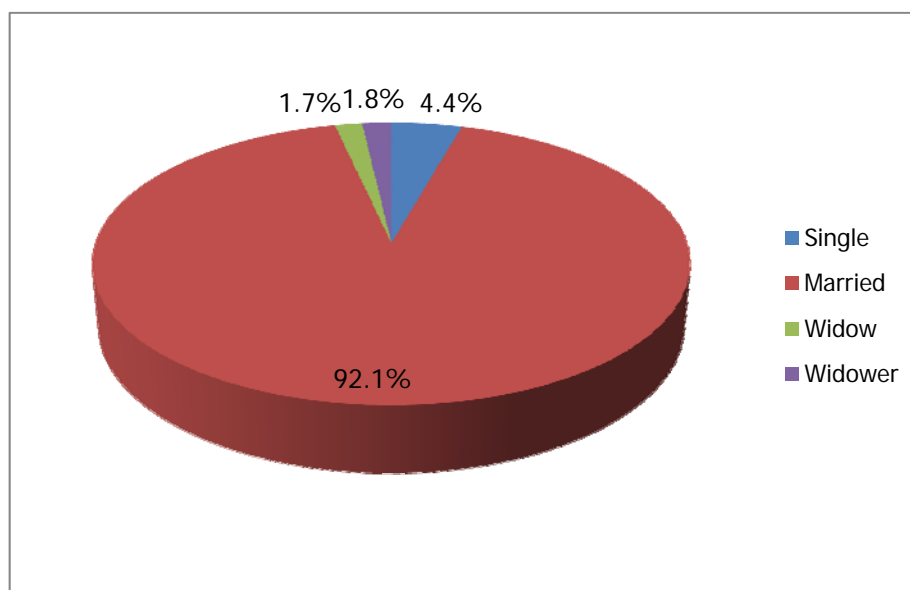


Figure 4. Marital status by total (in percentage)

Part I-3 Occupations of fishermen

a) Occupations of fishermen by age group (by village)

Age group	Occupation						Total
	Fisheries only	Combination with other professions					
		Agri.	Trading	Laboring	Livestock	Others	
16-25							
Prek Pros	1	4	0	0	0	1	6
Prek Sangke	7	1	0	0	3	0	11
Prek Tal	1	4	0	0	0	1	6
Kampong Chin	0	0	0	0	0	0	0
Sub-total:	9	9	0	0	3	2	23
26-35							
Prek Pros	8	1	0	0	2	0	11
Prek Sangke	3	1	0	0	1	0	5
Prek Tal	1	3	0	1	0	1	6
Kampong Chin	0	6	0	0	0	0	6

Sub-total:	12	11	0	1	3	1	28
36-45							
Prek Pros	6	7	0	0	0	0	13
Prek Sangke	0	4	0	0	4	2	10
Prek Tal	0	5	0	0	0	0	5
Kampong Chin	2	4	0	0	0	0	6
Sub-total:	8	20	0	0	4	2	34
46-55							
Prek Pros	3	3	0	0	0	2	8
Prek Sangke	1	2	1	1	0	0	5
Prek Tal	0	3	0	0	0	0	3
Kampong Chin	1	6	0	0	0	0	7
Sub-total:	5	14	1	1	0	2	23
56-65							
Prek Pros	1	1	0	0	0	0	2
Prek Sangke	0	0	0	0	0	0	0
Prek Tal	1	1	0	0	0	0	2
Kampong Chin	0	0	0	0	0	0	0
Sub-total:	2	2	0	0	0	0	4
66-75							
Prek Pros	0	0	0	0	0	0	0
Prek Sangke	0	0	0	0	0	0	0
Prek Tal	0	1	0	0	0	1	2
Kampong Chin	0	0	0	0	0	0	0
Sub-total:	0	1	0	0	0	1	2
76-85							
Prek Pros	0	0	0	0	0	0	0
Prek Sangke	0	0	0	0	0	0	0
Prek Tal	0	0	0	0	0	1	1
Kampong Chin	0	0	0	0	0	0	0
Sub-total:	0	0	0	0	0	1	1
Summary							
Prek Pros	19	16	0	0	2	3	40
Prek Sangke	11	8	1	1	8	2	31
Prek Tal	3	17	0	1	0	4	25
Kampong Chin	3	16	0	0	0	0	19
Total	36	57	1	2	10	9	115

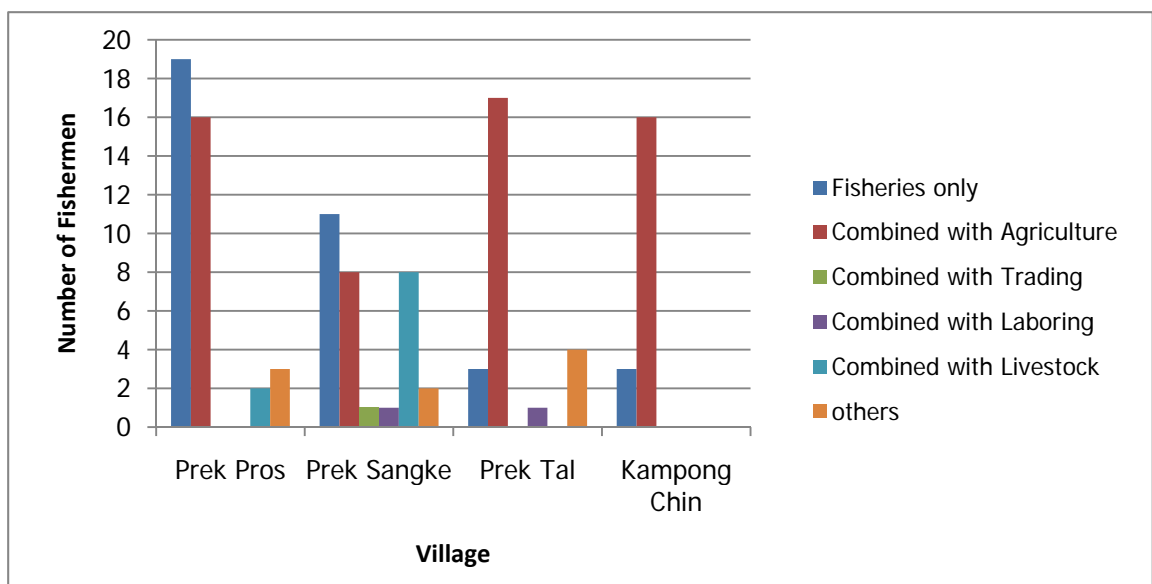


Figure 5. Occupation of fishermen by village

b) Occupations of fishermen by age group (by total)

Age group	Occupation						Total	
	Fisheries only	Combination with other professions						
		Agri.	Trading	Laboring	Livestock	Others	(Nbr)	(%)
16-25	9	9	0	0	3	2	23	20.0
26-35	12	11	0	1	3	1	28	24.3
36-45	9	19	0	0	4	2	34	29.6
46-55	5	14	1	1	0	2	23	20.0
56-65	2	2	0	0	0	0	4	3.5
66-75	0	1	0	0	0	1	2	1.7
76-85	0	0	0	0	0	1	1	0.9
Sub-total:	37	56	1	2	10	9	115	100

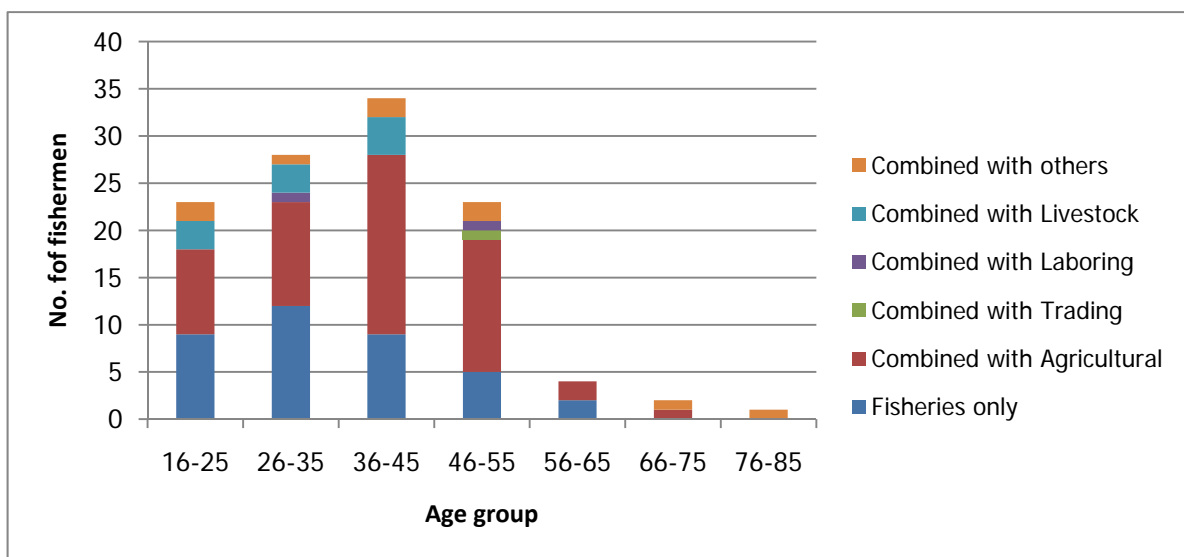


Figure 6. Occupation by age group

c) Principle occupations in the fishing community

Occupation	Fisheries only	Combined with Agri.	Combined with Trading	Combined with laboring	Combined with Livestock	Combined with others	Total
No. of fishermen	37	56	1	2	10	9	115
in percentage (%)	32.2	48.7	0.9	1.7	8.7	7.8	100

(Note: Interviewees in Prek Pros, Prek Sangke, Prek Tal and Kampong Chin are 40, 31, 25 and 19 respectively)
: Agri=Agriculture

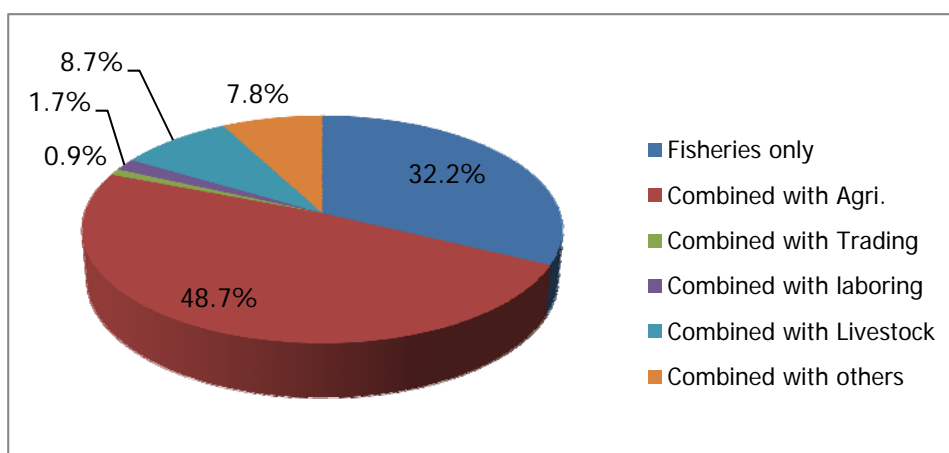


Figure 7. Occupation of fishermen by total (in percentage)

Part I-4 Number of family/child(ren) per household

Structure of family

Village	Number of interviewees	Average No. of family member	Household (composition of family)				
			without child		with child(ren)		
			Number	%	Number	%	Average No. of children
Prek Pros	40	4.1	15	37.5	25	62.5	2.1
Prek Sangke	31	4.2	6	19.4	25	80.6	1.8
Prek Tal	25	3.6	8	32.0	17	68.0	1.9
Kampong Chin	19	4.0	2	10.5	17	89.5	1.9
Total	115	4.0	31	27.0	84	73.0	2.0

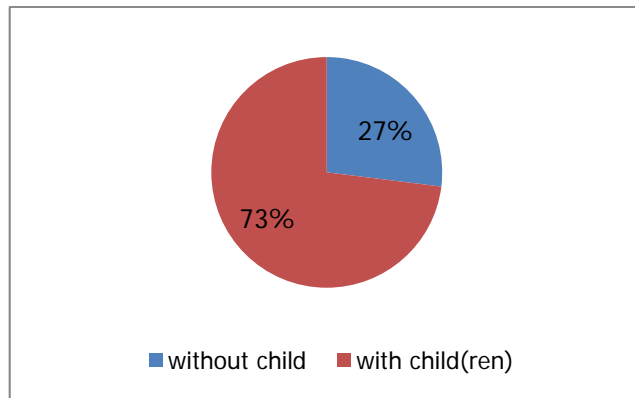


Figure 8. Family structure with child(ren) and without child by total (in percentage)

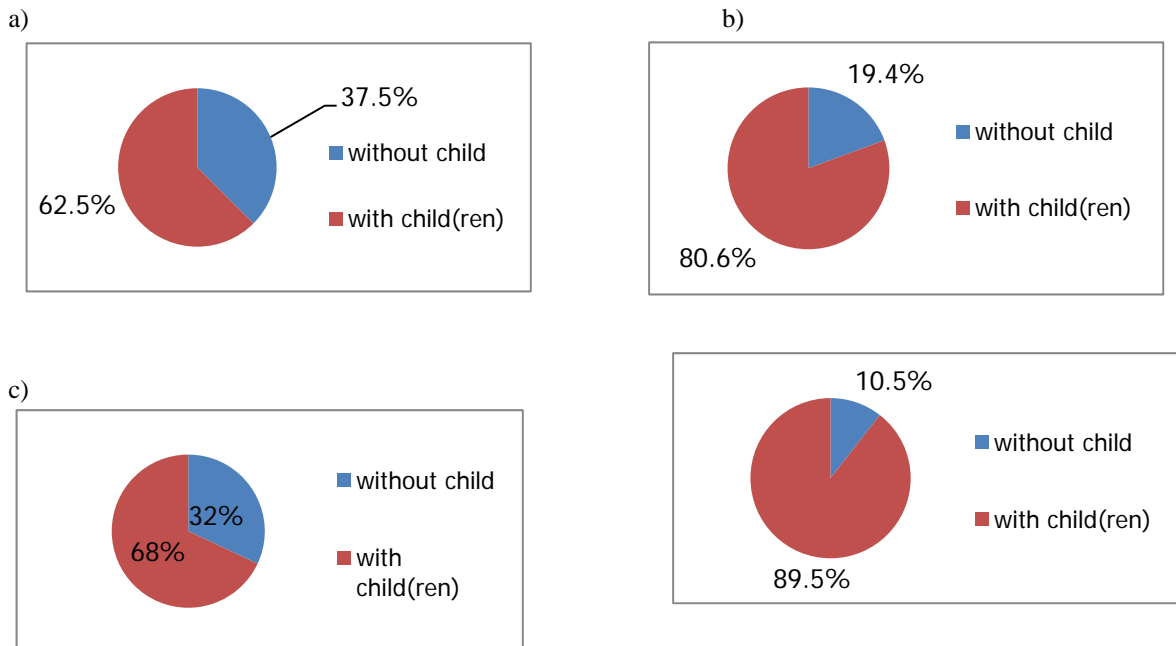


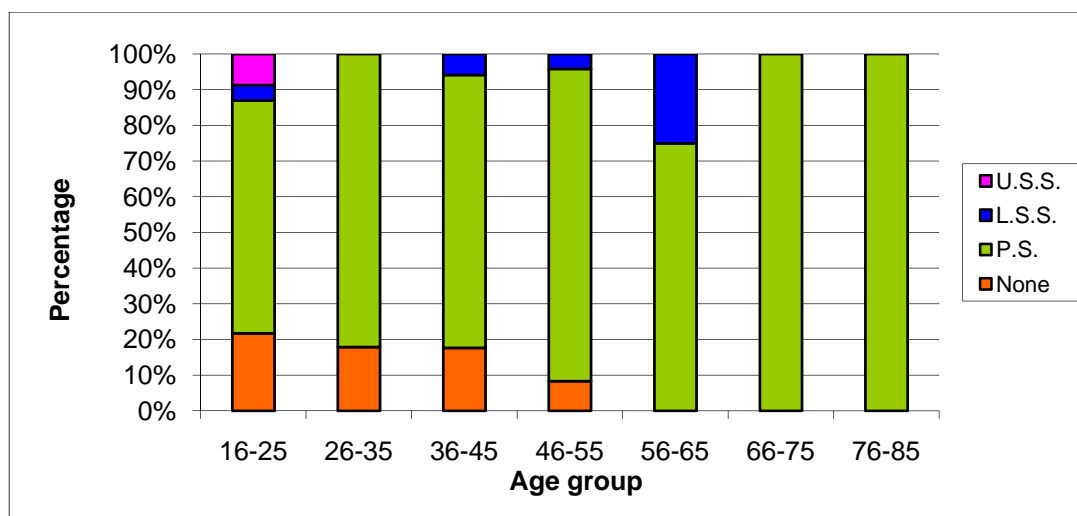
Figure 9. Family structure with child(ren) and without child by village in percentage
a) Prek Pros b) Prek Sangke c) Prek tal d) Kampong Chin

Part I-5 Education level of fishermen

a) Education level of fishermen by age (by total)

Age group	No.of inter- viewees	Education level (number)				Education level (number)			
		None	P.S.	L.S.S.	U.S.S.	None	P.S.	L.S.S.	U.S.S.
16-25	23	5	15	1	2	21.7	65.2	4.3	8.7
26-35	28	5	23	0	0	17.9	82.1	0.0	0.0
36-45	34	6	26	2	0	17.6	76.5	5.9	0.0
46-55	24	2	21	1	0	8.3	87.5	4.2	0.0
56-65	4	0	3	1	0	0.0	75.0	25.0	0.0
66-75	1	0	1	0	0	0.0	100.0	0.0	0.0
76-85	1	0	1	0	0	0.0	100.0	0.0	0.0
Total	115	18	90	5	2				

Remark P.S. = Primary School, L.S.S = Lower Secondary School, U.S.S= Upper Secondary School

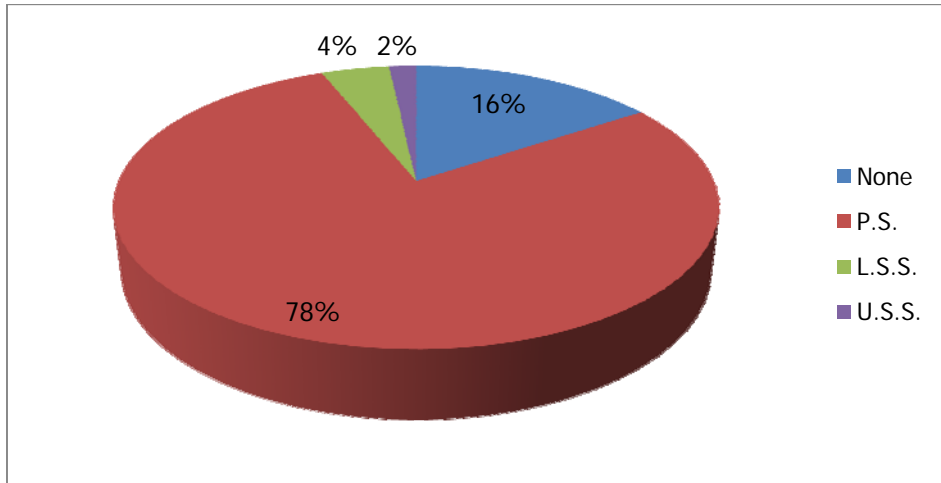


Remark P.S. = Primary School, L.S.S = Lower Secondary School, U.S.S= Upper Secondary School

Figure 10. Education level of fishermen by age group

b) Education level of fishermen

Village	No.of inter- viewees	Education level							
		Number				Percentage (%)			
		None	P.S.	L.S.S.	U.S.S.	None	P.S.	L.S.S.	U.S.S.
Prek Pros	40	6	34	0	0	15.0	85.0	0.0	0.0
Prek Sangke	31	1	28	0	2	3.2	90.3	0.0	6.5
Prek Tal	25	11	11	3	0	44.0	44.0	12.0	0.0
Kampong Chin	19	0	17	2	0	0.0	89.5	10.5	0.0
Total	115	18	90	5	2				
Total (%)		15.7	78.3	4.3	1.7				



Remark P.S. = Primary School, L.S.S = Lower Secondary School, U.S.S= Upper Secondary School

Figure 11. Education level of fishermen by Total

Part I-6 Mean monthly income of fishermen

a) Monthly income (in USD) of fishermen by age/village

Age group	Income (USD)										
	Full-time fishers	Part-time fishers								Aggregated income	Total average
		Fishery	Agri.	Trading	G. labour	Process	Livestock	Others			
16-25											
Prek Pros	50.0	102.5	19.2	10.0	-	-	50.0	-	128.9	89.5	
Prek Sangke	101.8	105.9	8.8	-	3.8	-	4.6	-	111.6	106.7	
Prek Tal	-	43.7	52.5	-	14.1	-	-	-	77.0	77.0	
Kampong Chin	-	-	-	-	-	-	-	-	-	-	
Average	75.9	84.0	26.8	10.0	8.9	-	27.3	-	105.8	91.0	
26-35											
Prek Pros	93.8	62.5	250.0	-	-	-	5.6	-	190.3	142.0	
Prek Sangke	87.5	68.1	9.3	-	-	-	1.8	-	73.6	80.6	
Prek Tal	80.0	55.6	118.3	-	60.0	-	-	-	144.8	112.4	
Kampong Chin	-	115.8	76.3	-	-	-	-	-	192.1	-	
Average	87.1	75.5	113.5	-	60.0	-	3.7	-	150.2	111.7	
36-45											
Prek Pros	114.6	135.7	120.0	-	-	-	-	-	255.7	185.1	
Prek Sangke	-	90.5	13.0	-	-	-	10.0	18.8	104.4	104.4	
Prek Tal	-	85.5	101.0	-	-	-	-	-	186.5	186.5	
Kampong Chin	93.8	343.8	141.3	-	-	-	-	-	485.0	289.4	
Average	104.2	163.9	93.8	-	-	-	10.0	18.8	257.9	191.4	
46-55											
Prek Pros	100.0	66.0	167.5	-	-	-	12.4	-	155.9	128.0	
Prek Sangke	100.0	59.4	13.6	37.5	75.0	-	-	-	101.4	100.7	
Prek Tal	-	60.9	26.6	-	-	-	-	-	87.5	87.5	
Kampong Chin	300.0	99.2	227.0	-	-	-	-	-	326.2	313.1	
Average	166.7	71.4	108.7	37.5	75.0	-	12.4	-	167.8	157.3	
56-65											
Prek Pros	75.0	7.5	250.0	-	-	-	-	-	136.3	105.6	
Prek Sangke	-	-	-	-	-	-	-	-	-	-	
Prek Tal	45.0	56.0	8.8	-	-	-	-	-	88.4	66.7	
Kampong Chin	-	-	-	-	-	-	-	-	-	-	
Average	60.0	31.8	129.4	-	-	-	-	-	112.3	86.2	
66-75											
Prek Pros	-	-	-	-	-	-	-	-	-	-	
Prek Sangke	-	-	-	-	-	-	-	-	-	-	
Prek Tal	-	80.0	8.8	-	-	-	-	-	88.8	88.8	
Kampong Chin	-	-	-	-	-	-	-	-	-	-	
Average	-	80.0	8.8	-	-	-	-	-	88.8	88.8	
76-85											
Prek Pros	-	-	-	-	-	-	-	-	-	-	
Prek Sangke	-	-	-	-	-	-	-	-	-	-	
Prek Tal	-	31.3	17.5	-	-	-	125.0	-	102.5	102.5	
Kampong Chin	-	-	-	-	-	-	-	-	-	-	
Average	-	31.3	17.5	-	-	-	125.0	-	102.5	102.5	
Summary											
Prek Pros	86.7	74.8	161.3	10.0	-	-	22.7	-	139.5	113.1	
Prek Sangke	96.4	81.0	11.2	37.5	39.4	-	5.5	18.8	103.4	99.9	
Prek Tal	62.5	59.0	47.6	-	37.1	-	125.0	-	128.9	95.7	
Kampong Chin	196.9	186.3	148.2	-	-	-	-	-	334.4	265.6	
Average total	110.6	100.3	92.1	23.8	38.2	-	51.0	18.8	176.6	143.6	

Remark: Other = construction houses and boats

b) Average income by age group

Age group	Average monthly income							Average	Total Average
	Full-time Fisheries	Combined with fisheries							
		Agri.	Trading	G. Labor	Livestock	Others			
16 - 25	75.9	110.8	94.0	92.9	111.3	-	102.3	97.0	
26 - 35	87.1	189.0	-	135.5	79.2	-	134.6	122.7	
36 - 45	104.2	257.7	-	-	173.9	182.7	204.8	179.6	
46 - 55	166.7	180.1	108.9	146.4	83.8	-	129.8	137.2	
56 - 65	60.0	161.2	-	-	-	-	161.2	110.6	
66 - 75	-	88.8	-	-	-	-	88.8	88.8	
76 - 85	-	48.8	-	-	156.3	-	102.6	102.6	
Total average	98.8	148.1	101.5	124.9	120.9	182.7	135.6	129.5	

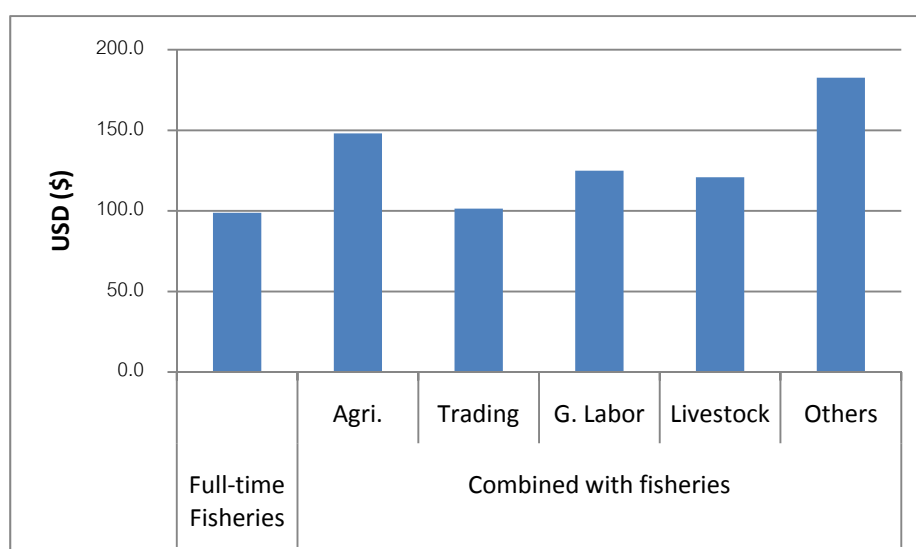


Figure 12. Total average income by age group

Part I-7 Relation between education level and income

Relation between education level and income									
Age group	Number of interviewees					Average incomes (USD)			
	None	P.S.	L.S.S.	U.S.S.	Total	None	P.S.	L.S.S.	U.S.S.
16-25	5	15	3	-	23	119	109	120	-
26-35	5	23	-	-	28	116	123	-	-
36-45	6	26	2	-	34	248	176	260	-
46-55	2	21	1	-	24	111	183	300	-
56-65	-	3	1	-	4	-	132	45	-
66-75	-	1	-	-	1	-	89	-	-
76-85	-	1	-	-	1	-	174	-	-
Total/Avg.	18	90	7	-	115	149	141	181	-

Remark P.S. = Primary School, L.S.S = Lower Secondary School, U.S.S= Upper Secondary

Part I-8 Asset ownership by fishermen

a) Owner of fishing boats

No.	Age group	Village	Total	Number	Ratio
-----	-----------	---------	-------	--------	-------

		Prek Pros	Prek Sangke	Prek Tal	Kampong Chin		of interviewees	of boat owner (%)
1	16-25	5	10	2	-	17	23	73.9
2	26-35	11	5	5	3	24	28	85.7
3	36-45	13	9	4	5	31	34	91.2
4	46-55	8	4	3	7	22	24	91.7
5	56-65	2	-	1	-	3	4	75.0
6	66-75	-	-	0	-	0	1	0.0
7	76-85	-	-	0	-	0	1	0.0
Total		39	28	15	15	97	115	84.3
Interviewees		40	31	25	19	115		
Ratio of boat owner (%)		97.5	90.3	60.0	78.9	84.3		

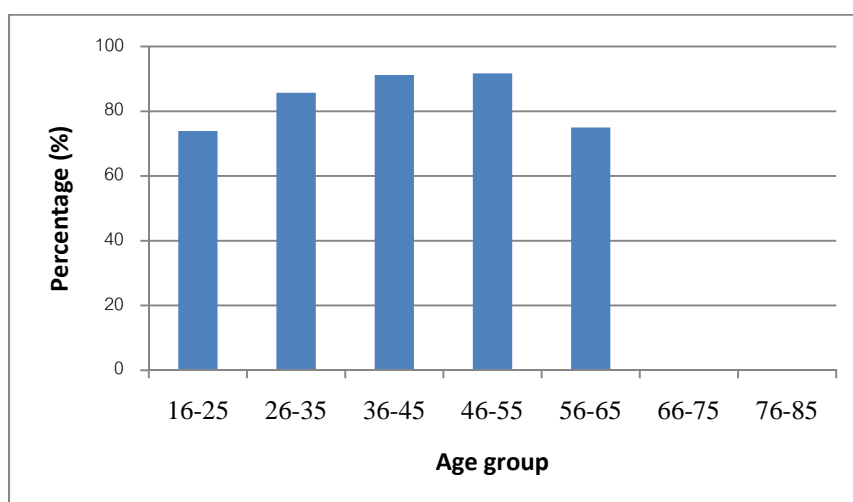


Figure 13. Owner of fishing boats by age

b) Asset ownership of fishermen by age group

Age group	Property										
	House	Land	Farm.	Cow	Buff.	Pig	Chic.	Car	Moto.	Bic.	Others
16-25	22	21	4	6	1	0	4	0	3	2	0
26-35	27	21	9	3	1	1	1	0	3	0	0
36-45	31	26	15	16	2	1	0	0	12	7	0
46-55	23	15	12	14	10	4	4	0	5	1	0
56-65	4	4	2	0	1	0	0	0	0	1	0
66-75	1	1	1	1	0	0	0	0	0	0	0
76-85	1	1	0	0	1	0	0	0	0	0	0
Summary (total)	109	89	43	40	16	6	9	0	23	11	0
Summary (Ave.%)	93.6	69.3	41.9	33.9	16.5	7.2	8.6	0.0	20.0	9.3	0.0

Remark: Bic. = Bicycle, Moto. = Motorbike, Chic. = Chicken, Buff. =Buffalo, Farm. =Farm land

c) Asset ownership of fishermen by age group (in percentage)

Age group	Property										
	House	Land	Farm.	Cow	Buff.	Pig	Chic.	Car	Moto.	Bic.	Others
16-25	95.7	91.3	17.4	26.1	4.3	0.0	17.4	0.0	13.0	8.7	0.0
26-35	96.4	75.0	32.1	10.7	3.6	3.6	3.6	0.0	10.7	0.0	0.0

36-45	91.2	76.5	44.1	47.1	5.9	2.9	0.0	0.0	35.3	20.6	0.0
46-55	95.8	62.5	50.0	58.3	41.7	16.7	16.7	0.0	20.8	4.2	0.0
56-65	100.0	100.0	50.0	0.0	25.0	0.0	0.0	0.0	0.0	25.0	0.0
66-75	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76-85	100.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Total (average)	97.0	86.5	42.0	34.6	25.8	3.3	5.4	0.0	11.4	8.4	0.0

Remark: Bic. = Bicycle, Moto. = Motorbike, Chic. = Chicken, Buff. =Buffalo, Farm. =Farm land

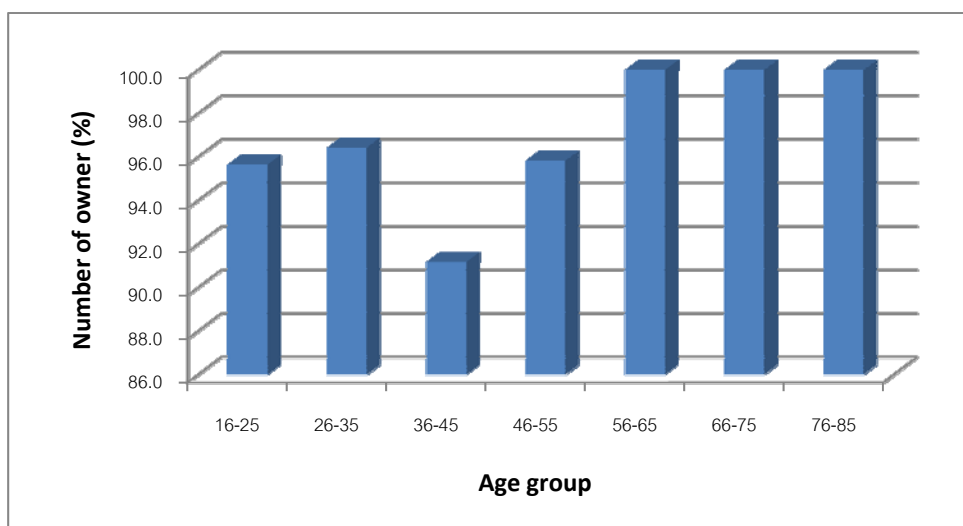


Figure 14. Houses owner status

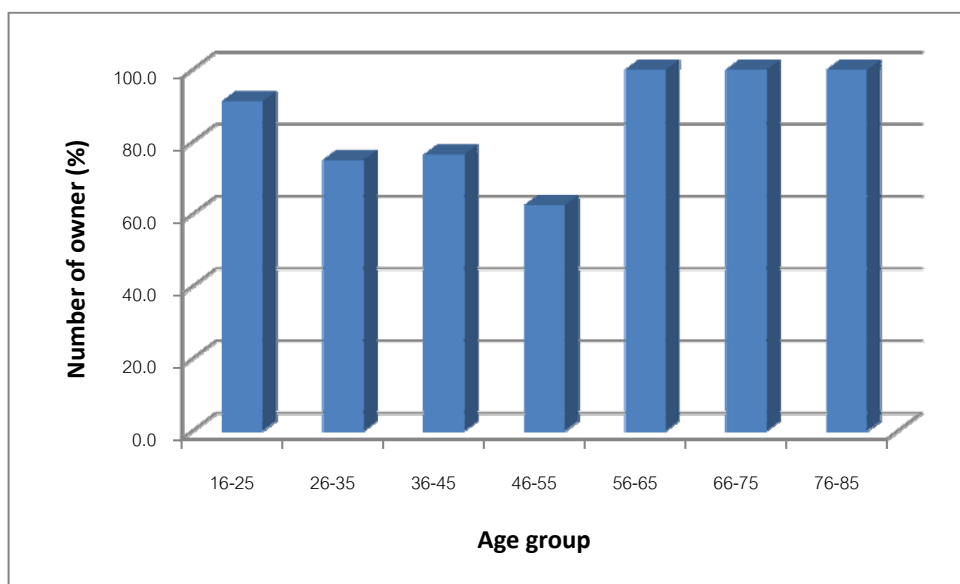


Figure 15. Land owner status

Part I-9 Religion

Village	No.of interviewees	Religion (Number)			Religion (Percentage %)		
		Buddhist	Muslim	Christian	Buddhist	Muslim	Christian
Prek Pros	40	37	2	1	92.5	5	2.5
Prek Sangke	31	0	31	0	0	100	0
Prek Tal	25	0	25	0	0	100	0

Kampong Chin	19	19	0	0	100	0	0
Total	115	56	58	1	48.7	50.4	0.9

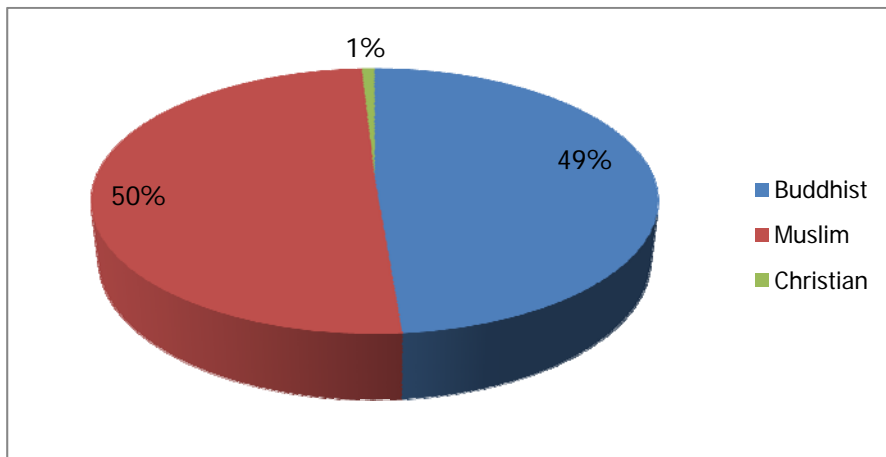


Figure 16. Religion of fishermen by total (in percentage)

Annex 5-2

Analytical Result – Part II

Part II – 1 Number of fishing boats by licensed/unlicensed

a) Number of fishing boats with and without engine

Village	No. of interviewees	With boat			Without boat	Ownership	
		W. engine	W/O engine	Sub-total		Owner	Crew
Prek Pros	40	33	6	39	1	39	0
Prek Sangke	31	13	15	28	3	28	0
Prek Tal	25	0	15	15	10	15	0
Kampong Chin	19	9	6	15	4	15	0
Total	115	55	42	97	18	97	0

Remark: Without boat= fishing without using boat

b) Number of fishing boats by licensed/unlicensed

Village	Prek Pros	Prek Sangke	Prek Tal	Kampong Chin	Total
Unlicensed	29	9	10	14	62
Licensed	0	0	0	0	0
Not respond	11	22	15	5	53
Total	40	31	25	19	115

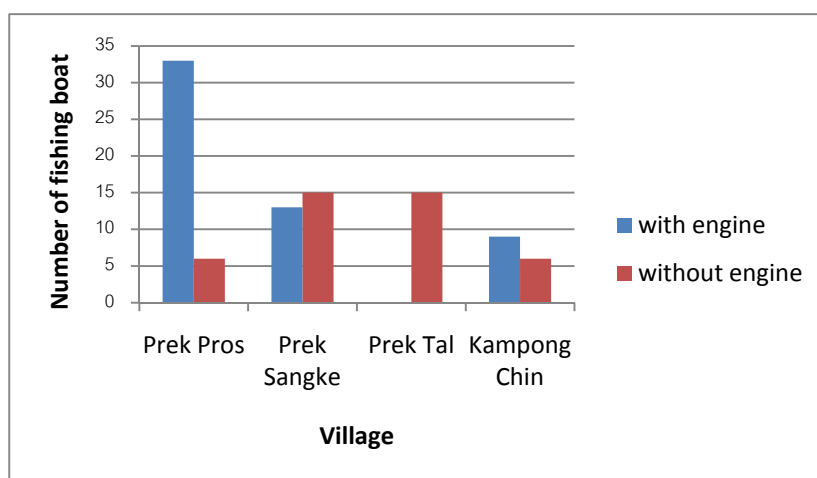


Figure 1 : Number of fishing boat with and without engine

c) Length, price and age of fishing boats

Length	Village				Total		Average boat price (USD)	Average boat age (yr)
	Prek Pros	Prek Sangke	Prek Tal	K. Chin	Nbr	%		
<6 m	1	9	8	4	22	22.7	99.9	3.5
6 - 7.5 m	14	14	6	11	45	46.4	205.4	5.1
8 - 9 m	21	5	1	0	27	27.8	356.8	4.5
>9 m	3	0	0	0	3	3.1	337.5	6.0
Total/Average	39	28	15	15	97	100.0	249.9	4.8

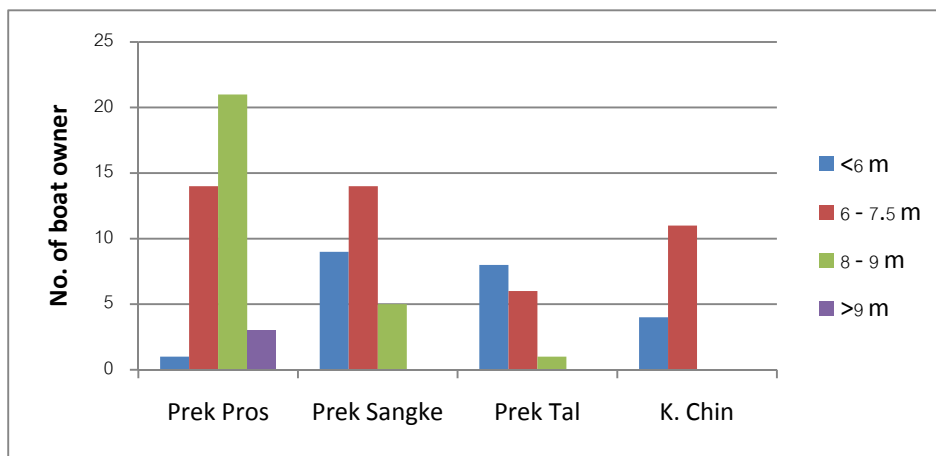


Figure 2. Length of fishing boat

Part II – 2 Fishing gear used

Fishing gear used by total

Boat Type	Fishing gears type										
	Total	CGN	SGN	MCT	SCT	FGN	MUGN	HPN	HFS	HL	
Without boat	18	1	0	5	0	0	0	5	7	0	
With boat	W/O engine	43	3	3	14	10	4	4	1	4	0
	With engine	61	12	0	6	37	3	1	0	0	2
	Sub-total:	104	15	3	20	47	7	5	1	4	2
Total No. of gear	122	16	3	25	47	7	5	6	11	2	
Percentage of gear (%)	100	13.1	2.5	20.5	38.5	5.7	4.1	4.9	9.0	1.6	

Remarks: CGN=Crab gillnet, SGN=Shrimp gillnet, MCT=Mud-crab trap, SCT=Swimming crab trap, FGN=Fish gillnet, MUGN=Mullet gillnet, HPN=Hand push net, HFS=Shell hand fishing, HL=Hook and line

Village	Fishing gears type									
	Total	CGN	SGN	MCT	SCT	FGN	MUGN	HPN	HFS	HL
Prek Pros	40	1	1	0	37	0	0	1	0	0
Prek Sangke	31	8	2	1	10	2	4	0	3	1
Prek Tal	25	0	0	13	0	0	0	5	7	0
Kampong Chin	26	7	0	11	0	5	1	0	1	1
Total	122	16	3	25	47	7	5	6	11	2

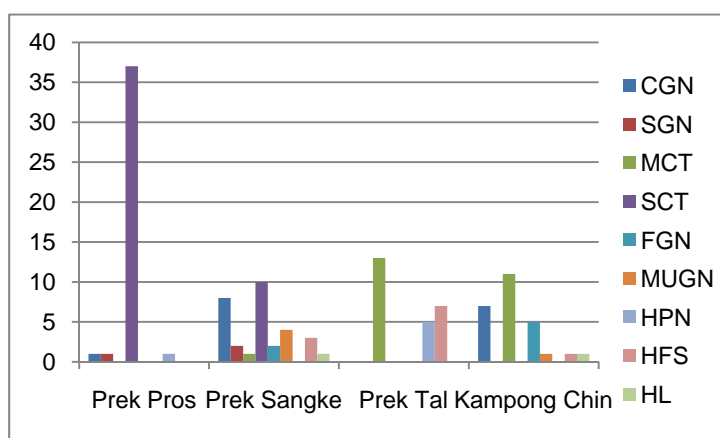


Figure 3. Fishing gear used by village

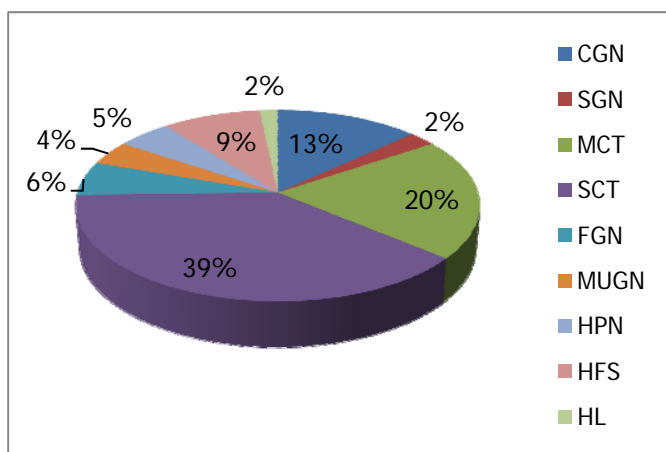


Figure 4. Fishing gear used by total

Part II – 3: Fishing gear used/type of fishing boat and number of crew

Fishing gear used/type of fishing boat and number of crew

Type of fishing gear	Non-boat owner	Boat owner	Type of fishing boat					
			Without engine			With engine		
			Number	Percentage (%)	Avg. No. of crew	Number	Percentage (%)	Avg. No. of crew
CGN	1	15	3	2.9	0	12	11.5	1
SGN	0	3	3	2.9	0	0	0.0	0
MCT	5	20	14	13.5	0	6	5.8	0
SCT	0	47	10	9.6	1	37	35.6	1
FGN	0	7	4	3.8	1	3	2.9	0
MUGN	0	5	4	3.8	0	1	1.0	0
HPN	5	1	1	1.0	0	0	0.0	0
HFS	7	4	4	3.8	0	0	0.0	0
HL	0	2	0	0.0	0	2	1.9	1
Total	18	104	43	41.3	2	61	58.7	3

Remarks: CGN=Crab gillnet, SGN=Shrimp gillnet, MCT=Mud-crab trap, SCT=Swimming crab trap, FGN=Fish gillnet, MUGN=Mullet gillnet, HPN=Hand push net, HFS=Shell hand fishing, HL=Hook and line
:Non-boat*=fishing without boats

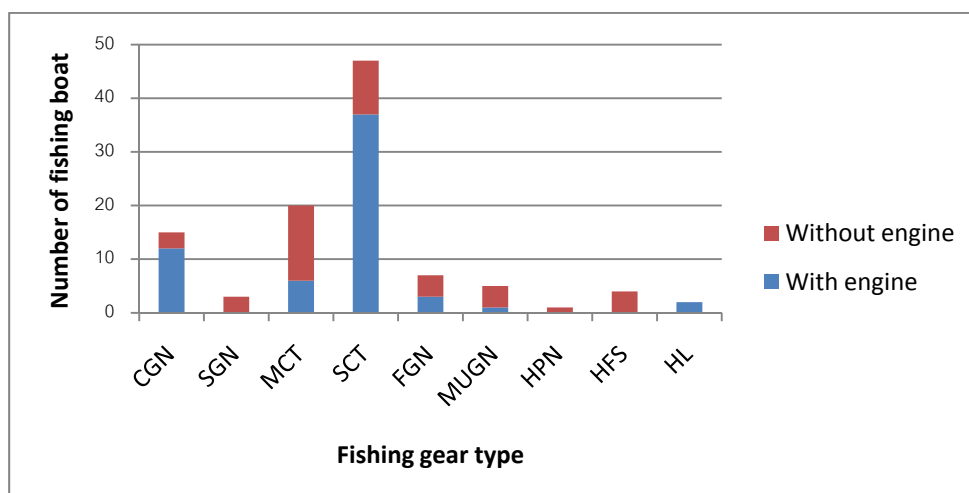


Figure 5. Fishing boats used by types of fishing gear

Part II – 4: Fishing season/fishing days/fishing hours by fishing method

a) Fishing days and fishing hours by fishing method

Fishing gear used	No. of gear used	Avg. fishing days per year	Avg. fishing days per month	Avg. fishing hours per day
CGN	16	253	21.1	10.2
SGN	3	304	25.3	8.0
MCT	25	223	18.6	9.6
SCT	47	223	18.6	11.0
FGN	7	189	15.8	9.6
MUGN	5	252	21.0	5.6
HPN	6	227	18.9	8.4
HFS	11	202	16.8	8.5
HL	2	201	16.8	9.0
Total/average	122	230	19.2	8.9

Remarks: CGN=Crab gillnet, SGN=Shrimp gillnet, MCT=Mud-crab trap, SCT=Swimming crab trap, FGN=Fish gillnet, MUGN=Mullet gillnet, HPN=Hand push net, HFS=Shell hand fishing, HL=Hook and line

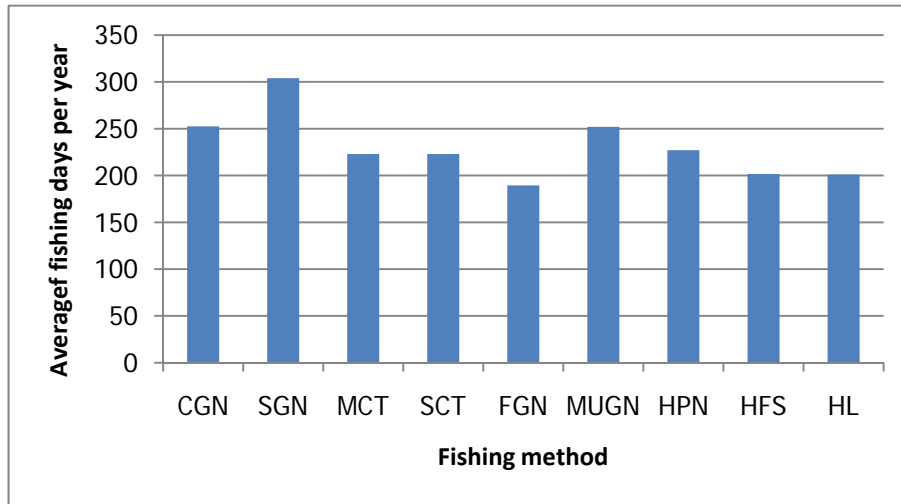


Figure 6. Average fishing days per year by fishing method

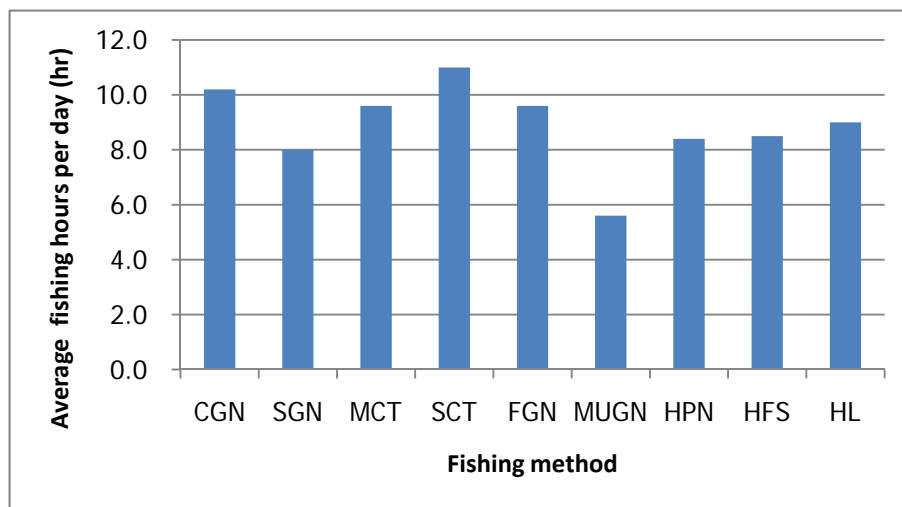


Figure 7. Average fishing hours per year by fishing method

b) Fishing seasons by fishing methods

Fishing gear used	No. of fishing gear	Fishing seasons by month		
		From	To	Main
CGN	16	January	December	
SGN	3	January	December	
MCT	25	January	December	
SCT	47	January	December	
FGN	7	January	December	
MUGN	5	January	December	
HPN	6	January	December	
HFS	11	January	December	Apr-Oct
HL	2	January	December	
Total	122			

Remarks: CGN=Crab gillnet, SGN=Shrimp gillnet, MCT=Mud-crab trap, SCT=Swimming crab trap, FGN=Fish gillnet, MUGN=Mullet gillnet, HPN=Hand push net, HFS=Shell hand fishing, HL=Hook and line

Part II – 5 Average fish catch per boat

Average fish catch per boat/trip (day)

Type of fishing boats	CGN		SGN		MCT		SCT		FGN		MUGN		HPN		HFS		HL		
	No.	Kg.	No.	Kg.	No.	Kg.	No.	Kg.	No.	Kg.	No.	Kg.	No.	Kg.	No.	Kg.	No.	Kg.	
Without boat	1	2	0	0	5	1.6	0	0	0	0	0	0	5	5.8	7	9.4	0	0	
With boat	W/O engine	3	4.3	3	2.3	14	1.6	10	3.4	4	5.5	4	4.2	1	10	4	14.8	0	0
	With engine	12	5.7	0	0	6	4.1	37	5.1	3	4.7	1	3	0	0	0	0	2	12
	Average:	15	5.0	3	1.2	20	2.9	47	4.3	7	5.1	5	3.6	1	5.0	4	7.4	2	6.0
Total	16	83.3	3	6.9	25	55	47	223	7	36.1	5	19.8	6	39	11	125	2	24	
Mean catch		5.2		2.3		2.2		4.7		5.2		4.0		6.5		11.4		12.0	

Remarks: CGN=Crab gillnet, SGN=Shrimp gillnet, MCT=Mud-crab trap, SCT=Swimming crab trap, FGN=Fish gillnet, MUGN=Mullet gillnet, HPN=Hand push net, HFS=Shell hand fishing, HL=Hook and line

: No.=Number of boats, Ave. =Average quantity

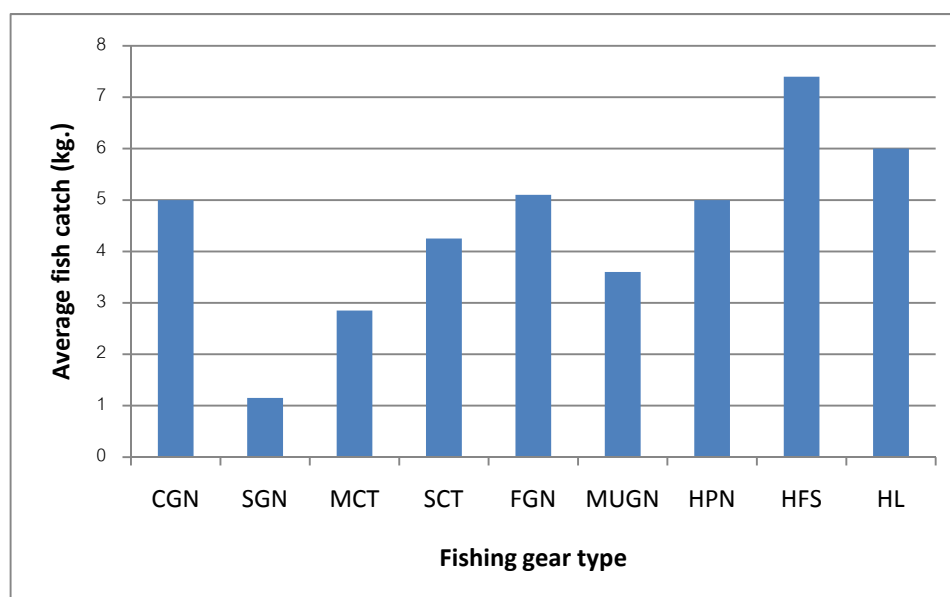


Figure 8. Average fish catch per boat/trip (day)

Part II - 6: Disposal of fish catches

Disposal of fish catch by total (%)

Fishing gear type	Use of fishing boat		Home consumption (%)	Sale (%)
Crab (CGN) gillnet	W/O boat		0	100
	With boat	W/O engine	0	100
		With engine	11.3	88.7
		Average:	5.6	94.4
Shrimp (SGN) gill net	W/O boat		0	0
	With boat	W/O engine	0.5	99.5
		With engine	0	0
		Average:	0.5	99.5
Mud-crab (MCT) trap	W/O boat		4.4	95.6
	With boat	W/O engine	0	0
		With engine	13.3	86.7
		Average:	13.3	86.7
Swimming crab trap (SCT)	W/O boat		0	0
	With boat	W/O engine	1.9	98.1
		With engine	5.2	94.8
		Average:	3.6	96.4
Fish Gillnet (FGN)	W/O boat		0	0
	With boat	W/O engine	8.3	91.7
		With engine	13.3	86.7
		Average:	10.8	89.2
Mullet (MUGN) gillnet	W/O boat		0	0
	With boat	W/O engine	13.3	86.7
		With engine	20.0	80.0
		Average:	16.6	83.4
Hand push net (HPN)	W/O boat		20.2	79.8
	With boat	W/O engine	30.0	70.0
		With engine	0	0
		Average:	30.0	70.0
Shell hand fishing (HFS)	W/O boat		0.3	99.7
	With boat	W/O engine	16.5	83.5
		With engine	0	0
		Average:	16.5	83.5
Hook and Line (HL)	W/O boat		0	0
	With boat	W/O engine	0	0
		With engine	10.0	90.0
		Average:	10.0	90.0
Total			10.9	89.1

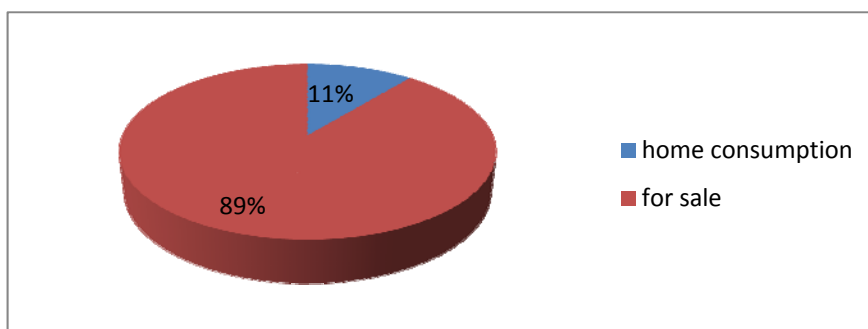


Figure 9. Average fish catch disposal by total

Part II – 7 Average fish sales

Average fish sales per boat or fisherman / trip (Kg)

Fishing gear type	Use of fishing boat	Ratio of fish sale (%)	Av. Fish sale (kg.)	
Crab (CGN) gillnet	W/O boat	100.0	2.0	
	With boat	W/O engine	100.0	5.7
		With engine	88.8	4.0
		Average:	94.4	4.9
Shrimp (SGN) gill net	W/O boat	-	-	
	With boat	W/O engine	99.5	2.5
		With engine	-	-
		Average:	99.5	2.5
Mud-crab trap (MCT)	W/O boat	95.6	1.6	
	With boat	W/O engine	0	1.6
		With engine	0	3.6
		Average:	0	2.6
Swimming crab trap (SCT)	W/O boat	-	-	
	With boat	W/O engine	98.1	3.3
		With engine	94.8	4.6
		Average:	96.5	4.0
Fish Gillnet (FGN)	W/O boat	-	-	
	With boat	W/O engine	91.8	6.0
		With engine	86.7	4.0
		Average:	89.3	5.0
Mullet gillnet (MUGN)	W/O boat	-	-	
	With boat	W/O engine	86.8	3.3
		With engine	80.0	2.0
		Average:	83.4	2.7
Hand push net (HPN)	W/O boat	79.8	6.0	
	With boat	W/O engine	70.0	4.0
		With engine	-	-
		Average:	70.0	4.0
Shell hand fishing (HFS)	W/O boat	99.8	9.7	
	With boat	W/O engine	83.5	14.8
		With engine	-	-
		Average:	83.5	14.8
Hook and Line (HL)	W/O boat	-	-	
	With boat	W/O engine	-	-
		With engine	90.0	11.5
		Average:	90.0	11.5
Total average			1.6 - 14.8	

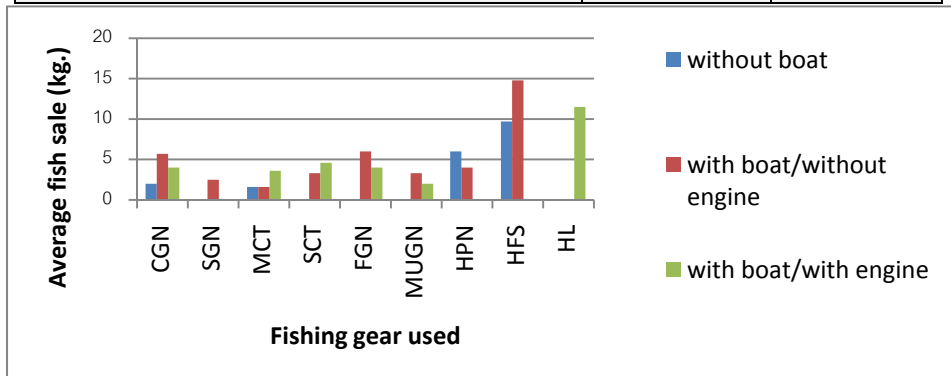


Figure 10. Average fish sales

Part II-8 Economics of fishing operation

a) Economics of fishing operation in average per fishing trip (USD)

Fishing gear used	Total		
	No. of HH	Avg. operational cost (USD)	Avg. income (USD)
CGN	16	2.0	10.1
SGN	3	0.5	6.0
MCT	25	1.8	7.1
SCT	47	2.2	8.8
FGN	7	1.5	17.0
MUGN	5	0.5	6.0
HPN	6	0.5	4.3
HFS	11	1.3	2.8
HL	2	3.1	23.8
Total	122		

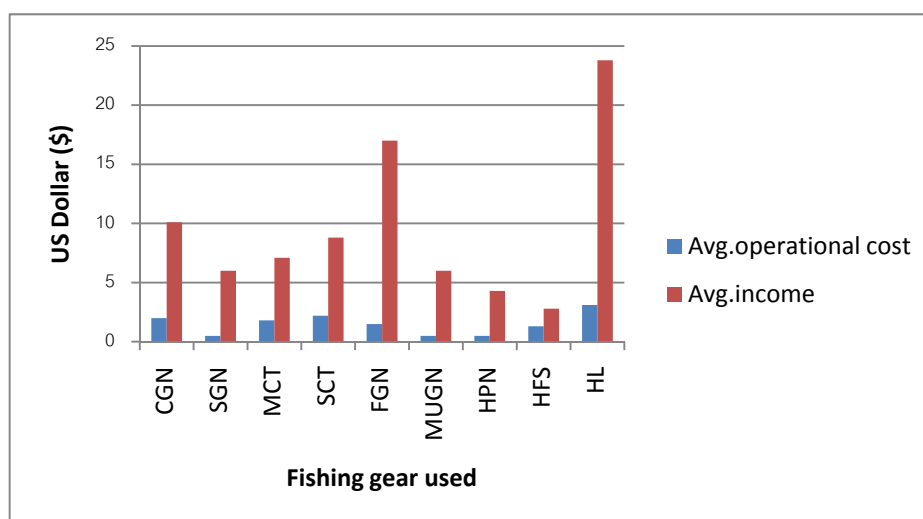


Figure 11. Economics of fishing operation

b) Economics of fishing operation in average maintenance cost per year (USD)

Fishing gear used	No. of HH	Total	
		Gear maintenance cost (USD)	Boat maintenance cost (USD)
CGN	16	11.6	26.30
SGN	3	3.1	7.50
MCT	25	3.6	22.40
SCT	47	37.7	52.70
FGN	7	7.9	15.10
MUGN	5	3.8	10.30
HPN	6	19.0	0.00
HFS	11	0.0	36.70
HL	2	1.0	37.50
Total	122		

Part II – 9: Source of credit and amount

a) Source of credit

Fishing group	Applying for loan		Source and purpose of loan							
			Commercial Bank		Government		Middlemen		Friend/relative	
	Yes	No	Fisher-ies	Non-fisher-ies	Fisher-ies	Non-fisher-ies	Fisher-ies	Non-fisher-ies	Fisher-ies	Non-fisher-ies
CGN	10	6	3	0	0	0	6	1	0	0
SGN	2	1	0	0	0	0	2	0	0	0
MCT	3	18	2	0	0	0	1	0	0	0
SCT	38	9	25	1	0	0	12	0	0	0
FGN	2	3	1	0	0	0	1	0	0	0
MUGN	3	2	0	0	0	0	3	0	0	0
HPN	0	6	0	0	0	0	0	0	0	0
HFS	2	9	1	0	0	0	0	1	0	0
HL	0	1	0	0	0	0	0	0	0	0
Sub-total	60	55	32	1	0	0	25	2	0	0
Total	115		33		0		27		0	
Total (%)	52.2	47.8	55.0		0.0		45.0		0.0	

Remarks: CGN=Crab gillnet, SGN=Shrimp gillnet, MCT=Mud-crab trap, SCT=Swimming crab trap, FGN=Fish gillnet, MUGN=Mullet gillnet, HPN=Hand push net, HFS=Shell hand fishing, HL=Hook and line

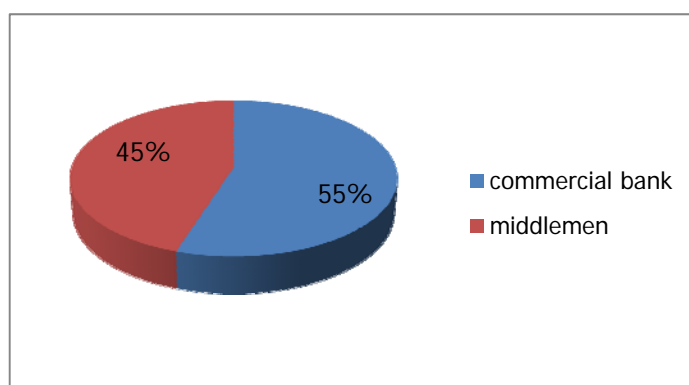


Figure 12. Source of credit by total

b) Total amount of loan (in USD)

Fishing group	Amount of loan by source and purpose of loan (USD)							
	Commercial Bank		Government		Middlemen		Friend/relative	
	Fisher-ies	Non-fisher-ies	Fisher-ies	Non-fisher-ies	Fisher-ies	Non-fisher-ies	Fisher-ies	Non-fisher-ies
CGN	575	0	0	0	960	500	0	0
SGN	0	0	0	0	50	0	0	0
MCT	375	0	0	0	50	0	0	0
SCT	4,575	250	0	0	1,833	0	0	0
FGN	175	0	0	0	75	0	0	0
MUGN	0	0	0	0	80	0	0	0
HPN	0	0	0	0	0	0	0	0
HFS	250	0	0	0	0	125	0	0
HL	0	0	0	0	0	0	0	0
Sub-total	5,950	250	0	0	3,048	625	0	0
Total	9,873							

c) Source of credit by village

Village/ Fishing group	Application for loan		Source and purpose of loan							
			Commercial Bank		Government		Middlemen		Friend/relative	
	Yes	No	Fisheries	Non- fisheries	Fisheries	Non- fisheries	Fisheries	Non- fisheries	Fisheries	Non- fisheries
Prek Pros	33	7	26	1	0	0	6	0	0	0
Ratio (%)	82.5	17.5	78.8	3.0	0.0	0.0	18.2	0.0	0.0	0.0
P.Sangke	19	12	0	0	0	0	18	1	0	0
Ratio(%)	61.3	38.7	0.0	0.0	0.0	0.0	94.7	5.3	0.0	0.0
Prek Tal	1	24	0	0	0	0	1	0	0	0
Ratio(%)	4.0	96.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0
K.Chin	7	12	6	0	0	0	0	1	0	0
Ratio (%)	36.8	63.2	85.7	0.0	0.0	0.0	0.0	14.3	0.0	0.0
Total (Nbr)	60	55	32	1	0	0	25	2	0	0
Ratio (%)	52.2	47.8	53.3	1.7	0.0	0.0	41.7	3.3	0.0	0.0
G-total	115		33		0		27		0	

d) Mean amount of loan taken by each fisher (USD)

Village	Amount by source and purpose (USD)					
	Commercial Bank		Middlemen		Friend/relative	
	Fisheries	Non- fisheries	Fisheries	Non- fisheries	Fisheries	Non- fisheries
Prek Pros	189	250	213	0	0	0
Prek Sangke	0	0	95	125	0	0
Prek Tal	0	0	50	0	0	0
Kampong Chin	175	0	0	500	0	0
Mean amount	186	250	122	313	0	0

e) Total amount of loan by village (USD)

Village/ fishing group	Amount of loan by source and purpose (USD)						
	Commercial Bank		Middlemen		Total		
	Fisheries	Non-fisheries	Fisheries	Non-fisheries	Fisheries	Non-fisheries	Total
<u>Prek Pros</u>							
CGN	325	0	0	0	325	0	325
SGN	0	0	0	0	0	0	0
MCT	0	0	0	0	0	0	0
SCT	4,575	250	1,280	0	5,855	250	6,105
FGN	0	0	0	0	0	0	0
MUGN	0	0	0	0	0	0	0
HPN	0	0	0	0	0	0	0
HFS	0	0	0	0	0	0	0
HL	0	0	0	0	0	0	0
Sub-total	4,900	250	1,280	0	6,180	250	6,430
<u>Prek Sangke</u>							
CGN	0	0	960	0	960	0	960
SGN	0	0	50	0	50	0	50
MCT	0	0	0	0	0	0	0
SCT	0	0	553	0	553	0	553
FGN	0	0	75	0	75	0	75
MUGN	0	0	80	0	80	0	80
HPN	0	0	0	0	0	0	0
HFS	0	0	0	125	0	125	125
HL	0	0	0	0	0	0	0
Sub-total	0	0	1,718	125	1,718	125	1,843
<u>Prek Tal</u>							
CGN	0	0	0	0	0	0	0
SGN	0	0	0	0	0	0	0
MCT	0	0	50	0	50	0	50
SCT	0	0	0	0	0	0	0
FGN	0	0	0	0	0	0	0
MUGN	0	0	0	0	0	0	0
HPN	0	0	0	0	0	0	0
HFS	0	0	0	0	0	0	0
HL	0	0	0	0	0	0	0
Sub-total	0	0	50	0	50	0	50
<u>K. Chin</u>							
CGN	250	0	0	500	250	500	750
SGN	0	0	0	0	0	0	0
MCT	375	0	0	0	375	0	375
SCT	0	0	0	0	0	0	0
FGN	175	0	0	0	175	0	175
MUGN	0	0	0	0	0	0	0
HPN	0	0	0	0	0	0	0
HFS	250	0	0	0	250	0	250
HL	0	0	0	0	0	0	0
Sub-total	1,050	0	0	500	1,050	500	1,550
Total	5,950	250	3,048	625	8,998	875	9,873
G-total	6,200		3,673		9,873		

Annex 5-3

Analytical Result-Part III

Part III: Gender role through time-consuming in working for a month

Part III – 1 Involvement of women in fisheries

a) Involvement of women in fisheries by village

Village	Fishing gear repair & preparation	Fishing	Fish Trading	Fish processing	Fish culturing	Other	No. of participant
Prek Pros	6	3	0	0	0	0	40
Prek Sangke	15	3	7	1	2	0	31
Prek Tal	1	2	0	2	0	0	25
Kampong Chin	17	6	0	0	0	0	19
Total HH	39	14	7	3	2	0	115
Percentage (%)	33.9	12.2	6.1	2.6	1.7	0	

Remark: HH=Household

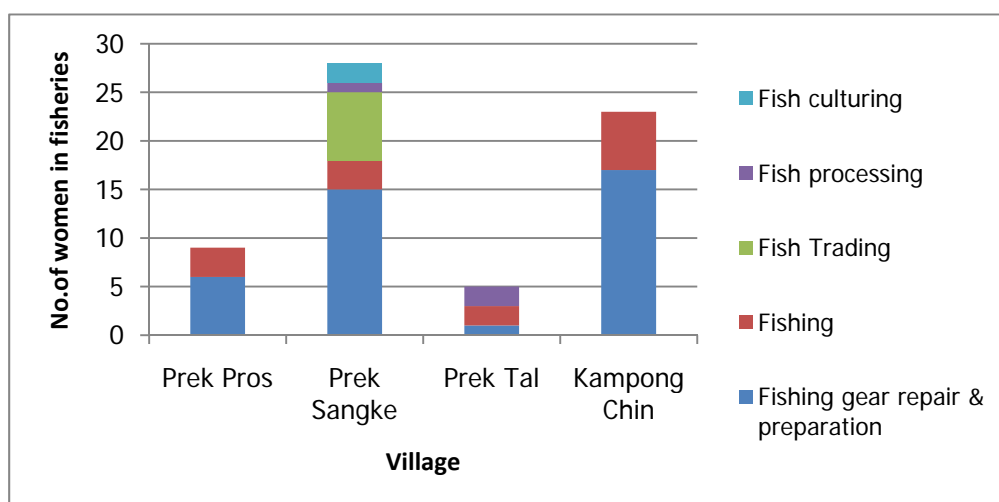


Figure 1. Involvement of women in fisheries by village

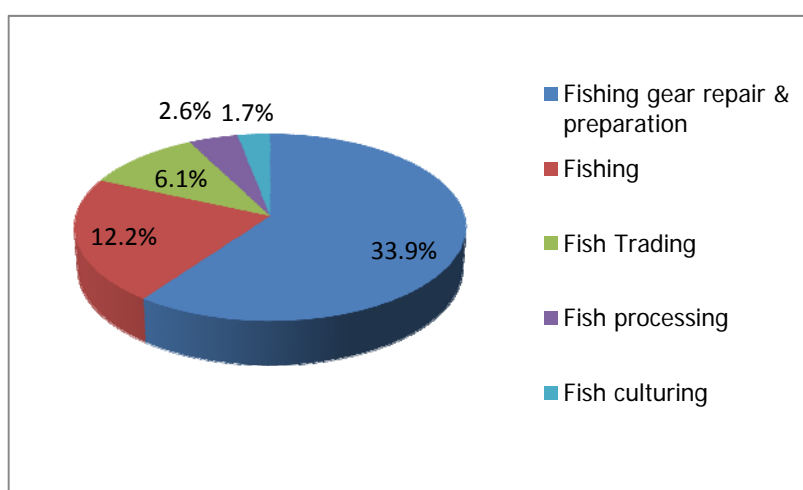


Figure 2. Involvement of women in fisheries by total

b) Involvement of women in each engagement

Village	Involvement	Engagement							
		Fishing gear repair & preparation	Fishing	Fish trading	Fish processing	Fish culturing	Laboring other than fisheries	Household work	Total
Prek Pros	Av. working day per month (day)	25.5	30.0	0.0	0.0	0.0	0.0	29.3	28.3
	Av. working hour per day (hour)	6.7	7.0	0.0	0.0	0.0	0.0	5.9	6.5
	Av. working hour per month (hour)	170.9	210.0	0.0	0.0	0.0	0.0	172.9	184.6
Prek Sangke	Av. working day per month (day)	17.2	26.7	24.1	12.5	15.5	0.0	29.8	21.0
	Av. working hour per day (hour)	4.9	3.0	4.2	1.0	1.5	0.0	6.1	3.5
	Av. working hour per month (hour)	84.3	80.1	101.2	12.5	23.3	0.0	181.8	80.5
Prek Tal	Av. working day per month (day)	0.0	15.0	0.0	10.0	0.0	0.0	30.0	18.3
	Av. working hour per day (hour)	0.0	8.0	0.0	2.0	0.0	0.0	4.5	4.8
	Av. working hour per month (hour)	0.0	120.0	0.0	20.0	0.0	0.0	135.0	91.7
K.Chin	Av. working day per month (day)	14.4	14.9	0.0	0.0	0.0	0.0	27.8	19.0
	Av. working hour per day (hour)	1.9	10.0	0.0	0.0	0.0	0.0	10.0	7.3
	Av. working hour per month (hour)	26.6	150.0	0.0	0.0	0.0	0.0	280.0	152.2
Total	Av. working day per month (day)	14.3	21.7	24.1	11.3	15.5	0.0	29.2	17.0
	Av. working hour per day (hour)	3.4	7.0	4.2	1.5	1.5	0.0	6.6	3.0
	Av. working hour per month (hour)	70.4	140.0	101.2	16.3	23.3	0.0	192.4	78.0

Part III – 2: Involvement of woman in household works

Involvement of women in household work

Village	No. of interviewee	Average working days per month (day)	Average working hour per day (hour)	Total working hours per month (hour)
Prek Pros	40	29.3	5.9	172.9
Prek Sangke	31	29.8	6.1	181.8
Prek Tal	25	30.0	4.5	135.0
Kampong Chin	19	27.8	10.0	280.0
Total/average	115	29.0	6.6	191.4

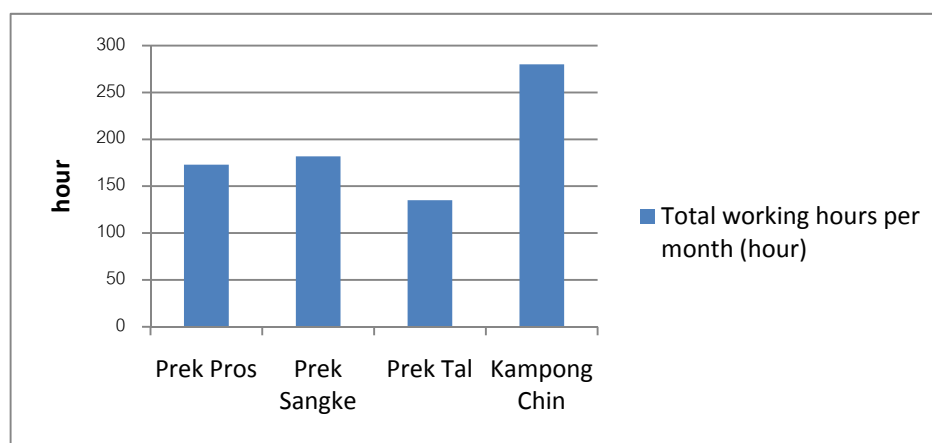


Figure 3. Total working hours for household work in each village

Part III – 3 Involvement of men in fisheries

a) Involvement of men in fisheries by village

Village	Fishing gear repair & preparation	Fishing	Fish Trading	Fish processing	Fish culturing	Other	No. of participant
Prek Pros	22	3	0	0	0	0	40
Prek Sangke	24	22	2	0	0	0	31
Prek Tal	9	12	0	0	0	0	25
Kampong Chin	17	18	0	0	0	0	19
Total household	72	55	2	0	0	0	115
Percentage (%)	62.6	47.8	1.7	0	0	0	

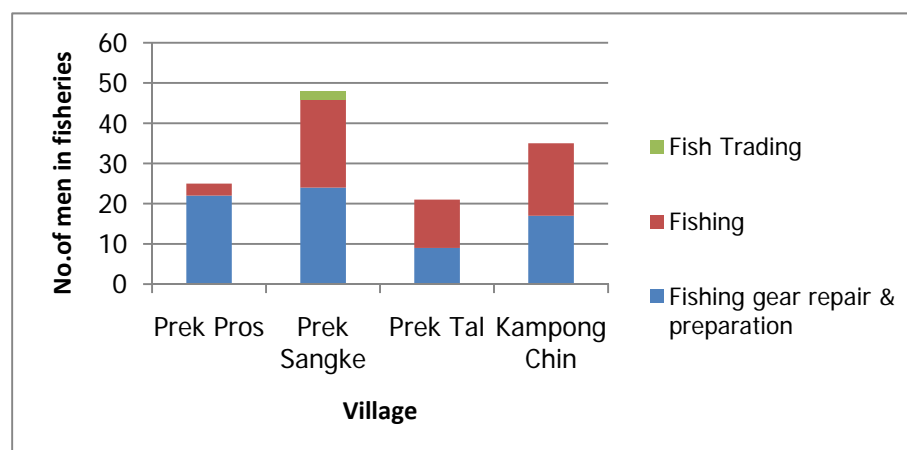


Figure 4. Involvement of men in fisheries by village

Village	Involvement	Engagement							
		Fishing gear repair & preparation	Fishing	Fish trading	Fish processing	Fish culturing	Laboring other than fisheries	House work	Total average
Prek Pros	Av. working day per month (day)	4.3	16.7	0.0	0.0	0.0	0.0	15.0	12.0
	Av. working hour per day (hour)	2.0	4.0	0.0	0.0	0.0	0.0	4.0	3.3
	Av. working hour per month (hour)	8.0	68.0	0.0	0.0	0.0	0.0	60.0	45.3
Prek Sangke	Av. working day per month (day)	14.5	21.8	24.0	0.0	0.0	0.0	25.4	21.4
	Av. working hour per day (hour)	2.4	7.0	6.5	0.0	0.0	0.0	1.4	4.3
	Av. working hour per month (hour)	34.8	152.6	156.0	0.0	0.0	0.0	35.6	94.8
Prek Tal	Av. working day per month (day)	9.5	24.5	0.0	0.0	0.0	0.0	30.0	21.0
	Av. working hour per day (hour)	3.1	8.5	0.0	0.0	0.0	0.0	1.6	4.4
	Av. working hour per month (hour)	29.5	208.3	0.0	0.0	0.0	0.0	48.0	95.3
Kampong Chin	Av. working day per month (day)	16.6	22.5	0.0	0.0	0.0	0.0	8.5	16.0
	Av. working hour per day (hour)	2.5	10.0	0.0	0.0	0.0	0.0	2.6	5.0
	Av. working hour per month (hour)	42.5	230.0	0.0	0.0	0.0	0.0	22.1	98.6
Total	Av. working day per month (day)	11.2	21.4	24.0	0.0	0.0	0.0	19.7	19.0
	Av. working hour per day (hour)	2.5	7.4	6.5	0.0	0.0	0.0	2.4	5.0
	Av. working hour per month (hour)	28.7	164.7	156.0	0.0	0.0	0.0	41.4	98.0

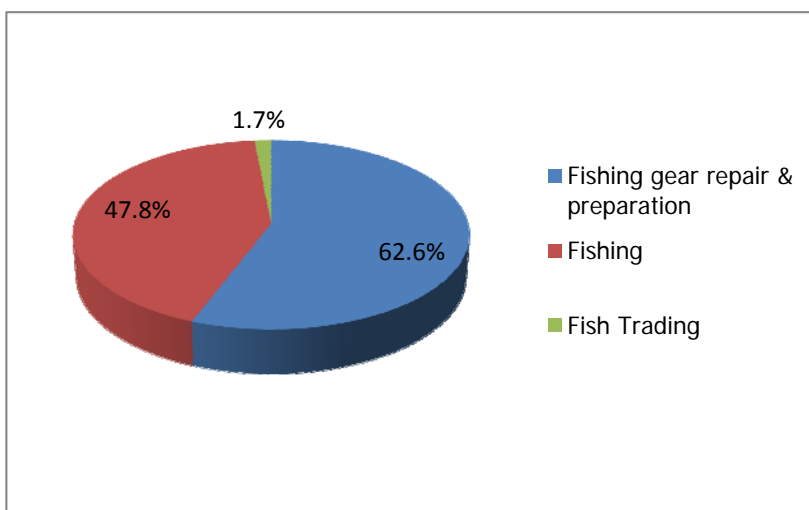


Figure 5. Involvement of men in fisheries by total

Part III – 4: Involvement of men in household works

Involvement of men in household work

Village	No.of interviewee	Average working days per month (day)	Average working hour per day (hour)	Total working hours per month (hour)
Prek Pros	40	15.0	4.0	60.0
Prek Sangke	31	25.4	1.4	35.6
Prek Tal	25	30.0	1.6	48.0
Kampong Chin	19	8.5	2.6	22.1
Total/average	115	19.7	2.4	41.4

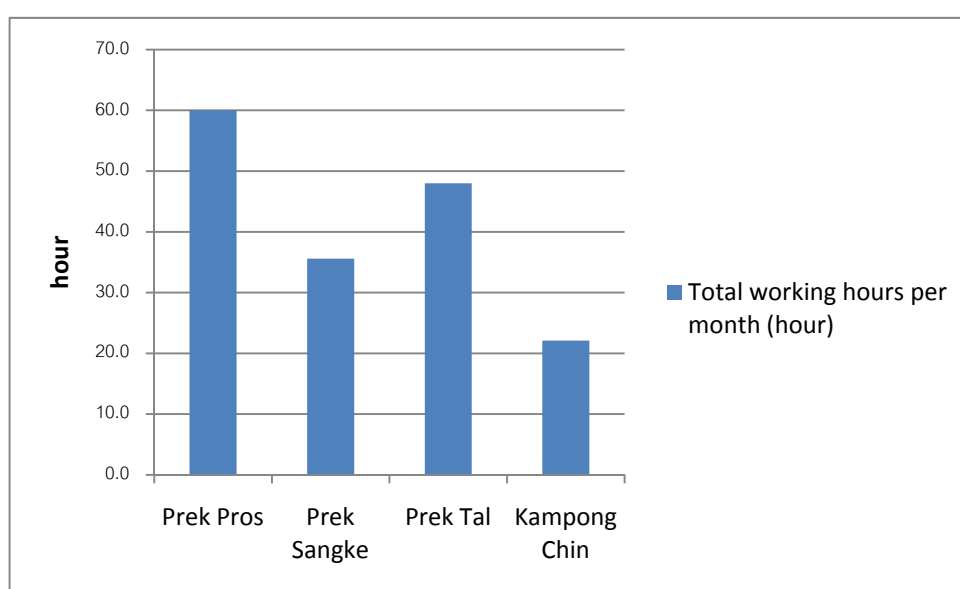


Figure 6. Total working hours for household work in each village

Annex 5-4

Analytical Result – Part IV

Part IV: Role of fishermen participation in Community Fisheries (CF) activities or other fishery or community related activities

Part IV-1 Membership of Community Fisheries (CF) and other groups

Membership of CF and ICRM-SV Project by village

Village	Total interviewee	CF membership				ICRM-SV Project				Other groups			
		None		Member		None		Participation		None		member	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Prek Pros	40	5	12.5	35	87.5	33	82.5	7	17.5	0	0.0	0	0.0
Prek Sangke	31	0	0.0	31	100.0	21	67.7	10	32.3	0	0.0	0	0.0
Prek Tal	25	2	8.0	23	92.0	20	80.0	5	20.0	0	0.0	0	0.0
Kampong Chin	19	11	57.9	8	42.1	16	84.2	3	15.8	0	0.0	0	0.0
Total/average	115	18	15.7	97	84.3	90	78.3	25	21.7	0	0.0	0	0.0

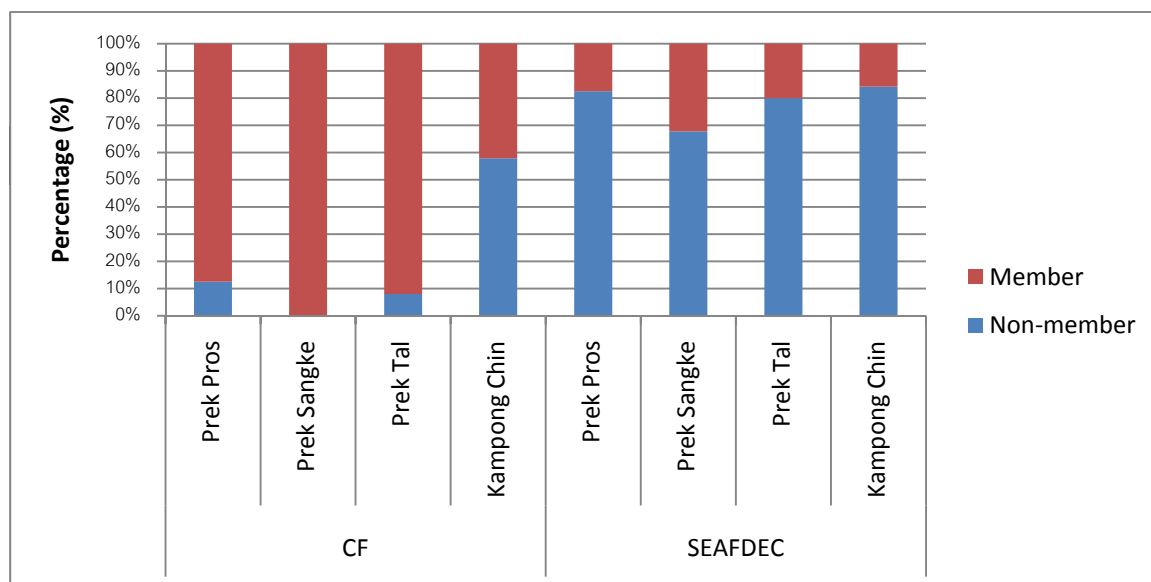


Figure 1. Membership of Community Fisheries and ICRM-SV Project by village

Part IV-2 Involvement in organizational activities (day/hour per month/year)

Member's involvement in community activities

Organization	Activity		Village				
			Prek Pros (40)	Prek Sangke (31)	Prek Tal (25)	Kampong Chin (19)	Total/average
CF	Meeting	Number	12	22	8	-	42
		Day/year	2.3	4.0	6.5	-	4.3
		Hour/day	5.9	4.0	-	-	5.0
		Hour/year	13.6	16.0	-	-	14.8
	Patrolling	Number	-	2	4	-	6
		Day/year	-	11.0	-	-	11.0
		Hour/day	-	12.3	8.0	-	10.2
		Hour/year	-	135.3	-	-	135.3
Project ICRM-SV	Meeting	Number	7	10	5	3	25
		Day/year	-	6.2	-	-	6.2
		Hour/day	-	7.0	-	-	7.0
		Hour/year	-	43.4	-	-	43.4
	Local business development	Number	7	10	5	3	25
		Day/year	-	6.2	-	-	6.2
		Hour/day	-	7.0	-	-	7.0
		Hour/year	-	43.4	-	-	43.4
Other organization	Meeting	Number	-	-	-	-	-
		Day/year	-	-	-	-	-
		Hour/day	-	-	-	-	-
		Hour/year	-	-	-	-	-
	Any other activity	Number	-	-	-	-	-
		Day/year	-	-	-	-	-
		Hour/day	-	-	-	-	-
		Hour/year	-	-	-	-	-

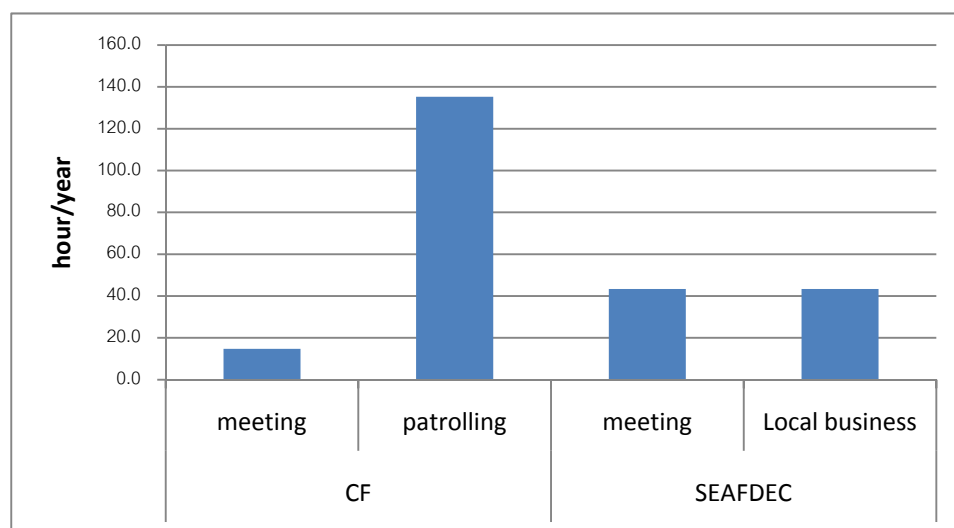


Figure 2. Member involvement in Community activities in total

Part IV-3 Incentives for members, participation in CF activities

Incentive given to community activity

Organization	Activity		Village				
			Prek Pros	Prek Sangke	Prek Tal	Kampong Chin	Total/ average
CF	Meeting	Number	12	22	8	-	42
		Day/year	2.3	4.0	6.5	-	4.3
		Incentive per day (USD)	1.3	1.3	1.3	-	1.3
		Incentive per year (USD)	2.9	5.0	8.1	-	5.3
	Patrolling	Number	-	2	4	-	6
		Day/year	-	11.0	-	-	11.0
		Incentive per day (USD)	-	1.3	2.0	-	1.6
		Incentive per year (USD)	-	13.8	-	-	13.8
Project ICRM-SV	Meeting	Number	7	10	5	3	25
		Day/year	-	6.2	-	-	6.2
		Incentive per day (USD)	1.3	1.3	-	-	1.3
		Incentive per year (USD)	-	7.8	-	-	7.8
	Local business development	Number	7	10	5	3	25
		Day/year	-	6.2	-	-	6.2
		Incentive per day (USD)	-	-	-	-	-
		Incentive per year (USD)	-	-	-	-	-
Other organization	Meeting	Number	-	-	-	-	-
		Day/year	-	-	-	-	-
		Incentive per day (USD)	-	-	-	-	-
		Incentive per year (USD)	-	-	-	-	-
	Any other activity	Number	-	-	-	-	-
		Day/year	-	-	-	-	-
		Incentive per day (USD)	-	-	-	-	-
		Incentive per year (USD)	-	-	-	-	-

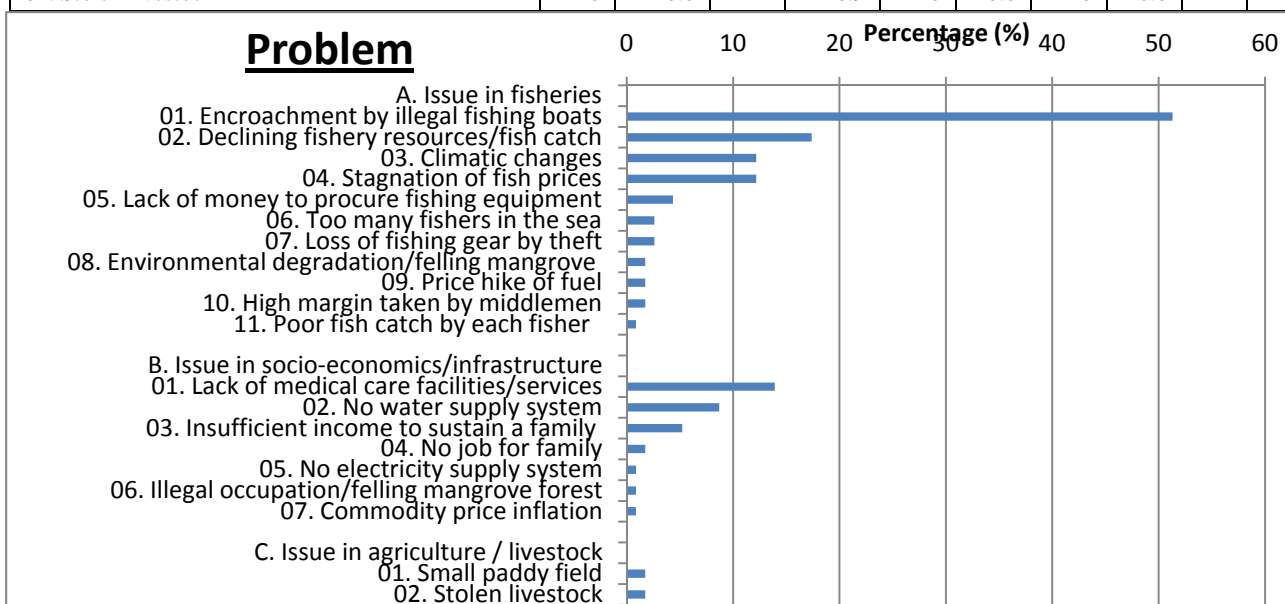
Annex 5-5

Analytical Result – Part V

Part V Problem, interests, needs and future expectations

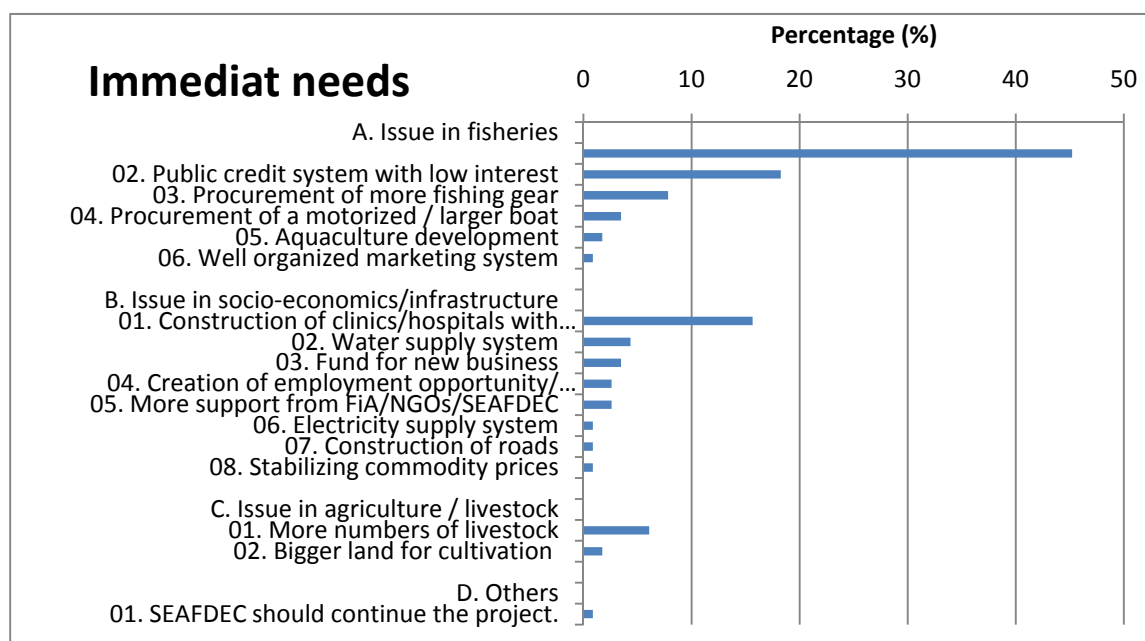
Part V-1 Problem

Village	Prey Pros		Prey Sangke		Prey Toal		Kampong Chin		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
- Total interviewees	40		31		25		19		115	
- No response / No comment	1	2.5	0	0.0	0	0.0	3	15.8	4	3.5
A. Issue in fisheries										
01. Encroachment by illegal fishing boats	15	37.5	24	77.4	12	48.0	8	42.1	59	51.3
02. Declining fishery resources/fish catch	13	32.5	1	3.2	6	31.6	0	0.0	20	17.4
03. Climatic changes	1	2.5	1	3.2	0	0.0	12	52.2	14	12.2
04. Stagnation of fish prices	13	32.5	0	0.0	1	5.3	0	0.0	14	12.2
05. Lack of money to procure fishing equipment	5	12.5	0	0.0	0	0.0	0	0.0	5	4.3
06. Too many fishers in the sea	3	7.5	0	0.0	0	0.0	0	0.0	3	2.6
07. Loss of fishing gear by theft	0	0.0	3	9.7	0	0.0	0	0.0	3	2.6
08. Environmental degradation/felling mangrove	0	0.0	2	6.5	0	0.0	0	0.0	2	1.7
09. Price hike of fuel	1	2.5	0	0.0	1	5.3	0	0.0	2	1.7
10. High margin taken by middlemen	1	2.5	0	0.0	1	0.0	0	0.0	2	1.7
11. Poor fish catch by each fisher	1	2.5	0	0.0	0	0.0	0	0.0	1	0.9
B. Issue in socio-economics/infrastructure										
01. Lack of medical care facilities/services	0	0.0	5	17.2	11	57.9	0	0.0	16	13.9
02. No water supply system	1	2.5	0	0.0	9	47.4	0	0.0	10	8.7
03. Insufficient income to sustain a family	0	0.0	4	13.8	2	10.5	0	0.0	6	5.2
04. No job for family	0	0.0	0	0.0	2	10.5	0	0.0	2	1.7
05. No electricity supply system	0	0.0	0	0.0	1	5.3	0	0.0	1	0.9
06. Illegal occupation/felling mangrove forest	0	0.0	0	0.0	1	5.3	0	0.0	1	0.9
07. Commodity price inflation	0	0.0	1	3.4	0	0.0	0	0.0	1	0.9
C. Issue in agriculture / livestock										
01. Small paddy field	0	0.0	1	3.4	1	5.3	0	0.0	2	1.7
02. Stolen livestock	0	0.0	2	6.9	0	0.0	0	0.0	2	1.7



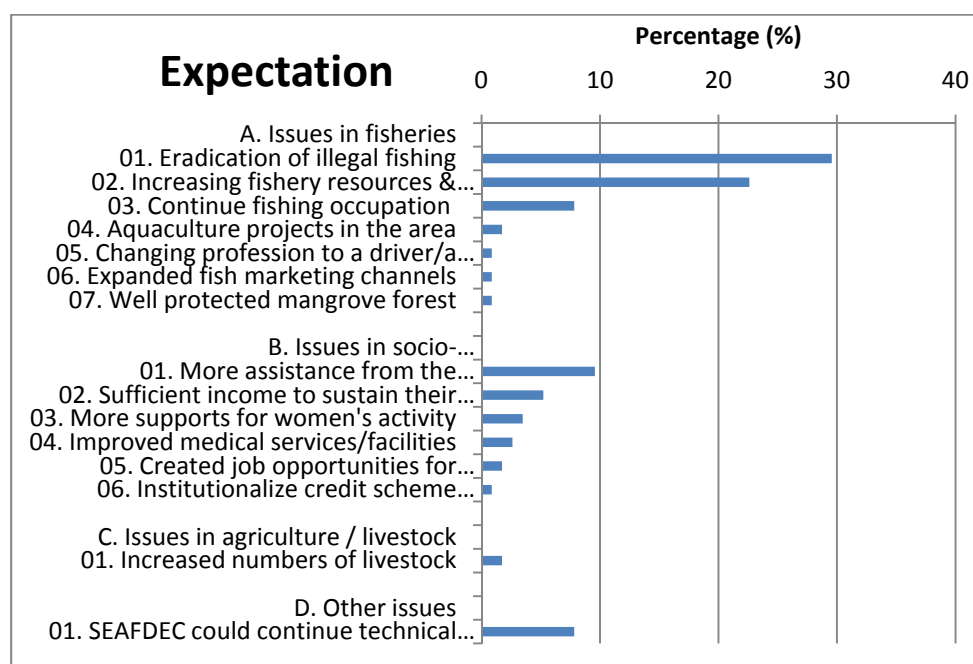
Part V-2 Immediate needs

Village	Prey Pros		Prey Sangke		Prey Toal		Kampong Chin		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
- Total interviewees	40		31		25		19		115	
- No response / No comment	2	5.0	0	0.0	5	20.0	2	10.5	9	7.8
A. Issue in fisheries										
01. Intervention by FiA for preventing illegal fishing	3	7.5	22	75.9	10	52.6	17	73.9	52	45.2
02. Public credit system with low interest	21	52.5	0	0.0	0	0.0	0	0.0	21	18.3
03. Procurement of more fishing gear	9	22.5	0	0.0	0	0.0	0	0.0	9	7.8
04. Procurement of a motorized / larger boat	4	10.0	0	0.0	0	0.0	0	0.0	4	3.5
05. Aquaculture development	0	0.0	2	6.9	0	0.0	0	0.0	2	1.7
06. Well organized marketing system	0	0.0	0	0.0	1	5.3	0	0.0	1	0.9
B. Issue in socio-economics/infrastructure										
01. Construction of clinics/hospitals with services	0	0.0	10	34.5	8	32.0	0	0.0	18	15.7
02. Water supply system	0	0.0	0	0.0	5	20.0	0	0.0	5	4.3
03. Fund for new business	0	0.0	2	6.9	2	8.0	0	0.0	4	3.5
04. Creation of employment opportunity/ construction of factories	0	0.0	2	6.9	1	4.0	0	0.0	3	2.6
05. More support from FiA/NGOs/SEAFDEC	3	7.5	0	0.0	0	0.0	0	0.0	3	2.6
06. Electricity supply system	0	0.0	0	0.0	1	4.0	0	0.0	1	0.9
07. Construction of roads	0	0.0	0	0.0	1	4.0	0	0.0	1	0.9
08. Stabilizing commodity prices	0	0.0	0	0.0	1	4.0	0	0.0	1	0.9
C. Issue in agriculture / livestock										
01. More numbers of livestock	6	15.0	1	3.4		0.0	0	0.0	7	6.1
02. Bigger land for cultivation	0	0.0	1	3.4	1	5.3	0	0.0	2	1.7
D. Others										
01. SEAFDEC should continue the project.	0	0.0	0	0.0	1	4.0	0	0	1	0.9



Part V-3 Expectation

Village	Prey Pros		Prey Sangke		Prey Tal		Kampong Chin		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
- Total interviewees	40		31		25		19		115	
- No response / No comment	5		1		12		2		20	
A. Issues in fisheries										
01. Eradication of illegal fishing	3	7.5	13	41.9	0	0.0	18	94.7	34	29.6
02. Increasing fishery resources & catches	7	17.5	15	48.4	3	12.0	1	5.3	26	22.6
03. Continue fishing occupation	1	2.5	0	0.0	8	32.0	0	0.0	9	7.8
04. Aquaculture projects in the area	1	2.5	1	3.2	0	0.0	0	0.0	2	1.7
05. Changing profession to a driver/a mechanic	1	2.5	0	0.0	0	0.0	0	0.0	1	0.9
06. Expanded fish marketing channels	0	0.0	0	0.0	1	4.0	0	0.0	1	0.9
07. Well protected mangrove forest	0	0.0	0	0.0	1	4.0	0	0.0	1	0.9
B. Issues in socio-economics/infrastructure										
01. More assistance from the government/NGOs	11	27.5	0	0.0	0	0.0	0	0.0	11	9.6
02. Sufficient income to sustain their families	1	2.5	5	16.1	0	0.0	0	0.0	6	5.2
03. More supports for women's activity	3	7.5	1	3.2	0	0.0	0	0.0	4	3.5
04. Improved medical services/facilities	0	0.0	3	9.7	0	0.0	0	0.0	3	2.6
05. Created job opportunities for family	1	2.5	0	0.0	1	4.0	0	0.0	2	1.7
06. Institutionalize credit scheme with low interest	1	2.5	0	0.0	0	0.0	0	0.0	1	0.9
C. Issues in agriculture / livestock										
01. Increased numbers of livestock	2	5.0	0	0.0	0	0.0	0	0.0	2	1.7
D. Other issues										
01. SEAFDEC could continue technical assistance	5	12.5	3	9.7	1	4.0	0	0.0	9	7.8



Annex 5-6

Analytical Result – Part VI

Part VI: Supplemental question for the project operation

Part VI-1 Awareness on the project

Question: Do you know the project?

Item	Village				Total	
	Prey Pros	Prey Sangke	Prey Toal	Kampong Chin	Number	Percent (%)
1. Number of interviewee	40	31	25	19	115	-
2. No response	0	0	0	0	0	0
3. Answer						
- Yes	39	31	25	19	114	99.1
- No	1	0	0	0	1	0.9

Part VI-2 Observations and suggestions for the project operation

Question: How do you evaluate the project activity?

Activity	Prey Pros (40)					Prey Sangke (31)					Prey Toal (25)					Kampong Chin (19)					Total (115)					Score *	
	No	A	B	C	D	No	A	B	C	D	No	A	B	C	D	No	A	B	C	D	No	A	B	C	D	Total	Avg.
1. Planning in general	4	3	33	0	0	0	18	13	0	0	6	8	10	1	0	4	0	0	15	0	14	29	56	16	0	127	1.26
2. Operation in general	13	0	27	0	0	1	17	13	1	0	8	7	10	0	0	2	0	17	0	0	24	24	67	1	0	138	1.52
3. Training	1	9	30	0	0	0	18	13	0	0	6	5	12	2	0	1	0	18	0	0	8	32	73	2	0	167	1.56
4. Women's activity	3	7	30	0	0	0	28	3	0	0	8	3	9	5	0	1	0	18	0	0	12	38	60	5	0	169	1.64
5. Mud crab culturing	5	9	26	0	0	0	11	11	9	0	18	0	3	3	1	2	0	0	17	0	25	20	40	29	1	68	0.76
6. Cage culturing	34	0	6	0	0	0	11	14	6	0	15	0	5	4	1	1	0	16	2	0	50	11	41	12	1	59	0.91
7. Crab bank	8	2	30	0	0	0	26	5	0	0	7	1	4	13	0	2	0	0	17	0	17	29	39	30	0	96	0.98
8. Fish refugia	15	3	22	0	0	1	24	5	0	1	5	20	0	0	0	3	0	4	17	0	24	47	31	17	1	152	1.67

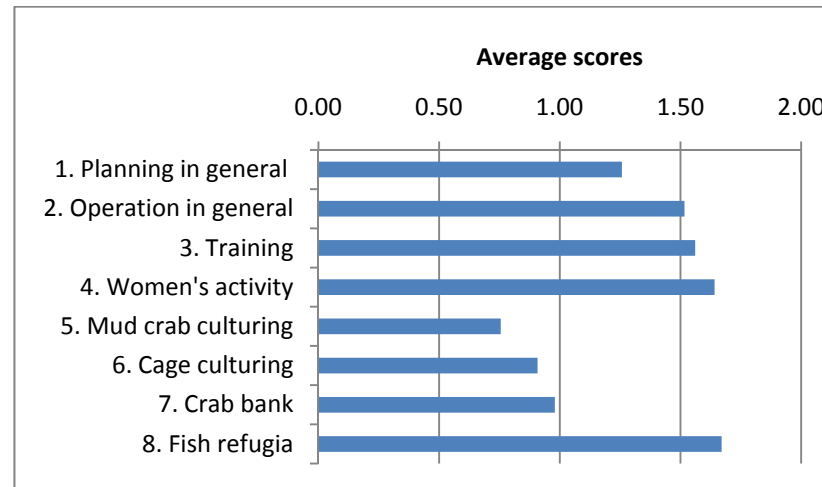
Note: No - No response
 A - Very good
 B - Good
 C - Not good
 D - Bad

* Total score
 - Very good: +3
 - Good: +1
 - Not good: -1
 - Bad: -3

*Average score

: Average scores against interviewees responded

Figure 1. Average scores for each activity of the project



Part VI-3 Proposal on the future activities of the project

Question: What do you want the project to do more in future?

Village	Prey Pros		Prey Sangke		Prey Toal		Kampong Chin		Total	
- Total interviewee	39		31		25		19		114	
- Responded	12		30		7		2		51	
- Non responded	27		1		18		17		63	
Activity	-		-		-		-		-	
	Number	Percent (%)	Number	Percent (%)	Number	Percent (%)	Number	Percent (%)	Number	Percent (%)
1. Resources management	10	83.3	29	96.7	7	100.0	2	100.0	48	94.1
2. Local business development	4	33.3	25	83.3	4	57.1	2	100.0	35	68.6
3. Women's activity	9	75.0	27	90.0	1	14.3	2	100.0	39	76.5
4. Training	12	100.0	28	93.3	2	28.6	2	100.0	44	86.3
5. Volunteer group work	8	66.7	16	53.3	1	14.3	0	0.0	25	49.0

77

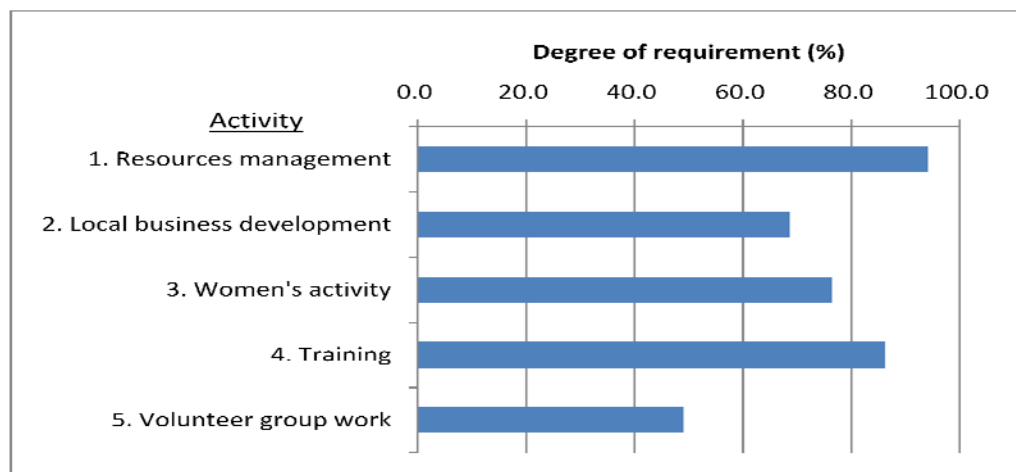


Figure 2. Most essential in future for the project

Part VI – 4 Any suggestion to the Project

Village	Prey Pros		Prey Sangke		Prey Toal		Kampong Chin		Total	
- Total interviewee	40		31		25		19		115	
- Responded	38		31		15		18		102	
- Non responded	1		0		10		1		13	
Suggestion	-		-		-		-		-	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
01. SEAFDEC should continue the project operation	15	39.5	26	83.9	11	73.3	1	5.6	53	52.0
02. Continue support to aquaculture	4	10.5	3	9.7	0	0.0	10	55.6	17	16.7
03. Continue support to crab culturing	8	21.1	3	9.7	1	6.7	0	0.0	12	11.8
04. Continue training course for women's group	5	13.2	2	6.5	0	0.0	0	0.0	7	6.9
05. Support providing fishing gear	0	0.0	0	0.0	0	0.0	7	38.9	7	6.9
06. Need technical assistance to the private sector	0	0.0	5	16.1	1	6.7	0	0.0	6	5.9
07. More focus on poorer families to improve livelihood	3	7.9	2	6.5	0	0.0	0	0.0	5	4.9
08. Continued support to fishery resources management	2	5.3	2	6.5	1	6.7	0	0.0	5	4.9
09. More efforts necessary for controlling illegal fishing	0	0.0	0	0.0	3	20.0	2	11.1	5	4.9
10. More training on human capacity building	4	10.5	0	0.0	0	0.0	0	0.0	4	3.9
11. Resources enhancement by releasing fish fingerings	3	7.9	0	0.0	0	0.0	0	0.0	3	2.9
12. Expansion of marketing channels for bivalve	0	0.0	0	0.0	2	13.3	1	5.6	3	2.9
13. Continue support to conservation of mangrove	0	0.0	2	6.5	0	0.0	0	0.0	2	2.0
14. Put more efforts on animal raising	1	2.6	0	0.0	0	0.0	0	0.0	1	1.0
15. Need to organize fishermen's assembly	1	2.6	0	0.0	0	0.0	0	0.0	1	1.0
16. Construct toilets in villages	1	2.6	0	0.0	0	0.0	0	0.0	1	1.0
17. Improve medical care services and water supply	0	0.0	0	0.0	1	6.7	0	0.0	1	1.0

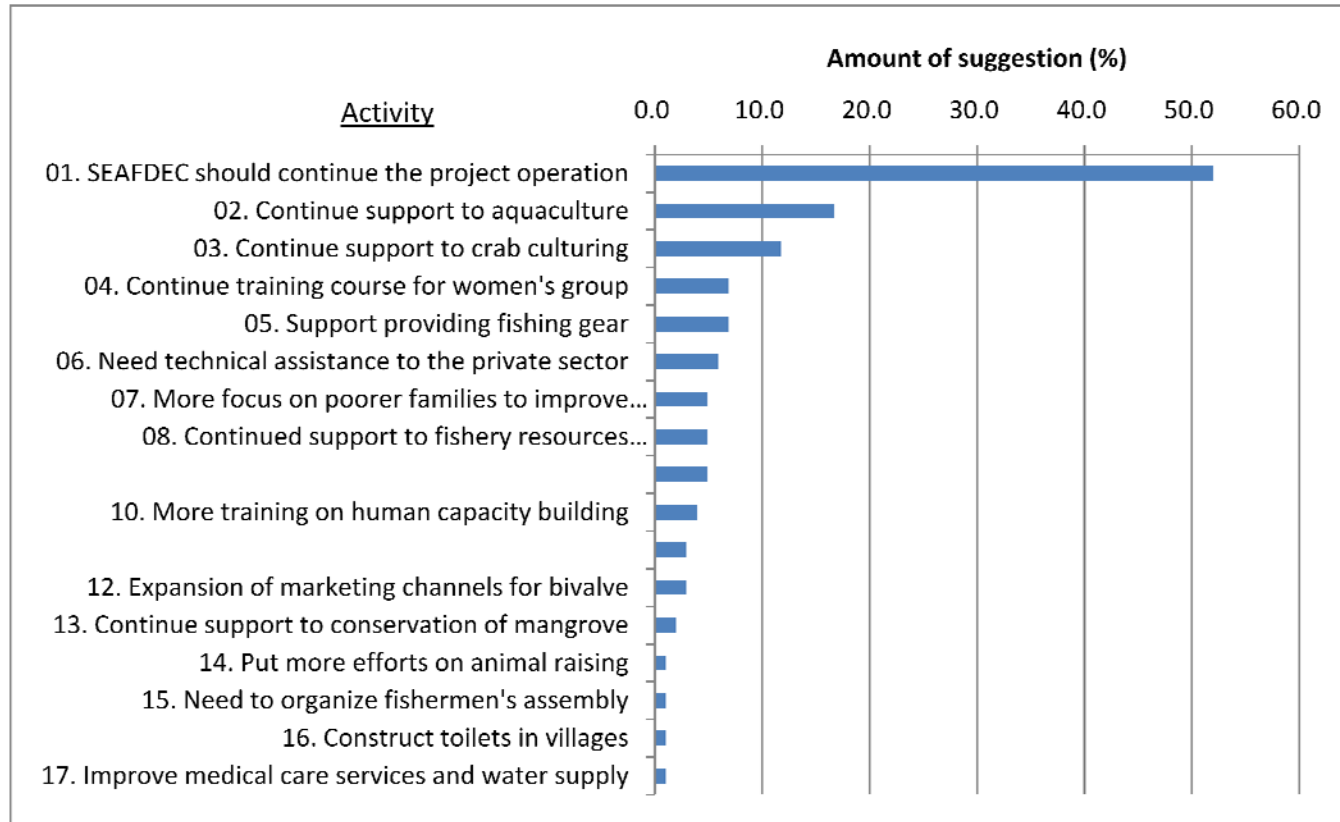


Figure 3. Suggested activity for the project in the future

Annex 6

List of Comparison Analytical data and information sheets

<u>No</u>	<u>Data number</u>	<u>Particulars</u>	<u>Remarks</u>
01.	Part I-1	Comparison on age group of fishermen	by village/total
02.	Part I-2	Comparison on marital status	by village/total
03.	Part I-3	Comparison on occupations	by village/total
04.	Part I-4	Comparison on family structure	by village/total
05.	Part I-5	Comparison on education level	by village/total
06.	Part I-6	Comparison on monthly income	by age/village
07.	Part I-7	Comparison on owner of fishing boats	by age
08.	Part I-8	Comparison on asset ownership of fishermen	by village
09.	Part I-9	Comparison on religion	by village/total
10.	Part II-1a	Comparison on number of fishing boats and fishing without boat	by village/total
11.	Part II-1b	Comparison on number of fishing boats by licensed/unlicensed	by village/total
12.	Part II-2	Comparison on fishing method	by total
13.	Part II-3	Comparison on fishing season and effort	by total
14.	Part II-4	Comparison on fish distribution and marketing	by total
15.	Part II-5a	Comparison on source of credit	by total
16.	Part II-5b	Comparison on total amount of loan (in USD)	by village
17.	Part II-5c	Comparison on mean amount of loan (in USD) taken by each fishers	by total
18.	Part III-1	Comparison on Involvement of women in fisheries by village	by village
19.	Part III-2a	Comparison on involvement of women in household work	by village/total
20.	Part III-2b	Comparison on summary of Involvement of women in household works and other businesses	by age
21.	Part III-3	Comparison on involvement of men in fisheries by village	by village
22.	Part III-4a	Comparison on involvement of men in household works and other businesses by village	by village
23.	Part III-4b	Comparison on summary of involvement of men in household work and other businesses by age group	by age
24.	Part IV-1	Comparison on membership of Community Fisheries (CF) and SEAFDEC project	by village/total
25.	Part IV-2	Comparison on Participation in community development works	by age/total
26.	Part IV-3	Comparison on incentive of member's participation	by village/total
27.	Part V-1	Comparison on Problem	by village/total
28.	Part V-2	Comparison on Immediate needs	by village/total
29.	Part V-3	Comparison on Expectation	by village/total

Annex 7-1

Comparison – Part I

Part I-1 Comparison on Age group of fishermen

Age group	Prek Pros		Prek Sanke		Prek Tal		Kampong Chin		Total	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
16-25	0.0	15.0	13.8	35.5	42.1	24.0	13.0	0.0	13.4	20.0
26-35	19.5	27.5	31.0	16.1	10.5	24.0	21.7	31.6	21.4	24.3
36-45	43.9	32.5	37.9	32.3	21.1	20.0	56.5	31.6	41.1	29.5
46-55	24.4	20.0	6.9	16.1	10.5	16.0	8.7	36.8	14.3	20.9
56-65	9.8	5.0	10.3	0.0	10.5	8.0	0.0	0.0	8.0	3.5
66-75	2.4	0.0	0.0	0.0	5.3	4.0	0.0	0.0	1.8	0.9
76-85	0.0	0.0	0.0	0.0	0	4.0	0.0	0.0	0.0	0.9
total	100	100	99.9	100	100	100	99.9	100	100	100

* B/L: Base-line Socio-economic Survey, M/N: Monitoring Socio-economic Survey

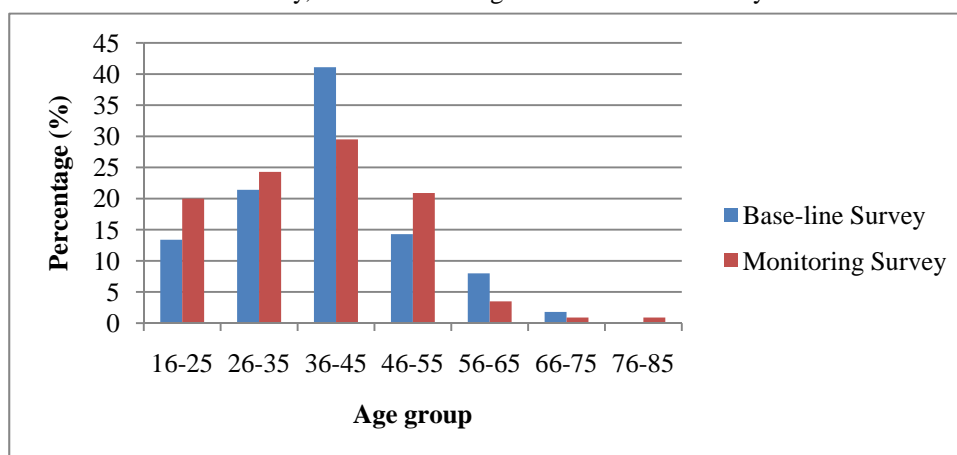


Figure 1. Comparison on fishermen's age variation(in percentage)

Part I-2 Comparison on marital status

Village	Marital Status Base-line survey				Marital Status Monitoring survey			
	Single	Married	Widow	Widower	Single	Married	Widow	Widower
Prek Pros	0.0	34.8	1.8	0.0	2.6	30.4	1.7	0.0
Prek Sanke	2.7	22.3	0.9	0.0	0.9	25.2	0.0	0.9
Prek Tal	0.9	15.2	0.9	0.0	0.9	20	0.0	0.9
Kampong Chin	1.8	17.9	0.0	0.9	0.0	16.5	0.0	0.0
Total	5.4	90.2	3.6	0.9	4.4	92.1	1.7	1.8

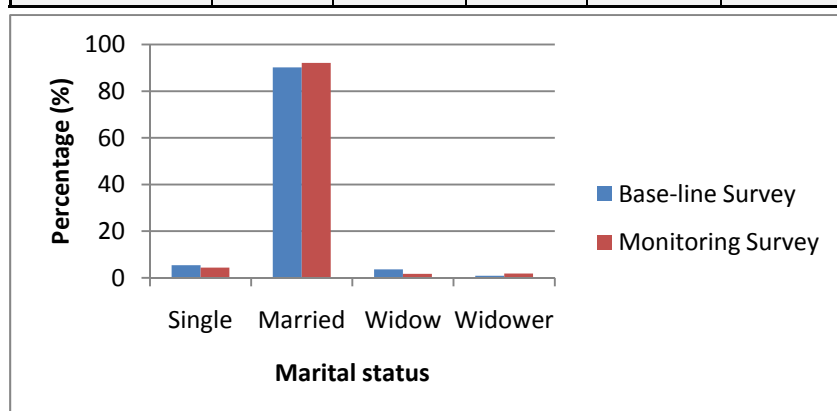


Figure 2. Comparison on marital status

Part I – 3 Comparison on occupation

Age group	Occupation							Total
	Fisheries only	Combination with other profession						
		Agri.	Trading	Laboring	Processing	Livestock	Others	
Base-line Survey								
Prek Pros	2.8	17.5	2.8	2.8	0.7	6.3	3.5	36.4
Prek Sangke	8.4	9.8	2.1	1.4	1.4	2.1	1.4	26.6
Prek Tal	4.2	8.4	0	3.5	0	0.7	0.7	17.5
Kampong Chin	6.3	5.6	0	2.8	0	3.5	1.4	19.6
Total	21.7	41.3	4.9	10.5	2.1	12.6	7.0	100.1
Monitoring Survey								
Prek Pros	16.5	13.9	0.0	0.0	0.0	1.7	2.6	34.7
Prek Sangke	9.6	7.0	0.9	0.9	0.0	7.0	1.7	27.1
Prek Tal	2.6	14.8	0.0	0.9	0.0	0.0	3.5	21.8
Kampong Chin	2.6	13.9	0.0	0.0	0.0	0.0	0.0	16.5
Total (%)	31.3	49.6	0.9	1.8	0.0	8.7	7.8	100.1

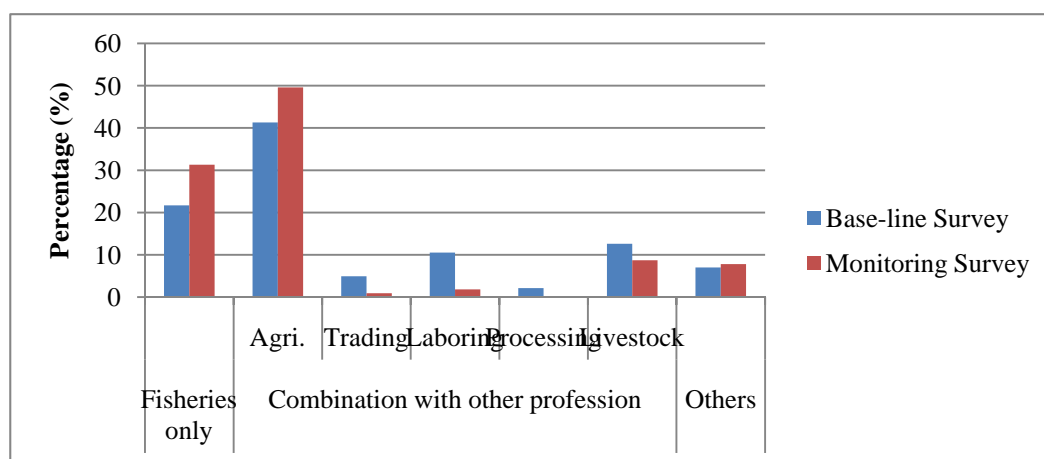


Figure 3. Comparison on occupation of fishermen

Part I-4 Comparison on family structure

Village	Number of interviewees		Average No. of family member		Household (composition of family)					
					without child		with child(ren)			
					Percentage (%)		Percentage (%)		Average No. of children	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
Prek Pros	41	40	7.4	4.1	14.6	37.5	85.4	62.5	3.2	2.1
Prek Sangke	29	31	6.1	4.2	20.7	19.4	79.3	80.6	2.7	1.8
Prek Tal	19	25	5.1	3.6	26.3	32.0	73.7	68.0	2.4	1.9
Kampong Chin	23	19	6.1	4.0	17.4	10.5	82.6	89.5	2.7	1.9
Total	112	115	6.4	4.0	18.8	27.0	81.3	73.0	2.9	2.0

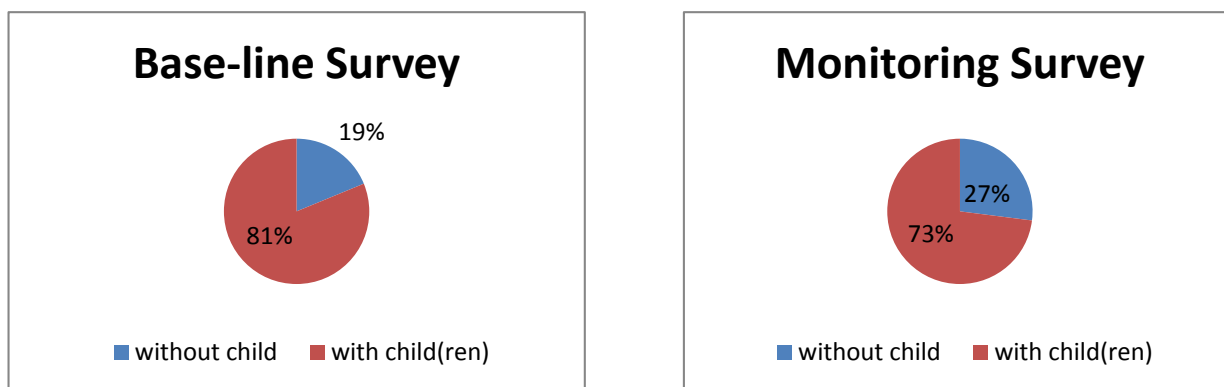
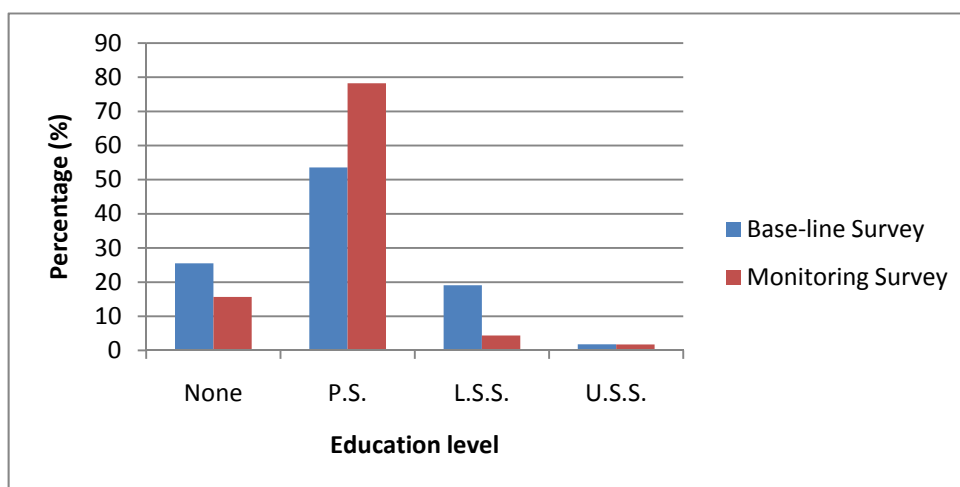


Figure 4. Comparison on family structure with child(ren) and without child

Part I -5 Comparison on education level

Village	No. of interviewees		Education level							
			Number							
			None		P.S.		L.S.S.		U.S.S.	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
Prek Pros	41	40	6	6	24	34	10	0	1	0
Prek Sangke	28	31	6	1	16	28	5	0	1	2
Prek Tal	19	25	10	11	6	11	3	3	0	0
Kampong Chin	22	19	6	0	13	17	3	2	0	0
Total	110	115	28	18	59	90	21	5	2	2
Total (%)			25.5	15.7	53.6	78.3	19.1	4.3	1.8	1.7



Remark P.S. = Primary School, L.S.S = Lower Secondary School, U.S.S= Upper Secondary School

Figure 5. Comparison on education level of fishermen by Total

Part I-6 Comparison on monthly income

Age group	Occupation															
	Fisheries only		Combination with other profession													
			Fisheries		Agri.		Trading		Gen.labour		Processing		Livestock		Others	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M	B/L	M/N	B/L	M/N
16-25	-															
Prek Pros	-	50.0	-	102.5	-	19.2	-	10.0	-	-	-	-	-	50.0	-	-
P.Sangke	116.9	101.8	22.5	105.9	4.2	8.8	200	-	-	3.8	-	-	-	4.6	-	-
Prek Tal	26.5	-	10.3	43.7	27.1	52.5	-	-	35.6	14.1	-	-	-	-	0.1	-
K. Chin	28.1	-	40.0	-	46.3	-	-	-	10.0	-	-	-	4.2	-	3.0	-
26-35	-															
Prek Pros	102.5	93.8	42.5	62.5	6.1	250.0	75.0	-	21.4	-	-	-	-	5.6	25.0	-
P.Sangke	71.8	87.5	55.8	68.1	55.9	9.3	22.5	-	3.0	-	12.5	-	2.1	1.8	-	-
Prek Tal	25.0	80.0	37.5	55.6	3.7	118.3	-	-	-	60.0	-	-	-	-	-	-
K. Chin	56.3	-	33.4	115.8	20.6	76.3	-	-	2.1	-	-	-	8.9	-	-	-
36-45	-															
Prek Pros	15.0	114.6	54.3	135.7	26.7	120.0	19.8	-	16.0	-	15.0	-	6.0	-	8.9	-
P. Sangke	46.9	-	37.0	90.5	49.9	13.0	40.0	-	-	-	-	-	4.2	10.0	22.5	18.8
Prek Tal	37.5	-	28.8	85.5	97.3	101.0	-	-	25.0	-	-	-	2.3	-	-	-
K.Chin	28.3	93.8	34.8	343.8	13.5	141.3	75.0	-	15.0	-	-	-	8.1	-	30.0	-
46-55	-															
Prek Pros	-	100.0	51.6	66.0	22.1	167.5	-	-	7.5	-	-	-	10.4	12.4	-	-
P.Sangke	-	100.0	18.8	59.4	65.6	13.6	-	37.5	-	75.0	-	-	-	-	-	-
Prek Tal	32.5	-	60.0	60.9	112.5	26.6	-	-	-	-	-	-	-	-	37.5	-
K.Chin	48.8	300.0	-	99.2	-	227.0	-	-	-	-	-	-	-	-	-	-
56-65	-															
Prek Pros	-	75.0	40.0	7.5	31.0	250.0	-	-	-	-	-	-	3.5	-	-	-
P.Sangke	-	-	40.8	-	23.6	-	-	-	-	-	-	-	2.1	-	-	-
Prek Tal	19.5	45.0	1.0	56.0	6.3	8.8	-	-	-	-	-	-	-	-	-	-
K.Chin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
66-75	-															
Prek Pros	-	-	37.5	-	3.5	-	-	-	-	-	-	-	-	-	-	-
P.Sangke	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prek Tal	-	-	10.0	80.0	96.2	8.8	-	-	12.5	-	-	-	-	-	-	-
K. Chin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76-85	-															
Prek Pros	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P.Sangke	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prek Tal	-	-	-	31.3	-	17.5	-	-	-	-	-	-	-	125	-	-
K.Chin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	655.5	1,241.4	656.5	1,669.9	712.0	1,629.2	432.3	47.5	148.1	152.9	27.5	-	51.7	209.4	127.0	18.8
Average	46.8	103.5	34.6	87.9	37.5	85.8	72.0	23.8	14.8	38.2	13.8	-	5.2	29.9	18.2	18.8

Remark: Other = construction house and boat

Part I – 7 Comparison on ownership of fishing boats

Age group	Village								Total		Number of interviewees		Ratio of boat owner (%)	
	Prek Pros		P. Sangke		Prek Tal		K. Chin							
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
16-25	0	5	4	10	7	2	0	-	11	17	15	23	73.3	73.9
26-35	4	11	7	5	2	5	4	3	17	24	24	28	70.8	85.7
36-45	11	13	9	9	2	4	9	5	31	31	46	34	67.4	91.2
46-55	5	8	2	4	2	3	2	7	11	22	16	24	68.8	91.7
56-65	2	2	3	-	0	1	0	-	5	3	9	4	55.6	75.0
66-75	1	-	0	-	1	0	0	-	2	0	2	1	100	0.0
76-85	0	-	0	-	0	0	0	-	0	0	0	1	0	0.0
Total	23	39	25	28	14	15	15	15	77	97	112	115	68.75	84.3

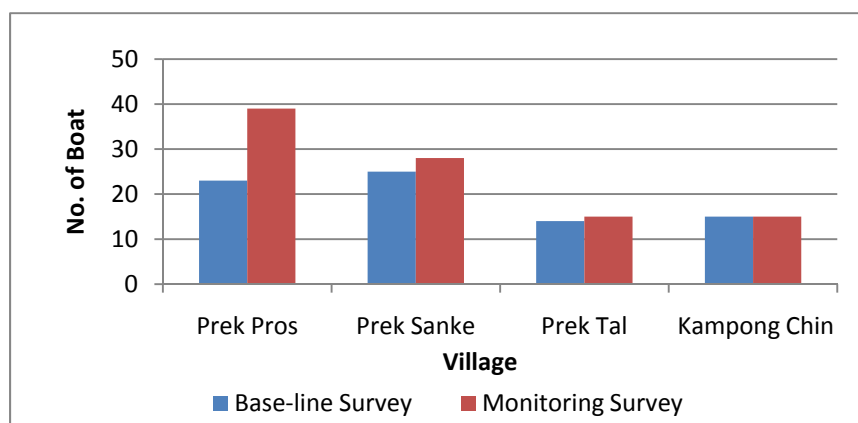


Figure 6. Comparison on number of fishing boats by village

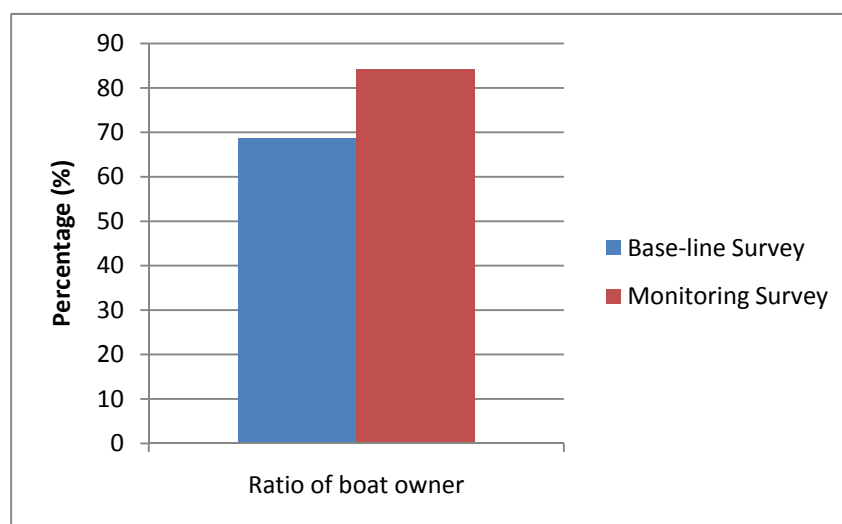
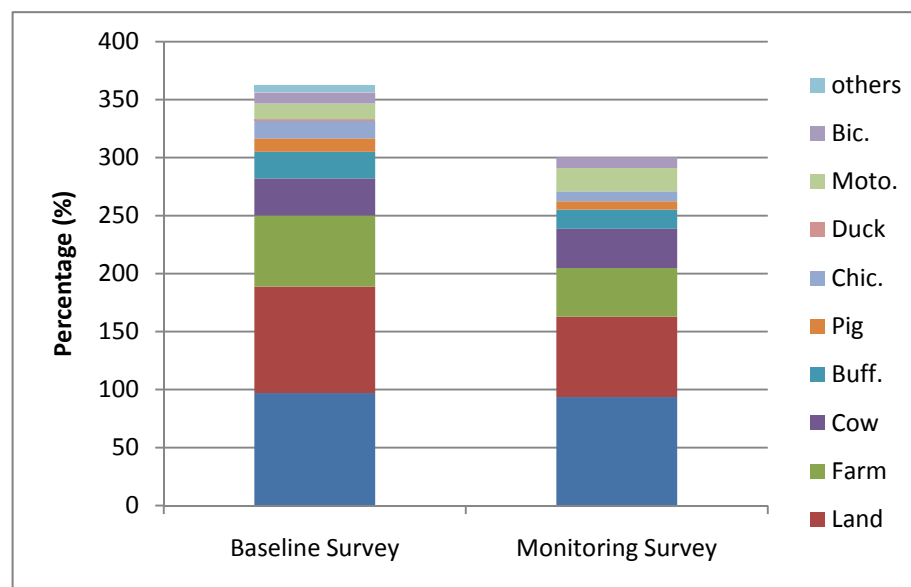


Figure 7. Comparison on ratio of boat owner

Part I-8 Comparison on asset ownership of fishermen

Age group	Property																					
	House		Land		Farm.		Cow		Buff.		Pig		Chic.		Duck		Moto.		Bic.		Others	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
Summary (%)																						
Prek Pros	97.6	97.5	95.1	95.0	63.4	25.0	31.7	40.0	14.6	7.5	17.1	2.5	9.8	0.0	0.0	0.0	7.3	15.0	14.6	0.0	4.9	0.0
Prek Sangke	100.0	96.8	86.2	90.3	51.7	29.0	27.6	38.7	3.4	0.0	3.4	0.0	17.2	6.5	0.0	0.0	34.5	29.0	13.8	29.0	10.3	0.0
Prek Tal	94.7	96.0	94.7	92.0	73.7	40.0	21.1	20.0	47.4	32.0	0.0	0.0	15.8	28.0	5.3	0.0	0.0	20.0	5.3	8.0	0.0	0.0
K.Chin	95.7	84.2	91.3	0.0	56.5	73.7	47.8	36.8	26.1	26.3	26.1	26.3	17.4	0.0	0.0	0.0	13.0	15.8	4.3	0.0	8.7	0.0
Average (%)	97	93.6	91.8	69.3	61.3	41.9	32.0	33.9	22.9	16.5	11.7	7.2	15.0	8.6	1.3	0.0	13.7	20.0	9.5	9.3	6.0	0.0

Remark: Bic. = Bicycle, Moto. = Motorbike, Chic. = Chicken, Buff. =Buffalo, Farm. =Farm land



Remark: Bic. = Bicycle, Moto. = Motorbike, Chic. = Chicken, Buff. =Buffalo, Farm. =Farm land

Figure 8. Comparison on asset ownership (inpercentage)

Part I-9 Comparison on religion

Village	No.of interviewees		Religion (Percentage %)					
			Buddhist		Muslim		Christian	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
Prek Pros	41	40	100	92.5	0	5	0	2.5
Prek Sangke	29	31	17.2	0	82.8	100	0	0
Prek Tal	19	25	5.3	0	94.7	100	0	0
Kampong Chin	23	19	95.7	100	0	0	4.3	0
Total	112	115	61.6	48.7	37.5	50.4	0.9	0.9

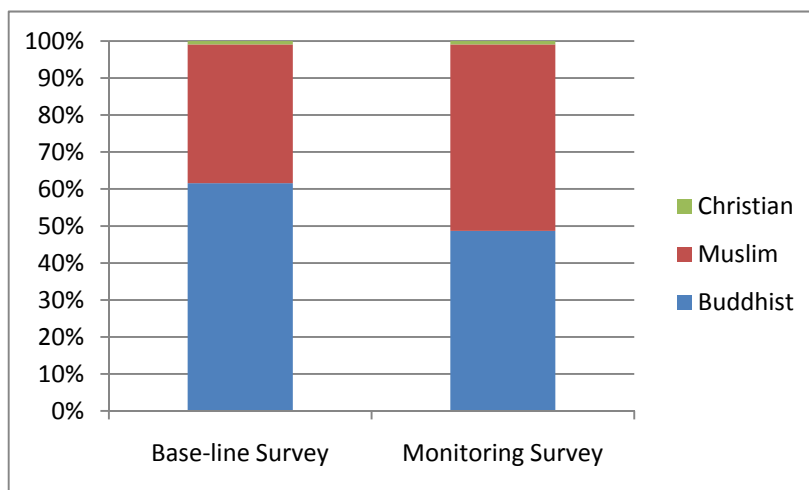


Figure 9. Comparison on religion of fishermen by total (in percentage)

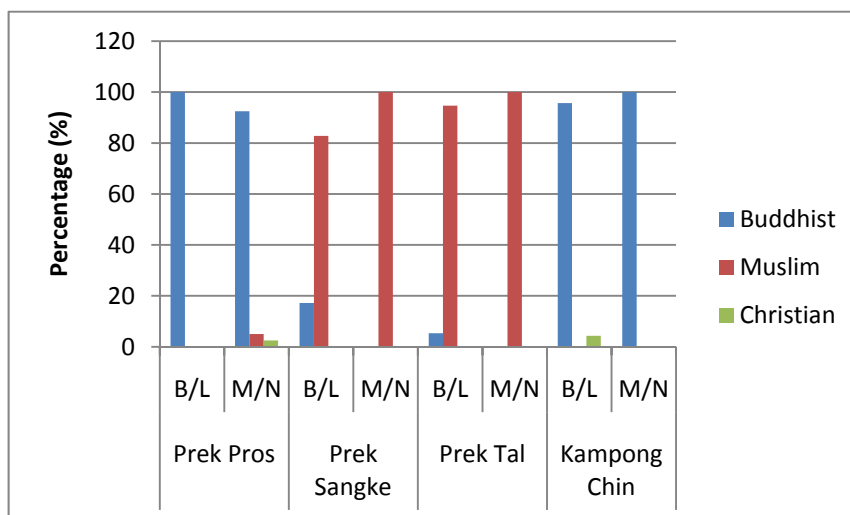


Figure 10. Comparison on religion of fishermen by village

Annex 7-2

Comparison Part II

Part II-1 Comparison on fishing boats

a) Comparison on number of fishing boats and fishing without boats

Village	No. of interviewees		Without boat		With engine		No engine		Ownership			
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	Owner		Crew	
									B/L	M/N	B/L	M/N
Prek Pros	39	40	16	1	13	33	10	6	23	40	0	0
Prek Sangke	29	31	4	3	6	13	21	15	25	31	0	0
Prek Tal	19	25	5	10	1	0	13	15	14	15	0	0
Kampong Chin	22	19	7	4	1	9	14	6	15	15	0	1
Total	109	115	32	18	21	55	58	42	77	101	0	1

Remark: Without boat= fishing without using boat

b) Comparison on number of fishing boats by licensed/unlicensed

Village	Prek Pros		Prek Sangke		Prek Tal		Kampong Chin		Total	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
unlicensed	11	29	6	9	1	10	1	14	19	62
licensed	2	0	0	0	0	0	0	0	2	0
Total									21	62

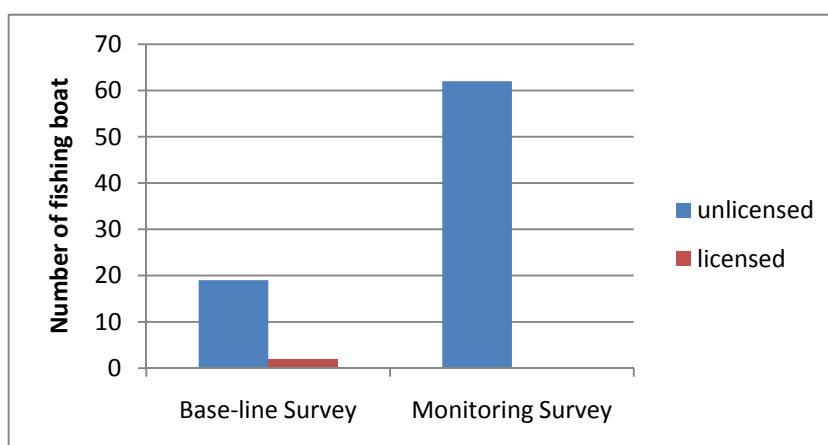


Figure 1. Comparison on number of fishing boats by licensed/unlicensed

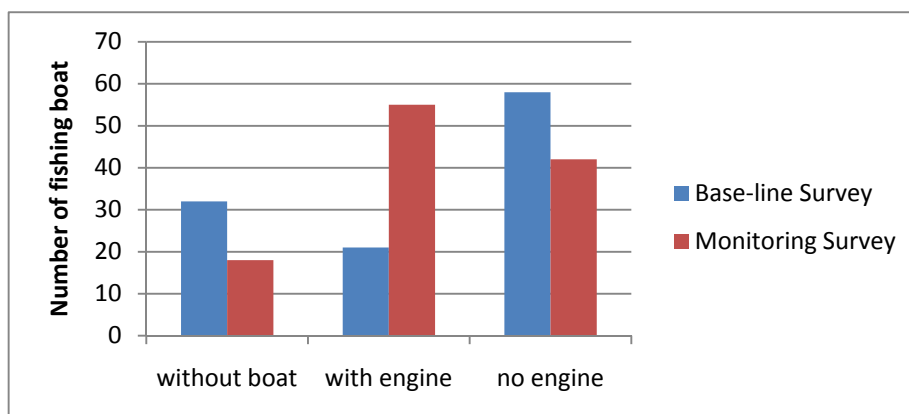


Figure 2. Comparison on number of fishing boat by total

Part II-2 Comparison on fishing methods

Type of fishing gear	Non-boat owner		Boat owner		Type of fishing boat and crew											
					No engine		Percentage (%)		Avg. No. of crew		With engine		Percentage (%)		Avg. No. of crew	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
CGN	0	1	3	15	3	3	3.8	2.9	1	0	-	12	-	11.5	-	1
SGN	0	0	1	3	-	3	-	2.9	-	0	1	0	1.3	0.0	3	0
CT	1	5	50	67	34	24	43.0	23.1	1	1	16	43	20.3	41.3	2	1
FGN	0	0	10	7	7	4	8.9	3.8	1	1	3	3	3.8	2.9	2	0
MGN	0	-	1	-	-	-	-	-	-	-	1	-	1.3	-	3	-
MUGN	0	0	2	5	2	4	2.5	3.8	1	0	-	1	-	1.0	-	0
HPN	24	5	10	1	10	1	12.7	1.0	1	0	-	0	-	0.0	-	0
HFC	2	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-
HFS	5	7	1	4	1	4	1.3	3.8	2	0	-	0	-	0.0	-	0
HL	-	0	-	2	-	0	-	0.0	-	0	-	2	-	1.9	-	1
SBN	0	-	1	-	1	-	1.3	-	1	-	-	-	-	-	-	-
Total	32	18	79	104	58	43	73.4	41.3	8.0	2	21	61	26.6	58.7	10	3

Remarks: CGN=Crab gillnet, SGN=Shrimp gillnet, CT=Mud-crab trap and Swimming crab trap, FGN=Fish gillnet, MGN=Mackerel gillnet MUGN=Mullet gillnet, HPN=Hand push net, HFS=Shell hand fishing, HL=Hook and line, SBN=Set bagnet/stow net, CN=Cast net

:Non-boat*=fishing without boats

Part II-3 Comparison on fishing seasons and effort

Fishing gear used	No. of gear used		Avg. No. of fishing days per year		Avg. No. of fishing hours per day	
	B/L	M/N	B/L	M/N	B/L	M/N
CGN	3	16	227	253	9	10
SGN	1	3	35	304	5	8
MCT	51	72	283	223	10	10
FGN	10	7	255	189	7	10
MGN	1	-	240	-	7	-
MUGN	2	5	276	252	11	6
HPN	34	6	235	227	6	8
HFC	2	-	72	-	7	-
HFS	6	11	214	202	6	9
HL	-	2	-	201	-	9
SBN	1	-	240	-	10	-
Total	111	122				

Remarks: CGN=Crab gillnet, SGN=Shrimp gillnet, CT=Mud-crab trap and Swimming crab trap, FGN=Fish gillnet, MGN=Mackerel gillnet MUGN=Mullet gillnet, HPN=Hand push net, HFS=Shell hand fishing, HL=Hook and line, SBN=Set bagnet/stow net, CN=Cast net

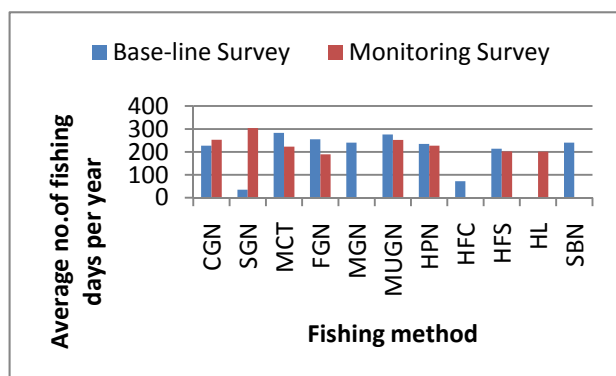


Figure 3. Comparison on average fishing days per year

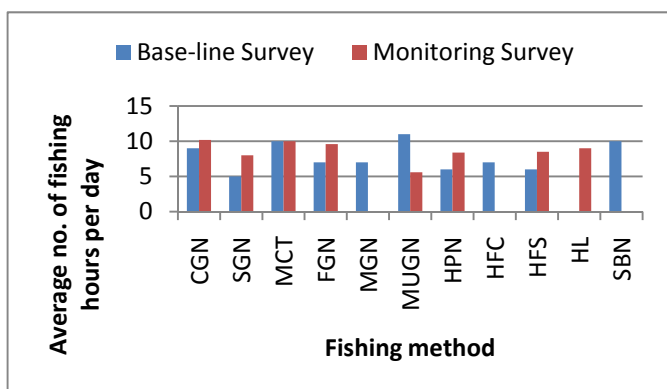


Figure 4. Comparison on average fishing hours per year

Part II-4 Comparison on fish distribution and marketing

Disposal	Baseline Survey	Monitoring Survey
Family consumption (%)	6.4	10.7
For sale (%)	85.5	89.3
Processing (%)	8.1	0

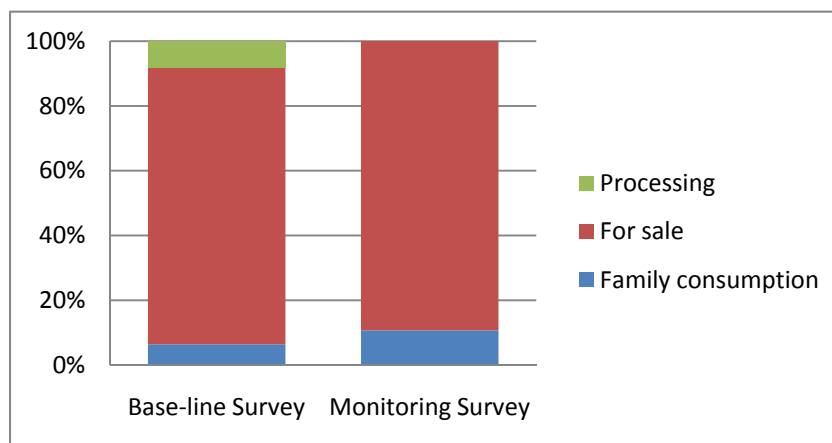


Figure 5. Comparison on disposal of fishing catches by total

Part II-5 Comparison on credit scheme

a) Comparison on source of credit

No. of fishers	Taken loan				Source of credit											
	Yes		No		Commercial Bank				Middlemen				Others			
					Fisheries		Non-fisheries		Fisheries		Non-fisheries		Fisheries		Non-fisheries	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
total	54	60	57	55	22	33	3	0	22	27	0	2	11	0	55	0
Total (%)	48.6	52.2	51.4	47.8	40	55			40	45			20	0		

Remarks: CGN=Crab gillnet, SGN=Shrimp gillnet, CT=Mud-crab trap and Swimming crab trap, FGN=Fish gillnet, MGN=Mackerel gillnet, MUGN=Mullet gillnet, HPN=Hand push net, HFS=Shell hand fishing, HL=Hook and line, SBN=Set bagnet/stow net, CN=Cast net

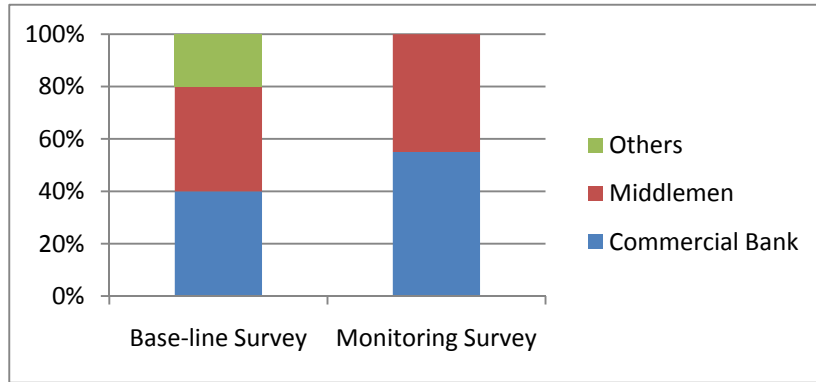


Figure 6. Comparison on source of credit by total

b) comparison on total amount of loan (in USD)

Fishing gear used	Amount (USD)											
	Commercial Bank				Middlemen				Others			
	Fisheries		Non-fisheries		Fisheries		Non-fisheries		Fisheries		Non-fisheries	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
CGN	125	575	0	0	0	960	0	500	0	0	0	0
SGN	0	0	0	0	250	50	0	0	0	0	0	0
CT	1050	4950	220	250	753	1883	0	0	290	0	0	0
FGN	0	175	0	0	75	75	0	0	0	0	0	0
MGN	0	0	0	0	0	0	0	0	0	0	0	0
MUGN	0	0	0	0	0	80	0	0	0	0	0	0
HPN	325	0	250	0	62	0	0	0	250	0	153	0
HFC	0	0	0	0	0	0	0	0	0	0	0	0
HFS	0	250	0	0	0	0	0	125	0	0	2	0
HL	0	0	0	0	0	0	0	0	0	0	0	0
SBN	100	0	0	0	0	0	0	0	0	0	0	0
Sub-total	1600	5950	470	250	1139	3048	0	625	540	0	155	0
Total			2070	6200			1139	3673			695	0

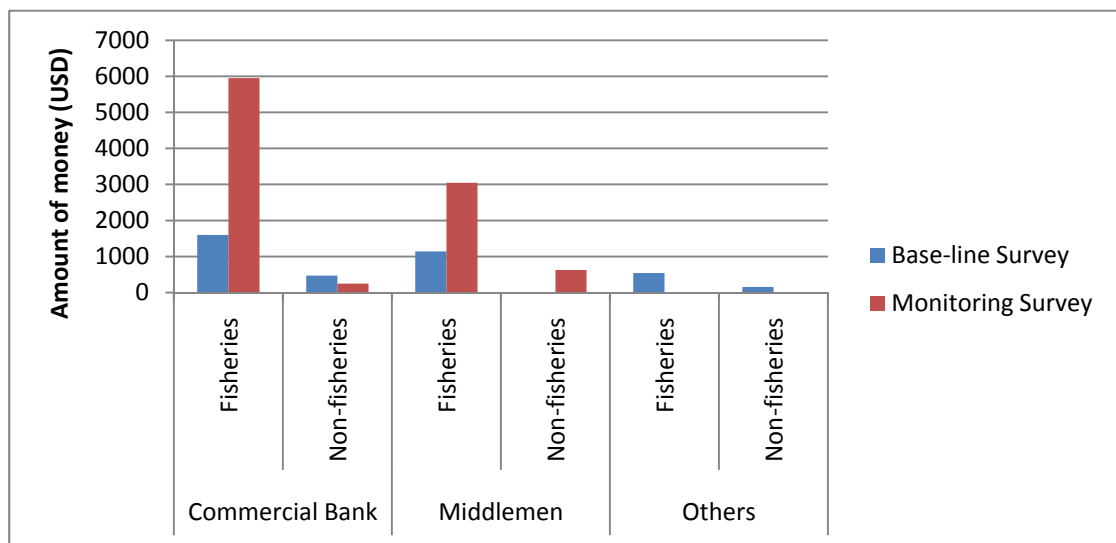
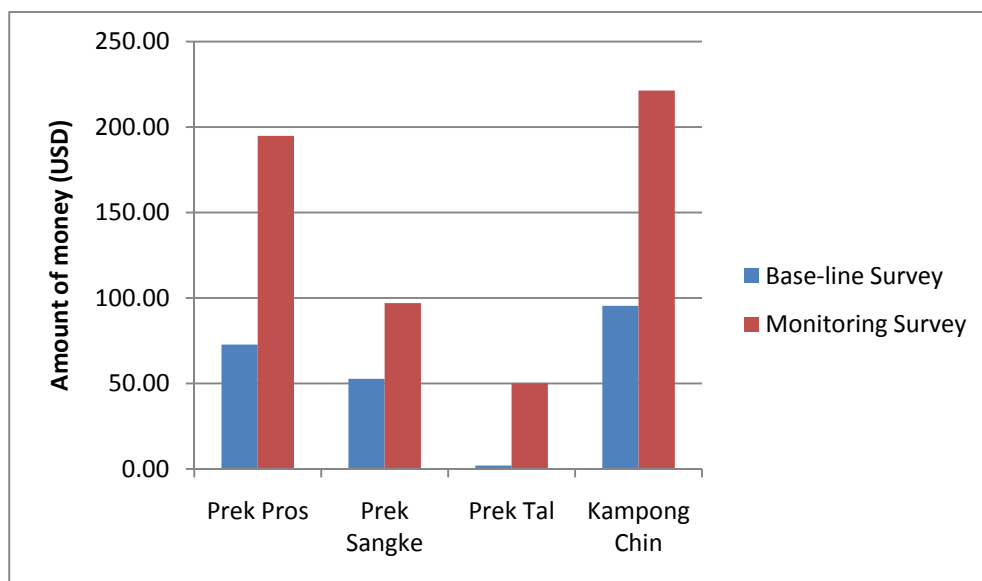


Figure 7. Comparison on source of credit and amount

c) comparison on mean amount of loan (in USD) taken by each fishers

Village	Amount (USD)												Mean amount	
	Commercial Bank				Middlemen				Others					
	Fisheries		Non-fisheries		Fisheries		Non-fisheries		Fisheries		Non-fisheries			
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
Prek Pros	92.50	188.5	110.00	250	38.75	213.30	0	0	65.0	0	120	0	72.78	194.9
Prek Sangke	75.00	0.00	0.00	0.00	41.63	95.40	0	125.0	75.0	0	0.00	0	52.75	97.0
Prek Tal	0.00	0.00	0.00	0.00	0.00	50.00	0	0	0.0	0	2.00	0	2.00	50.0
K.Chin	75.00	175.0	250.00	0.00	103.25	0.00	0	500.0	0.0	0	32.5	0	95.46	221.4
Mean amount	84.21	185.9	156.7	250	51.78	121.9	0	312.5	67.5	0	51.5	0	70.98	164.6



Annex 7-3

Comparison-Part III

Part III Comparison on Gender role

Part III-1 Comparison on Involvement of women in fisheries by village

Village	Fishing gear repair & preparation		Fishing		Fish Trading		Fish processing		Fish culturing		Other		No. of participant	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
Prek Pros	12	6	4	3	6	0	3	0	0	0	21	0	41	40
Prek Sangke	11	15	6	3	7	7	1	1	0	2	13	0	29	31
Prek Tal	8	1	3	2	2	0	0	2	0	0	8	0	19	25
K. Chin	0	17	4	6	5	0	2	0	0	0	16	0	23	19
Total HH	31	39	17	14	20	7	6	3	0	2	58	0	112	115
(%)	27.7	33.9	15.2	12.2	17.9	6.1	5.4	2.6	0	1.7	51.8	0		

Remark: HH=Household

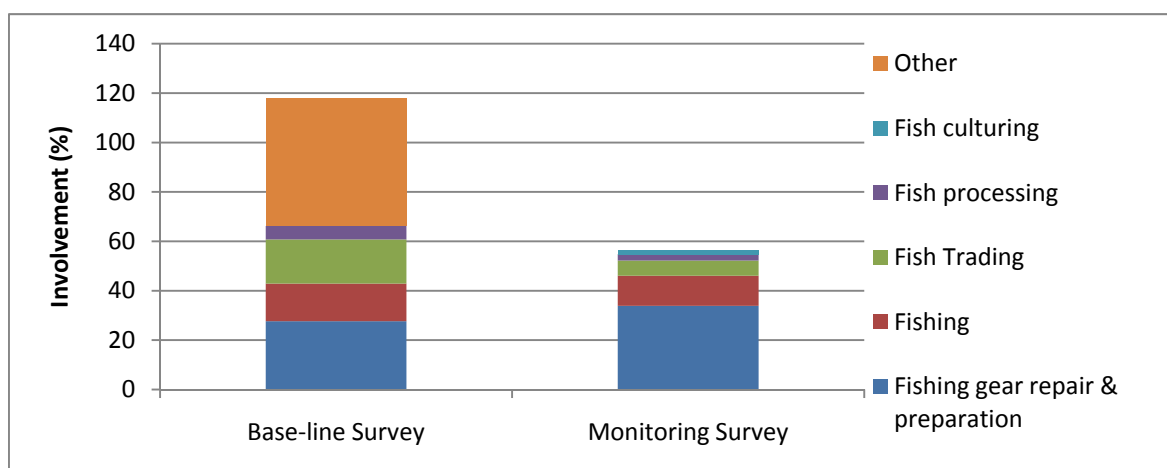


Figure 1. Comparison on involvement of women in fisheries by total

Part III-2 Comparison on involvement of women in household work

a) Comparison on involvement of women in household work

Village	Laboring and other than fisheries		Household works		No. of participation	
	B/L	M/N	B/L	M/N	B/L	M/N
Prek Pros	4	0	41	29	41	40
Prek Sangke	0	0	28	24	29	31
Prek Tal	5	0	19	8	19	25
Kampong Chin	3	0	17	18	23	19
Total	12	0	105	79	112	115
Percentage (%)	10.7	0	93.8	68.7		

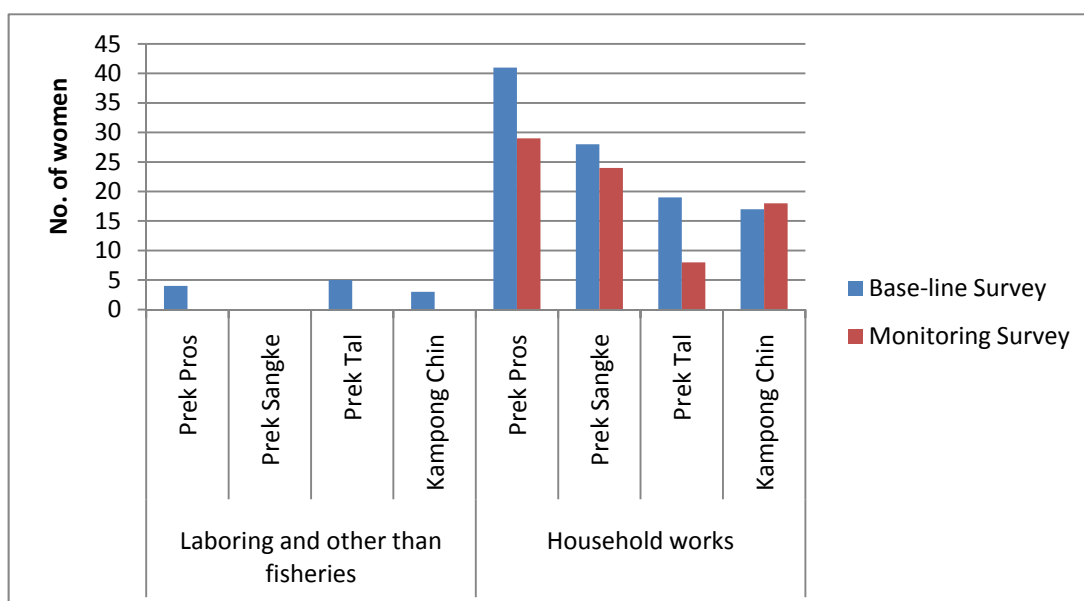


Figure 2. Comparison on involvement of women in household works and other businesses by village

b) Comparison on summary of Involvement of women in household work and other businesses

Age group	Laboring and other than fisheries						Household works					
	No.of HH		Days		Hours		No.of HH		Days		Hours	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
16-25	3	0	7	0	6.0	0.0	12	9	30	30	9.3	5.7
26-35	3	0	23	0	7.5	0.0	24	23	30	30	8.0	7.0
36-45	4	0	23	0	6.0	0.0	42	24	30	30	6.8	6.2
46-55	2	0	15	0	7.5	0.0	16	20	30	29	9.6	6.3
56-65	0	0	0	0	0.0	0.0	9	2	30	25	7.7	3.5
66-75	0	0	0	0	0.0	0.0	2	1	30	30	7.5	6.0
76-85	0	0	0	0	0.0	0.0	0	0	30	0	0.0	0.0
Total	12	0	18	0	6.4	0.0	105	79	30	29	7.6	5.8

Remark: HH=Household ; Days=Days/month; Hours=Hours/day

Part III-3 Comparison on involvement of men in fisheries by village

Village	Fishing gear repair & preparation		Fishing		Fish Trading		Fish processing		Fish culturing		No. of participant	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
Prek Pros	26	22	34	3	6	0	2	0	0	0	41	40
Prek Sangke	18	24	29	22	4	2	0	0	0	0	29	31
Prek Tal	12	9	17	12	1	0	0	0	0	0	19	25
Kampong Chin	15	17	22	18	0	0	2	0	0	0	23	19
Total HH	71	72	102	55	11	2	4	0	0	0	112	115
Percentage (%)	63.4	62.6	91.1	47.8	9.8	1.7	3.6	0	0	0		

Remark: HH=Household

Part III-4 Comparison on involvement of men in household work and other business

a) Comparison on involvement of men in household work and other business by village

Village	Laboring and other than fisheries		Household works		No. of participation	
	B/L	M/N	B/L	M/N	B/L	M/N
Prek Pros	3	0	24	2	41	40
Prek Sangke	1	0	15	28	29	31
Prek Tal	8	0	10	10	19	25
Kampong Chin	5	0	15	19	23	19
Total	17	0	64	59	112	115
Percentage (%)	15.18	0	57.14	51.3		

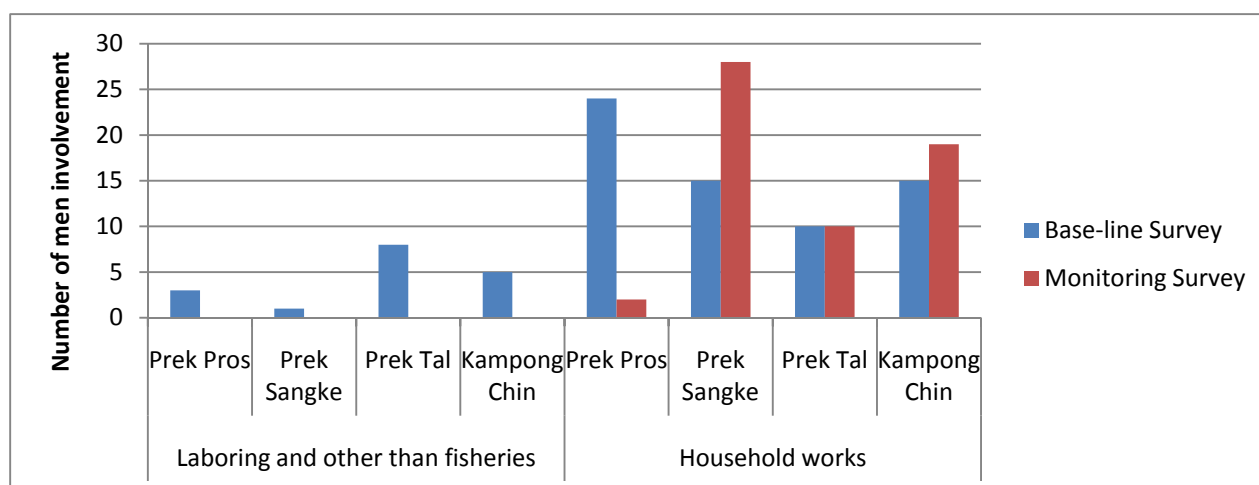


Figure 3. Comparison on involvement of men in household works and other businesses by village

b) Comparison on summary of involvement of men in household works and other businesses by age group

Age group	Laboring and other than fisheries						Household works					
	No. of HH		Days		Hours		No. of HH		Days		Hours	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
16-25	5	0	7	0	5.5	0	12	11	26	28	3.1	7
26-35	4	0	22	0	6.3	0	13	14	25	23	1.8	5.5
36-45	6	0	13	0	7.3	0	25	18	22	18	3	1.8
46-55	0	0	0	0	0.0	0	7	14	16	21	5.3	3
56-65	1	0	20	0	8.0	0	5	1	23	30	3.3	1
66-75	1	0	10	0	4.0	0	2	1	9	30	4	2
76-85	0	0	0	0	0.0	0	0	0	0	0	0	0
Total	17	0	14	0	6.2	0	64	59	20	25	3.4	3.4

Remark: HH=Household ; Days=Days/month; Hours=Hours/day

Comparison- Part IV**Part IV-1 Comparison on membership of Community Fisheries and SEAFDEC project**

Village	Total Household		CF membership (%)				Others group					
			CF Non-member		CF Member		Base-line Survey	Monitoring Survey				
	B/L	M/N	B/L	M/N	B/L	M/N		SEAFDEC Project		Percentage (%)		
								None	Member	None	Member	
Prek Pros	41	40	29.0	12.5	71.0	87.5	1*	33	7	82.5	17.5	
Prek Sangke	29	31	21.0	0.0	79.0	100.0	0	21	10	67.7	32.3	
Prek Tal	19	25	53.0	8.0	47.0	92.0	0	20	5	80.0	20.0	
K.Chin	23	19	83.0	58.0	17.0	42.0	0	16	3	84.2	15.8	
Total	112	115	42.0	19.6	58.0	80.4	1.0	90	25	78.6	21.4	

Remark: 1* person was a member of 2 groups CF and other group

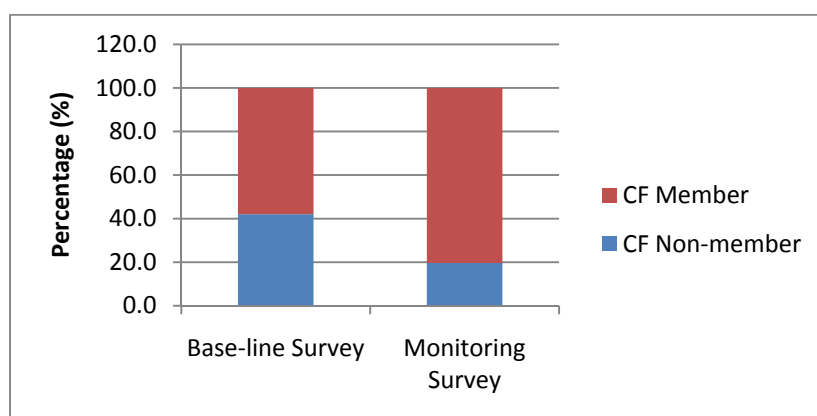


Figure 1. Comparison on membership of Community Fisheries

Part IV-2 Comparison on Participation in community development works

Age group	Total household of membership		status				Participation of CF activities				Participation of SEAFDEC activities	
			committee		Member		Patrolling (%)		Meeting (%)		Meeting (%)	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
16-25	4	20	0	0	4	20	1.8	0.0	1.8	16.7	0.0	5.6
26-35	15	23	0	0	15	23	5.4	2.8	17.9	5.6	0.0	12.5
36-45	30	29	1	0	29	29	14.3	4.1	28.6	19.4	0.0	9.7
46-55	9	16	1	0	8	16	3.6	0.0	10.7	11.1	0.0	4.1
56-65	7	7	0	0	7	7	3.6	1.4	12.5	2.8	0.0	2.8
66-75	0	1	0	0	0	1	0.0	0.0	0	1.4	0.0	0.0
76-85	0	1	0	0	0	1	0.0	0.0	0	0	0.0	0.0
Total	65	97	2	0	63	97	28.6	8.3	71.4	57	0.0	34.7

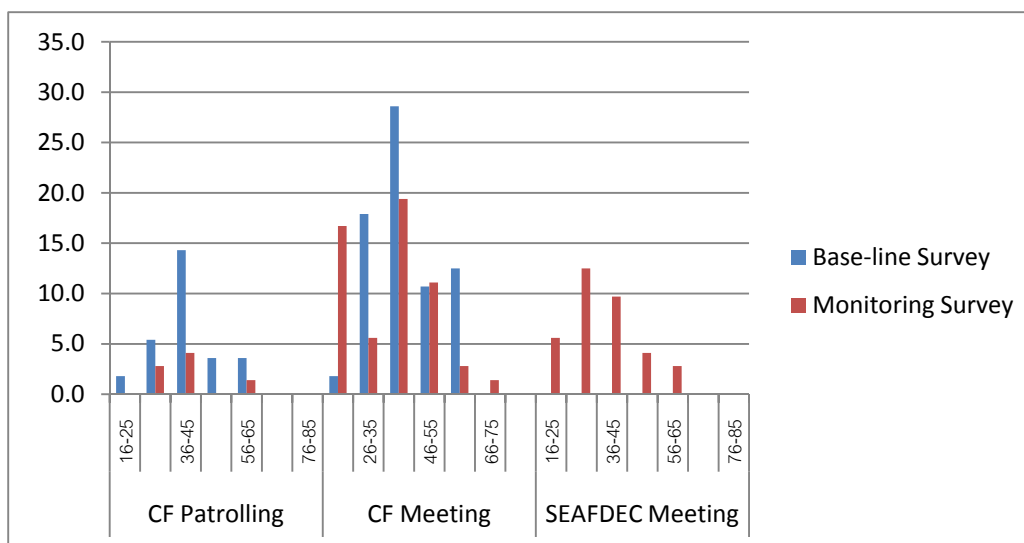


Figure 2. Comparison on participation in Patrolling and Meeting for CF activities and SEAFDEC activities

Part IV-3 Comparison on Incentive of member's participation

Local organization by village	Total household membership		Non-participation		Participation		Incentive						
			(%)		(%)		No		Yes				
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	in cash		in kinds		
										B/L	M/N	B/L	M/N
Prek Pros													
CF	29	35	28	65.7	72	34.3	21	8	0	4	0	0	
SEAFDEC/Others	1	7	0	0	0	100		6	0	1	1	0	
Prek Sangke													
CF	23	31	26	29.0	74	71.0	17	20	0	2	0	0	
SEAFDEC/Others	0	10	0	0	0	100		6	0	4	0	0	
Prek Tal													
CF	9	23	33	52.2	67	47.8	6	8	0	3	0	0	
SEAFDEC/Others	0	5	0	0	0	100		5	0	0	0	0	
Kampong Chin													
CF	4	8	0	100	100	0	4	0	0	0	0	0	
SEAFDEC/Others	0	3	0	0	0	100		3	0	0	0	0	
Total													
CF	65	97					48	36	0	9	1	0	
SEAFDEC/Others	0	25						20	0	5	0	0	
Percentage (%)													
CF							100	80	0	20	0	0	
SEAFDEC/Others							0	80	0	20	100	0	

Comparison - Part V**Part V-1 Comparison on problem**

Village Survey *	Prepros		Prek Sanke		Prek Tal		Kampong Chin		Total	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
- Total interviewees (number)	41	40	29	31	19	25	23	19	112	115
- No response / No comment (%)	4.9	2.5	0.0	0.0	2.4	0.0	4.9	15.8	3.1	4.6
A. Issue in fisheries (%)										
01. Encroachment by illegal fishing boats	87.8	37.5	93.1	77.4	68.4	48.0	43.5	42.1	76.8	51.3
02. Declining fishery resources/fish catch	19.5	32.5	6.9	3.2	36.8	31.6	30.4	0.0	21.4	17.4
03. Climatic changes	19.5	2.5	10.3	3.2	21.1	0.0	8.7	52.2	15.2	12.2
04. Price hike of bait fish (crab trap fishing)	14.6	0.0	6.9	0.0	0.0	0.0	0.0	0.0	7.1	0.0
05. Obsolete or too small fishing boat	2.4	0.0	6.9	0.0	5.3	0.0	8.7	0.0	5.4	0.0
06. Environmental degradation / felling mangrove	7.3	0.0	3.4	6.5	0.0	0.0	4.3	0.0	4.5	1.7
07. Poor fish catch by each fisher	0.0	2.5	0.0	0.0	15.8	0.0	4.3	0.0	3.6	0.9
08. No intervention by FiA for illegal fishing	0.0	0.0	13.8	0.0	0.0	0.0	0.0	0.0	3.6	0.0
09. Lack of money to procure fishing equipment	7.3	12.5	0.0	0.0	0.0	0.0	4.3	0.0	3.6	4.3
10. Too many fishers in the sea	2.4	7.5	3.4	0.0	5.3	0.0	0.0	0.0	2.7	2.6
11. Non access to the public credit scheme	2.4	0.0	0.0	0.0	5.3	0.0	0.0	0.0	1.8	0.0
12. Price hike of fuel	4.9	2.5	0.0	0.0	0.0	5.3	0.0	0.0	1.8	1.7
13. Lack of knowledge in aquaculture	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
14. Invasion to the fishing ground by other fishers	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	0.9	0.0
15. Loss of fishing gear by theft	2.4	0.0	0.0	9.7	0.0	0.0	0.0	0.0	0.9	2.6
16. Stagnation of fish price	0.0	32.5	0.0	0.0	0.0	4.0	0.0	0.0	0.0	12.2
17. Lack of knowledge on CBRM among CF members	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.9
18. High margin exploited by middlemen	0.0	2.5	0.0	0.0	0.0	4.0	0.0	0.0	0.0	1.7
B. Issue in socio-economics/infrastructure (%)										
01. No water supply system	17.1	2.5	20.7	0.0	15.8	47.9	13.0	0.0	17.0	8.7
02. Insufficient income to sustain a family	14.6	0.0	13.8	13.8	5.3	10.5	17.4	0.0	13.4	5.2
03. Lack of medical care facilities	4.9	0.0	6.9	17.2	15.8	57.9	30.4	0.0	12.5	13.9
04. No electricity supply system	2.4	0.0	17.2	0.0	0.0	5.3	13.0	0.0	8.0	0.9
05. No other alternative job than fishing	0.0	0.0	6.9	0.0	5.3	0.0	13.0	0.0	5.4	0.0
06. Lack of road connection	2.4	0.0	0.0	0.0	5.3	0.0	8.7	0.0	3.6	0.0
07. Lack of public transportation	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0	1.8	0.0
08. Poor house to live	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0	1.8	0.0
09. No toilet facilities in a house	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.9	0.0
10. Lack of language education	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.9	0.0
11. Poor educational facilities	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	0.9	0.0
12. No job for family	2.4	0.0	0.0	0.0	0.0	10.5	0.0	0.0	0.9	1.7
13. Illegal occupation of the land	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	0.9
14. Commodity price inflation	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.9
C. Issue in agriculture / livestock (%)										
01. Sea water inflow into paddy field	0.0	0.0	3.4	0.0	10.5	0.0	4.3	0.0	3.6	0.0
02. Lack of fund to procure livestock	2.4	0.0	6.9	0.0	0.0	0.0	0.0	0.0	2.7	0.0
03. Lack of knowledge on animal raising	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.9	0.0
04. Mice and insect infestation in paddy field	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.9	0.0
05. Breaking out fire in paddy field	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	0.9	0.0
06. Small paddy field	0.0	0.0	0.0	3.4	0.0	5.3	4.3	0.0	0.9	1.7
07. Livestock stolen	0.0	0.0	0.0	6.9	0.0	0.0	0.0	0.0	0.0	1.7

Comparison on Problem

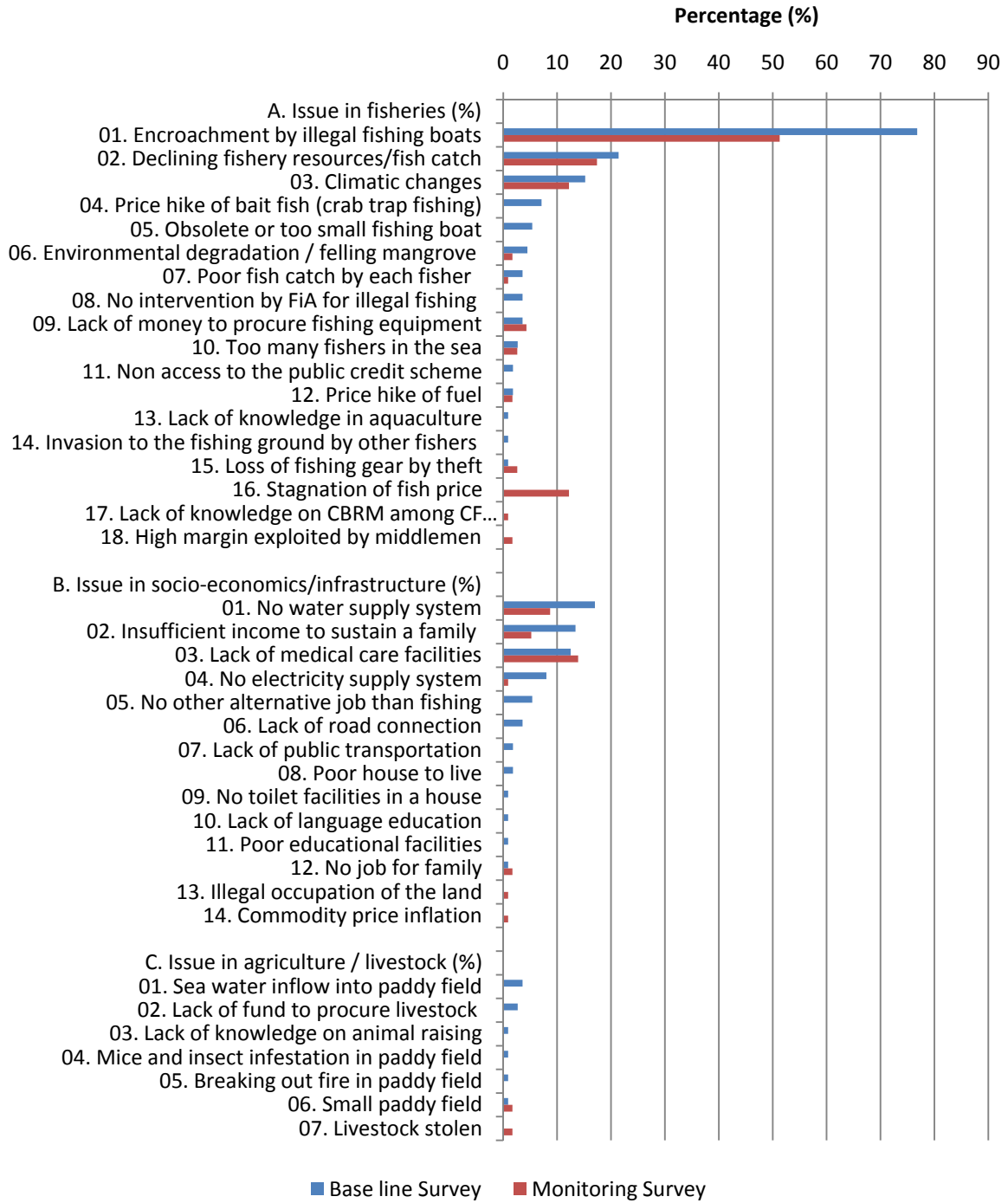


Figure 1. comparison on problem

Part V-2 Comparison on Immediate needs

Village	Prepros		Prek Sanke		Prek Tal		Kampong Chin		Total	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
- Total interviewees (number)	41	40	29	31	19	25	23	19	112	115
- No response / No comment (%)	19.5	5.0	3.4	0.0	0.0	20.0	0.0	10.5	8.0	7.8
A. Issue in fisheries (%)										
01. Procurement of a motorized / larger boat	22.0	10.0	10.3	0.0	0.0	0.0	0.0	0.0	10.7	3.5
02. Procurement of more fishing gear	4.9	22.5	10.3	0.0	0.0	0.0	17.4	0.0	8.0	7.8
03. Intervention by FiA for preventing illegal fishing	7.3	7.5	13.8	75.9	0.0	52.6	0.0	73.9	6.3	45.2
04. An engine for the patrol boat	0.0	0.0	10.3	0.0	0.0	0.0	0.0	0.0	2.7	0.0
05. Construction of CF office building	2.4	0.0	3.4	0.0	0.0	0.0	0.0	0.0	1.8	0.0
06. Well organized marketing system	4.9	0.0	0.0	0.0	0.0	5.3	0.0	0.0	1.8	0.9
07. Public credit system with low interest	2.4	52.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	18.3
08. Kick-off fund for credit scheme to CF	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.9	0.0
09. Improvement of present fishing technology	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
10. FiA subsidy for procurement of fishing gear	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
11. Aquaculture development	0.0	0.0	0.0	6.9	0.0	0.0	0.0	0.0	0.0	1.7
B. Issue in socio-economics/infrastructure(%)										
01. Water supply system	63.4	0.0	72.4	0.0	57.9	20.0	56.5	0.0	63.4	4.3
02. Construction of clinics/ hospitals with services	12.2	0.0	31.0	34.5	57.9	32.0	60.9	0.0	34.8	15.7
03. Electricity supply system	19.5	0.0	48.3	0.0	31.6	4.0	43.5	0.0	33.9	0.9
04. Construction of a toilet in the house	7.3	0.0	48.3	0.0	26.3	0.0	8.7	0.0	21.4	0.0
05. Creation of employment opportunity / construction of factories	2.4	0.0	20.7	6.9	10.5	4.0	17.4	0.0	11.6	2.6
06. Construction of roads	9.8	0.0	3.4	0.0	5.3	4.0	21.7	0.0	9.8	0.9
07. Construction of a house	9.8	0.0	10.3	0.0	0.0	0.0	4.3	0.0	7.1	0.0
08. Construction of more schools	0.0	0.0	0.0	0.0	15.8	0.0	13.0	0.0	5.4	0.0
09. Public transportation	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0	1.8	0.0
10. More support from government / NGOs	4.9	7.5	0.0	0.0	0.0	0.0	0.0	0.0	1.8	2.6
11. Bicycles for children to commute to school	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.9	0.0
12. Laying telephone lines	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	0.9	0.0
13. Education facilities for the elderly	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.9	0.0
14. Fund for new business	0.0	0.0	0.0	6.9	0.0	8.0	0.0	0.0	0.0	3.5
15. Stabilizing commodity prices	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.9
C. Issue in agriculture / livestock (%)										
01. Construction dikes to protect sea water flow-in to paddy field	0.0	0.0	0.0	0.0	21.1	0.0	4.3	0.0	4.5	0.0
02. Bigger land for cultivation	2.4	0.0	0.0	3.4	5.3	5.2	4.3	0.0	2.7	1.7
03. Procurement of more fertilizer	2.4	0.0	3.4	0.0	0.0	0.0	4.3	0.0	2.7	0.0
04. More numbers of livestock	2.4	15.0	0.0	3.4	0.0	0.0	8.7	0.0	2.7	6.1
05. Development of irrigation system	0.0	0.0	0.0	0.0	10.5	0.0	4.3	0.0	2.7	0.0
D. Others (%)										
01. SEAFDEC should continue the project	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.9

* B/L: Base Line Socio-economic Survey, M/N: Monitoring Socio-economic Survey

Comparison on immediate needs

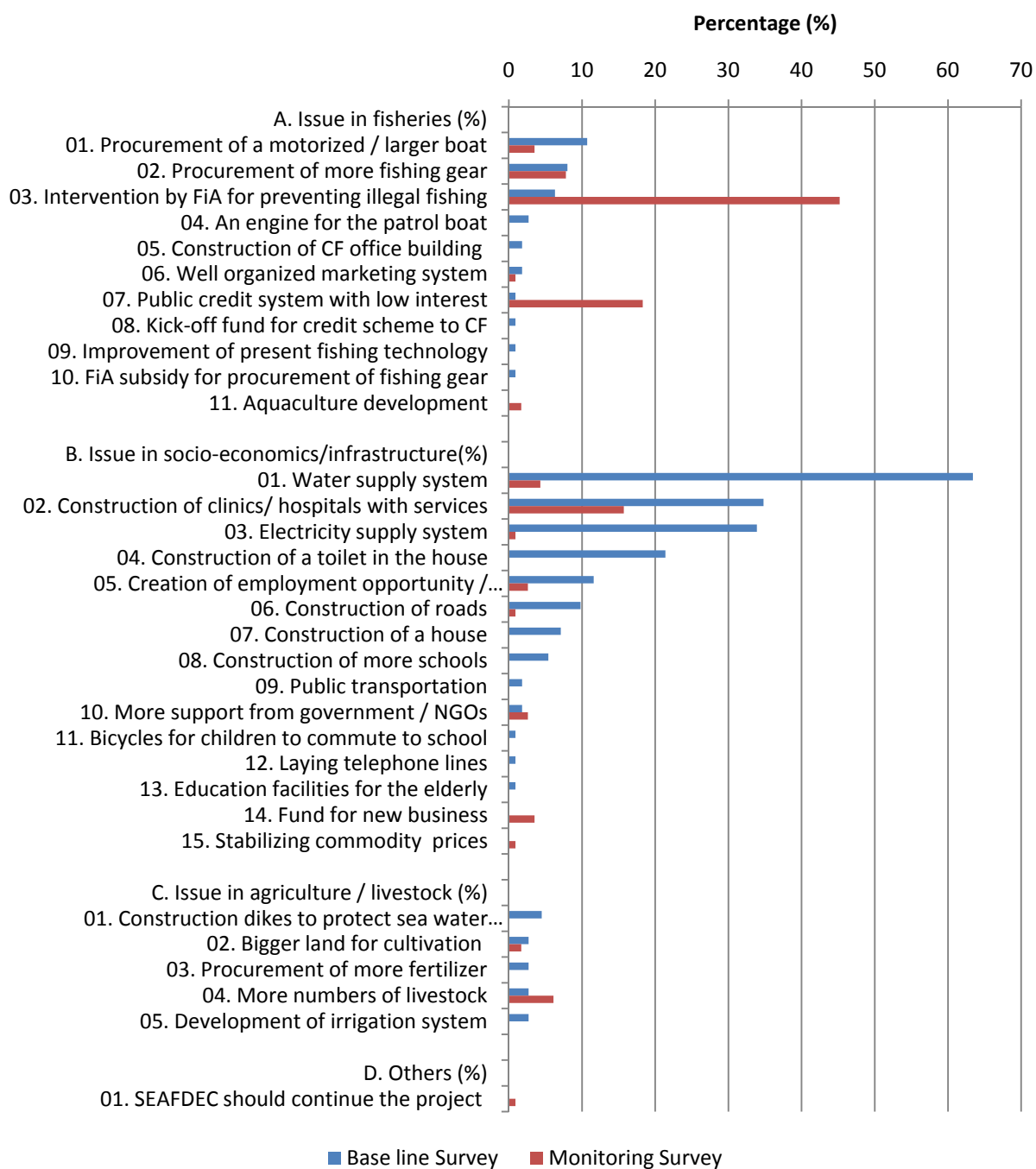


Figure 2. comparison on Immediate needs

Part V-3 Comparison on future expectations

Village	Prek Pros		Prek Sanke		Prek Tal		Kampong Chin		Total	
	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N	B/L	M/N
- Total interviewees (number)	41	40	29	31	19	25	23	19	112	115
- No response / No comment (%)	19.5	12.5	3.4	3.2	0.0	34.3	0.0	10.5	8.0	17.4
A. Topics in fisheries (%)										
01. Changing profession to animal husbandry	17.1	0.0	13.8	0.0	15.8	0.0	13.0	0.0	15.2	0.0
02. Changing profession to factory laboring	12.2	0.0	17.2	0.0	5.3	0.0	17.4	0.0	13.4	0.0
03. Operation with a bigger and motorized boat	17.1	0.0	3.4	0.0	15.8	0.0	8.7	0.0	11.6	0.0
04. Continue fishing occupation	4.9	2.5	3.4	0.0	21.1	32.0	21.7	0.0	10.7	7.8
05. Changing profession to any other job than fisheries	7.3	0.0	3.4	0.0	5.3	0.0	13.0	0.0	7.1	0.0
06. Increasing fishery resources & catches	4.9	17.5	3.4	48.4	15.8	12.0	13.0	5.3	8.0	22.6
07. Changing profession to agriculture	7.3	0.0	3.4	0.0	5.3	0.0	4.3	0.0	5.4	0.0
08. Changing profession to aquaculture	4.9	0.0	3.4	0.0	10.5	0.0	4.3	0.0	5.4	0.0
09. Continue fishing with improved fishing methods	0.0	0.0	6.9	0.0	5.3	0.0	13.0	0.0	5.4	0.0
10. Job opportunities available during off-fishing seasons	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0
11. Establishing a fish processing factory	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0
12. Changing profession to a driver/a mechanic	2.4	2.5	3.4	0.0	0.0	0.0	4.3	0.0	2.7	0.9
13. Changing profession to trading	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0
14. Continue fishing but not for the next generation	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0
15. Expanded fish marketing channels	2.4	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.9	0.9
16. Aquaculture projects in the area	0.0	2.5	0.0	3.2	5.3	0.0	0.0	0.0	0.9	1.7
17. Eradication of illegal fishing	0.0	7.5	0.0	41.9	0.0	0.0	0.0	94.7	0.0	29.6
18. Well protected mangrove forest	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.9
B. Topics in socio-economics/infrastructure (%)										
01. Created job opportunities for family	7.3	0.0	13.8	0.0	10.5	4.0	34.8	0.0	15.2	0.9
02. Good education facilities for children	4.9	0.0	20.7	0.0	0.0	0.0	39.1	0.0	15.2	0.0
03. Construction of a spacious house	7.3	0.0	0.0	0.0	5.3	0.0	0.0	0.0	3.6	0.0
04. Improved medical services / facilities	2.4	0.0	6.9	9.7	0.0	0.0	0.0	0.0	2.7	2.6
05. More assistance from the government/NGOs	2.4	27.5	0.0	0.0	5.3	0.0	0.0	0.0	1.8	9.6
06. More civilized lives for children	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0	1.8	0.0
07. Improved public transportation system	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.9	0.0
08. Sufficient income to sustain their families	0.0	2.5	3.4	16.1	0.0	0.0	0.0	0.0	0.9	5.2
09. Established English language school in the area	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.9	0.0
10. Institutionalize government credit scheme with low interest	0.0	2.5	0.0	0.0	5.3	0.0	0.0	0.0	0.9	0.9
11. Purchase a motor-cycle	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.9	0.0
12. Purchase of a car	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.9	0.0
13. More supports for women's activity	0.0	7.5	0.0	3.2	0.0	0.0	0.0	0.0	0.0	3.5
C. Topics in agriculture / livestock (%)										
01. Increased numbers of livestock	9.8	5.0	0.0	0.0	0.0	0.0	4.3	0.0	4.5	1.7
02. Obtained more land for agriculture	2.4	0.0	0.0	0.0	5.3	0.0	0.0	0.0	1.8	0.0
03. Strict control of cutting trees in the mountain	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	0.9	0.0
D. Others										
01. SEAFDEC could continue technical assistance	0.0	12.5	0.0	9.7	0.0	4.0	0.0	0.0	0.0	7.8
02. Created job opportunity by NGOs	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9

* B/L: Base-line Socio-economic Survey, M/N: Monitoring Socio-economic Survey

Comparison on Expectation

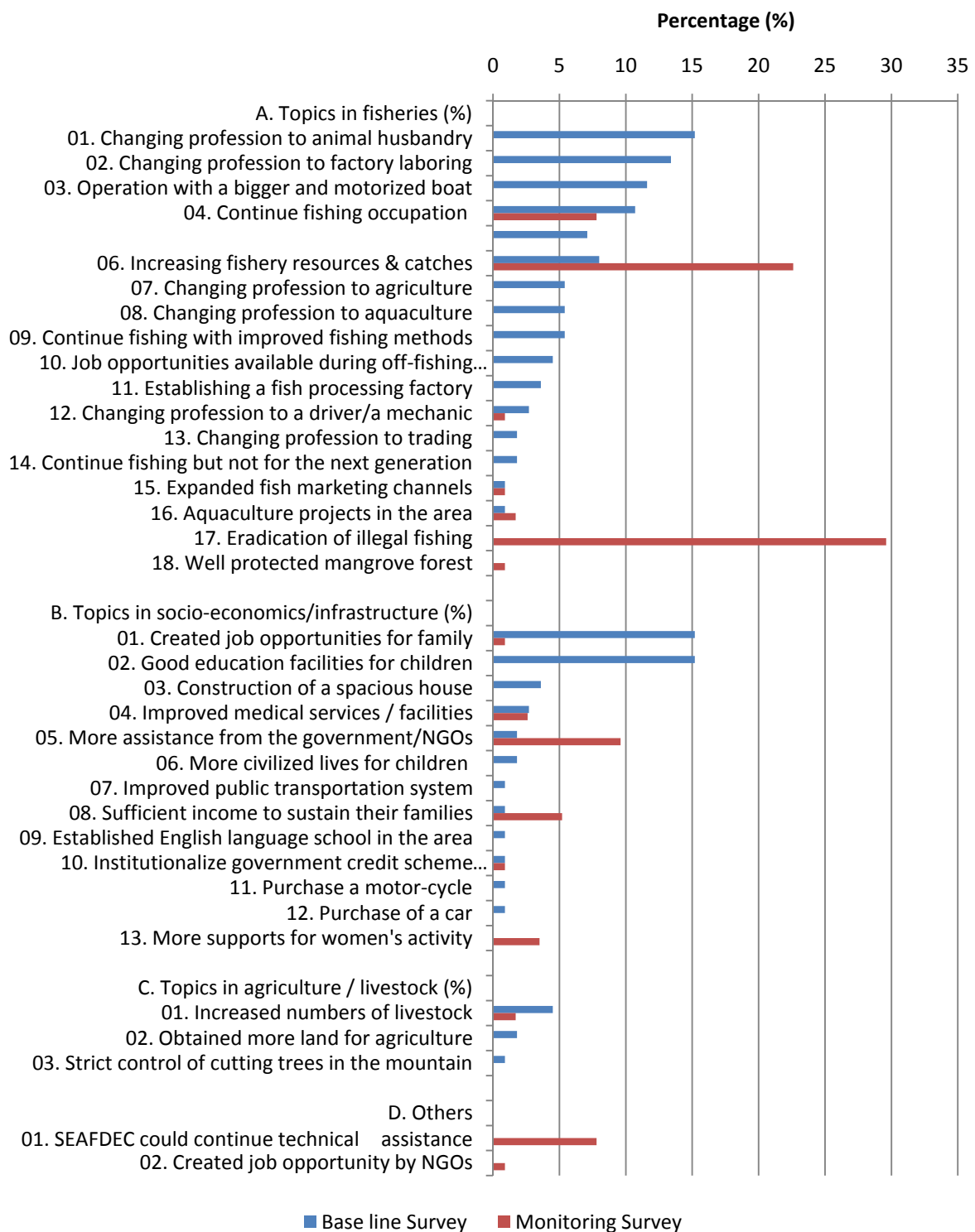


Figure 3. comparison on Expectation

Training Department(TD)

P.O. Box 97, Phrasamutchedi, Samut Prakan 10290, Thailand

Tel : (662) 4256100 Fax : (662) 4256110-11

Email : td@seafdec.org

<http://www.seafdec.or.th>