

NETWORK ACTIVITY GROUP

Kyar Phong Fishery Study

Study Report

Network Activity Group

6/13/2019

Kyar Phong Fishery Study conducted at Yay Township, Mon State and Pyapon Township, Ayeyarwaddy Region

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Background

1. According to a 2013 Marine Fisheries Resources Survey and Exploratory Fishing Project, stick-held falling net—locally known as *kyar phong*— is the fourth most abundant fishing gear in Myanmar after bottom trawl, purse seine and drift net. It is practiced in the Gulf of Martaban, which has over 45,000 sq. km. of salty clay cover and Ayeyarwaddy region.
2. Before the period of Cyclone Nargis period, Kyar Phong fishery (also called England tiger raft) was located in Pyapon because Pyapon is located about 15 km inland from the Andaman Sea and 40.1% of the employed person aged 15-64 are skilled agriculture, forestry and fishery workers. Currently, Kyar Phong fishery has gone over to east coast area from Gulf of Mottama to Mon state.
3. There are tiger raft fishery in Ayeyarwaddy region and Mon state and skilled labour or workers at upper level position are mostly from Ayeyarwaddy region. Villages in some inshore area from Yay township such as Ah Baw village from Ah Sin village tract had appeared because of area extension and moving of Kyar Phong fishers from Ayeyarwaddy.
4. Although some of the residents are living in Mon state within September to April (Kyar Phong season), they return to Ayeyarwaddy after Kyar Phong period. Myit Tan, Naukmi and Daw Nyein, which are village tract and sub Township of Pyapon Township, are primary locations for the production of shrimp paste in Ayeyarwady Region and the long-distance bus travels from Pyapon City. The Naukmi village—thick with the rank smell of fish from fish processing factories, fish storage depots and fish drying racks—is the site with the largest production of fish paste, dried fish, and shrimp paste and these fish products are necessary ingredients for family dinner tables all over Myanmar.
5. After taking an advance, there are reported cases of desertion of workers without completing the term of employment. There was no written contract of work until recently but of late it is reported that written contracts are becoming the norm. Due to desertion, vessel owners are reluctant to provide workers with sea safety equipment, fearing they will escape. The *kyar phoeng* fishery is closed from 1 June until 31 August every year. However, there are no holiday allowance paid to workers
6. From a fisheries conservation and sustainable use perspective, there is a shift in standing stock biomass –according to the 2013 Survey—away from long-lived and highly valuable species towards smaller fish with shorter life spans and of lower commercial value, suggesting both growth and recruitment overfishing. An increase in the total number of *kyar phong* units, mesh size getting smaller and smaller, and anchoring at a distance progressively away from shore, are all indicators of a growing overfishing pressure on fishery resources.
7. From a sea safety perspective, especially in light of the havoc wreaked by the 2008 Cyclone Nargis—“the worst natural disaster in the recorded history of Myanmar”—especially in the Gulf of

Martaban as well as the 2012 heavy rains, the fishers living on stationary bamboo rafts, without adequate safety preparedness, are extremely vulnerable to natural disasters such as cyclones, sea surges and heavy rains. Overfishing pressures are pushing the location of these rafts further away from shore and it has further compromised sea safety preparedness.

8. From the perspective of decent working and living conditions on what is manifestly a hazardous work, there are concerns with regard to meeting minimum requirements for work on a raft continuously for eight months (minimum age, medical examination, basic training in sea safety, etc), conditions of work (inclement weather, cyclones, etc), accommodation and food, occupational safety and health protection, and medical care and social security.

9. It is proposed that a comprehensive co-management approach to *kyar phoeng* by enacting new legislation and policies with respect to the internal waters and interlocking rights and duties could assist in integrating sea safety and decent work into a fisheries conservation and sustainable use agenda. It could be based on the FAO Tenure Guidelines and the FAO Small-scale Fisheries Guidelines. It could promote responsible fisheries as well as protect life and livelihoods of thousands of fishers engaged in *kyar phoeng* fishery in the Gulf of Martaban and Ayeyarwaddy region and their families in the hinterland.

1. Objective

Objectives – Following are the objectives of the study:

- To understand *kyar phong* fishery in Pyapon and Yay townships (Ayeyarwaddy and Mon State)
- To propose how the environmental, social and economic dimensions of this fishery could be enhanced to optimise various benefits, including the wellbeing of migrant fishers and fishworkers; and
- To suggest a co-management framework in relation to fisheries, informal work and sea safety in a coordinated and coherent manner, drawing upon instruments such as the FAO Code of Conduct for Responsible Fisheries, Tenure Guidelines, the SSF Guidelines and relevant ILO instruments in relation to decent work.

2. Structure of the Report

The report is organized under 4 chapters; Section 1 introduces the background and objective of the study. Section 2 explains the methodology used for the study and analysis. Section 3 summarizes the results from the Kyar Phong survey analysis. This section is divided into seven sub sections; Social and

Background Information of Kyar Phong, Workers' Interest and Decision in Engaging Kyar Phong Fishery, Migration, Salary and Benefits, Health and Social Benefits, Saving and Advance Money, Operational Management in Kyar Phong Fishery, Changes Conditions in Kyar phong Fishery and the fourth section is Issues and Challenges in Kyar Phong Fishery.

The final section of the report draws some conclusions from the study and the Fisheries sector. Background information of the Kyar Phong workers includes about the information of educational level, age group and income sources. Native places and experiences on working in Kyar Phong are mentioned in Migration and the defining of Kyar Phong season and are also studied in survey. The identification of salary and bonus rate by owners, advance payment and amount of saving by workers are also included in the study. And other importance information such as supports for health and injures on raft, division of labor and changes conditions in Kyar Phong fishery (number of rafts, workers, amount of catch fish) are also collected by team.

Reason for problem occurrence between owners and labors and other main issues and challenges facing by owners and employees are mentioned in issues and challenges section.

3. Methodology

The study was conducted with qualitative method by using observation and semi-structured interview data collection methods. Quantitative data of socio-economy status were collected from the same participants.

The participants were selected with 'Purposive Sampling' method. The focus areas are the two main townships involving in Kyar Phong Fishery; namely Yay Township and Pyapon Township. The participants will be workers involved in Kyar Phong fishery both in-land and costal (more on-land workers according to the season), owners and officials from the Department of Fishery.

4. Data collection

During March and May 2019, NAG Research team went to A Sin Village from Yay Township in Mon State to collect data from 18 participants, who involved in Kyar Phong Fishery with the help of Kyar Phong Association and the Department of Fishery from Yay Township. It was difficult to recruit respondents in the village because some did not express their opinion as they were afraid that they might distract their relationship with their employee. Moreover, for those who decided to involve, most of them except two were reluctant to answer no matter how precaution matters were carried out. However, the

quality of the data available provided to capture the lives and the main issues of the people involving in the sector. After that trip, the team went to 6 villages from Pyapon Township in Ayeyarwaddy Region for interviewing 33 participants from Kyar Phong Fishery Sector with support from Kyar Phong Association and the Department of Fishery from Pyapon Township. Unlike Yay Township, participants were keener in responding questionnaires, and tended to express freely.

The list of village and total number of interviewees in each village are as follow:

Table 1: List of Respondents (Employees and Employers) in Study

Village	Village Tract	Township	Employees
Ah Baw Kyar Tan	A Sin(Myo How)	Yay	14
Ah Sin	Ah Sin Myo How	Yay	4
San Pya	Myit Tan	Pyapon	3
Ah Char Lay	A Char Lay	Pyapon	8
Ban Dar Pin	Daw Nyein	Pyapon	2
Chaung Wa	Dae da Lu	Pyapon	5
Khar Pyat	Daw Nyein	Pyapon	4
Nauk Mee	Nauk Mee	Pyapon	7
Phone Gyi Thaung	Dae da Lu	Pyapon	4
A Baw Kyar Tan	A Sin	Yay	9
A Baw	A Sin Myot Haung	Yay	8
A Char Lay	A Char Lay	Pyapon	1
Ban Da Pin	Daw Nyein	Pyapon	2
Chaung Wa	Dae Da Lu	Pyapon	2
Khar Pyat	Daw Nyein	Pyapon	1
Myit Tan	A Char Lay	Pyapon	4
Nauk Mee	Nauk Mee	Pyapon	4
Phone Gyi Thaung	Dae Da Lu	Pyapon	3
San Pya	Myit Lan	Pyapon	1

Currently, the Research team remains aware of the issue and plans to conduct case study data collection throughout the quarter till May, in which plans to do another round of data collection with the bigger group of participants.

5. Results

5.1 Background Information of Kyar Phong Employees

Before Cyclone Nargis, Kyar phong fishery (also called England tiger raft) was located in Pyapon, which is located about 15 km inland from the Andaman Sea, and 40.1% of the employed person

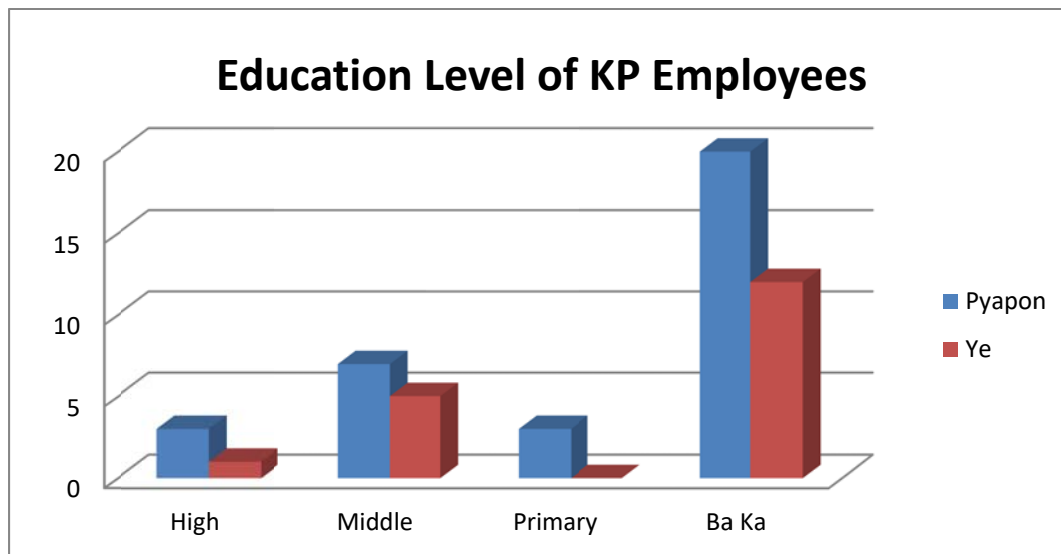
aged 15-64 are skilled agriculture, forestry and fishery workers. Currently, Kyar Phong fishery has expanded over to east coast area from Gulf of Mottama to Mon state.

In Kyar Phong fishery of Mon State, and skilled labour and workers holding upper level position are mostly from Ayeyarwaddy region. Yay Township such as Ah Baw village from Ah Sin village tract has appeared because of area extension and migration of Kyar Phong fishers from Ayeyarwaddy.

Some of the Kyar Phong workers working in Mon States during the business season tend to return to Ayeyarwaddy Region for off-season. Naukmi Village Tracts and Daw Nyein Sub-township from Pyapon Township are primary locations of the production of shrimp paste in Ayeyarwaddy Region. Naukmi village is the largest site of production of fish paste, dried fish, and shrimp paste, which are a necessary ingredient for curry and on a family dining table in Myanmar.

Because Myanmar still needs to explore more infrastructure development especially in rural area, the access to educational support from the rural community is low and rural community were primarily rely on monastery education. Most of the Kyar Phong workers reported that they can read and write, and that they learnt from village monasteries. Some respondents finished primary and middle school education but only some workers could access to high school education.

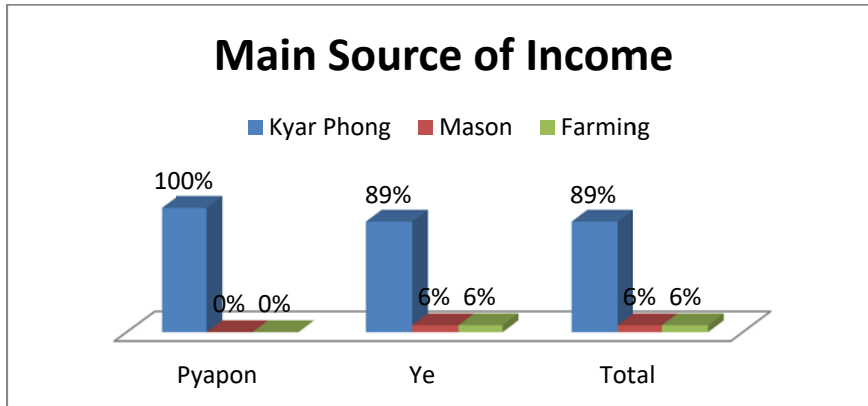
Chart 1: Education Level of Kyar Phong Employees



As the education level of Kyar Phong workers are really low, they are primarily depending on their traditional livelihood by investing their lives, blood and sweat and it is one of the reasons for

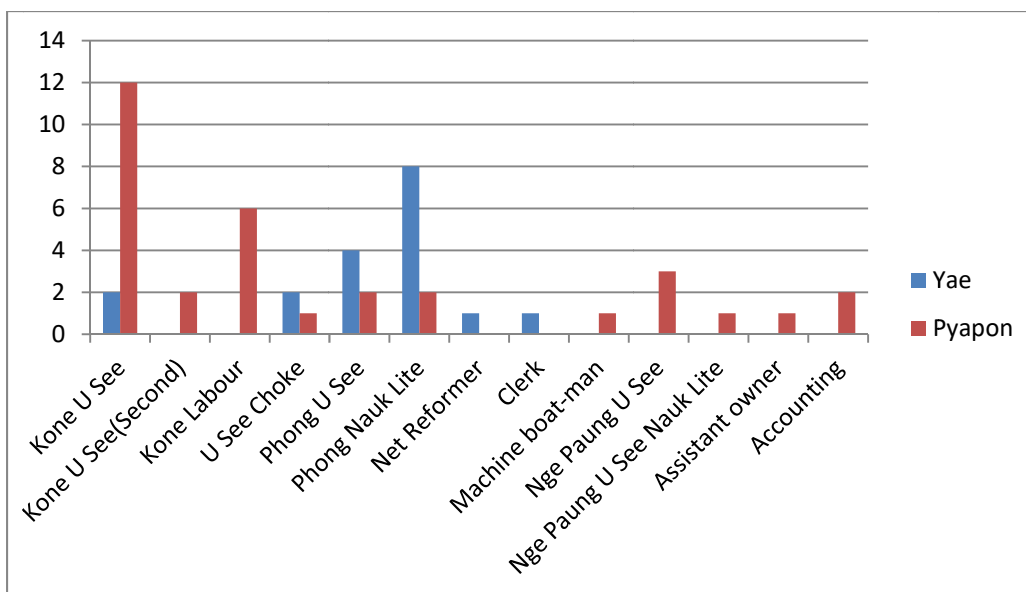
exploitation of Kyar Phong workers by owners. Nearly all interviewees (89%) said that Kyar Phong fishery is the main source of their family income. All respondents (33 respondents) from Pyapon work in Kyar Phong fishery and it is contributing as their main source of their family's income.

Chart 2: Main Source of Family's Income



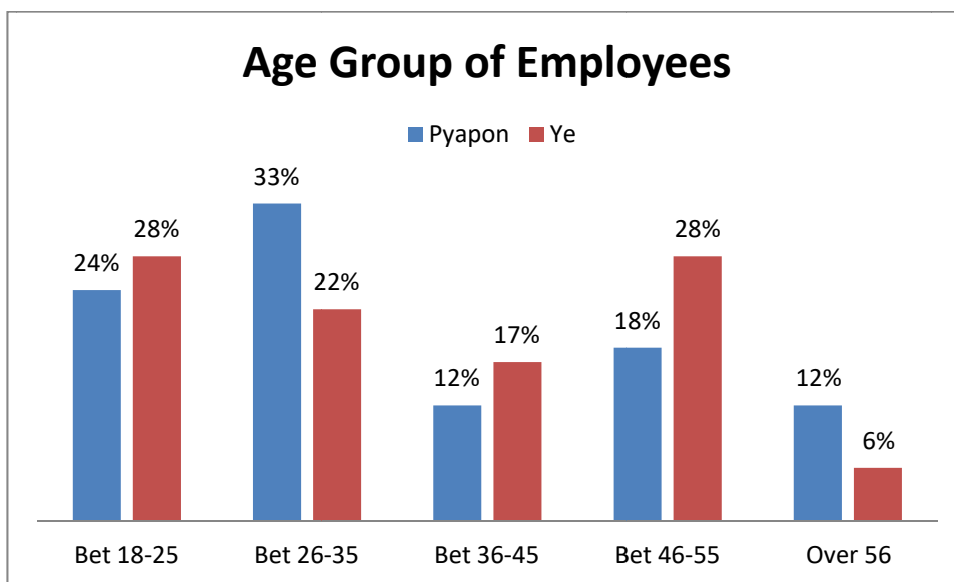
People from other area, for instance Yangon, migrated to work in Kyar Phong Fishery Sector with no prior experience in the Sector because they had difficulties finding a job as there are limited job opportunities in their native places although they have high school level education. Their used to work as mason, private company staff and bus conductor. Taking advance money at the start of the Kyar Phong season is very common for those.

Chart 3: Position of Respondents in Kyar Phong Fishery



It was difficult to recruit worker participants for the study because most of the workers already left to the sea and for those on land had not permitted to involve by their employer. In both townships, employers only invited their trusted employee and/or relatives to the discussions and meetings. There were only 8 Phong Nauk Lite and 4 Phong U See from Yae Township, and 2 each in Pyapon Township. Females involve in processing dried fish and shrimp, and work as cashiers and women group's leaders. The highest position they held is 'Supervisor' of female workers and most of them are relatives of the owner.

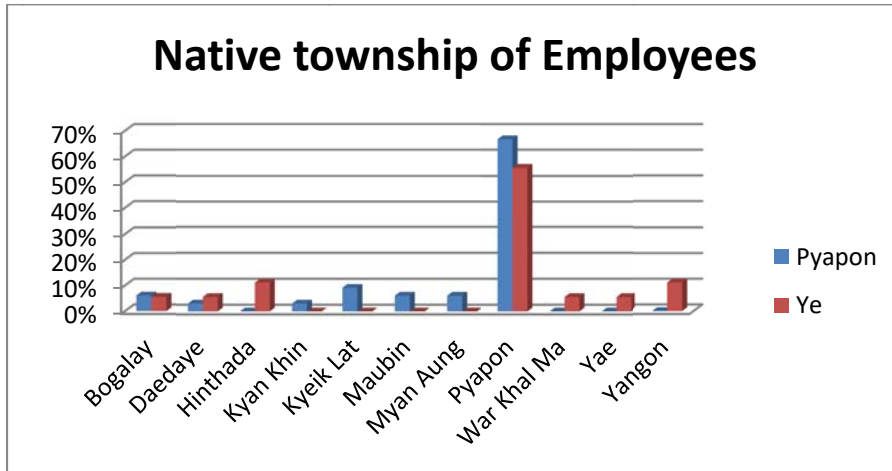
Chart 4: Age Group of Employees



There were 13 respondents (12 Male workers and 1 Female worker), who are between the ages of 18 to 25 years old and most of them are working on land with the position of land labor in making dried fish and shrimps and Land-in-Chief. And the team interviewed four labors who works and those used to work as followers on rafts. The respondents from 26 to over 60 years old are working at the upper level position as Nga Paung Oo See, Phong Oo See, Inland Chief and Mechanic on boat. These respondents are relatives and trusted staffs of owners. 8 Respondents in Yae and 2 respondents in Pyapon are working as raft labor.

5.2 Migration

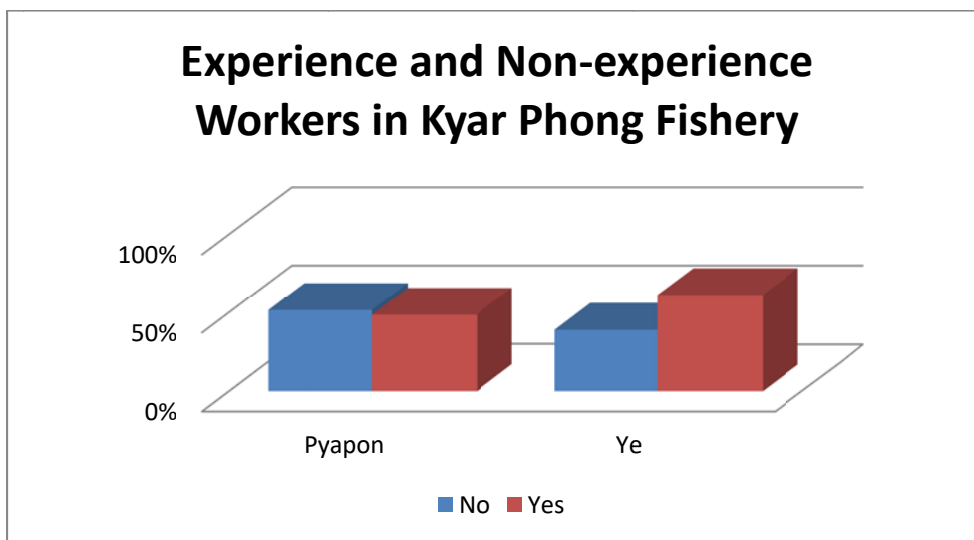
Chart 5: Native of Employees



KyarKyarKyar67% respondents (22) reported that they are living in Pyapon and it is also their native township and 56% respondents (10) in Yay were migrated from Pyapon after the period of Nargis Cyclone. Survey team found that owners preferred to hire workers from Pyapon and higher positions in Kyar phong fishery are recruited from Pyapon residents because they already have experiences in fishing.

When divide the categories of Kyar Phong workers, 53% of workers are totally non-experience workers in working Kyar Phong fishery and they have to scrape a living as a farmer, Mason and casual labour. Although 43% of total workers reported that they have working experience in Kyar Phong, most of them are not working in currently and now they have changed position as land labour because they do not want to stay in Kyar Phong and mostly they have only fishing experience in fresh-water fishery.

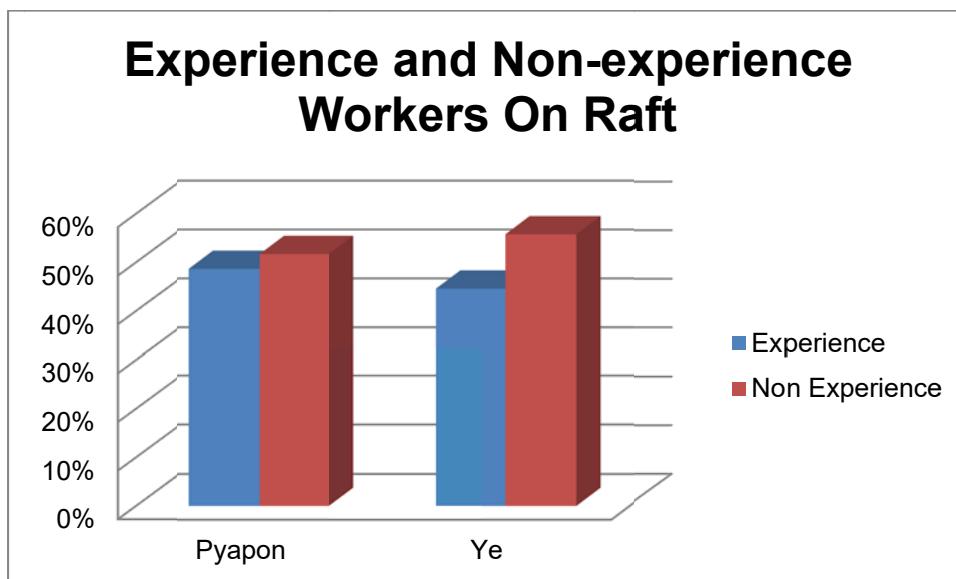
Chart 6: Ratio of Experience and Non-experience Workers in Kyar Phong Fishery



56% of respondents in Yay are migrants from Pyapon and especially from the villages of Pyapon Township such as Bhone Gyi Thaung and Daw Nyein and villages of Daedaye Township because fishery sector is their main source of income and they are operating as their traditional livelihood. As the number of Kyar Phong rafts had increased, labour requirement in Kyar phong fishery also has increased and the workers, who are interested to work in Kyar Phong, can get a job easily. Therefore workers, who want to work in Kyar Phong fishery and want to take advance salary, have migrated to Pyapon and Yay townships within Kyar Phong season and 11% of respondents in Yay have migrated from Yangon. Residents from Ayeyarwaddy region have been working in Kyar Phong fishery for a long time and they extended their business up to fishing area of Mon state.

Owners reported that labor recruiting is one of the issues that they are facing and especially it is difficult to recruit raft labor. Only 13 respondents from Pyapon and Yay townships have working experiences on raft among 51 respondents in two townships. 3 raft workers had moved on land to work as Land Supervisor, Accountant and Land Labor because of they don't want to work on raft anymore.

Chart 7: Ratio of Experience and Non-experience Workers on Rafts



5.3 Fishing Season and Area

Kyar Phong season begins in August, starting with recruiting workers and preparing for Kyar Phong such as building rafts, net repairing and firewood collecting, and continues for seven months till April. During that period, the workers carry out their duties including fishing and processing in the open sea. The most productive days for Kyar Phong fishery are the sixth to ninth days and the 12th to 15th days before, and the sixth to ninth days and the 12th to 15th days after, the full moon. The bulk of the harvest

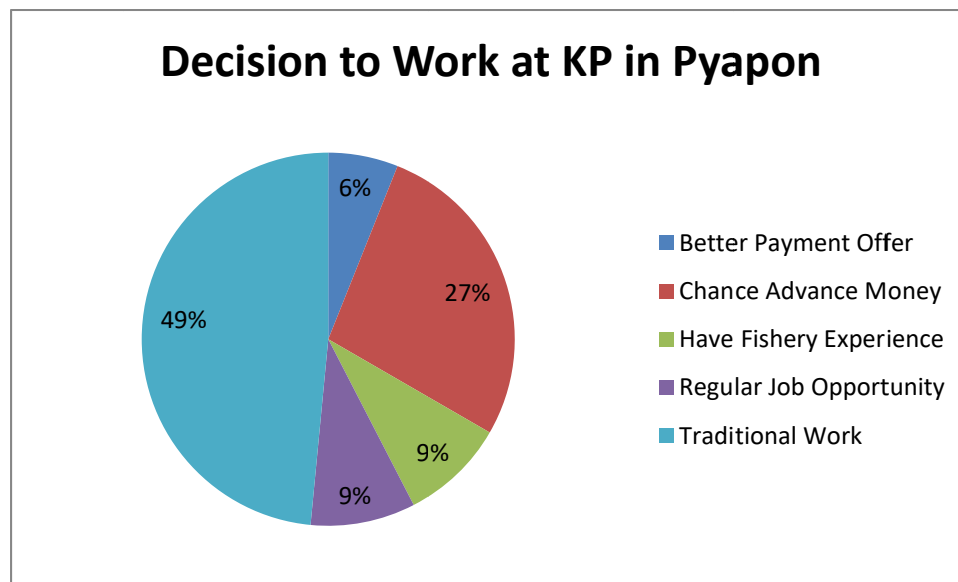
is thus taken during 144 days in a fishing season of nine months. Sixty-four days during September and December, and 16 days in the month of April, are particularly considered the best fishing season.

Along the area of expanse of sea from Ayeyarwaddy to Mon State (along the Gulf of Mottama) is defined as fishing ground. According to the identification of official fishing boundaries of the area by the Department of Fishery, fishing area are defined as C4, C5, C9, and C10 in Ayeyarwaddy region, and D1, D12, D17 and D18 in the sides of Mon state.

5.4 Workers' Interest and Decision in Engaging Kyar Phong Fishery

There are two main reasons to work in the Kyar Phong fishery sector for Pyapon Township, Ayeyarwaddy Region. The major reason of 49% of the worker respondents is that Kyar Phong is considered as their traditional livelihood. 27% of the participants reported that they work in the sector because they could take advanced salary from the owners. Normally the owners pay five month salary in advance. They use employment contract but it is claimed by the worker respondents that the contract does not mention how much they are getting as salary.

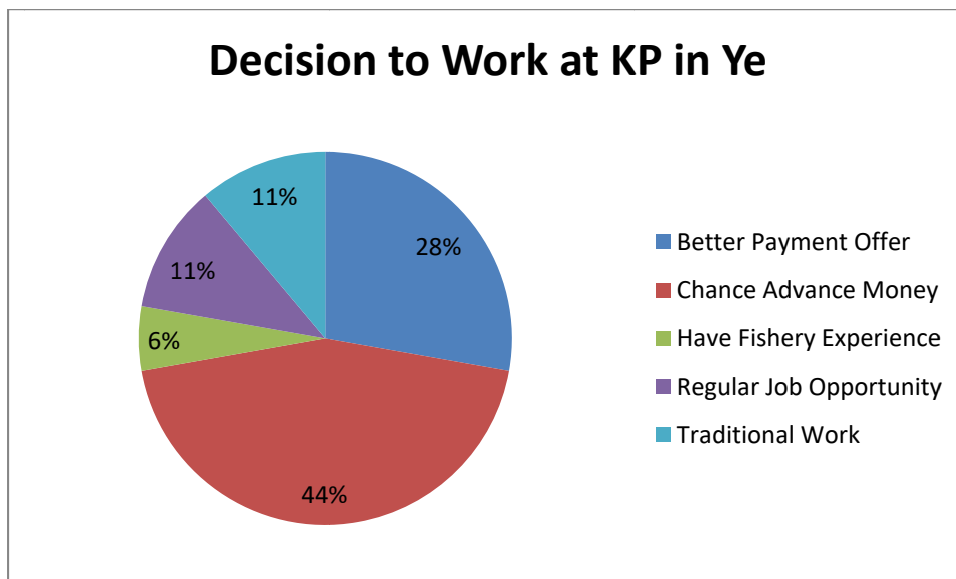
Chart 8: Decision to work at Kyar Phong in Pyapon Township



44% and 28% of fish workers in Yay are working in Kyar Phong fishery because it is easy to take advance money, and it offers better payment compare to their previous jobs. Having fishery experiences and having more job opportunity to get regular income in the sector are other reasons for working in Kyar Phong fishery in both Pyapon and Yay townships. Workers from Pyapon township have more experience

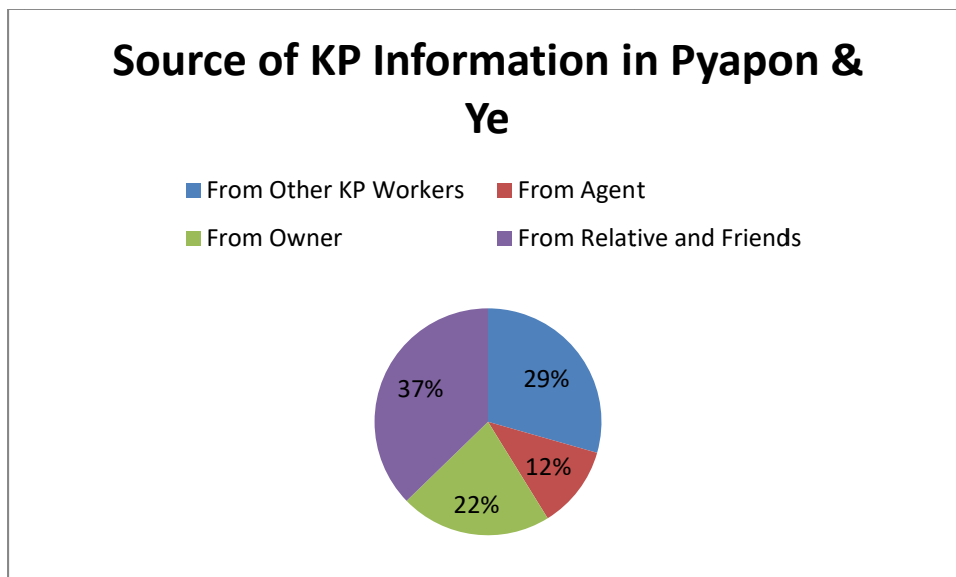
in the sector than those from Yay Township, Mon State because of Pyapon was the origin place of Kyar Phong fishery.

Chart 9: Decision to work at Kyar Phong in Yay Township



37% of Kyar Phong workers reported that they first heard about the Kyar Phong businesses looking for labours through their relatives and friends. And also owners reported that they prefer to recruit the worker who is friend or relative of their local workers because there were cases of workers, who took their advance payments and then flee. Some owners have to pay service fees to their workers and use agents or broke to persuade newcomer in order to get workers before Kyar Phong season starts. Therefore, 29% of fish workers reported that they joined this fishery by connecting with workers, who are working in Kyar Phong, and these workers persuaded by giving incentives such as advance money and bonus. Owners give reward to those, who bring new workers averagely 30,000 MMK to 50,000 MMK per worker.

Chart 10: Source of Kyar Phong Information in Pyapon and Yay Townships



5.5 Salary and Benefit

Salary of fish workers has differences according to their skills and experience in Kyar Phong fishery. Generally, there are eighth categories of workers in Kyar Phong based on working sites (On land, boat and raft) and these are as follow:

- Head of supervisor (Oo See Choke)
- Boat supervisor (ngar paung oo si)
- Boat labour (ngar paung nauk lite)
- Raft supervisor (phong oo si)
- Raft labour (phong nauk lite)
- Land supervisor (kone oo si)
- Assistant land supervisor (du kone oo si)
- Land labour (kone lote thar)
- Clerk
- Net repairer
- Mechanic

Clerk, Net Repairer and Mechanic are working on land and their salary rate is nearly the same with land labour (Kone Lote Thar). Although there is no obvious difference between the salary rates of land workers and boat workers, salary for raft workers is less than others because of they receive bonuses

based on their catch amount. However, the salary for Head of Supervisor (Oo See Choke) is the highest among workers in Kyar Phong fishery because they have to supervise the operation of their cluster (include 6 to 8 rafts). The salary rates of the Kyar Phong workers are as follows:

Table 2: List of Average Salary Rate in Kyar Phong

No.	Position	Salary Rate (MMK)
1	Head of supervisor (Oo See Choke)	500,000 – 700,000
2	Boat supervisor (ngar paung oo si)	200,000 – 300,000
3	Boat labour (ngar paung nauk lite)	120,000 – 180,000
4	Raft supervisor (phong oo si)	140,000 – 160,000
5	Raft labour (phong nauk lite)	70,000 – 80,000
6	Land supervisor (kone oo si)	200,000 – 250,000
7	Assistant land supervisor (du kone oo si)	120,000 – 180,000
8	Land labour (kone lote thar)	70,000 – 100,000

There is no discrimination between skilled and unskilled labor on receiving percentage and amount of bonus. Raft workers have to calculate bonus equally according their gains. According to the interview result of owners, they have prepared a bonus list for their workers, and they usually explain workers when preparing a contract for new comers. The fishers, over and above wages, also receive a 10 percent bonus based on the quantity of fish and shrimp processed on the rafts, especially if it is above a certain threshold.

The bonuses specify as follow according to amount of catch and fish species and rates have difference between two townships (Pyapon and Yay).

Table 3: List of Bonus Offering in Pyapon

No	Species	Defied Weight (viss)	Bonus Rate (MMK)
1	Nga Hnat	1	250 – 500
2	Prawn	1	200 – 1000
3	Hmyin	1	150 – 400
4	Scampi	1	500 – 1500
5	Yaepawchi	1	100

Table 4: List of Bonus Offering in Yay

No	Species	Defied Weight (Viss)	Bonus Rate (MMK)
1	Nga Hnat	1	500
2	Prawn	1	300 – 1000
3	Hmyin	1	250 - 400
4	Scampi	1	500 - 700
5	Nga Kyan Ywat	1	150 - 200

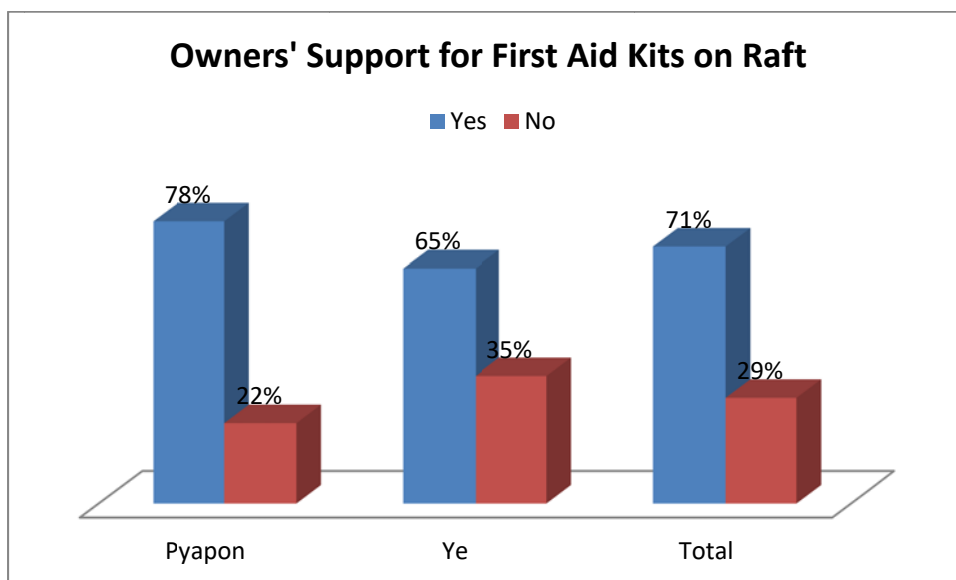
Because demand and market prices of fish are different between two areas, offered bonus rates are also different in a way, between owners and owner offer higher rate in order to compete with other owners and to attract new comer. On the other hand, land workers do not have any incentive.

Owners also support their workers with necessary goods for cooking on raft such as rice, oil, chilly, onion, garlic, salt, and drinking water. They support rationing once in two weeks or once a month, and send it through carrier boat. The workers need to pay money when they order snacks, cigarettes and betel, and owners deduct the amount from their salary. The salary for working the whole season is paid only after they got back from the raft at the end of the fishery season.

5.6 Health and Social Benefits

According to the discussion and interview results of Kyar Phong owners, 71% of owners reported that they support first aid kits and some traditional medicine for their raft workers as medical treatment on raft. Moreover, owners allow the workers to go and see doctor from nearest village with Head of Supervisor or Boat Supervisor, when a worker gets seriously ill. Only 29% of owners reported that they do not have medical supports on raft but they support medicine whatever raft worker order to buy through carrier boat and owners deduct money from worker’s salary and bonuses. Deduction from salary of raft workers by owners is also a customary way for whatever they want to buy form land.

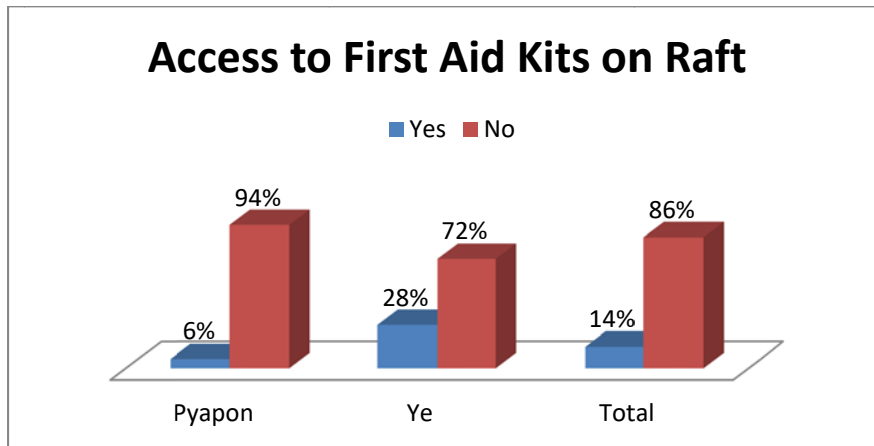
Chart 11: Owners’ Support for First Aid Kits on Raft by Employers



However, only 14% of workers reported that they have access to first aid kits and medical supports from owners, and 86% of raft workers reported that they do not have any. Although owners

reported they permit raft labors to take medical treatment, access to medical support on land is not easy to get permission for raft labor but Head of Supervisor and Boat Supervisor is easier to receive the permission. When the raft workers feel serious illness, Head of Supervisor or Boat Supervisor inform to owner.

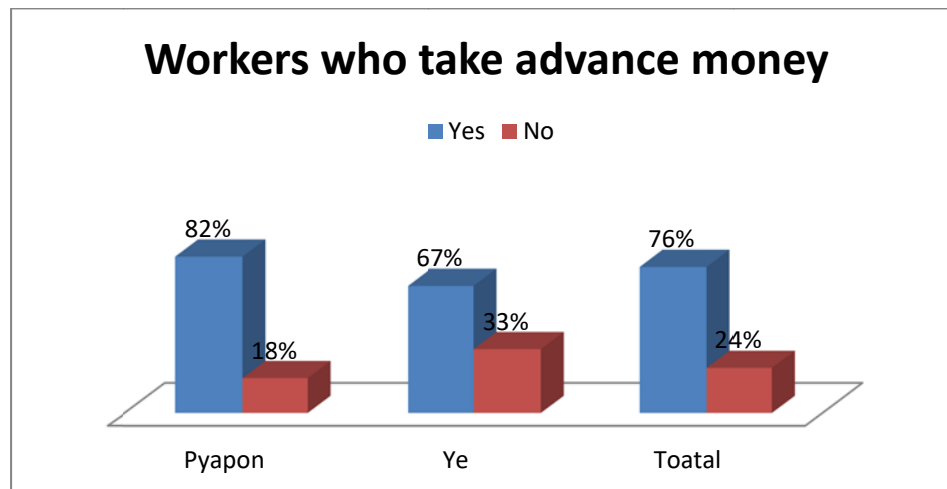
Chart 12: Access to First Aid Kits on Raft by Employees



5.7 Saving and Advance money

As previously mentioned, advance payment before working is a significant motivator to work in the sector. It is found out that total 76% of the workers from both Pyapon and Yay townships took advance payment.

Chart 13: Percentage of Workers taking Advance Money



Before Kyar Phong period, Kyar Phong workers went to meet with owners to prepare an employment contract, and to take advance payment from their salary. The amounts of advance between new and old workers are different, and the amounts also depend on the level and skills of the workers. Some Kyar Phong workers might spend over their salary, and owners have to deduct the amount not only from their salary but also from their bonus in order to cover their advance amount. However, the advance payment system is not the official way, and it is not mentioned in contract between owner and worker. There are cases of workers who take advance money and then flee from their workplace. Therefore, the owners are facing losses on workers' advance money, and they cannot take action on the matter and inform to the relative government departments. Although advance payment is not recognised by Law, owners are still using the system in order to attract workers to work for them. According to the owners, if they do not pay in advance, it is difficult for them to recruit workers, especially skilled labours and to compete their rivals. According to the findings and results from the study, the average amounts of advance that workers can take are as follows:

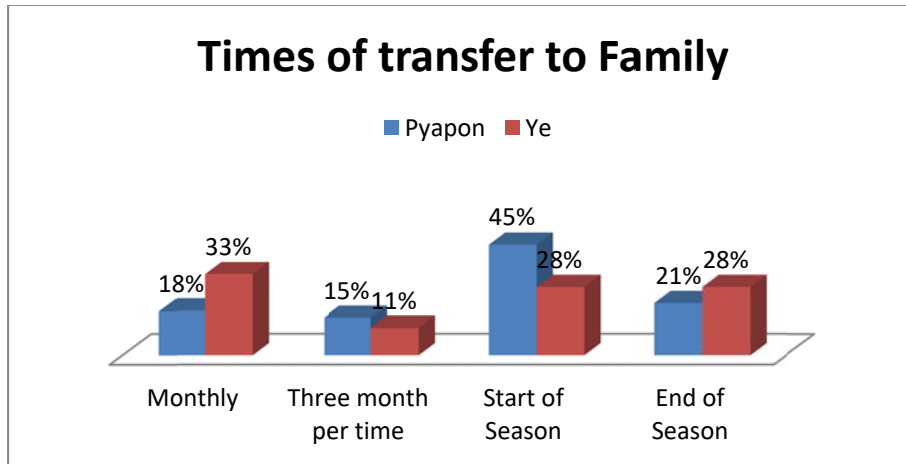
Table 5: Average Amount of Advance Salary per Worker

Position	Amount of Advance in Pyapon (MMK)	Amount of Advance in Yay (MMK)
Accountant	100,000 - 250,000	1,800,000
Boat Supervisor	1,000,000 - 1,500,000	700,000 - 1,000,000
Head of Supervisor	700,000 - 3,000,000	500,000 - 700,000
Land Supervisor	500,000 - 2,000,000	300,000 - 1,000,000
Raft Supervisor	300,000 - 1,000,000	0
Land Labor	600,000 - 700,000	600,000 - 700,000
Raft Labor	300,000 - 1,000,000	0
Mechanic	1,500,000	0
Accountant	1,000,000 - 2,500,000	0

According to the results, the amount that raft labor can take is higher than land labor and it is the main incentive for workers to work on raft. Because owners prefer to recruit their relatives or their trusted person as Land Supervisor, who responsible not only to supervise land labor but also to weigh and pack the goods to transport to market.

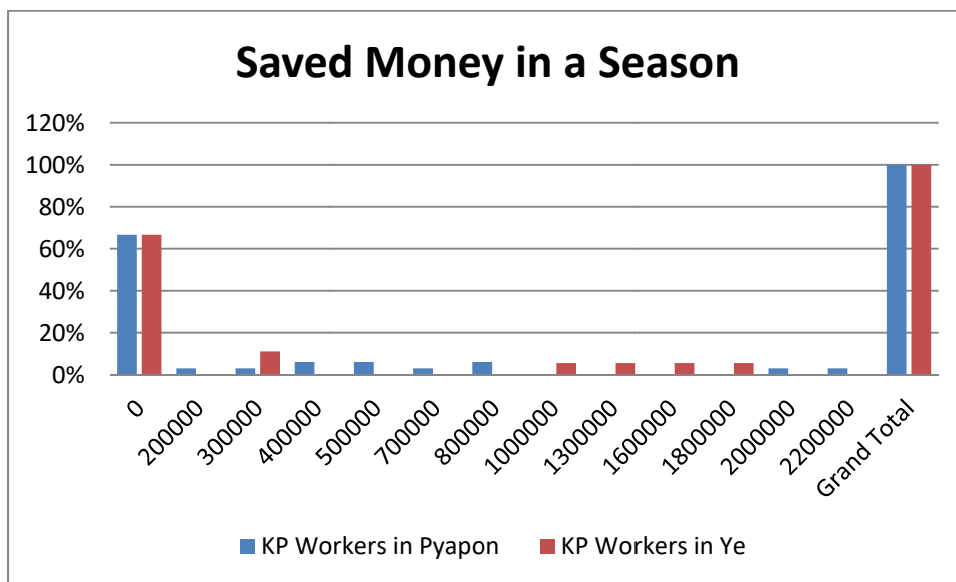
45% of Kyar Phong workers working on rafts reported that they transfer their advanced salary to their family at the start of the season. Advance payment is also important for their family to spend during the fishery season. Therefore, owners reported that workers will sign the contract, and they only focus on to get advance salary without considering the clauses mentioned in the contract. Land labors have a chance to transfer monthly and once in three months.

Chart 14: Times of Transfer for Money



Beside of deducting for advance amount, owners deduct the cost for goods which are ordered by the raft workers during the season. Therefore 60% of workers cannot save money. However, Land Supervisors (6 respondents) and Head of Supervisor (1 respondent) responded that they can save money between 200,000 MMK and 1,000,000 MMK for a season because they receive higher income, and they do not need to incur any cost for daily food. Surprisingly, one respondent mentioned that he can save money up to 2,200,000 MMK per season while working as Land Supervisor, but he is also a cousin of owner. The amounts of money that the workers saved in a season are as follow:

Chart 15: Average Amount of Saved Money in a Season



5.8 Operational Management in Kyar Phong Fishery

Division Of Labor in Kyar Phong Fishery

The age of workers vary from 18 to 56 for men, and from 18 to 40 for women as land workers. Most land labors are mainly responsible for drying shrimp, and making fish paste and sauce. Land Supervisor is assisted by skilled labor, who have the experience of fish processing, and is the relative or trusted person of owner. He has to supervise land labors and to connect with the market. And owner also assisted two leaders under the control of Land Supervisor (Leaders for men and women group) and leaders have responsible not only to supervise their group but also serving as an accountant.

Each raft has about three workers; one Raft Supervisor and two raft labors, living almost continuously on it during the fishing season of nine months. Raft Supervisor is assisted by two raft labors and Raft Supervisor has skills and experience related with KyarKyar Phong fishery but other two raft labors can be either skilled or unskilled. The cluster of eight rafts and associated gear form a unit under a Head of Supervisor, or chief of the unit, who is stationed on the carrier boat. He supervises the operations of the rafts in his cluster and, sometimes, even supervises an additional cluster. The skilled workers and supervisors are reportedly from the delta region of Myanmar. About half the population of unskilled workers has no prior exposure to marine fishing.

The carrier boats that tow the rafts to the fishing ground and transfer the harvest from the rafts to landing sites such as the boiled and dried shrimp, iced high-value species like seabass and hilsa shad and also bring provisions, ice, mangrove wood and water to the anchored rafts, several times a month. There is one Boat Supervisor and he is assisted by a skilled fisher and two boat labor or unskilled fishers. Kyar phong owners sell boiled and dried shrimp to dried fish merchants from Yangon market after shelling it using women's labour.

Normally workers have to stay and work only on raft that they are assigned by owner and Head of Supervisor but they have to move to other raft temporary, when conflicts occur between workers or one of the raft workers feel illness, for two week to one month in order to support for work. Raft Supervisor have the right to negotiate with owner and Head of Supervisor in accordance with needs and working condition on raft but the rest two raft labor cannot connect with owner or Head of Supervisor. And raft labors are not allowed by raft supervisor to visit to other rafts or carrier boat except the time of natural disaster.

5.9 Changes in Kyar Phong Fishery

Because of scarcity of skilled labour, flee cases and decreasing of fishery resources, number of owner had decrease and some of the Kyar Phong owners had reduced raft number and sometimes changed

to other business. As labor scarcity, owners have to give more incentives like advance salary and bonus. Although their investment costs have increased because of this consequence, fishery resources are decreasing. Therefore 52% of owners and workers in Pyapon said that number of rafts had decrease in their fishing ground and it will happen continuously in the future. However workers from Yay reported that the numbers of rafts have no significant different.

Chart 16: Percentage of Changes in number of Rafts

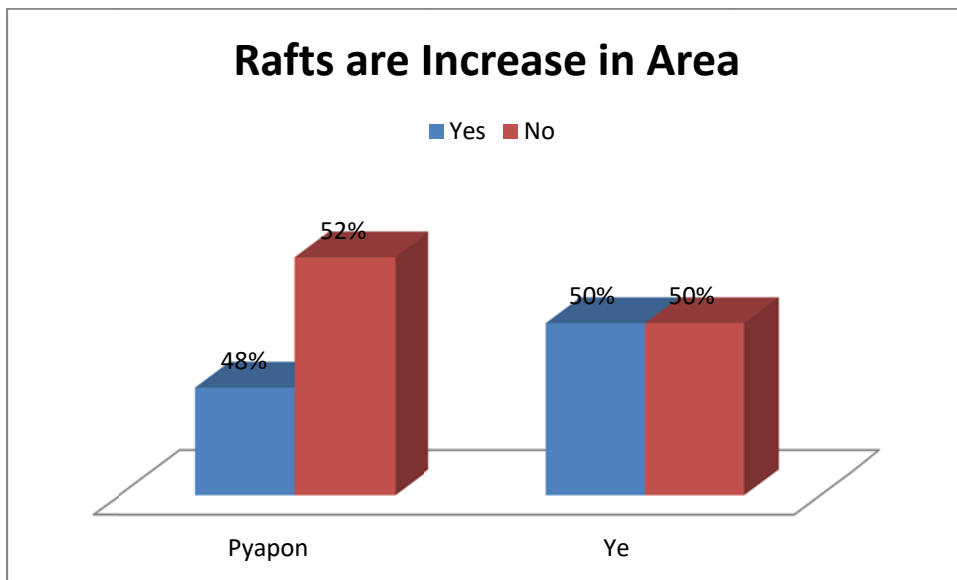
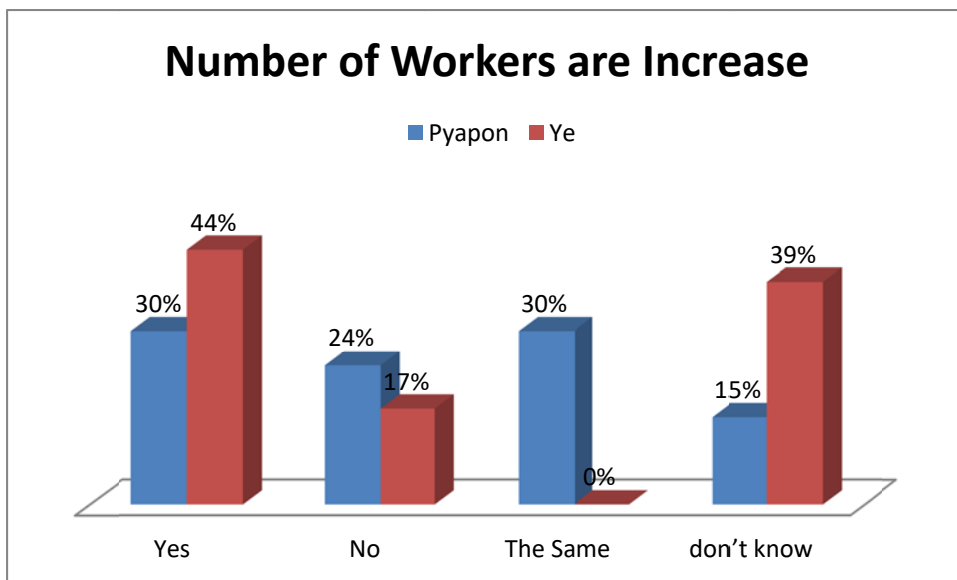


Chart 17: Percentage of Changes in Number of Workers



Overfishing and use of archaic method such as dynamite fishing, electro-fishing are danger of doing great harm to country’s fishery resources. According to results, 70% of respondents in Pyapon Township and 94% in Yay Township reported that fishery resources had declined significantly in off shore area and using of small mesh sized nets and overfishing as rafts increased in fishing ground are importance reasons for declining of fish resources. However, most of the fish workers (27% in Pyapon and 67% in Yay) especially land labor reported that unreliable answers based on their opinion like amount of catch fish are decreasing because of fishery resources are declining. Weather changes are also one of the reasons for declining.

Chart 18: Percentage of Changes in Catch Fish

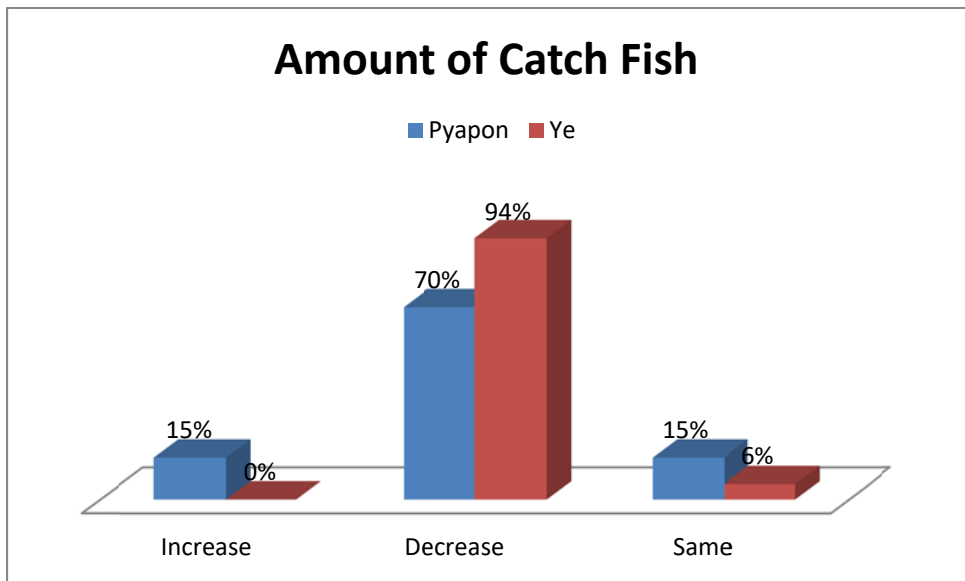
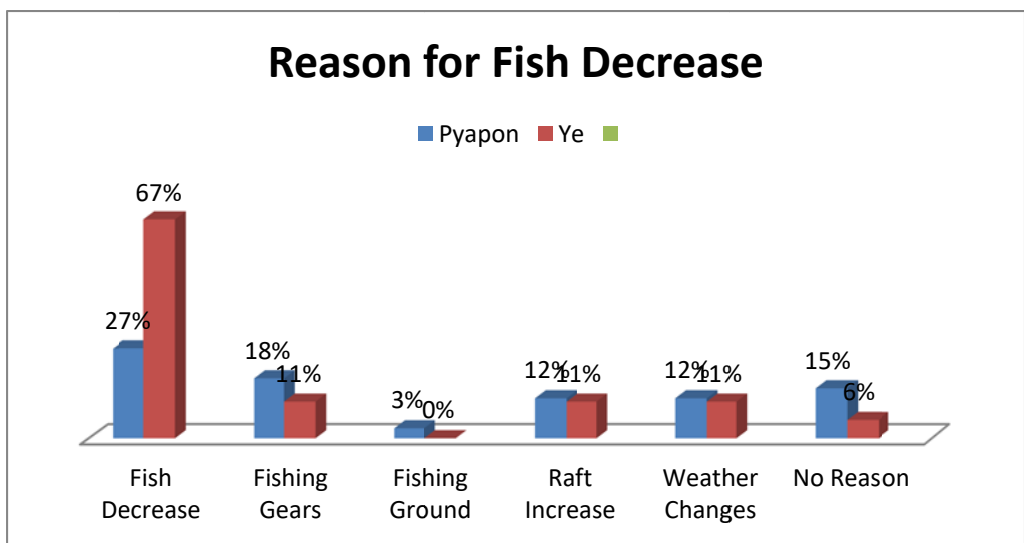


Chart 19: Reason for Fish Decreasing



5.10 Issues and Challenges

The main difficulties and challenges that the sector faces are the issues between workers and owners, and natural disaster. The owners use several ways to entice new and retain old workers, and that where most of the problem arises. Recruiting through old workers and agents are main ways for recruiting workers. Before workers going back to their residence places after the fishing season, owners offer incentive to them such as bonus and some money (approximately 30,000MMK to 60,000MMK per worker they could refer) if they can bring other people to work for the business. Workers tend to mention only good conditions of the sector in order to persuade young people, and jobless people from their places. Recruiting via agents or brokers is also popular in the sector.

Therefore, owners have to reduce the number of rafts or have to hire with higher wages and bonus fees in order to replace at the position of flee workers and these are common facing by Kyar Phong owners in nearly every year.

Raft workers also reported that owners do not transport drinking water, rice and ingredients for cooking regularly. Because of drinking salt water, raft labours often contracted many diseases, and owners were not willingness to allow them to go to township or village clinic for treatment. As land labor, working hours does not have limit, and they also have to work from morning to evening (sometime up to night) without getting overtime fees or bonus.

When analyses the above issue (problem between owners and workers), there is no official contract and agreement for advance payment, there is no registered agents or brokers to use for recruiting and there is no direct connection and communication between owners and workers are the importance reasons for happening these issues.

According to the study results, natural disaster is also a common issue for both owners and labors. Because owners are worrying worker fleeing, any life jackets or equipment have not given on raft. The carrier boat has to bring workers from rafts to the boat when storm or disaster has potential to occur. Therefore, carrier boat is the only source of escaping for raft labor. Owners also reported that they have to instruct to Boat Supervisor to bring workers, and go to a safe site. But most of the rafts have broken and they lose their investments. Although investment cost is increasing, the amount of catch fish had been decreasing along the period and owners reported that the net profit from Kyar Phong fishery has decreased and they are struggling to receive even capital. Because of reverberation of Nargis Cyclone, both owners and workers had frightened and suffered too much. Therefore they are feeling anxious about the disaster but they have not experienced serious case of disaster during these years.

Another main issues for Kyar Phong fishery is they are working in indecent work condition because workers have to long working hours (sometime they have to work nearly the whole day), working in unpleasant and unclean place, without supporting health and safety materials (especially for raft workers) and most of the Kyar Phong workers cannot feel holidays and weekend during the season.

6. Findings and Conclusion

The key findings from Kyar Phong fishery survey are as follows:

- Because Kyar Phong workers are mainly depending on the advance income and bonus from owners, they cannot overcome the influences of owners and agents
- As the education level of Kyar phong workers are significantly low, they are primarily depending on their traditional livelihood by investing their lives, blood and sweat and it is one of the reasons for exploitation of Kyar Phong worker by owners.
- Labor shortage (especially to receive skilled labour) is the important problem facing by Kyar Phong owners and it was the main root to rely on agents in order to get labour in time before starting the next season.
- Although both Kyar Phong workers and owners are aware the problems that are occurring and facing in their work place, they already have own concrete reasons for it
- Kyar Phong workers are working indecent work conditions

Problem statement between Kyar Phong owners and workers and working in dangerous condition (both workplace and natural disaster) are threatening to the future of Kyar Phong fishery. Although media in Myanmar has mentioned concentrating on issues and challenges of Kyar Phong employees, the case of revealing of difficulties and challenges for employers' side is still weak.

Currently defects in organizational structure of Kyar Phong association, lack forming the association for Kyar Phong employees, lack of official contract between owners and labor for advance payment, working in indecent work condition are occurring in Kyar Phong fishery. Therefore more associations and networks are needed to develop in Kyar Phong fishery in order to communicate between employers and employees and to solve the problem between them. Moreover, not only NGOs and international organization but also the related government departments are needed to support for formation of these associations and networks.