

**GENDER ANALYSIS OF DRIED FISH CONSUMPTION AMONG  
MYANMAR MIGRANTS IN MAHACHAI SUBDISTRICT, SAMUT  
SAKHON PROVINCE, THAILAND**

by

Nang Lun Kham Synt

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of  
Master of Science in Gender and Development Studies

Examination Committee: Prof. Kyoko Kusakabe (Chairperson)  
Dr. Joyee S. Chatterjee  
Dr. Takuji W. Tsusaka  
Dr. Kungwan Juntaraashote (External Expert)

Nationality: Myanmar  
Previous Degree: Bachelor of Agricultural Science in Crop  
Physiology and Ecology Specialization  
Yezin Agricultural University  
Yezin, Myanmar

Scholarship Donor: Dried Fish Matters (DFM) - AIT Scholarships

Asian Institute of Technology  
School of Environment, Resources and Development  
Thailand  
May 2023

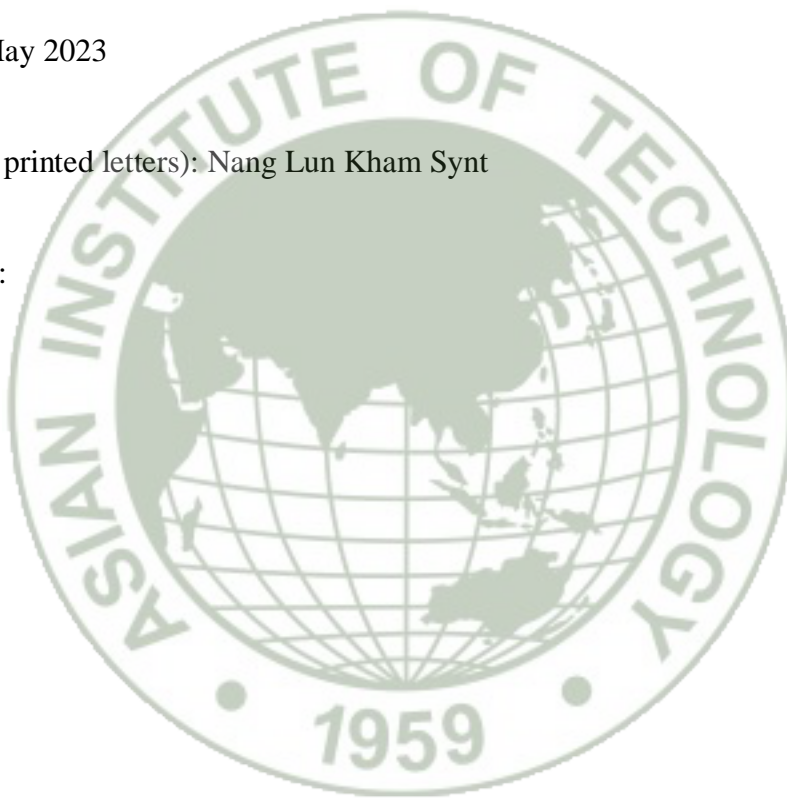
## **AUTHOR'S DECLARATION**

I, Nang Lun Kham Synt, declare that the research work carried out for this thesis was in accordance with the regulations of the Asian Institute of Technology. The work presented in it is my own and has been generated by me as the result of my own original research, and if external sources were used, such sources have been cited. It is original and has not been submitted to any other institution to obtain another degree or qualification. This is a true copy of the thesis, including final revisions.

Date: 8 May 2023

Name (in printed letters): Nang Lun Kham Synt

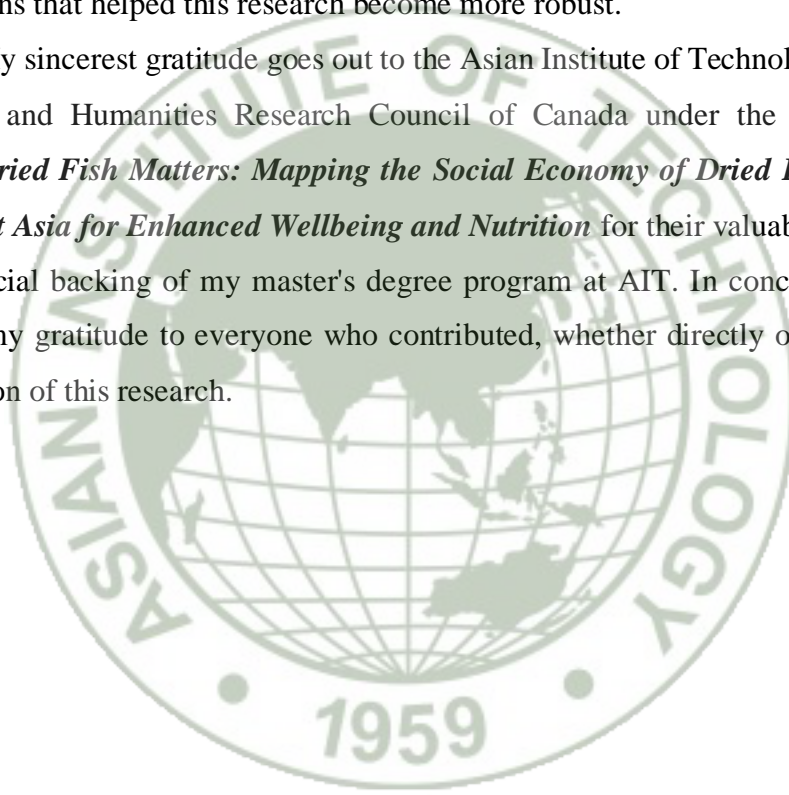
Signature:



## ACKNOWLEDGMENTS

First and foremost, I would like to offer my most sincere appreciation to my thesis adviser, Professor Kyoko Kusakabe, for her patience and constant support during the process of my thesis research, as well as for the helpful recommendations and guidance that she provided. In addition to my thesis committee, I would like to extend my gratitude to my advisor, Dr. Joyee S. Chatterjee, as well as Dr. Takuji W. Tsusaka from AIT and Dr. Kungwan Juntaraashote, who served as an external committee member from Kasesart University, a part of DFM Thailand. Each of these individuals provided insightful comments and suggestions that helped this research become more robust.

My sincerest gratitude goes out to the Asian Institute of Technology and the Social Sciences and Humanities Research Council of Canada under the Partnership Grant project *Dried Fish Matters: Mapping the Social Economy of Dried Fish in South and Southeast Asia for Enhanced Wellbeing and Nutrition* for their valuable contributions to the financial backing of my master's degree program at AIT. In conclusion, I'd want to express my gratitude to everyone who contributed, whether directly or indirectly, to the completion of this research.



## ABSTRACT

The dried fish is a reliable source of nourishment for the people of Myanmar, regardless of their socioeconomic situation (Lin et al., 2022), and according to the Household Income and Expenditure Survey, 2006, the typical person consumes 20 kg of fish and fish products annually (Needham & Funge-Smith, 2015). The research on the consumption of dried fish is highly limited and focuses primarily on the general consumption patterns of the research region (see <http://driedfishmatters.org/>). The research focuses on dried fish consumption in terms of gender perspective is quite limited. The research was conducted in order to have an understanding of the dried fish consumption of Myanmar people by the difference in gender with inclusion of their identity such as age, ethnicity, occupation and origin, so on. The research was carried with approach of the mixed of quantitative and qualitative research methods by conducting the questionnaire surveys, in-depth interviews and Key-informant interviews among the various Myanmar migrants who are working in different employments in Mahachai sub-district of Samut Sakhon Province, Thailand.

Migrants of diverse ethnicities and origin states and areas continue to consume dried fish products at the same rate in their home country and in their new environment. There are no statistically significant variations in the proportion of dried fish consumed by male and female migrants, and the indicated proportions are comparable. The decision to include dried fish items in one's daily diet is without regard to one's gender identity—whether it be male or female—and is also not connected to other fundamental identities like age, occupation, ethnicity, social networks, and so forth. The average amount of dried fish products consumed by a female migrant is not significantly different from that of a male migrant, and both genders consume around 0.6 kg of dried fish products each week in total. Migrants from Myanmar consume somewhat less dried fish in their new surroundings than they did before to migration. Household members' gender roles shift as a result of migration, which in turn alters their preferences for and consumption of dried fish products in term of decreasing in the quantity, frequency and types of consumed dried fish products different.

Burmese migrants typically consume dried Snakehead fish, dried Anchovy, fermented fish (Nga-Chin), and other dried fish varieties. Both in terms of total

consumption and consumption in the previous week, dried shrimp and fish paste are the most popular dried fish items among Myanmar migrants in Thailand. Migrants from Myanmar consume an average of four dried fish dishes per week, with a minimum of two and a maximum of ten meals per week. The most plentiful source of dried fish products for Myanmar migrants is the market near to their houses, followed by grocery stores that sell Burmese dry foods and grocery items and Burmese entrepreneurs who sell their own home-made dried fish products. Authorities and local organizations should prioritize nutrition knowledge and establish a policy framework for small businesses to benefit both the host country and migrant populations. Further research on the Burmese dried fish supply channels and empowerment of women migrants are recommended.



# CONTENTS

<b>TITLE PAGE</b>	i
<b>AUTHOR'S DECLARATION</b>	ii
<b>ACKNOWLEDGEMENTS</b>	iii
<b>ABSTRACT</b>	iv
<b>LISTS OF FIGURES</b>	x
<b>LISTS OF TABLES</b>	xii
<b>CHAPTER 1 INTRODUCTION</b>	1
1.1. Background of the Study	1
1.2. Problem Statement	3
1.3. Rationale of the Study	5
1.4. Research Objectives	6
1.5. Research Questions	7
1.6. Scope and Limitations	7
<b>CHAPTER 2 LITERATURE REVIEW</b>	9
2.1. Migration and Cuisine	9
2.2. Food, Traditional Cuisine and Culture	11
2.3. Gender Division of Labor in the Household and Women's role in daily dietary	13
2.4. Migration and Gender Relations	15
2.5. Dried Fish Consumption and Tradition of Dried Fish Consumption in Myanmar	16
2.6. Overview of Dried Fish in general	18
2.7. Differences between the Dried Fish Products from Myanmar and Thailand	21
	vi

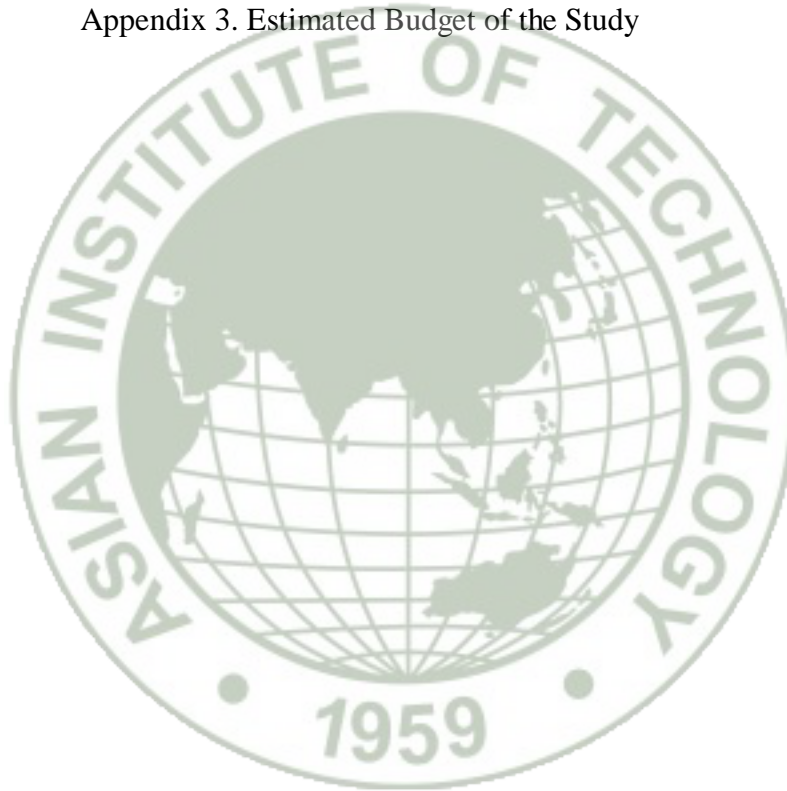


2.8. Conceptual Framework	22
2.9. Chapter Summery	25
<b>CHAPTER 3 RESEARCH METHODOLOGY</b>	<b>26</b>
3.1.Descriptions of the Study Area and Selection Criteria	26
3.2.Research Method	27
3.3.Sampling	30
3.3.1.Sample size	30
3.3.2.Sampling design	31
3.4.Data Collection	32
3.5.Data Analysis	32
3.5.1.Descriptive Analysis of the Demographic Information	32
3.5.2.Descriptive Analysis of the Dried Fish Consumption Practices of Myanmar Migrants	
3.5.3.Inferential Analysis of the Dried Fish Consumption among Myanmar migrants	37
3.5.4. Analysis of the Qualitative Interviewed Data	38
3.6.Chapter Summery	39
<b>CHAPTER 4 BACKGROUND INFORMATION OF THE STUDIED SAMPLES</b>	<b>41</b>
4.1. Demographic Information	41
4.1.1. Identities of the Myanmar Migrants in the study	41
4.1.2. Living Status of the Myanmar Migrants in the Study	43
4.2. Chapter Summery	46
<b>CHAPTER 5 DRIED FISH CONSUMPTION PRACTICES OF MYANMAR MIGRANTS</b>	<b>47</b>
5.1. Dried Fish Consumption of Myanmar Migrants in Thailand	47
5.1.1. Analysis of Myanmar Migrants who consume dried fish by gender	47

5.1.2. Analysis of Myanmar Migrants who consume dried fish by other identities	49
5.2. Types of Dried Fish Products consumed by Myanmar Migrants in Thailand	56
5.2.1. Types of the Dried Fish Products consumed by Myanmar Migrants based on their identities	58
5.3. Quantity of Consumed Dried Fish Products by Myanmar migrants in Thailand	63
5.4. Sources of Dried Fish products for Myanmar Migrants in Thailand	67
5.5. Chapter Summery	68
<b>CHAPTER 6 CHANGES OF DRIED FISH CONSUMPTION AMONG MYANMAR MIGRANTS IN THAILAND FROM THEIR ORIGIN</b>	<b>69</b>
6.1. Changes in Share of Myanmar Migrants Consume Dried Fish Products	70
6.2. Changes in Types of Dried Fish Products Consumed among Myanmar Migrants	73
6.3. Changes in Quantity of Dried Fish Products Consumption among Myanmar Migrants	76
6.4. Preference of the Myanmar migrants on Types of Dried Fish Products Consumed	79
6.5. Chapter Summery	81
<b>CHAPTER 7 GENDER ROLES EFFECTS ON DRIED FISH PRODUCTS CONSUMPTION PATTERN</b>	<b>83</b>
7.1. Gender Division of Labors in Myanmar Migrants Household and Dried Fish Consumption	83
7.2. Gender differences in food attachment in Dried Fish Consumption	90
7.3. Chapter Summery	93
<b>CHAPTER 8 CONCLUSION</b>	<b>94</b>



8.1. Summary of Key Findings	94
8.2. Discussion	96
8.3. Conclusion and Recommendation	99
<b>REFERENCES</b>	101
<b>APPENDICES</b>	107
Appendix 1. Research Instruments	107
Appendix 2. Timeline of the Study	126
Appendix 3. Estimated Budget of the Study	127



## LISTS OF FIGURES

Figure 2.1. Conceptual Framework	23
Figure 3.1. Map of Study Area	26
Figure 3.2. Research Design Framework	28
Figure 5.1. Share of Myanmar Migrants in Mahachai, Thailand who generally consume dried fish products	45
Figure 5.2. Share of Myanmar migrants who eat any dried fish products after moving to Thailand by their ethnicity and origin from Myanmar	48
Figure 5.3. Share of Myanmar migrants who reported that they eat any dried fish products by their staying household structure in general after moving to Thailand	49
Figure 5.4. Share of Myanmar migrants who eat any dried fish products after moving to Thailand by their age	52
Figure 5.5. Types of the Dried Fish Products which is consumed by Myanmar Migrants in Thailand in general and 7 days recall consumption	55
Figure 5.6. Type of Consumed Dried Fish products by Myanmar Migrants in Thailand by gender	56
Figure 5.7. Types of Dried Fish Products which consumed by Burmese migrants by their income in general after they migrated to Thailand	58
Figure 5.8. Types of Dried Fish Products which are generally consumed by the different aged migrants by their gender after moving to Thailand	60
Figure 5.9. Supply Source of Dried Fish Products for Myanmar Migrants in Thailand	65
Figure 6.1. Changes in Share of Myanmar migrants who consumed Dried Fish after migrated to Thailand from their origin	68
Figure 6.2. Dried Fish Consumption of Myanmar Migrants in origin and in new setting based on residing periods	69
Figure 6.3. Changes in Types of Dried Fish products consumed by Myanmar Migrants in origin and in new setting	71
Figure 6.4. Different characters of Dried Fish products which is consumed by Myanmar Migrants	76
Figure 7.1. Feeling of Myanmar migrants after eating of dried fish products in Thailand	86

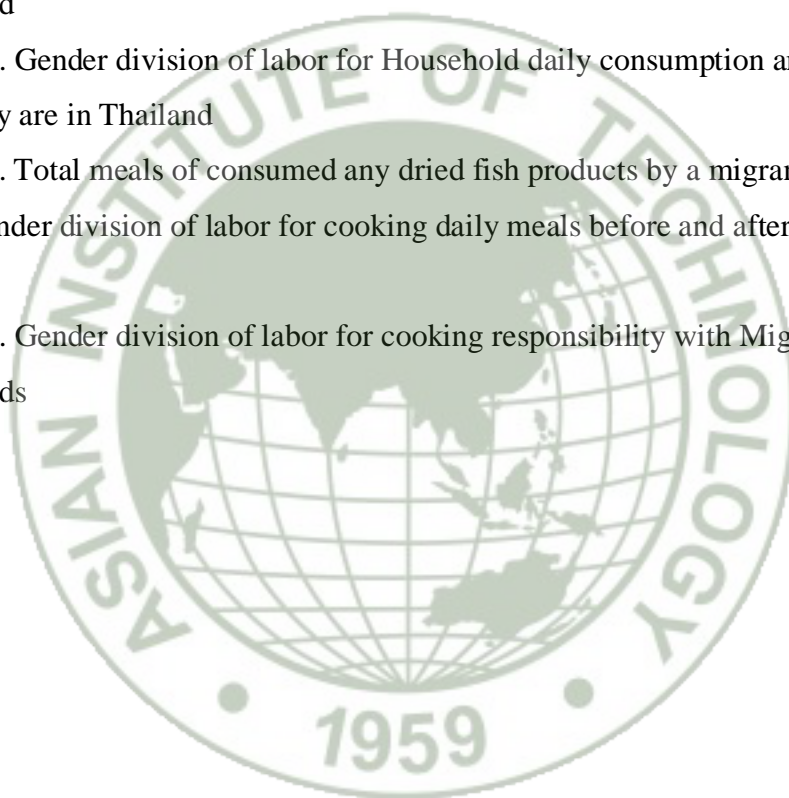
Figure 7.2. Reasons for Choosing to eat Dried Fish Products among Myanmar Migrants



## LISTS OF TABLES

Table 3.1. Demographic variables analyzed by descriptive statistics.	32
Table 3.2. Variables representing dried fish consumption practices	34
Table 3.3. Inferential Analysis for the Quantitative data	36
Table 4.1. Detailed Identities of the interviewed Myanmar Migrants	40
Table 4.2. Living Status of the Interviewed Migrants	43
Table 5.1. Pearson's Chi-squared test on General Dried fish products consumption practice of Myanmar migrants in Thailand by their gender.	46
Table 5.2. Pearson's Chi-squared test on Last 7 Days Dried fish products consumption practice of Myanmar migrants in Thailand by their gender	47
Table 5.3. Pearson's Chi-squared test on General Dried fish products consumption of Myanmar migrants in Thailand by their household types	51
Table 5.4. Pearson's Chi-squared test on General Dried fish products consumption of Myanmar migrants in Thailand by their age groups	54
Table 5.5. Types of the Dried Fish Products which are consumed by the Myanmar Migrants from different origins in Thailand	57
Table 5.6. Types of the dried fish products which consumed among the different types of migrants' households generally after moving to Thailand	59
Table 5.7. Total Quantity of Consumed Any Dried Fish product in 7 Days periods by a Myanmar Migrant while in Thailand	62
Table 5.8. Difference in average quantity of consumed dried fish products by Myanmar migrants based on their gender.	62
Table 6.1. Changes in Dried fish consumption practices among the Myanmar migrants in Thailand before and after migration	68
Table 6.2. Changes in Average quantity of consumed dried fish products among Myanmar migrants in Thailand before and after migration	73
Table 6.3. Quantity Changes in Dried Fish Products Consumption among Myanmar Migrants based on their identities before and after migration	73
Table 6.4. Changes of Frequency in Dried Fish Consumption (Total meals in 7 days).	74

Table 6.5. Changes in Average frequency of consumed any dried fish products in 7 days consumption among Myanmar migrants in Thailand before and after migration	75
Table 7.1. Gender division of labor for Household Income Generation among the migrants while they are in Thailand	79
Table 7.2. Difference of dried fish products consumption frequency among Myanmar migrants before and after migrated to Thailand based on their gender division of labor based on income generation	80
Table 7. 3. Gender Division of labor for Income generation within the Migrants Household	81
Table 7.4. Gender division of labor for Household daily consumption among the migrants while they are in Thailand	83
Table 7.5. Total meals of consumed any dried fish products by a migrant in 7 days period by the gender division of labor for cooking daily meals before and after moving to Thailand	84
Table 7.6. Gender division of labor for cooking responsibility with Migrants Households	85





# CHAPTER 1

## INTRODUCTION

### 1.1. Background of the Study

The Kingdom of Thailand is one of Myanmar's neighboring countries, and a significant number of people from Myanmar have migrated to Thailand for a variety of reasons, including the pursuit of an education, employment, or business opportunity; the desire to flee from the violation of human rights, and so on. Migration for the purpose of labor is the most common type of migration for Myanmar, and there are over 2 million Myanmar migrants working in Thailand. (Ministry of Labor Thailand, November 2020 as cited in ILO, 2022). There are many Myanmar migrants in Thailand with different ethnicities, origins, and identities because Myanmar is a country of significant ethnic diversity, particularly among the Kachin, Kayah, Kayin, Chin, Mon, Bama, Rakhine, and Shan (Aung-Thwin et al., 2022). According to the data of Ministry of Labor, Thailand (December 2021), about 320,000 MOU migrants' workers from Myanmar in Thailand and around 140,000 women and 180,000 men respectively (ILO, 2022).

When people migrate, they must settle into a typical daily routine like before. Immigrants maintain ties to their home country after moving. Migration doesn't inherently introduce a new culture, but it does affect people's ideas, habits, and behaviors in a new location. Migrants often eat comfort foods from their home country in their new foreign life (Lin et al., 2020). Home food plays a vital role in negotiating interactions with hosts, especially in how it impacts migrant attitudes, political-economic status, innovation, and hybridized foodways (Parasecoli, 2014). Migrants in strange places must eat cuisine they're familiar with since it lets them interact with otherness. Many migrants bring their favorite dishes from home to connect with their old daily life from origin (Parasecoli, 2014). Myanmar migrants also bring the consumption of dried fish with their food culture from the origin. The research of rural-urban migration on fish consumption in Myanmar found that rural Myanmar people still consume the dried fish in their daily dietary when they migrated to urban area for work. The study also found that the rural people had the dried fish with different type, taste and price which vary from their origin (Tezzo et al., 2021).

With this example, the Myanmar migrants in Thailand can have that experience with the different perception on the availability of dried fish for their daily dietary consumption.

Dried fish is a basic item in the diets and cuisines of a wide percentage of the world, accounting for one-fourth to one-third of the fish consumed in South and South-East Asian countries (Hortle, 2007 as cited in Belton et al., 2022). Dried fish is high in calcium and other minerals, is a major source of food and nourishment in both coastal and desert alpine regions in low-income countries (Belton & Thilsted, 2014) and also of crucial nutritional, economic, social, and cultural relevance to many of the most vulnerable populations in South and Southeast Asia (DFM, n.d.). In Myanmar, as measured by a Household Income and Expenditure Survey conducted in 2006, the national average annual consumption of fish and fish products is approximately 20 Kg per person which represent about 20% of total dietary protein, highlighting the importance of fish in the diet, 30% of consumed fish were inland species and 25% of marine. Access to inland fish in Myanmar and its relevance in the diet, compared to coastal fish (available dry or salted in inland locations), is similar to the Mekong Basin (Needham & Funge-Smith, 2015). Consumer preferences of dried fish across the country are likely to differ in terms of the quantity and variety of products consumed. Fish paste, fish sauce, shrimp paste, and dried fish are all common concoctions for human consumption and fermented fish paste (Ngapi), the most popular fish product, is widely consumed (Lin et al., 2022).

The study area, Mahachai, Samut Sakhon Province is the one with the highest population of Myanmar migrants that makes up the around 90% of all migrant workers in that area (Sarapirom & Muensakda, 2018). They come from different origin state/region of Myanmar with different identity and are working in different sectors, fishing industry, seafood processing industry, factory, agricultural sectors and so on. Because dried fish is a reliable source of nutrition for Myanmar people, regardless of their socioeconomic standing (Lin et al., 2022), it is possible for migrants to incorporate dried fish into their diets on a daily basis. However, the type of the dried fish available in Thailand can be different from Myanmar and the preference of the consumers, Myanmar migrants can change from the origin according to the availability. The supply source of the dried fish, changes of the dried fish which migrants consume and the perception on the dried fish consumption

changes which can vary along their identity such as gender, origin state/region, current occupation become the interest of this study.

## **1.2.Problem Statement**

Dried fish is a basic item in the diets and cuisines of a wide percentage of the world, accounting for one-fourth to one-third of the fish consumed in South and South-East Asian countries (Hortle, 2007 as cited in Belton et al., 2022). Myanmar poor and vulnerable individuals rely on dried fish products because they are affordable and nutrient dense. Dried fish can also be consumed when fresh fish is unavailable because it is preserved and convenient to eat anytime (Lin et al., 2022). In Myanmar, the typical person consumes 20 kg of fish and fish products annually according to the Household Income and Expenditure Survey, 2006(Needham & Funge-Smith, 2015). Despite the fact that dried fish helps to the nutritional and social well-being of the poor, global, regional, and national investigations have shown that the consumption of dried fish is limited due to consumer preference (Thilsted et al., 2014). The research on how people consume dried fish is limited and mostly looks at how people eat in general (see <https://diredfishmatters.org/>). The study on how dried fish is consumed in Myanmar focuses on where the fish comes from, how it is cooked, and what kinds of fish are eaten in the study area. How different kinds of Myanmar people, based on factors like gender, age range, occupation, income, etc., actually consume dried fish is still to be investigated.

The study of dried fish consumption among the Myanmar migrants is interesting because Myanmar's people have historically relied on labor migration as a primary source of income. Families and communities have been able to weather economic downturns and stagnation by migrating (ILO, 2022). Nearly 2 million Myanmar migrant laborers work in Thailand, where it is estimated that up to 10% of the country's workforce is employed abroad (Ministry of Labor Thailand, November 2020 as cited in ILO, 2022).The reason behind interesting to study on the dried fish consumption among Myanmar migrants is that migration doesn't cut ties with a home nation when people have migrated to another nations. Food, especially home cooking, helps migrants adjust in a new environment. Home-cooked ingredients can be different from their origin. Migrants may have greater challenges creating home/ethnic foods in their migratory existence because it is sometimes

difficult to find all the food ingredients, they need in the host society (Lin et al., 2020). A study examines the domestic migration of rural-to-urban fish eating in Myanmar found that rural migrants in Yangon are committed to '*rural cuisine of fish and fish products*', and migrants' food surroundings and lifestyle affect traditional culinary practices and fish cooking methods (Tezzo et al., 2021). Whether the migrants from Myanmar to abroad keep eating the dried fish products or not after migrated from the origin Myanmar remains to be clarified.

Moreover, the different consumption practices of dried fish products among the Myanmar migrants based on their gender is the key research idea which is remained to identify since masculine and feminine gender norms affect food attachment and choice. Gender differences in food attachment and choice can be dependent on personal views and eating purposes, yet there are still similarities and differences (Counihan and Kaplan 1998 as cited in Reiheld, 2014). According to Conner and Armitage (2002) as cited in (Saba et al., 2012), what people eat is governed by their physical demands and mental or emotional worries. Men tend to be attached to foods for their daily routine, whereas women are likely to be attached for other reasons. Women have more health-promoting food behaviors than men to have healthier lifestyle patterns, whereas men talk about eating as a regular habit to "fuel" their bodies (Saba et al., 2012). In Western culture, eating and love ceremonies have power and hierarchy overtones. Food plays multiple functions in defining masculinity and femininity, men and women's everyday lives, and their depiction and self-representation as cultural markers (Jankauskait, 2003).

In addition, migration impacts gender relations, which can either support existing inequities and preserve established gender patterns or question and shift such roles (Jolly et al., 2005). Migration could change the traditional roles of men and women, since one spouse's absence could give the other more power and more work to do (Jolly et al., 2005). The person who moved also had to change their gender roles in the new place (Jolly et al., 2005), for example, men have to do cooking for the household daily dietary which is traditionally responsible for women by the time his wife is migrated for work. Continuously, when the role of gender for cooking changes, the food attachment or the choice on food can be different because gender roles for men and women influence how we feel about and approach food (Counihan and Kaplan 1998 as cited in Reiheld, 2014).



Then, how this gender role changes concept is applicable in the dried fish consumption among the Myanmar migrants is also important to be addressed.

### **1.3.Rationale of the Study**

Dried fish is strong in calcium and other minerals, a key source of food and nourishment in low-income coastal and desert alpine regions (Belton & Thilsted, 2014), and of nutritional, economic, social, and cultural value to many of South and Southeast Asia's most disadvantaged inhabitants (DFM, n.d.). In Myanmar, the national average yearly consumption of fish and fish products is about 20 kg per person, which represents about 20% of total dietary protein, indicating the importance of fish in the diet. 30% of ingested fish were inland species and 25% marine. Access to inland fish in Myanmar and its role in the diet is similar to the Mekong Basin (Needham & Funge-Smith, 2015). The quantity and variety of dried fish consumed across the country may vary. Fish paste, fish sauce, shrimp paste, and dried fish are ubiquitous foods, but fermented fish paste (Ngapi) is the most popular (Lin et al., 2022). The study of the dried fish consumption is very limited and mostly have done on the general consumption patterns of the research area (see <https://diredfishmatters.org/>). The research on the dried fish consumption in Myanmar also have the limited study with some state, region, and fish production area which is not cover the national level and this research focus on the source of the consumed fish, location, method, and species details of consumed fish species around the study area.

When people migrate, they don't keep their home culture, but it affects their values, rituals, and conduct (Foner, 1997). Home cooking, especially, helps migrants acclimate. Homemade ingredients can differ from their origin. Migrants may have difficulty preparing home/ethnic foods because it's sometimes difficult to find all the food ingredients they require in the host society (Lin et al., 2020). There is a study examines the shift of rural-to-urban fish eating in Myanmar. This study found that rural migrants in Yangon are committed to 'rural cuisine,' which is often associated with their mothers' cooking skills. Migrants' food surroundings and lifestyle may affect traditional culinary practices and fish cooking methods (Tezzo et al., 2021). The study indicated that the varieties of fish and fish



products accessible in rural and urban areas are the same, despite differences in quality, freshness, and taste.

The study of dried fish consumption in the international migration context could have the different result from the existing domestic migration. Putting together with the gender difference in the dried fish products consumption among the Myanmar migrants in Mahachi sub-district of Samut Sakhon Province in Thailand might be interested to see as the different study because male and female gender norms influence food attachment and preference. Despite the fact that gender differences in food attachment and preference can be influenced by individual perspectives and eating objectives, there are still commonalities and differences (Counihan and Kaplan 1998 as cited in Reiheld, 2014). Moreover, the gender relation among the Myanmar migrants household could have the effect on the dried fish consumption practices because migration has an effect on gender relations, which can either reinforce existing inequalities and sustain established gender patterns, or challenge and modify such roles (Jolly et al., 2005). Migration can liberate women in sending nations from patriarchal behaviors and attitudes (e.g., Boserup 1970; Guendelman and Perez-Itriago 1987; Grasmuck and Pessar 1991 as cited in Torosyan et al., 2016). Migration could alter the conventional roles of men and women, as the absence of one spouse could give the other more authority and responsibility (Jolly et al., 2005). Therefore, the gender analysis on dried fish consumption among the Myanmar migrants tiring with the gender relation changes which effect on the dried fish consumption practice comes out from the rationale of the study.

#### **1.4. Research Objectives**

The purpose of the study is to analyze gender differences in dried fish consumption among Myanmar migrant workers in Mahachai, Thailand, accounting for factors such as ethnicity, age, occupation, income and place of origin. The study will be followed with the following specific objectives.

- To identify the types, quantity and supply source of dried fish which are consumed by the different gender of Myanmar migrants in Thailand accounting their identity such as ethnicity, origin, age, income, etc.

- To understand the different preference of Myanmar migrants on the types of dried fish consumption changes from the origin, Myanmar to Thailand.
- To understand how the gender role changes due to migration makes the dried fish consumption practice different in daily consumption of Myanmar migrants' households.

### **1.5. Research Questions**

Main Research Question: How is dried fish consumption practice of Myanmar migrants in Mahachai, Thailand different among the gender based on their identity?

Sub Research Questions:

1. What kinds of dried fish are consumed by the Myanmar migrants in Thailand based on their gender by accounting their identity, ethnic, age, occupation, income etc.?
2. How the dried fish consumption preference of Myanmar migrants in Mahachai, Thailand differ from their origin, Myanmar?
3. How does the gender role change due to migration, and it makes the dried fish consumption difference among Myanmar migrants' households in Mahachai, Thailand in different ways of adjusting their daily cuisine?

### **1.6. Scope and Limitations**

In general, this study will cover the consumption of the dried fish among Myanmar migrants with different preference based on their identity, gender, age, origin, occupation, etc. The overall result can show the different preference of dried fish from the origin Myanmar and in Thailand. Here, the dried fish means the any fish related products which is preserved or processed such as dried fish, fish paste, fermented fish, and dried shrimps but excluding fish can. The study were also tried to understand how the gender relation changes among the different migrants' households (household staying with family, household staying with friends, household staying with siblings, household staying alone) which can effect on the dried fish consumption practices. Here, household means that the group of people who are staying in one resident apartment together and can be any kind of relationship among the members. The basic identity information of the migrants will be the

different ethnic, age, origin state/region as in the origin, Myanmar, with different occupations from fishing industry, seafood processing industry, factory, agricultural sectors and so on. The study is limited as it cannot be covered the whole Myanmar migrants across the Thailand as it will be targeted in the Mahachai sub-district of Samut Sakhon Province only. The migrants with all ethnicities from all 7 States and 7 Regions from Myanmar cannot be in the study area.



## **CHAPTER 2**

### **LITERATURE REVIEW**

In this chapter, the concepts of the relation between the food culture that is brought together with the migration and the traditional dried fish consumption of the people of Myanmar are described based on the literature. These concepts also include the changes in gender relations among the household members that are caused by the migration.

#### **2.1. Migration and Cuisine**

Over the course of the time, the variations in demographic composition that have occurred in various countries could apply to a growth or reduction in the population of a particular region. This process by which people move between populations is migration (EarthEclipse, n.d.). Migration can be defined as the temporary or permanent departure of a person from his or her ordinary place of residence, whether within a country or across an international border, for a variety of reasons (IOM, n.d.). People migrate from one place to another for a variety of reasons, including search of better economic or employment prospects, reunion with family, pursuit of higher education, avoidance of human rights violations, and safety from the conflict and natural disasters and so on (UN, n.d.). According to the World Migration Report of IOM, there are around 280 millions of international migrants in the global data of 2020 and it is comprised of 3.6% of global population (McAuliffe & Triandfyllidou, 2021). Migration can induce both pros and cons in many aspects resulting in social, economic, and political problems such as population growth, which can have an impact on local social institutions, rising demand for goods and services, displacement of nationals from rural to urban occupations, expansion of the informal sector of the national economy, transculturation, and the occasional loss of customs and traditions by the local population, along with the introduction of new diseases and social problems (Isaias, 1989).

Migration flows have also contributed to the constant building and reconstruction of national identities in terms of emigration or immigration (Williams & Hall, 2000). Migration into a different country does not signify the end of an immigrant's ties with their



home country. The migrants do not exactly bring their original culture pattern in a new settlement, but that cultural pattern is somewhat powerful in shaping of individual values, norms, and the actual behaviors patterns in a new life setting (Foner, 1997). The culinary culture or traditional cuisine is one of the cultural patterns that migrants bring with them, as they are inclined to consume foods from their home country as “comfort foods” in their new foreign life (Lin et al., 2020). Home food serves as a crucial role in the negotiation of interactions between migrants and hosts, notably in terms of its capacity to alter views about and the political-economic condition of migrant groups, the inventiveness of migrants, and the establishment of hybridized foodways (Abbots, 2016). Eating the home cuisine is a necessary part of everyday life for the migrants who are placed in sensory and culturally unfamiliar situations because it encourages them to engage physically, emotionally, and cognitively with the Otherness present (Parasecoli, 2014). The migrants also use home cuisine or foods from their ethnic origin as a way to connect their new life with their previous one (Gunew as cited in Lin et al., 2020). The private food from home has the power to confirm the familiar, reinforce belonging, and deepen ties to a faraway place or past when people are far away from home and everyday life is full of appealing others who do not speak their language, no culture appreciation, or no support for your ideals (Jonsson et al. 2002, Zevallos 2003 as cited in D’Sylva & Beagan, 2011).

When people migrate, they not only bring with their food culture but also their identity representations along with their foods (Terragni & Roos, 2018). For instance, many Taiwanese establish a portion of their "Taiwanese identity" or demonstrate their "Taiwanese ethnicity" by consuming the world-famous Taiwanese beverage of "bubble teas," since these beverages are regarded as one of the critical parts of the "Taiwanese" food culture (Lin et al., 2020). The Halal foods shape the identity of the Muslim people when they migrate to non-Islamic countries (Ferrara et al., 2011). Moreover, in the study of Schermuly and Forbes-Mewett discovered that the migrants also apply the food culture or home cuisine as a strategy to enlarge the social network and to build the good interpersonal relations in the new place (as cited in Lin et al., 2020). Frost argued that ethnic foods or cuisine can provide the economic advancement pathway for the migrants because they can sell their ethnic foods by introducing while they make the social network in the new place (as cited in Abbots, 2016).



## **2.2. Food, Traditional Cuisine and Culture**

Almost every human being involves in the action of eating food for their daily. Food is a crucial thing that can effect on our health to live well for daily life. Food is more than just a source of nutrition for our everyday activities. Individuals, as well as people and cultures all over the world, are affected by a wide range of factors that shape their food preferences (Corvo, 2016).

Food and culture are intrinsically linked. Making, serving, and enjoying certain foods and beverages may seem relatively simple initially, but they have significant cultural and social importance (Lush, 2022). Food is another way in which people maintain ties to their cultural or ethnic group and varies greatly among cultural groups. Tiring with the cultural values, food is used as a signifier of one's social status, one's lifestyle, one's gender role, and one's connections to others across the spectrum of one's social environment, from the family to the local neighborhood to the larger ethnic community (Boutaud et al., 2016). A person's dietary preferences might be influenced by their geographical location and their family's ancestral history which result for a certain culture of people or region tend to eat similarly to one another due to shared culinary tastes (Sibal, 2018).

The attachment to or the preference for the food is substantially impacted by both masculine and feminine gender norms. Gender and cultural identities can be reflected in the way food is prepared or produced, as well as the foods people choose to eat (Counihan and Kaplan 1998 as cited in Reiheld, 2014). The attachment and food choice among genders can be different based on their personal thoughts and purpose of eating foods, yet it still has both similarity and difference among the gender. According to Conner and Armitage (2002) as cited in (Saba et al., 2012), what people choose to eat is not only determined by their physical needs, but also by their mental or emotional concerns. In general, men are likely to have the attachment to the foods just for daily routine of lives and women are likely attaching to the foods for various purpose rather than daily routine. Particularly, women have more food behaviors in considerably health-promoting than males in order to have healthier lifestyle patterns, while men typically talk about eating as a habitual and daily activity that is required to "fuel" their body (Saba et al., 2012). Men prioritize the taste and convenience to get/to eat when they make the decision for food

selection and they are more ambiguous about healthy dietary choices (Steptoe et al., 2002; Wardle and Griffith, 2001 as cited in Saba et al., 2012). The result of a survey named Pan-EU found that women have the choice of foods based on the factors, quality or freshness of the foods, price, healthy purpose and the preference of family members rather than the taste (Lennenäs et al., 1997 as cited in Saba et al., 2012)

Many studies found that women are more thoughtful about food and health issues, and they appear to have more moral and ecological concerns about eating certain foods than men, who are more self-assured and demonstrate a more traditional and uncritical adherence to eating profiles and patterns (e.g., Beardsworth et al., 2002; Teratnavat & Hooker, 2006; Verbeke & Vackier, 2004 as cited in Saba et al., 2012). In Western culture, the gender stereotyping of eating and love rites gained implications of power and hierarchy. Food holds varied weight in establishing the values of masculinity and femininity, everyday experiences of men and women, and plays diverse roles in the process of their representation and self-representation as a cultural marker (Jankauskait, 2003). Food is an unconscious aspect of modern feminine identity in Western culture. Gamman and Makinen show that the Western feminine body is fetishized, reduced to the breast motif, and connected with food (as cited in Jankauskait, 2003). Being a woman entails consuming, being consumed, and fighting weight. Being a woman requires creating with food and culinary motifs. Moreover, Western Societies women more likely than males to make better food choices and pay more attention to their eating habits in order to maintain a healthy weight. Dietary profiles, which indicate consistent patterns of food intake based on gender, reflect this mentality as well (Jankauskait, 2003).

Food practices are one of the most important ways that cultures are passed on or changed (D'Sylva & Beagan, 2011). Recipes and eating habits can help pass on information from one generation to the next (Lush, 2022). In cultural contexts, women are often seen as the keepers of tradition and betrayers of culture in their homes and in the broader community (e.g., Beoku-Betts 1995, Das Gupta 1997, Kurien 1999, Mankekar 2002 as cited in Lush, 2022). Women are more likely to be deeply involved in consumer cultures, which are full of products, shopping methods, restaurants, and celebrations, and whose values and meanings are filtered through the media, healthcare viewpoints,

education, and workplace conditions. Many cultures are perpetuated through food, and it is likely that women will be the ones responsible for ensuring that traditional recipes and meals are preserved (Parasecoli, 2014). The transmission of culture through the use of food and food preparations is how the women learned to cook. The transmission of cooking recipes for keeping their owned culture is the women's hierarchy that is passed down from generation to generation (i.e., from mothers to daughters). Rather than receiving recipes from their mothers, most women had learnt them by observing. Observing how food is made, a form of embodied learning, also imparts a sense of significance to the work, building the person of a 'good cook' who is elevated to a position of distinction within the family. Women learnt this as young girls in their mothers' and grandmothers' kitchens and replicated it in their own households (D'Sylva & Beagan, 2011).

### **2.3. Gender Division of Labor in the Household and Women's role in daily dietary**

Women and men are defined by their societal roles, duties and interrelationships with other gender groups which is socially constructed as "Gender". Gender has a significant impact on personal, social, and cultural experiences (Connell, 2009). The division of household chores is a place of gender expression, confirmation, and transformation (Lim, 2018). Thus, the relations of gender at home are loaded with the social and cultural meanings of 'masculine' and 'feminine' behaviors that are profoundly ingrained in individuals' daily lives. Defining the men's task or women's task in the society based on their gender roles is known as the "gender division of labor". This isn't just about paid job; it's about the work, obligations, and responsibilities that are given to men and women in their daily lives, and that might in turn influence labor market dynamics (Connell, 2009). Numerous studies have analyzed the gendered division of labor within families, demonstrating its significance (Lim, 2018).

In the household or within the family, the family members still share the task of the household as the concept of the socially constructed gender. The research of (Fernández et al., 2016) found that men and women are share domestic tasks that used to be more gendered and there is a clear difference between men and women's work tasks in the household. For instance, typical roles in the home comprise that woman for preparing the

family's meals and men for mowing the yard (Fernández et al., 2016). Studies in European countries have indicated that women share housework time more than men, and that women are mostly responsible for doing the laundry, cooking, and caring for the children, while men are primarily responsible for doing the repairs. Men and women both share certain responsibilities, such as going shopping for the household (Sofer & Salman Rizavi, 2008). In the context of eastern Asia, men and women have traditionally been seen as having the distinct gender roles and responsibilities in the household with the thought as patriarchal (Lim, 2018). Different eastern Asian countries have taken different political and economic paths, which has led to different patterns of gender roles in the household. Most of the research shows that eastern Asian households are very unequal between men and women, with women doing most of the housework and caring for children (Lim, 2018). Relatively, China had the most equal and the most conventional arrangements for household chores. Women did around 2 times in China, 3 times in Taiwan, 4 times in Korea, and 10 times in Japan as much housework as men, respectively (Qian & Sayer, 2016). Women are also commonly reported to devote more time to take care of their families' well-being than men (Görge, 2021).

More specifically, Gu argued that in most intercultural marriages and mixed-culture families, women are responsible for the majority of the household duties and childcare responsibilities. Women, especially those in intercultural or mixed-culture families, have a number of important responsibilities, including coordinating the family's daily meals and ensuring that the various taste preferences of family members are balanced (Lin et al., 2020). Food for eating is the main thing that is vital for the well-being of daily lives. Therefore, women are the one who take place the crucial role for the daily dietary of the family (Khare, 1984). In general, both husband and wife in the household considered that the food preparation process, such as choosing which foods to cook, shopping for the grocery and how much to spend on the foods, is solely the wife's responsibility. The majority of the cooking in the home is done by wives, with husbands participating just infrequently (Schafer & Schafer, 1989). In Western societies and around the world, cooking at home is a highly gendered activity. Cooking at home is often perceived as a woman's job and feminized according to gender standards; where males are allowed to cook at home, it is masculinized or seen as a "courtesy" (Reiheld, 2014). A society classified cooking as



a woman's job, and cooking pots as a female tool, to the point that men were considered no longer men if they used the pots to prepare food. Women are nonetheless held responsible for the nutritional well-being of their families despite the fact that gender conventions demand that men occasionally cook (Reiheld, 2014).

An influential study on gendered division of labor in the household in United States concluded that approximately two-thirds of total housework hours are spent cooking and cleaning, work which continues to be – and to be viewed as – considerably more commonly the competence of women than men (Bianchi et al. 2000 as cited in Reiheld, 2014). To illustrate the gendering of preparing food in American culture, families with both male and female children are more likely to assign girls to cooking and cleaning tasks while boys are more likely to be assigned maintenance tasks like mowing the lawn or repairing things or taking out the trash; in these families, the gendering of cooking as a women's work begins early (Reiheld, 2014). The women still take part in the food preparation process even they are employed. Non-employed wives are more involving in cooking compared to the employed wives. The women are essential for the role of daily meals in their family either they are employed or not (Schafer & Schafer, 1989). Some women work as the housekeeper for the other family as their jobs like they are working for their household including responsibility for cooking (Cohen, 2004). Whether or not they work for their owned household, women have a critical role in providing food for the family's daily needs.

#### **2.4. Migration and Gender Relations**

Migration has an effect on gender relations, which can either reinforce existing inequalities and maintain traditional gender patterns, or it can challenge and alter such gender roles (Jolly et al., 2005). It has been stated by some that migration can help liberate women from the patriarchal behaviors and beliefs that are frequently prevalent in countries that are primary contributors of migrants (e.g., Boserup 1970; Guendelman and Perez-Itriago 1987; Grasmuck and Pessar 1991 as cited in Torosyan et al., 2016). Migration could provide a challenge to conventional gender roles, since one spouse's absence could mean that the other has more say in major decisions and more work to do. Vise-visa, the one who migrated also have changed his or her roles in new setting (Jolly et al., 2005). For example,



when males leave the countryside for the city, women are often forced to shoulder more agricultural work without as much say in the distribution of profits. Through migration, women may achieve financial independence, self-confidence, and expanded freedom (Jolly et al., 2005).

On the other hand, women participating in migration has the potential to alter gender roles in both the receiving and sending societies and it's a paradigm shift to look at migration as a means of modernization, evaluating whether or not women can shed their old roles in the new setting (Morrison et al., 2007). It has the potential to persuade their native societies to change their views on gender roles, sexuality, marriage, and the structure of families and communities to be more egalitarian (UNHCR, 2019). Women's migration has the potential to promote women's autonomy, self-esteem, and social position, and to contribute to a reformulation of gender roles and cultural norms. One study found that migrant women from South Asia were more likely to prioritize health care and education for their family as a result of their greater decision-making power (UNHCR, 2019). Moreover, women become more freedom because of increase economic empowerment and autonomy in their household due to the migration and they can have more opportunity to do the different things that they haven't done before because of the gender norms (Helms & Leblang, 2019).

## **2.5. Dried Fish Consumption and Tradition of Dried Fish Consumption in Myanmar**

Fish as one of the primary sources of protein and micronutrient for people in Myanmar and in 2006, as the total dietary protein consumed, fish and fish products including dried fish were consumed on a national average of about 20 kilograms per person per year (Needham & Funge-Smith, 2015). Poor and vulnerable people often rely on dried fish products since they are an affordable and nutrient-dense source of protein and dried fish can also be consumed when fresh fish is limited, since it is preserved and easy to eat at any time (Lin et al., 2022). Fish paste, shrimp paste, fish sauce, dried fish which are made from the processed fish are the top choices among the Myanmar people and fermented fish paste which is called "Nga Pi" is one of the most significant calcium source for Myanmar people (Needham & Funge-Smith, 2015).

In Myanmar, both processed and fresh fish are mostly consumed in the Delta and Coastal regions where the fish are produced which can influence the preference and choice of the consumers. In the Hilly regions of Myanmar, the marine fish is difficult to access and the people from that region consumed fresh fish and the fish products only. According to the Myanmar Dried Fish Consumption survey, the majority of households in the Delta and Coastal Region (Ayeyarwady, Yangon, Bago, and Mon) consumed at least one sort of fish and 95 to 98% of households in the Dry Zone (Mandalay and Sagaing) and Kayin from the Hilly Region consumed fish weekly. Shan North has the lowest fish consumption rate; yet 55% of households consumed at least one sort of fish product in the past week (Lin et al., 2022). The fish consumption is the highest in Ayeyarwady region compared to the other states and region in Myanmar and 100 g of fish are consumed by one capita per day.

The average consumption of dried and processed fish products for one person was around 30 g per day (Lin et al., 2022). The fermented fish products are the most portions that consumed in Ayeyarwady, Yangon, Mon, Kayin and Sagaing regions while people in Northern Shan State rarely consumed the fermented fish products. Dried fish stands the second place in the processed fish consumption in most states and regions of Myanmar and dried shrimp are consumed after the dried fish, mostly in Ayeyarwady, Yangon and Kayin and slated fish are consumed lessly around the country (Lin et al., 2022). The cooking style or form of consumption of dried/processed fish is varied across the country as the wide variety of cooking styles and foods in Myanmar reflects the country's both Indian and Chinese influences. In the study of consumption culture changes in rural – urban transition, fish curry preparation varies by region across Myanmar and fish type, but the cooking procedure is always complex, needing numerous ingredients such as oil, tomatoes, garlic, onions, turmeric, coriander, ginger, chilies and many spices with a long preparation period. Myanmar people usually use the curry cooking style to prepare the fish. The rural people in Myanmar are strongly attached to the traditional cuisine and the traditional cooking recipes come from their mothers (Tezzo et al., 2021).

The fish paste, one of the processed fish, is commonly used as a condiment in many traditional Myanmar cuisines and as a part of nutrients performance for daily dietary. It is also served as a daily side dish known as “Nga Pi Yay” with fresh vegetables to compliment

the main meal. A further way of preparing fish paste is as a primary curry known as "Nga Pi Gyet," which is often seen as a curry for the poor. The fish paste main curry is common when the fresh fish is difficult to get and where lack of the fresh fish (Tezzo et al., 2021). Both fish paste main curry and side dish are eaten around the country especially in Bago, Yangon, Mon, Kayin and Ayeyarwady and less eaten in Sagaing region with no consumer at all in Northern Shan State (Lin et al., 2022).

“Nga Chauk”, or dried fish, is a reliable food supply for the people of Myanmar, despite of their living standards. There are numerous varieties of "Nga Chauk" depend on the type of raw fish, and each dried fish is served in a variety of ways. Some people grill and prepare with peanut oil and lemon as a main course or side dish with breakfast, while others consume as a snack with green tea. In some area of Myanmar, “Nga Chauk” is cooked with garlics and onions as a main curry and serve in the special occasions like wedding, noviation, and donation and some also favor cooking with vegetables. Some people prefer garlic, onions, and chilies stir-fried as a fast side dish that can be preserved for a long time and is ready to eat in a hurry (Lin et al., 2022). The dried shrimp, “Pazun Chauk” is also used as a quick side dish by frying like dried fish for long time preserving. The dried shrimp is commonly used as an ingredient in Myanmar traditional cuisine for making salad, soup, and main curry (Lin et al., 2022). Fermented fish and shrimp are also commonly eaten in some area of Myanmar. They are usually prepared in the fried and salad forms and served as a side dish (Needham & Funge-Smith, 2015). People in Bago region usually make the fermented fish and shrimp on their own and rarely make in other states and regions (Lin et al., 2022).

## **2.6. Overview of Dried Fish in general**

Dried fish is defined in various ways based on the purpose of the interest of the study. The FAO definition of dried fish is that the fish, which is cured, salted, brine-preserved, and/or smoked products (FAO, 2015). Dried fish can be defined as “aquatic animals preserved using simple techniques, such as sun-drying, salting, fermentation, and smoking that permit storage as foods at ambient temperature for extended periods without specialized packaging” (Belton et al., 2022). 10% of global fish harvests are dried using traditional,

moderate, and low-cost techniques such as solar drying, seasoning with salt, fermentation, and smoked (FAO, 2020). The production of dried fish and the consumption of it are both organized as value chains (Ahmed et al. 2007; Shamsuddoha 2007 as cited in Galappaththi et al., 2021). Products made from dried fish hold a significant role in production, commerce, nutrition, and cuisine all throughout the world, especially in the global south. The industry of dried fish is typically in charge of millions of people, primarily women, who make up the majority of the labor in the fish-drying sector in many different locales. Nevertheless, the industry is also subject to and generates substantial issues, such as fears about the safety of food and working conditions that are exploitative (Belton et al., 2022). Dried fish is a prototypical sector of the economy in which the majority of producers are households and other small-scale operators, end users are low-income, and the majority of actors have different identities as fishers, processors, and even integrators (Pradhan et al., 2022).

Dehydration, weight reduction, concentration of nutrients, and prevention of development of unwanted microbes are some of the structural changes that take place during the drying process of fish. Dried fish may be stored and transported more easily than fresh fish, which enables it to reach remote locations where it is difficult to obtain. Fish abundance and scarcity can be more evenly distributed throughout the year contributing to the preservation of fish populations (Ruddle, 1987b as cited in Belton et al., 2022). Millions of people benefit economically and get work as a result of the manufacture of dried fish. A wide range of players are involved, from small- and large-scale fishers and processors to urbanized wholesalers and small- and rural-scale retailers. In many places, especially South Asia, where women's labor outside the home has traditionally been strictly restricted, women dominate the fish drying sector (Pramanik, 1996 as cited in Belton et al., 2022). Women benefit greatly from their participation in dried fish value chains, which contributes to their livelihoods, cultures, and economy such as income, occupation, food, social relations, and cultural values. Women, their families, and their communities gain from these advantages (Belton et al., 2018). However, women from marginalized social groups, such as lower castes, widows, immigrants, and the impoverished, have considerable barriers to fully participating in and profiting from value chains of dried fish (Belton et al. 2018; Deb et al. 2015 as cited in Galappaththi et al., 2021).



The dried fish economy and ecosystem, as well as the livelihoods of dried fish processors, small traders, and low-wage fish workers, have been severely impacted by commercial fishing's trade focus and increasing capitalization (Pradhan et al., 2022). Dried fish products are generally available, accessible, and of disproportionate relevance to the nutrition of the most vulnerable populations because of their ready divisibility into small pieces, powerful flavor, and inexpensive pricing per unit of nutrient compared to fresh fish (Belton & Thilsted, 2014). The dried fish can fulfil the nutrition of the food insecurity in poor states of the world as in Cambodia as Skau, 2014, Kenya as Konyole study, 2012 and Ghana as Abbey study, 2017 (as cited in Belton et al., 2022). Moreover, the dried fish can also create the economic opportunity of the poor community. For example, in Somalia, the use of sun-dried products creates employment opportunities for young people and helps them for their food to eat at home. Modern packaging equipment is used to package and label high-quality products for retail sale. Fish heads and frames, two by-products of processing, are cooked and consumed raw (FAO, 2018).

In term of economic market access in dried fish value chain, the effect of globalization which have an impact on the fisheries sector that can change in social relation and the access of market power in the small, dried fish value chain. For instance, the unstable increasing or decreasing global demand of the dried-salted trade of Nile perch, or “Kayabo” in Democratic Republic of Congo, the existence of hierarchical trading interactions that create an extractive network in which strong middlemen influence the access of trade for women, which they could control the network through corruption and back stabbing to derive significant capital gains from the kayabo trade are excluded from the decision-making processes and access to fish resources, financial capital, and bargaining power. This exclusion can lead to persist by relying on unauthorized fish that they sell at local domestic markets for little profit by functioning in intensely challenging marketplaces which enhance the job uncertainty and risk (Medard et al., 2019).

As of 2018, the Food and Agriculture Organization of the United Nations stated that fish and fishery products are among the most traded commodities in the world, accounting for around 35 percent of the world’s fish production (as cited in Suastika Jaya et al., 2019). There has been a dramatic growth in the number of fish and fish products



traded for human consumption over the past 40 years, from approximately 10% in 1976 to 30% in 2016. From USD 8.0 billion in 1976 to USD 143.0 billion in 2016, global trade in fish and fisheries products has grown at an average annual pace of 8 percent (FAO, 2018 as cited in Suastika Jaya et al., 2019). Export value of fish and other fisheries products from the Southeast Asian region appears to have followed an up-down pattern, i.e., increasing-decreasing every other year, from 2011 to 2016. It has been steadily rising in value from 2011 to 2014 but then slowed down in 2015, before picking up again in 2016. In 2016, Vietnam, Thailand, and Indonesia were the main exporters of fish and fisheries products, while Thailand, Vietnam, Singapore, and Malaysia were the top importers in Southeast Asian countries (Suastika Jaya et al., 2019).

## **2.7. Differences between the Dried Fish Products from Myanmar and Thailand**

The dried fish products are consumed in both Myanmar and Thailand. In Myanmar, each individual consumed about 30 g of dried and processed fish items daily (Lin et al., 2022) and Fish paste, shrimp paste, fish sauce, dried fish prepared from processed fish are popular among Myanmar people, and fermented fish paste known as "Nga Pi" is one of the most important calcium supplies for Myanmar people (Needham & Funge-Smith, 2015). The Thai cuisine has traditionally relied on fish as its primary source of animal protein and there is a common Thai expression like "If there is water, there is fish". In 2011, Thailand's annual per capita intake of fish and fish products was 31.4 kg, accounting for around 11% of total protein consumption (Needham & Funge-Smith, 2015). The cooled, frozen, tinned, or boiled, smoke, dried and/or salted fish, and/or transformed into shrimp paste or fish sauce are the different form of dried fish or processed fish which are mostly consumed by the Thai people (Yenpoeng, 2017). However, the consumers or people usually make a choice on their preference and the consumption of dried fish or the way of processed fish products varies across countries because Asian countries have a diverse range of environments, including landlocked mountains, massive tropical river valleys, parched grassland, and ocean tropical islands, which affect the availability of fish in its various forms and, as a result, consumption of fish in these environments (Needham & Funge-Smith, 2015).

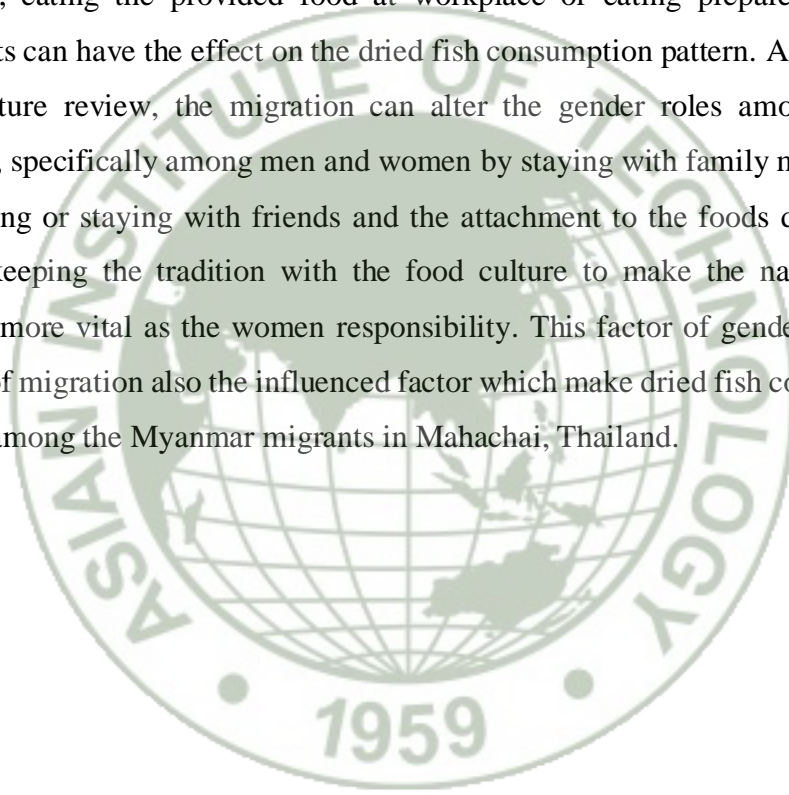
In Myanmar, the dried fish or “Nga-Yant-Chauk” is mainly made from the snakehead catfish and mostly sun dried, and fish are typically cleaned, salted the night and rinsed salted fish in water prior to drying (Lin et al., 2022), while Thai people process the dried fish by salting and sun drying (Sukhpisit, 2017). The fermented fish is commonly used as a condiment for the traditional cuisine in both Myanmar and Thailand, which is called “Pla-ra” in Thai and “Nga-Pi” in Myanmar. The process of making fish paste is different among Myanmar and Thai people. Traditionally, "Nga-Pi" or fish paste is prepared in Myanmar by using small shrimps and fish, salting both, drying the mixture out in the sun, and then pounding the dried mixture with a mortar for a period of time that can range from five to six months. Ngapi can be preserved by adding oil or salt, although some makers like to let the paste ferment on its own (Pa, 2022). In Thailand, “Pla-ra” is produced in a variety of ways, one of which involves the fermentation of small fish with rice bran and salt in an airtight container for at least six months (Bangkokfoodies, 2020).

Fresh shrimps are used in the preparation of dried shrimp in Thailand. The shrimp are first washed, then boiled in salt water, and finally allowed to dry out in the sun for an extended period of time. In most cases, for many days, or until the cooked shrimp have shrunk and become entirely dry. After the shrimp have been dehydrated, their shells are either left on or scraped off before they are packaged for distribution to customers (Suwanee, 2020). In Myanmar, dried shrimps are made by first cooking the shelled fresh shrimp (with fuelwood), then draining out the excess water, and finally drying them in the sun for anywhere from one to two days. The majority of traditional drying is still done outside in the open air, where it is messy and prone to contamination. In the open air, a mat laid on the ground is a common drying method. During the wet seasons, mangrove fuelwood is used in conventional dryers to hasten the drying process (Robalino, 2019).

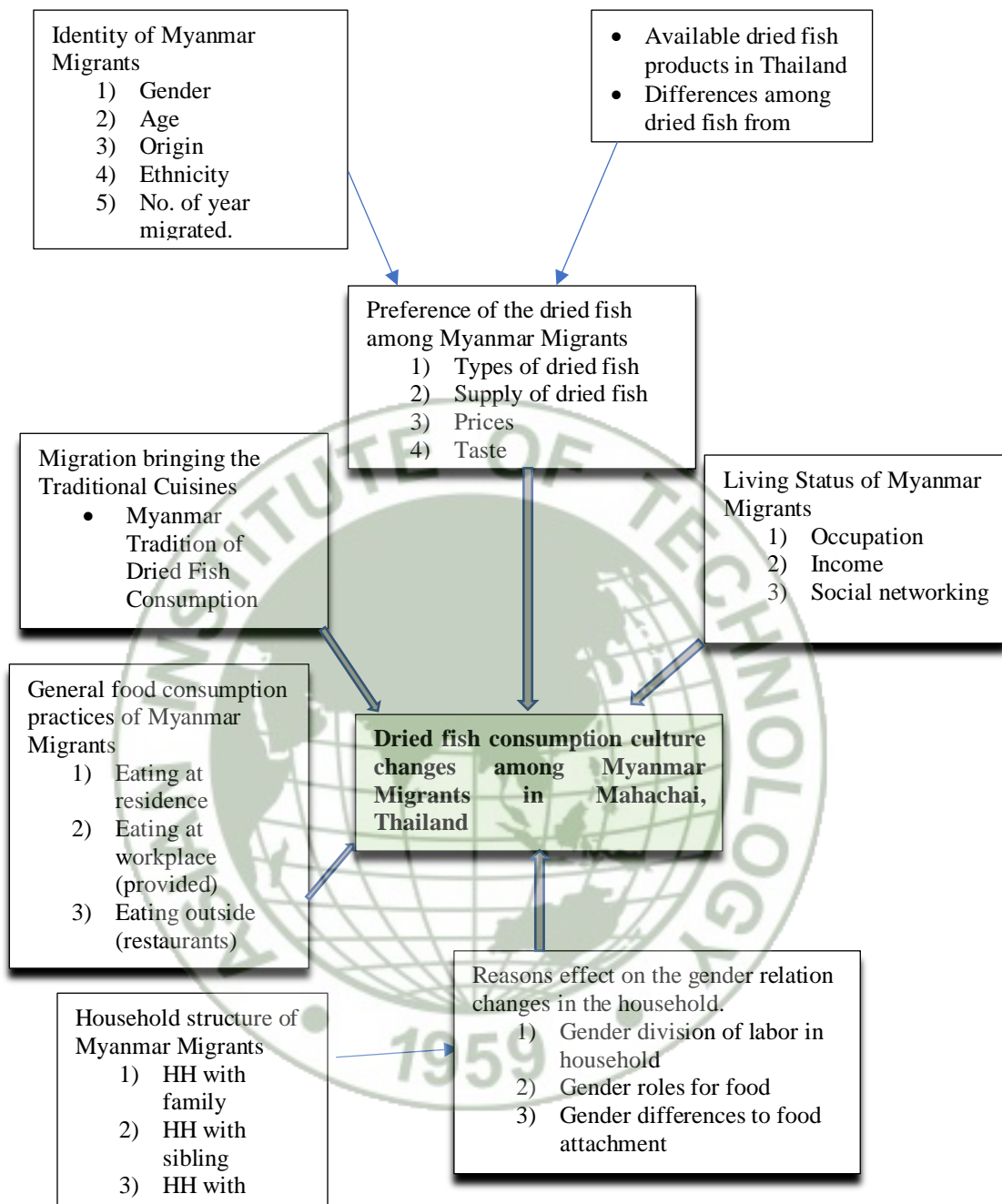
## **2.8. Conceptual Framework**

The following conceptual framework (Figure 2.1.) is constructed with the various factors which can have an effect on the changes of dried fish consumption culture of Myanmar migrants who are in Mahachai, Thailand. Bringing the traditional cuisines, especially, traditional culture of different dried fish products consumption with migration can effect

on the changes of dried fish consumption pattern. The identity of the Myanmar migrants such as gender, age, origin, ethnicity, occupation and so on can make the various preference of dried fish they choose to consume. The differences among dried fish products from Myanmar and Thailand can lead to the preference of dried fish different. The different preference of the Myanmar migrants derives from the relation between different identity of Myanmar migrants and the available different types of dried fish from Myanmar and Thailand can become one of the factors that make dried fish consumption changes. The food consumption pattern of their daily lives such as eating home-cooked foods at residence, eating the provided food at workplace or eating prepared foods from the restaurants can have the effect on the dried fish consumption pattern. As we have found in the literature review, the migration can alter the gender roles among the household members, specifically among men and women by staying with family members or staying with sibling or staying with friends and the attachment to the foods differ based on the gender, keeping the tradition with the food culture to make the nationalism stronger becomes more vital as the women responsibility. This factor of gender relation changes because of migration also the influenced factor which make dried fish consumption culture changes among the Myanmar migrants in Mahachai, Thailand.



**Figure 2.1. Conceptual Framework**





## 2.9. Chapter Summery

People migrate or move out from their home to another different place for various reasons of their livelihood development (IOM, n.d.). When people migrate, they usually bring their home foods for their comfort and their traditional cuisine in a new setting. Being of dried fish products as a Burmese traditional cuisine along migration is one of the unidentified studies since individual people not only convey their culinary habits but also their identity portrayals through the foods, they bring through migration (Terragni & Roos, 2018). The attachment of foods is different among the people based on their gender, culture and social identity or the foods that people choose to eat daily (Counihan and Kaplan 1998 as cited in Reiheld, 2014). The available research presents not known findings regarding whether an individual's gender, culture, or identities influence their decision to include dried fish products in the migrants' daily dietary.

The gender division of labors which define as the women are the main role of cooking foods in their household (Connell, 2009). The role of the gender relations change by reinforcing the existing inequalities and maintain traditional gender patterns along with the human migration (Jolly et al., 2005). The effect of migration on gender roles within Myanmar migrant households and its influence on daily consumption, specifically the inclusion of dried fish products, is a crucial concept to consider. Other factors that should be considered in the research fascination theory are the availability of various dried fish products for Myanmar migrants in Thailand. Many dried fish products and processed fish products are available and consumed around the origin country, Myanmar and the fish paste, different dried fish types, fermented fish, fermented shrimps, dried shrimps and so on are the most popular fish products consumed among the Myanmar people (Lin et al., 2022).



## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

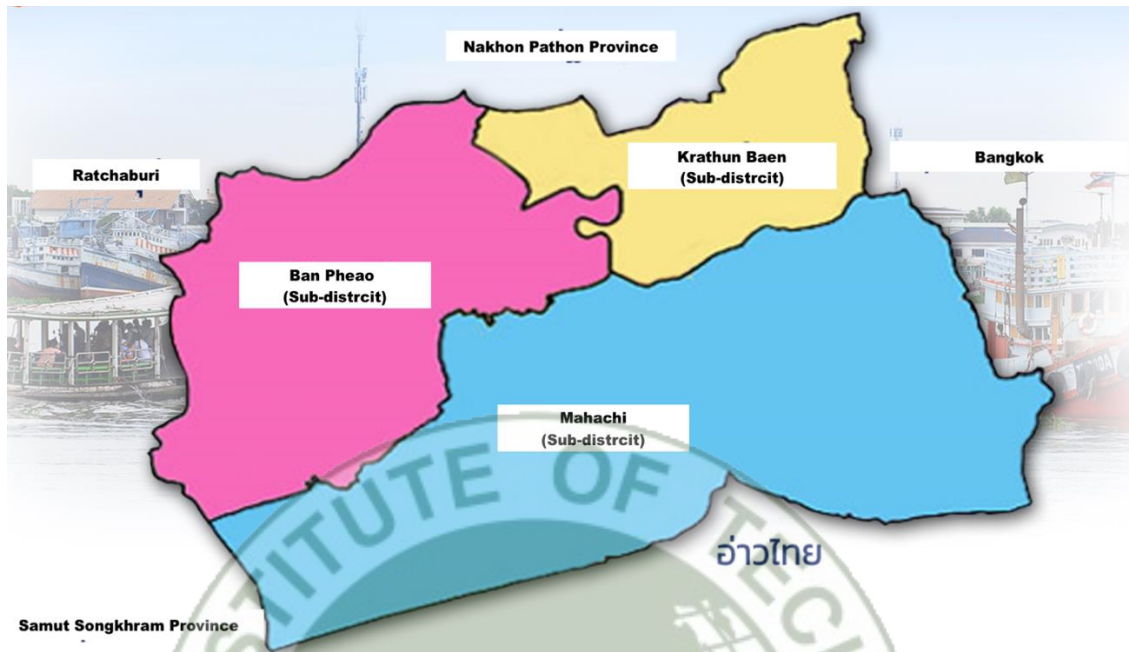
This chapter discusses the key ideas behind the research methodology, the criteria of the research methods selection, sampling frame as well as the data collection procedures. Under this section, the information about the descriptions of the study area, the information regarding the data, and the approaches regarding the data analysis are described.

#### **3.1.Descriptions of the Study Area and Selection Criteria**

Mahachai – sub district, which is also known as Mueang Samutsakhon is located in the Samutsakhon Province, about 30 kilometers from Bangkok. Samutsakhon is comprised of three separate sub-districts (Mahachai, Ban Phaeo, and Krathun Baen) and spans a total area of 10.33 square kilometers. In September 2021, there were 31, 773 males and 32,734 females living in the Samut Sakhon Municipality, as recorded by the Samut Sakhon Municipality civil Registration (SamutsakhonCityMunicipality, 2021). It is also the province with the highest number of migrant workers in Thailand. The province has a large number of Burmese migrants (307,443), who make up 91% of all migrant laborers and they are working in many different sectors such as fishing boats, industries of seafood processing, various kinds of factories, and agricultural farms (Sarapirom et al., 2020).

As the purpose of the study is to learn the changes of the dried fish consumption pattern of Myanmar people when they migrated to another place, Mahachai is the most suitable for study which can help to find out the study results based on the Myanmar people from different origin of Myanmar and can make the comparison the original culture and changes in the migrated destinations. Furthermore, the study of consumption changes by migration have been done in rural-urban migration within Myanmar only and the selected study area is good for study of changes in international migration.

*Figure 3.1. Map of Study Area*

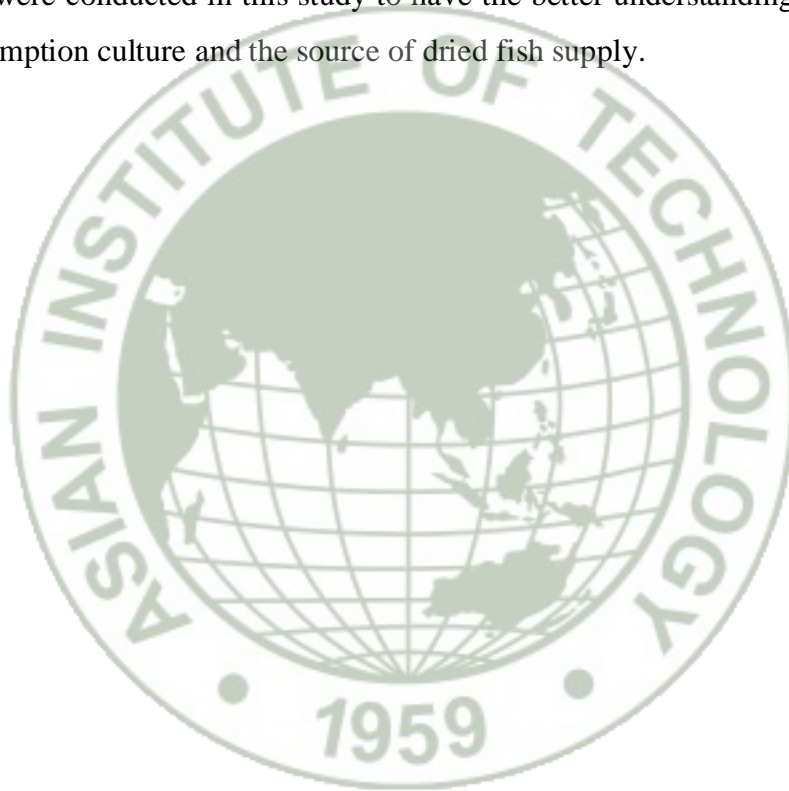


Source: [http://www.samutsakhon.go.th/\\_new/content/map](http://www.samutsakhon.go.th/_new/content/map)

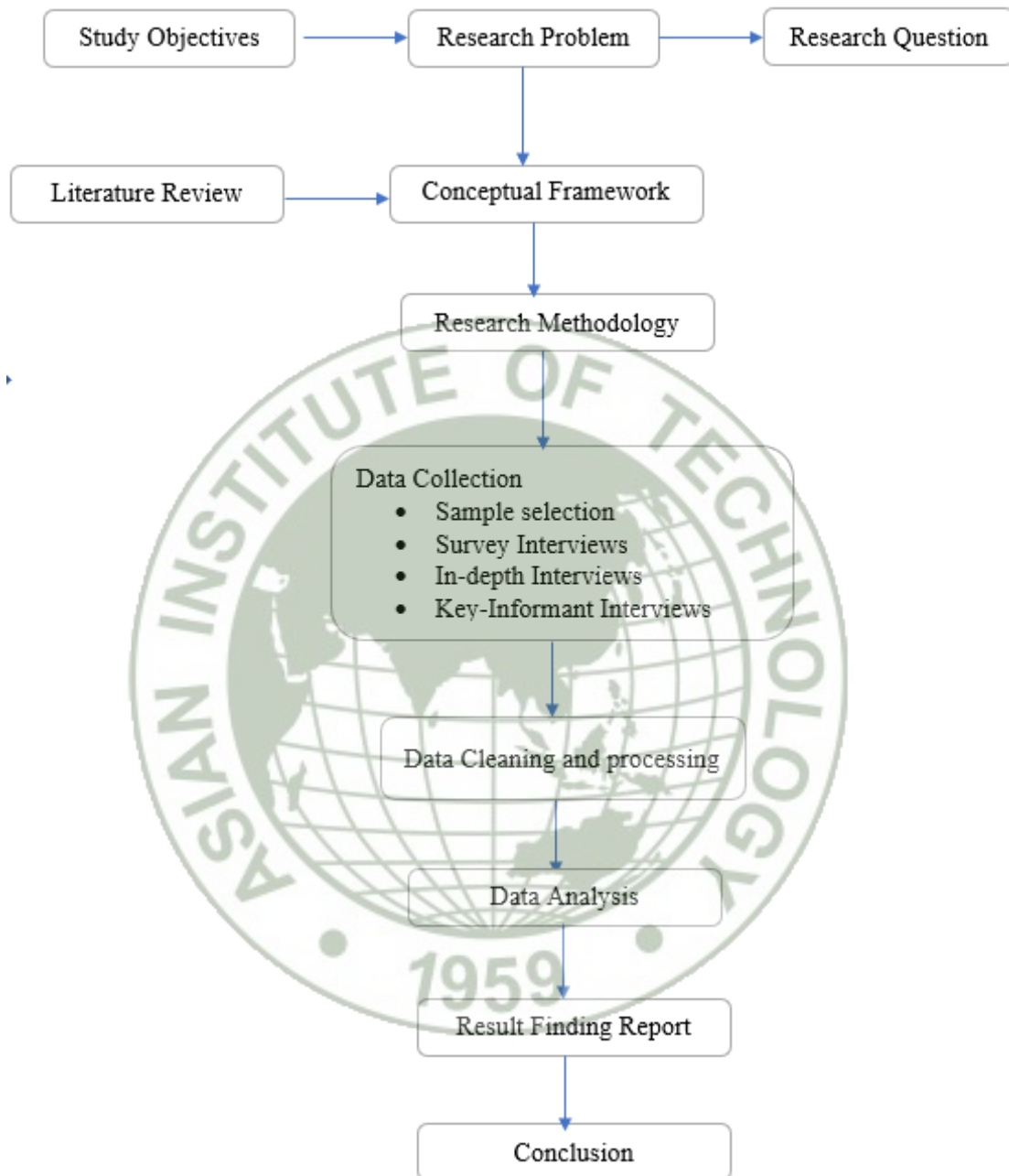
### **3.2. Research Method**

The mixed approach of quantitative and qualitative research methods were applied in this study since the qualitative and quantitative data can either be integrated into a single data source, or the results can be applied consecutively to complement and support one another. (Creswell & Plano Clark, 2007 as cited in Creswell, 2013). The quantitative survey was conducted which provided the descriptive results of the consumed dried fish quantity based on the identity of the Myanmar Migrants, the preferred types of dried fish, the changes of gender relation in the household with the consumption pattern, source of dried fish supply and so on across the community of Myanmar Migrants. The statistical, mathematical, or numerical examination of data obtained through polls, questionnaires, and surveys, or by modifying preexisting statistical data using computer tools, are at the core of quantitative research methods. Quantitative studies aim to collect large amounts of numerical data in order to draw broad conclusions about a population or issue (Creswell, 2013).

However, the story of the individuals and the content of the gender was not enough to understand in the questionnaire survey. The in-depth interviews and the interviews with key informants were conducted as part of qualitative research, which is a method for investigating and comprehending the meaning that different people or groups attach to a social or human issue (Creswell, 2013). The in-depth interviews were also conducted with the individual respondents from the different household to have the better understanding of the gender relation among the household to the attachment of the home-cooked foods when they are in the migrated country. The key-informant interviews as a part of qualitative research were conducted in this study to have the better understanding of the changes of the consumption culture and the source of dried fish supply.



**Figure 3. 2. Research Design Framework**



### 3.3.Sampling

#### 3.3.1. Sample size

The sampling size approach was applied by the *Yamane Formula* (Yamane, 1967) as followed because the population size and the population proportion are known, and the Yamane formula was designed to be more accurate.

$$n = \frac{N}{1 + Ne^2}$$

n = sample size

N = population size

e = error (0.05) reliability level 95%

According to the data from the local leaders, the estimated household population of the migrants' residents in the 3 residence compounds of Muang Mahachai, Samut Sakhon province where most of the Myanmar migrants stay is 600 households. Then, the targeted sample is 240 households as the following calculation. However, 250 respondents participated in survey interviews and 244 of survey interviews were completely conducted in total.

$$n = \frac{N}{1 + Ne^2}$$
$$n = \frac{600}{1 + 600 (0.05)^2} = 240$$

The in-depth interviews were conducted with 10 respondents (men and women who take the responsibility of cooking) from the different types of households such as 1) household staying with family, 2) household staying with friends by sharing foods, 3) household staying with friends without sharing foods, 4) household staying with siblings, and 5) staying alone and the key-informant interviews were conducted with 4 dried fish retailers who are selling in the migrants' residence compound in Mahachai, Thailand.



Those four dried fish retailers include 1) two retailers of the Myanmar migrants who sell the dried fish products which is made by their own, 2) the grocery retailers nearby the migrants' residence which sell the Burmese grocery items including various dried fish products, and 3) the very small grocery shop inside the migrant's room who sell the personal care items and foods including dried fish.

### **3.3.2. Sampling design**

The targeted samples were selected by the *voluntary sampling design* because the migrants in the study area are mostly undocumented and nervous of their safety issues (IOM, 2021). According to the (Murairwa, 2015), while the voluntary sample design gained popularity as a means of collecting trustworthy information during politically or personally fraught studies, it can be applied to any research survey with similar success. However, there can be highly in the bias of the response as a disadvantage of voluntary sampling (Murairwa, 2015) which can lead to the unproportional numbers of interviews among the different gender of migrants. Thus, the 250 adult respondents of quantitative survey were recruited by voluntary equally as much as possible among adult men and women separately who is taking the responsibility for the daily food cooking in the households, working in different workplace in Mahachai, Thailand. Among the respondents, 97 migrants are the one who take care of cooking responsibility in their household. The selected sample couldn't be proportional among the different ethnicity, origin, age range and occupation. Firstly, the recruitment of respondents was approached by announcing the community through the community leaders to take part in the survey to avoid the bias. Based on the collected samples from the first approach, the individuals' households were approached by talking about the survey and got the consent to participate in survey in order to reach the targeted samples and to reduce the bias.

The total 10 respondents (5 men and 5 women separately) who were already taken part in the questionnaire survey from the different types of households which is from 1) household staying with family, 2) household staying with friends by sharing foods, 3) household staying with friends without sharing foods, 4) household staying with siblings and 5) individuals staying alone were interviewed purposively. The 4 respondents for key-

informant interviews had no choice for sample selection because they are the only 4 retailers who sell dried fish in the migrants' residential area of Mahachai.

### **3.4.Data Collection**

The quantitative data was collected with the structural questionnaire by using the survey CTO CAPI that involved in-person interviews with the different households of the study areas of interest. The questionnaires were prepared with the coding based on the eight modules which includes 1) Household information, 2) Living Status of the Myanmar Migrants, 3) Migration History, 4) Gender division of labor in the Household, 5) General food consumptions practices, 6) Dried Fish Consumption practices, 7) Recall dried fish consumption in Myanmar and Perception on the changes of the dried fish consumption, and 8) Gender relation with the dried fish consumption practices. The in-depth interviews were conducted with the scopes of gender relations in the household, especially with the roles of gender among the household in daily consumption practices. The key informant interviews were conducted with the scopes of types of dried fish selling, price and sources of supply, customers preference on dried fish.

### **3.5.Data Analysis**

The quantitative data which is collected from the field survey were analyzed in the descriptive approach comparing demographic information such as gender, age range, ethnicity, origin, etc. by using the STATA software. The responded data from the in-depth interviews and key-informant interviews were also analyzed for the results comparison and better conclusion from the quantitative results. The following draft themes were included in the analysis.

#### **3.5.1. Descriptive Analysis of the Demographic Information**

The following demographic information of the interviewed responses were analyzed for the basic understanding of the livelihoods and situation of the studied Myanmar migrants. This basic demographic information is vital for the further analysis of the dried fish

consumption pattern among the various identities of the Myanmar migrants. The key variables that were included in the analysis are described in Table 3.1.

**Table 3.1. Demographic variables analyzed by descriptive statistics**

No.	Variables	Description	Measurement	Group
1.	Demographic Information Variables			
1.1	Gender	Gender of respondents	1 = Female, 2 = Male	
1.2	Ethnicity	Ethnicity of respondents	1 = Bama, 2 = Chin, 3 = Danu, 4 = Dawei, 5 = Inn thar, 6 = Kachin, 7 = Kayah, 8 = Kayin, 9 = Mon, 10 = Shan, 11 = Pa O, 9996 = other (specify)	By Gender
1.3	Origin	Origin state/region from Myanmar	1 = Bago, 2 = Chin, 3 = Kachin, 4 = Kayah, 5 = Kayin, 6 = Mandalay, 7 = Mon, 8 = Nay Pyi Taw, 9 = Sagaing, 10 = Shan, 11 = Taninthayi, 12 = Yangon, 13 = Rakhine, 14 = Ayeyarwady, 15 = Magway	
1.4	Household type	Household nature of the respondents	1 = with family, 2 = with siblings, 3 = with friends sharing foods, 4 = with friends no	

			sharing foods, 5 = staying alone	
2.	Migration History			
2.1.	First Time of migration	first year of migrate to Thailand	Years	
2.2.	Frequency of return home	Times of return home in a year	1 = Once a year, 2 = Twice a year, 3 = 3 times a year, 4 = 4 times a year	By Gender
<b>No.</b>	<b>Variables</b>	<b>Description</b>	<b>Measurement</b>	<b>Group</b>
3.	Living Status Variables			
3.1.	Occupation	Work status of respondents	1 = daily waged labor, 2 = salaried labor, 3 = owned business	By Gender
3.2.	Types of Work	Type of workplace	1 = agriculture, 2 = seafood processing industries, 3 = factories, 4 = fishing boats, 5 = restaurants/markets, 6 = food vendors, 7 = Grocery retailers, 9996 = other (specify)	By Gender
3.3.	Income	Average income per month	(number) THB	By Gender
3.4.	Frequency of social activities	Frequency of social activities that the	1 = Yes, often, 2 = Yes, sometimes, 3 =	By Gender

		respondents participated	Yes, rarely, 4 = No, not at all	
--	--	-----------------------------	------------------------------------	--

The basic information of respondents related to their identity and household information were analyzed as 1) age range, 2) ethnicity, 3) origin/hometown, and 4) occupation according to the different type of household. The migration history of the respondents was analyzed for the understanding of the year of migration, first time of migration, the status of moving with family or alone. This information was also used for the comparison of following inferential analysis. The information collected which are related to the living status of the Myanmar migrants such as occupation, average income, the frequency of joining social activities among Myanmar migrants' community were analyzed for the factor which can effect on the dried fish products consumption.

### **3.5.2. Descriptive Analysis of the Dried Fish Consumption Practices of Myanmar Migrants**

The practices of food consumption such as frequency of eating at home or eating outside and the dried fish consumption in the household in the last 7 days were analyzed as the general dried fish consumption practices. The different the dried fish, where they get the dried fish and also differences patterns of consumptions in Myanmar and Thailand. The perception of the respondent on the dried fish consumption differences among Myanmar and Thailand such as perception on the taste, types of different dried fish including how they feel like home or feel like missing home and so on when they consumed dried fish based on the gender differences were found out in this analysis.



**Table 3.2. Variables representing dried fish consumption practices**

No.	Variables	Description	Measurement	Group
1	General Food consumption and Dried Fish Consumption Practices			
1.1.	Daily meal practices		1= cook at home (residence), 2 = buy from the restaurants/eat outside, 3 = provide from the workplace	By gender, Household type
1.2.	Type of cooked foods		1 = Home cooked (ethnic), 2 = Traditional Cuisine (Burmese), 3 = Thai food, 9996 = other (specify)	By gender, Household type
1.3.	Dried fish consumption practices of Myanmar migrants in Thailand	Dried fish consumption practices in daily meals	1 = Yes, 2 = No	By demographic information
1.4.	Types of dried fish products consumed		1 = dried fish (snakehead), 2 = dried anchovy, 3 = dried shrimp, 4 = Fish paste, 5 = Fermented fish, 9996 = Other (specify)	By demographic information
1.5.	Supply of dried fish products	Place where they buy dried fish products	1 = buy from the market nearby, 2 = buy from retailers which sell dried fish products from Myanmar, 3 = send from family (Myanmar), 4 = buy	By demographic information

			from the Bang Bon Burmese market, 5 = home-made, 6 = buy from the Burmese retailers made their owned, 9996 = Other (specify)	
1.6.	Dried fish consumption recalls from the origin, Myanmar	Same information with Consumption in Thailand		By demographic information

### 3.5.3. Inferential Analysis of the Dried Fish Consumption among Myanmar migrants

To see the difference of dried fish consumption practices of Myanmar migrants before and after migrated to Thailand, the paired t-test of consumption in Thailand and consumption in Myanmar was analyzed. The two-sample t-test was used to analyze the dried fish consumption practices including difference in quantity of consumed dried fish products among the group of migrants' gender. The regression analysis was also used to see the influence effect of the migrants' identities on the dried fish products consumption practices. The used variables for the inferential analysis are described in table 3.3.

**Table 3.3. Inferential Analysis for the Quantitative data**

No.	Dependent Variable	Description	Measurement	Independent Variable	Test
1.	Dried fish consumption practices of Myanmar migrants in Thailand	Dried fish consumption practices in general daily meals	1 = Yes, 0 = No	Dried fish consumption practices of Myanmar migrants in Myanmar	Paired t test
2.	Average Quantity of the consumed dried fish products in Thailand	Estimated total quantity of the consumed dried fish products in 7 days period	Amount in Kilogram in 7-days period	1 = after migration, 0 = before migration	Paired t test

3.	Dried fish consumption practices of Myanmar migrants in Thailand	Dried fish consumption practices in general daily meals after moving to Thailand	1 = Yes, 0 = No	Gender: 1 if male, 0 if female	Chi-squared test
4.	Dried fish consumption practices of Myanmar migrants in origin, Myanmar	Dried fish consumption practices in general daily meals before moving to Thailand	1 = Yes, 0 = No	Gender: 1 if male, 0 if female	Chi-squared test
5.	Average Quantity of the consumed dried fish products in Thailand	Estimated total quantity of the consumed dried fish products in 7 days period	Amount in Kilogram in 7-days period	Gender: 1 if male, 0 if female	Two-sample t test
6.	Average Quantity of the consumed dried fish products in Myanmar	Estimated total quantity of the consumed dried fish products in 7 days period before moving to Thailand	Amount in Kilogram in 7-days period	Gender: 1 if male, 0 if female	Two-sample t test

### 3.5.4. Analysis of the Qualitative Interviewed Data

The responded data from the in-depth interviews were transcribed and analyzed in term of narrative analysis to provide the concept of gender division of labor in the household and gender relation to the food consumption attachment which is focused on the dried fish consumption. The themes of analysis were included as follows.

- Gender division of labors among the household
- Gender roles for household tasks, especially for cooking among the household members based on the different types of households.
- Gender roles changes for household task especially for cooking from the origin Myanmar and in Thailand

- Different attachment to the daily food consumption among the household members, men and women
- Different ways of making choice on dried fish in Thailand and Myanmar and different ways of dried fish cuisine cooking methods.

The key-informant interviews were transcribed and analyzed to have the understanding of the consumers preference on the dried fish, the supply source of dried fish, the prices and the types of difference between Myanmar dried fish and Thai dried fish or dried fish available in Thailand which can compare with results from the quantitative analysis. The following themes were analyzed from the key-informant interviews.

- History of doing as a dried fish retailer and migration
- Types of sold dried fish products.
- The supply of sold dried fish products.
- Consumers preference of dried fish products and the origin of consumers
- Price difference among the dried fish products from Myanmar and Thailand

### **3.6.Chapter Summery**

The study area was selected based on the largest share of the Myanmar migrants occupied in Thailand which is in the Mahachai – sub district of the Samutsakhon Province. The aim of the study is to understand how Myanmar people's consumption practices changed after they relocated to another location. Mahachai is the best research location since it facilitates comparison of the original culture and changes in migrating locations. The research was carried out with the mixed of the quantitative and qualitative research methods by conducting the structural questionnaire survey, in-depth interviews among the individual migrants and key-informant interviews with the dried fish products retailers.

The sample for the survey is selected voluntarily among the migrants in their different residential compounds and the qualitative interviews are purposively conducted.



For the basic understanding of the Myanmar migrants' livelihoods and the factors that can influence on their daily consumption inclusion of dried fish products, the descriptive analysis was applied. Furthermore, the central tendency analysis and the inferential analysis which includes paired t-test, and two-sample t-test by group analysis were applied to identify the difference and changes of the dried consumption practices among Myanmar migrants across the migration by mainly consider about their gender including their identities.



## **CHAPTER 4**

### **BACKGROUND INFORMATION OF STUDIED SAMPLES**

This chapter provides the detailed background information of collected samples demography such as the identities of the Myanmar migrants which is including their gender, age range, origin, ethnicity, etc. and living status of the Myanmar migrants, employment status, occupation sector, income range, and so on. This background information is crucial to understand for the following chapters of findings.

#### **4.1. Demographic Information**

##### **4.1.1. Identities of the Myanmar Migrants in the study**

Table 4.1 is showing the detailed demographic information of the studied Myanmar migrants. Basically, the fundamental identities of the Myanmar migrants are essentially analyzed for the elementary understanding of their everyday experiences. The gender, age, ethnicity, origin of Myanmar, marital status and residing period in Thailand are included as the fundamental identities of the Myanmar migrants. There was a total of 244 migrants from Myanmar who completely participated in the interview part of the research. In terms of gender, there were 120 male migrants and 124 female migrants among the participants.

In order to analyze the dried fish products consumption practices difference based on the various age of the migrants, the age of the respondents is asked as an opened ended question and recorded. The responded age numbers are categorized again as 1) Young adults (between 15-30 years), 2) Old adults (between 31-60 years) and Senior adults (over 60 years old) for the later analysis purpose. The ages of the Myanmar migrants who participated range from 15 to 68 years old, with the average age being 31 years old. The youngest Myanmar migrant is 15 years old. Based on the different gender, the average age of female migrants was found to be 33 years old, while the average age of male migrants was found to be 31 years old. In regarding marital status, more than half of migrants (54 percent) are married and the rest of them are single. Among the male migrants, half of them is married and half are single while about 60 percent of the female migrants got married and 40 percent are unmarried.

In the studied area of Mahachai, Samut Sakon province, migrants from Myanmar from the surveyed samples have resided for an average of five years, a minimum of six months, and a maximum of twenty-five years. Based on the in-depth interview, the migrants usually stay 5 years with the period of their passport expiration. 41 percent of migrants have just arrived in Thailand and stayed less than 2 years, 26 percent of migrants are staying for more than 2 years but less than 5 years, 20 percent of migrants have stayed around 10 years, and 13 percent of migrants have stayed approximately 20 years in Thailand.

**Table 4.1. Detailed Identities of the interviewed Myanmar Migrants**

Identity	Category	Male		Female		Total	
No. of Respondents		120		124		244	
		Obs	Percentage	Obs	Percentage	Obs	Percentage
Marital Status	Married	60	50%	72	58%	132	54%
	Single	60	50%	52	42%	112	46%
Origin	Bago	15	13%	5	4%	20	8%
	Kachin	0	0%	1	1%	1	0%
	Kayin	2	2%	2	2%	4	2%
	Mandalay	2	2%	1	1%	3	1%
	Mon	10	8%	11	9%	21	9%
	Nay Pyi Taw	1	1%	0	0%	1	0%
	Sagaing	4	3%	0	0%	4	2%
	Shan	0	0%	1	1%	1	0%
	Taninthayi	61	51%	92	74%	153	63%
	Yangon	6	5%	4	3%	10	4%
	Rakhine	0	0%	1	1%	1	0%
	Magway	11	9%	4	3%	15	6%
	Ayeyarwady	8	7%	2	2%	10	4%
Identity	Category	Obs	Mean	Minimum	Maximum		
Age (Years)	All respondents	144	31	15	68		
	Male	120	29	17	68		
	Female	124	34	15	68		
Residing Period (In years)	All respondents	244	5	0.5	25		
	Male	120	4	0.5	22		
	Female	124	5	0.5	25		

Source: Primary Data from Survey Interviews collected from 6-21 November 2022

As the analysis is conceptualized based on the origin of the Myanmar to see the changes with the influence of new setting, where the migrants originally come from the states and regions of Myanmar are explained. The majority of the migrants who were interviewed were from Myanmar's Tanintharyi State, while others were from Mon State, Bago Region, Magway Region, Ayeyarwady Region, and Yangon Region respectively. In addition, the majority of the migrants who were interviewed are the Dawei ethnic group (48 percent), the Bama ethnic group (35 percent), and the Kayin, Mon, Kachin and Shan ethnic groups make up the rest of the migrants.

#### **4.1.2. Living Status of the Myanmar Migrants in the Study**

Table 4.2 described the detailed observation of the living status of the Myanmar migrants who have taken part in this research. As the living condition indicators of the Myanmar migrants in the study, the household types, employment status, types of work, individual monthly income and the participation of social activities in the community are mainly considered to determine.

The household types of the migrants in this research are categorized based on the household members who they are staying with such as 1) household with family meant migrants who are staying with their spouse or children or parents, 2) household with siblings meant migrants who are staying their siblings or cousins, 3) household with friends by sharing foods meant the migrants who are staying with their friends from hometown or workplace by sharing the cost/cooking the daily foods together, 4) household with friends without sharing foods meant the migrants who are staying with their friends without considering of the other living cost and just shared for the accommodation fees and 5) household staying alone meant who survive their daily live alone without sharing the space or daily expense with the other people. Most of the migrants who participated in the survey, 62 percent are staying in migrated setting with their family which can consist of spouses or parents or children. While about 20 percent of the migrants are staying with their siblings, the others are staying with their friends by sharing foods for daily or without sharing the foods and a few of them are staying alone.



As the employment status, the Myanmar migrants who participated in the research are working as daily waged labors which place 77 percent of the sample, salaried labors for 9 percent, 4 percent are working for their owned business and 9 percent of the sampled migrants are currently unemployed during the interview time. The migrants who work as waged labor (both daily and salaried) are primarily working in the seafoods processing industries for 50 percent, many of them are working in the various factories such as food box, clothing, shoes, electronic products and so on (36 percent), some are working as a staff in restaurants or markets (8 percent) and the rest of them who are working for their owned business as a grocery retailers, teacher, tailors, remittance transfer agents and food vendor (6 percent). The number of men and women migrants who work in different workplace such as seafoods processing and other factories are about the same while women are more working as the sale or staff in markets or restaurants compared to men.

The range of the monthly income that the individual migrant receive is between 3,000 THBs and 32,000 THBs and the average income for all studied migrants 11,100 THBs while the male migrants receive about 11,620 THBs and the female migrants receive about 10,530 THBs on average. Specifically, 44 percent of migrants earn less than 10,000 THBs monthly, 43 percent earn between 10,000- 15,000 THBs, only 2 percent earn between 15,000-20,000 THBs and 11 percent of migrants earn more than 20,000 THBs monthly. Half of the interviewed Myanmar migrants often participate in the social activities in their community like wedding, gathering, Sunday praying or traditional special occasion and 25 percent of them participate sometimes.

The Burmese migrants from Mahachai, Thailand are generally active to participate in the social activities within their community such as donation in their residential compounds, weddings, birthdays, special occasions related to home country which is hosted by the migrants' groups and so on. Half of the interviewed migrants often participate in those activities and women are more active than men among those half migrants. One-fourth of the migrants go for those social networking activities for sometimes and the number of men who participate sometimes are more than the numbers of women. Only 10 percent of migrants participate rarely in the social activities and 13 percent do not

participate at all. In terms of the numbers who do not participate in social activities at all, the men are more than women.

**Table 4.2. Living Status of the Interviewed Migrants**

Living Status	Category	Male		Female		Total	
		Obs	Percent age	Obs	Percent age	Obs	Percent age
Household Type	with family	65	54%	86	69%	151	62%
	with siblings	28	23%	24	19%	52	21%
	with friends sharing food	14	12%	6	5%	20	8%
	with friends no sharing foods	5	4%	4	3%	9	4%
	staying alone	8	7%	4	3%	12	5%
Employment Status	daily waged labor	101	41%	88	71%	189	77%
	salaried labor	10	8%	12	10%	22	9%
	owned business	5	2%	5	4%	10	4%
	No occupation	4	2%	19	15%	23	9%
Type of Work *	agriculture	0	0%	1	1%	1	0%
	seafood processing industries	60	52%	54	51%	114	52%
	factories	43	37%	35	33%	78	35%
	restaurants/markets	4	3%	11	10%	15	7%
	Grocery retailers	3	3%	0	0%	3	1%
	Other (specify)	6	5%	4	4%	10	5%
Income Range	Less than 10,000 THBs	42	35%	66	53%	108	44%
	Between 10,000-15,000 THBs	70	58%	35	28%	105	43%
	Between 15,000-20,000 THBs	3	3%	2	2%	5	2%
	More than 20,000 THBs	5	4%	21	17%	26	11%
Social Activities	often	56	47%	69	56%	125	51%
	sometimes	34	28%	28	23%	62	25%
	rarely	11	9%	14	11%	25	10%
	not at all	19	16%	13	10%	32	13%

Note: \*The type of work is shown based on the respondents who are currently employed. The 23 unemployed respondents are not included.

Source: Primary Data from Survey Interviews collected from 6-21 November 2022

## 4.2. Chapter Summery

The basic identities of the migrants such as gender, age, ethnicity, marital status, origin from the home country and the residing period in the new setting are analyzed for the further analysis of the dried fish consumption practice changes. A total of 244 individuals who migrated from Myanmar were included in the interview component of the study. The study found that the age range of the migrant population varied between 15 and 68 years, with females having an average age of 33 years and males having an average age of 31 years. A majority of migrants originated from Tanintharyi State, Mon State, Bago Region, Magway Region, Ayeyarwady Region, and Yangon Region. The most common migrant population comprised individuals belonging to the Dawei, Bama, Kayin, Mon, Kachin, and Shan ethnic groups.

The study primarily considers household types, employment status, types of work, individual monthly income, and participation in social activities within the community as indicators of living conditions for Myanmar migrants. According to the survey results, a majority of migrants have chosen to reside with their family, some have opted to stay with their siblings, while a small proportion have decided to live independently. The majority of migrants are engaged in daily wage labor, while 9% are employed as salaried laborers, and 4% are self-employed in their own businesses. Females exhibit a higher propensity to be employed in the service industry, specifically in the domains of food service and retail. The average monthly income of all migrants studied is 11,100 THB, with 44% earning less than 10,000 THBs, 43% earning between 10,000-15,000 THBs, 2% earning between 15,000-20,000 THBs, and 11% earning over 20,000 THBs. Half of the migrants interviewed frequently engage in social activities, with women more active than males.

## CHAPTER 5

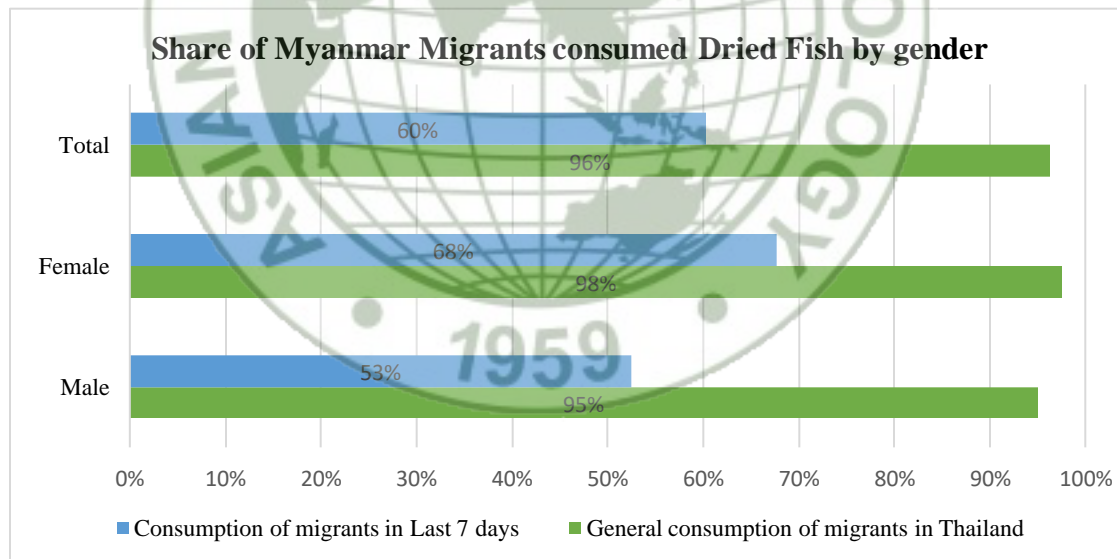
### DRIED FISH CONSUMPTION PRACTICES OF MYANMAR MIGRANTS

This chapter discuss the ways in which Myanmar migrants consume dried fish products after leaving their home country including the different types of dried fish products that they consume, the frequency and the quantity of dried fish products that they consume, and the sources from which they obtain dried fish products. The consumption pattern of dried fish in Thailand among Myanmar migrants is the sole topic of discussion in this chapter.

#### 5.1. Dried Fish Consumption of Myanmar Migrants in Thailand

##### 5.1.1. Analysis of Myanmar Migrants who consume dried fish by gender.

*Figure 5.1. Share of Myanmar Migrants in Mahachai, Thailand who generally consume dried fish products*



Source: Primary Data from Survey Interviews collected from 6-21 November 2022

The migrants who are originally from the different part of Myanmar enjoy any of the dried fish goods after they have set their new daily existence in Thailand as their home in general. The survey indicated that practically every one of the Myanmar migrants in Mahachai who



have participated in the interview reported that they still eat any kinds of dried fish items after they came to Thailand. By evaluating among the gender, the share of the male and female Myanmar migrants who consume any kind of dried fish products are not significantly different and all of both gendered migrants eat any type of the dried fish products in new setting, Thailand. In the recall period of last 7 days, 60 percent of the Burmese migrants indicated that they consume any of dried fish products while 53 percent of the male migrants and 68 percent of female migrants said that they eat any dried fish products (Figure 5.1).

***Table 5.1. Pearson's Chi-squared test on General Dried fish products consumption practice of Myanmar migrants in Thailand by their gender***

General Dried fish products consumption of migrants in Thailand	Gender		Total
	Male	Female	
No	6	3	9
Yes	114	121	235
Total	120	124	244
Pearson chi2(1) = 1.1432			P-value = 0.285

To see the difference of being men or women with the dried fish products consumption, the Pearson Chi-squared test was applied on the general dried fish products consumption of Myanmar migrants in Thailand by their gender. Table 5.1. shows the result of the Pearson Chi-squared test by using the dummy variable “general dried fish products consumption of Myanmar migrants in Thailand” in relation with their gender. The result shows the total count of Myanmar migrants who usually consume dried fish products based on their gender after they migrated to Thailand. There are 6 male migrants when 3 of female migrants who do not usually consume dried fish products and there are 114 of male migrants when 121 of female migrants who usually consume dried fish products after moving to Thailand. The Chi-Square test statistic has a value of 1.1432, and it is associated with a p-value of 0.285(>0.10). Thus, the general dried fish products consumption of male and female Myanmar migrants is not significantly different.



**Table 5.2. Pearson’s Chi-squared test on Last 7 Days Dried fish products consumption practice of Myanmar migrants in Thailand by their gender**

Last 7 days Dried fish products consumption of migrants in Thailand	Gender		Total
	Male	Female	
No	57	40	97
Yes	63	84	147
Total	120	124	244
Pearson chi2(1) = 5.9154		P-value = 0.015	

In contrast, throughout the 7-day recall period, the proportion of female migrants who consume dried fish products is slightly greater (about 15 percent points) than the proportion of male migrants (Figure 5.1). Similarly, in the results of the Pearson’s Chi-squared test on Last 7 Days Dried fish products consumption practice, the consumption of female migrants and male migrants have significant different with p-value 0.015 (<0.10). In the last 7 days of consumption practices on dried fish, female migrants are more likely to eat than male migrants. Nonetheless, males continue to consume dried fish items similar to women because women are mostly responsible for food preparation in the home and men should eat whatever their wives prepare daily. Yet, men are not as fond of dried fish products as women. In an in-depth interview, a woman from the Kayin State stated that her husband does not like fish or dried fish products, but he eats what she cooks. She sometimes cooks dried fish cuisine when she wants to eat without caring her husband likes or dislikes.

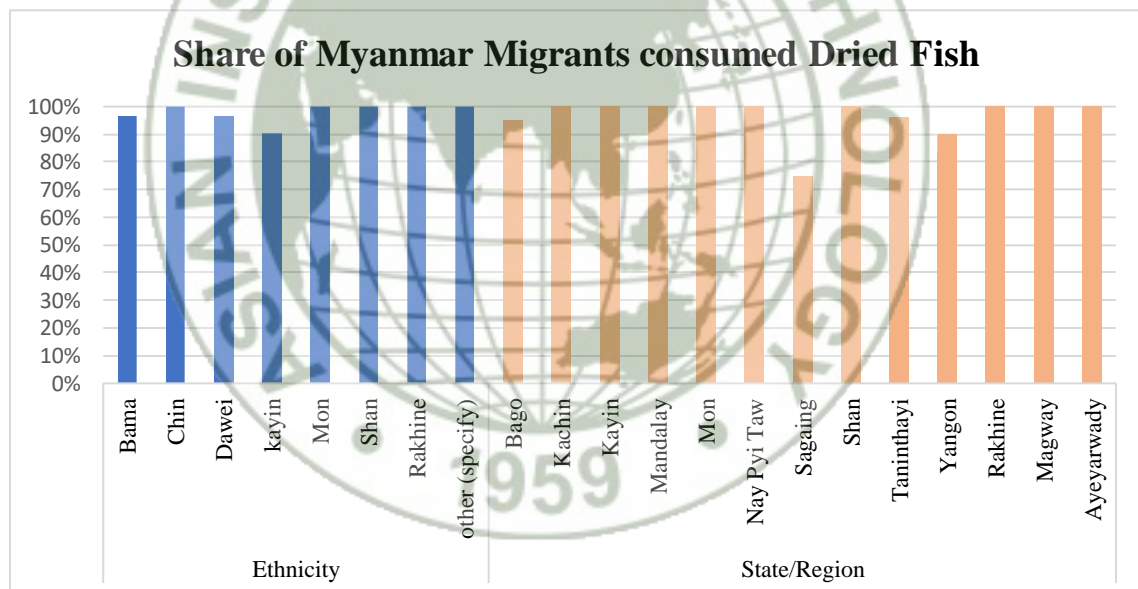
***“My husband doesn’t like to eat fish or dried fish products and vegetables. He prefers to eat meat like pork and beef only. But I like to eat dried fish, especially, fish pastes dish which cook like my ethnic traditional.”*** (Women respondent, Staying with Husband, Kayin State, IDI)

### **5.1.2. Analysis of Myanmar Migrants who consume dried fish by other identities**

As Myanmar is a country with ethnic diversity from the various part of the country (Aung-Thwin et al., 2022), there are many different ethnic migrants who come from different

origin of Myanmar. However, the different identity of ethnicity and origin doesn't make the consumption of the dried fish different among Myanmar migrants. Table 5.2 demonstrates that the share of Myanmar migrants with various ethnicities come from different regions of Myanmar who reported that they usually eat any dried fish products and in the last 7 days of consumption. Generally, more than 90 percent of Bama, Dawei, and Kayin usually consume any dried fish products and every Chin, Mon, Shan and Rakhine consume the dried fish while they are in Thailand. In the last 7 days recall period of consumption, no one of Chin ethnic eat any dried fish products, 56 percent of Bama, 57 percent of Dawei, 67 percent of Kayin eat any dried fish products while all of Shan, Rakine and Mon eat any dried fish products.

**Figure 5.2. Share of Myanmar migrants who eat any dried fish products after moving to Thailand by their ethnicity and origin from Myanmar**

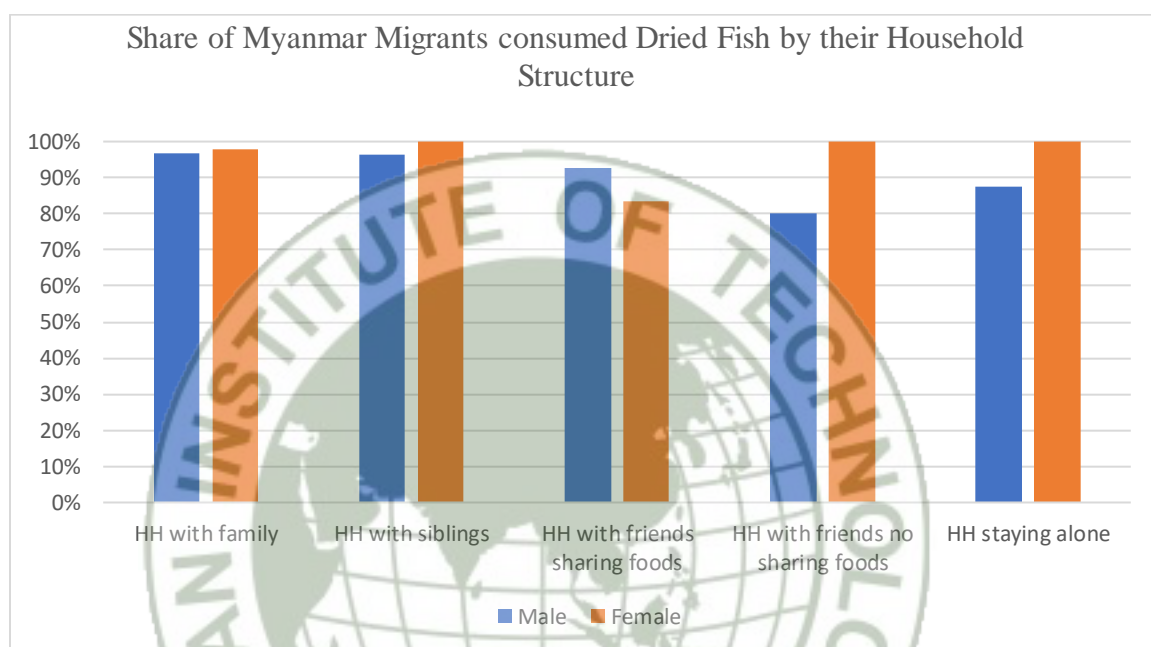


Source: Primary Data from Survey Interviews collected from 6-21 November 2022

By inspecting the place of origin, it is similar to the ethnicity that Myanmar migrants' consumption of dried fish is unaffected by their origin. After migrating to Thailand, all of the Myanmar migrants from the Bago, Mandalay, Nay Pyi Daw, Yangon, Magway, Ayeyarwady, and Tanintharyi Regions and the Kachin, Kayin, Shan, Mon, and Rakhine States continue to consume dried fish products, whereas only 75 percent of migrants from the Sagaing Region consume any dried fish products. In the recall period of

7 Days consumption, half of the migrants who came from Bago, Sagaing, Tanintharyi, and Magway Regions consume any dried fish products while 100 percent of migrants from Kachin, Kayin, Rakhine States, and Nay Pyi Daw consume any dried fish products.

**Figure 5.3. Share of Myanmar migrants who reported that they eat any dried fish products by their staying household structure in general after moving to Thailand**



Source: Primary Data from Survey Interviews collected from 6-21 November 2022

Further about employment, different income ranges, different workplace, and participation in social activities within the migrant community, there is no significant difference in the consumption pattern of dried fish products in general. In general, the consumption of any dried fish products among the migrants staying with different household structures is not significantly different. Figure 5.3 describes the share of Myanmar migrants who reported that they usually eat any dried fish products while they are staying in Thailand and that they have eaten any dried fish products in the last 7 days in term of their gender. Though, in term of different gender with different household structure, the share of both men and women migrants who stay with family is similar and also similar in both gendered migrants who are staying with sibling. Among the migrants who staying with friends by sharing the daily foods, the share of male migrants is higher than the female migrants with the reason of male migrants are eating the ready-made dried

fish products frequently among their friends and the female migrants are just usually eat the dried fish products dishes by cooking themselves.

***“We usually buy ready-made fried shrimps (Balachaung), and fish paste to eat easily as a side dish. We just cook one main dish like pork curry or chicken curry and eat with Balachaung.”*** (Male respondents, staying with friends, Ayeyarwady Region)

Based on the statistical analysis of general dried fish consumption of Myanmar migrants in Thailand from the perspective of their household types, there is no significant difference on dried fish consumption practice among Myanmar migrants based on their household identity Table 5.2. shows the result of the using Pearson Chi-squared test on the variable “general dried fish consumption of Myanmar migrants in Thailand” by their household types. There were 4 migrants who do not eat dried fish products when 147 of migrants eat dried fish among the migrant’s household staying with family. There was 1 migrant of no eat dried fish when 51 migrants ate dried fish products among the household who stay with siblings. There were 2 migrants who do not eat and 18 migrants who eat dried fish products among the households staying with friends by sharing foods. There was 1 migrant who do not eat and 8 migrants who eat dried fish products among the households staying with friends without sharing foods. Among the migrants who stay alone, only one migrant doesn’t eat dried fish when 11 migrants eat the dried fish products in Thailand. The Chi-Square test statistic has a value of 5.2828, and it is associated with a p-value of 0.259(>0.10). Therefore, the general dried fish products consumption of Myanmar migrants based on their household structure is not significantly different.



**Table 5.3. Pearson's Chi-squared test on General Dried fish products consumption of Myanmar migrants in Thailand by their household types**

General Dried fish products consumption of migrants in Thailand	Household Types					Total
	With family	With siblings	With friends sharing foods	With friends without sharing foods	Staying alone	
No	4	1	2	1	1	9
Yes	147	51	18	8	11	235
Total	151	52	20	9	12	244
Pearson chi2(4) = 5.2828						P-value = 0.259

The analysis of response from the qualitative interviews from different migrant's household also resulted that every interviewed migrant includes the dried fish products in their daily consumption meals without considering who they are staying with. The dried fish consumption among the different household vary in terms of how they cook, how much they eat and what kind of dried fish they eat only depended on the household members. Among the migrants who stay with friends without sharing foods, the female migrants eat or includes any dried fish products more than male migrants in their daily meals. Similar to migrants who stay with friends sharing foods, the women migrants eat or includes any dried fish products in their daily meals more than men migrants who are staying along. The female migrants who stay alone usually cook their themselves for their daily foods and cook dishes like their home as a curry and included some dried fish products like fish paste or dried shrimps. The male migrants who stay alone usually also cook the meal for daily and cook the easy way like frying the meat and vegetable only.

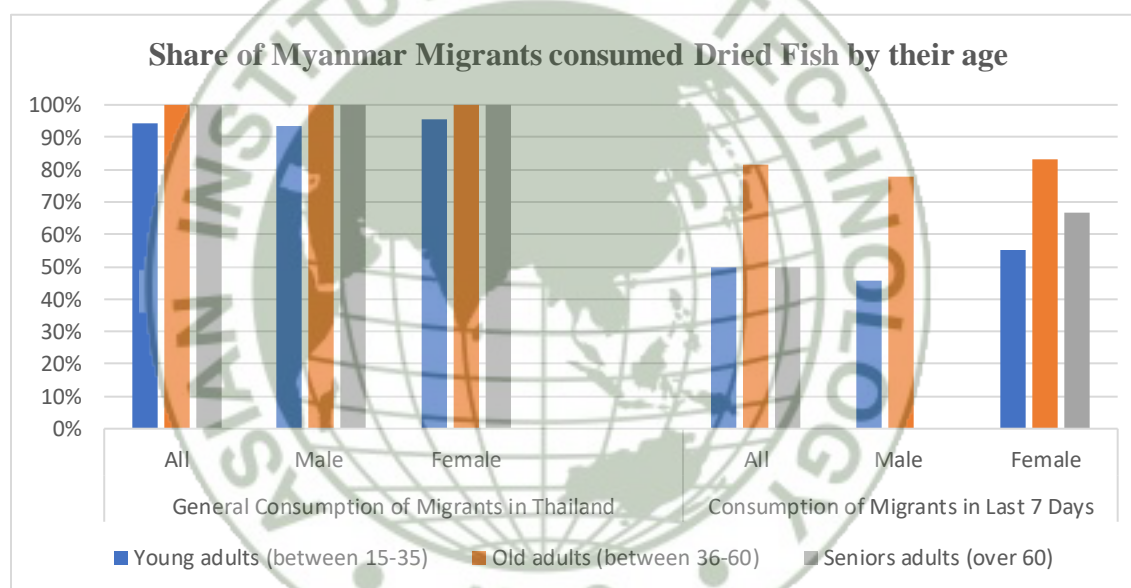
***“I usually cook on my own as home foods like Burmese oily and taste heavy curry by adding dried shrimps or fish paste.”*** (Female Respondent, Staying alone, Bago Region)



*“I cook on my own and sometimes eat outside. As I’m staying alone, I don’t want to give much time on cooking and just fry the meat or egg or vegetables whenever I need to eat for my meals. So, the dried fish products are not much included in my meals.”* (Male Respondent, staying alone, Tanintharyi Region)

*“We usually buy the ready-made fried shrimps (Balachaung), and fish paste to eat easily as a side dish. We just cook one main dish like pork curry or chicken curry and eat with Balachaung.”* (Male respondents, staying with friends, Ayeyarwady Region)

**Figure 5.4. Share of Myanmar migrants who eat any dried fish products after moving to Thailand by their age**



Source: Primary Data from Survey Interviews collected from 6-21 November 2022

Among the migrants who stay with friends without sharing foods, the female migrants eat or includes any dried fish products more than male migrants in their daily meals. Similar to migrants who stay with friends sharing foods, the women migrants eat or includes any dried fish products in their daily meals more than men migrants who are staying alone. The female migrants who stay alone usually cook their themselves for their daily foods and cook dishes like their home as a curry and included some dried fish products like fish paste or dried shrimps. The male migrants who stay alone usually also cook the meal for daily and cook the easy way like frying the meat and vegetable only.

***“I usually cook on my own as home foods like Burmese oily and taste heavy curry by adding dried shrimps or fish paste.”*** (Female Respondent, Staying alone, Bago Region)

***“I cook on my own and sometimes eat outside. As I’m staying alone, I don’t want to give much time on cooking and just fry the meat or egg or vegetables whenever I need to eat for my meals. So, the dried fish products are not much included in my meals.”*** (Male Respondent, staying alone, Tanintharyi Region)

By looking at the share of the dried fish consumption based on their age range, 94 percent of migrants who are old between 15-35 years while all of the migrants who old between 35-60 years and over 60 years consume any dried fish products after they migrated to Thailand in general. The general consumption of any dried fish products is not different among the gender based on their age range but in the last 7 days of consumption, the number of young adults female migrants (the age between 15-35 years old) is slightly higher than male migrants who old within that age range. In the last 7 days, the share of any dried fish products consumption for the migrants who old between 35-60 years is the highest compared to the other migrants who old between 15-35 years and older than above 60 years. Based on the gender, female migrants in all age range consume any dried fish products more than the male migrants in the last 7 days. The male migrants who old above 60 years did not eat or include any dried fish products in their past 7 days during the time of interview. The detailed comparison of dried fish consumption among the different gender migrants based on their age is described in the figure 5.4.

In statistically, the general dried fish consumption of Myanmar among the different age groups is not also significantly different. The Chi-squared test on general dried fish consumption of Myanmar migrants in Thailand within the different age groups was performed as in the result of table 5.3. There were 9 young adults’ migrants who do not usually eat dried fish products when 150 young migrants usually eat dried fish products in Thailand. There is no one among the old adults’ migrants who doesn’t eat dried fish products while every old adult, 81 migrants usually eat dried fish products in Thailand. Similarly, no senior adults’ migrants who doesn’t eat dried fish when all senior adults, 4

migrants usually eat dried fish products after moving to Thailand. The Chi-Square test statistic has a value of 4.9956, and it is associated with a p-value of 0.082 ( $>0.10$ ). There is a significant relation between the dried fish consumption and the different age groups of Myanmar migrants.

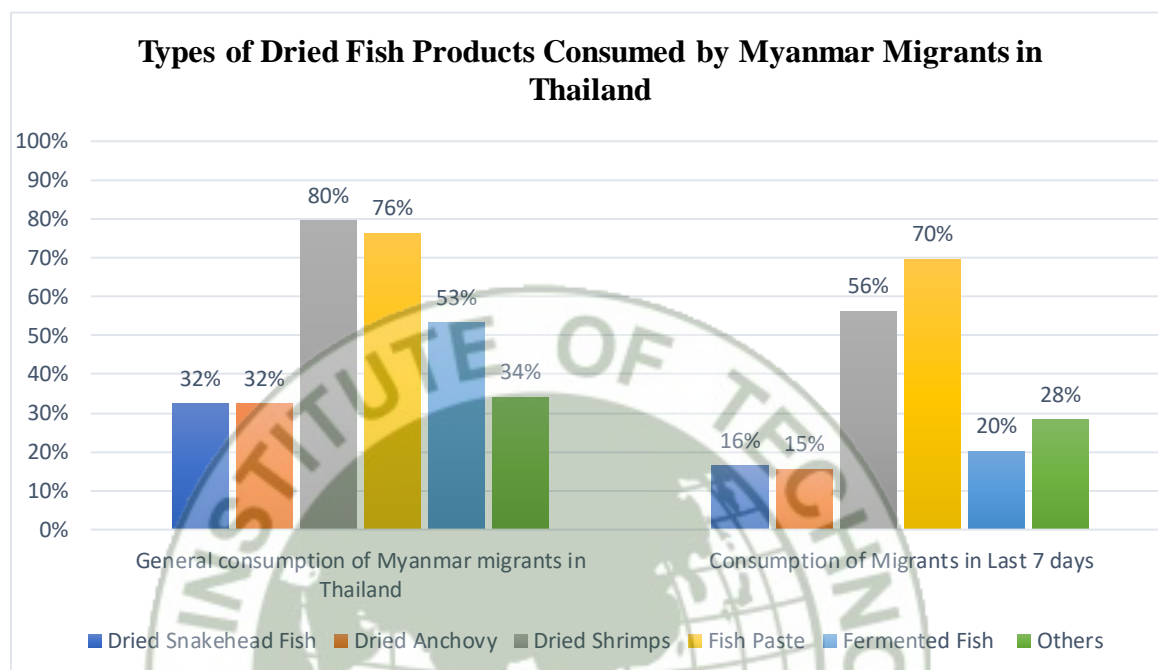
**Table 5.4. Pearson's Chi-squared test on General Dried fish products consumption of Myanmar migrants in Thailand by their age groups**

General Dried fish products consumption of migrants in Thailand	Age Groups			Total
	Young Adults (15-35 years old)	Old Adults (36-60 years old)	Senior Adults (Over 60 years old)	
No	9	0	0	9
Yes	150	81	4	235
Total	159	81	4	244
<b>Pearson chi2(4) = 4.9956</b> <b>P-value = 0.082</b>				

## 5.2. Types of Dried Fish Products consumed by Myanmar Migrants in Thailand

In Thailand, dried fish products are available in a broad number of types and forms, and a variety of types of dried fish products are supplied in numerous formal and informal markets. (DFM Thailand, n.d.). The Myanmar migrants' workers who are based in Thailand also consume the different dried fish products. Generally, Myanmar migrants in Thailand consume the dried Snakehead fish, dried Anchovy, fermented fish (Nga-Chin) and other types of dried fish, 32%, 32%, 53% and 34% respectively. In the last 7 days of consumption, the Snakehead fish (16 percent) and dried Anchovy (15 percent) are eaten less compared to the other types of dried fish products. The common other types of dried fish products reported which are not included in the survey choice are 1) dried king fish, 2) dried Bombay duck, 3) dried bullet tuna, 4) dried squid and 5) dried Lesser Spiny Eel (Figure 5.4). The dried King Fish is the most reported one among the other types of dried fish products which they consumed, and it is about 23%.

**Figure 5.5. Types of the Dried Fish Products which is consumed by Myanmar Migrants in Thailand in general and 7 days recall consumption**



Source: Primary Data from Survey Interviews collected from 6-21 November 2022

The most common dried fish products which is eaten by the Myanmar migrants in Thailand are Dried shrimp and fish paste (Nga-Pi). The reported percentage of who consume those two types of dried fish products are quite high for general consumption and in the last 7 days consumption compared to the other dried fish products which they consume (Figure 5.5). In the last 7 days of consumption, only about half of the migrants included dried shrimps in their meals and only 20 percent of migrants eat fermented fish. Based on the story of the migrants from Mon State who participated in in-depth interviews, dried shrimps and fish pastes (Nga-Pi) are the ingredients which are usually put in the daily curry dish with a small amount. The side dish curry which is cooked with cooked with mixed fish paste (Nga-Pi), dried shrimps, tomatoes and other ingredients is commonly eaten by the Myanmar migrants.

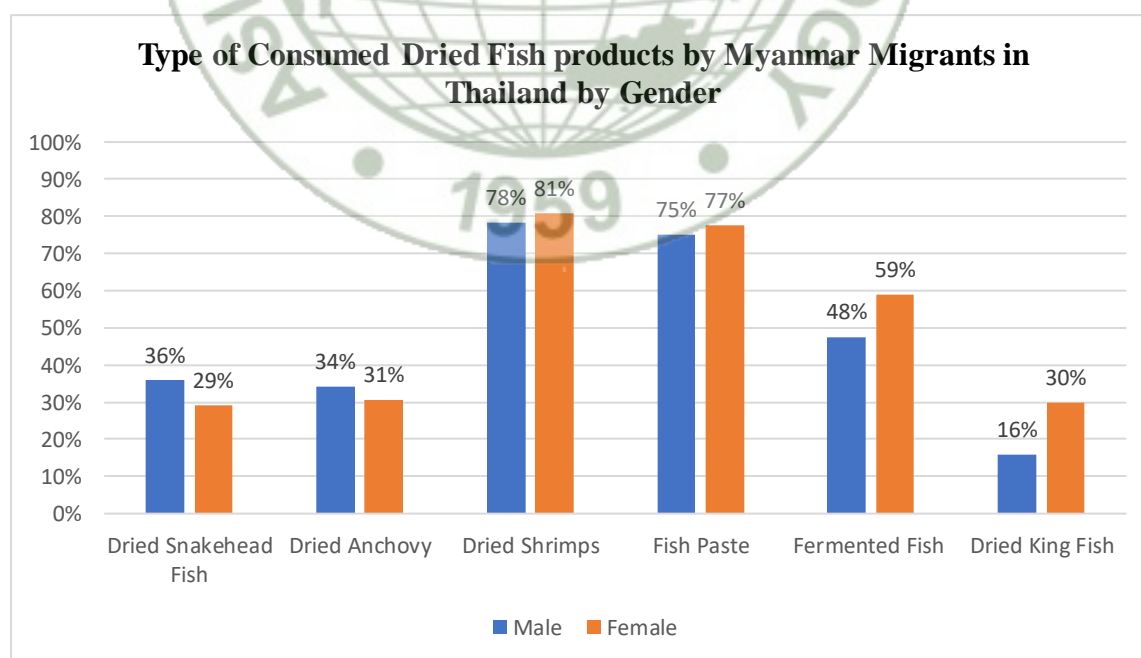


*“Dried shrimps and fish-pastes (Nga-Pi) are eaten daily. Not a whole dish. I use to put some small amount of dried shrimps and fish paste whenever I cook the curry dish to get more intense taste.”* (Female respondents, staying with Friends, Mon State)

### 5.2.1. Types of the Dried Fish Products consumed by Myanmar Migrants based on their identities

Commonly, the types of the dried fish products which are consumed among the different gender of Myanmar migrants is not considerably different. The types of the dried fish products which are consumed among the male and female migrants can be found in figure 5.6. Both men and women Myanmar migrants reported the similar proportion in each type of dried fish products. The share of dried shrimps and fish paste (Nga-Pi) consumption among female and male migrants are still higher than the other dried fish products as observed in the general population of consumption. However, the male Myanmar migrants eat slightly more dried snakehead fish and dried anchovy more than female migrants. The female migrants are more likely to eat fermented fish, dried King Fish and dried Bombay Duck compared to male migrants.

**Figure 5.6. Type of Consumed Dried Fish products by Myanmar Migrants in Thailand by gender**



Source: Primary Data from Survey Interviews collected from 6-21 November 2022



Table 5.6 shows that the types of the dried fish products which are consumed by the Burmese migrants from the different origin states and regions of Myanmar while they are residing in Thailand. The results in the table are described for the states and regions which are more than 10 observations of the samples. The dried shrimps and fish paste (Nga-Pi) are the products which the migrants from all states and regions reported the highest percentage. Interestingly, all of the migrants from Yangon and Ayeyarwady responded that they usually consume dried shrimps and fish paste (Nga-Pi). More than 70% of migrants who came from Bago, Mon, Tanintharyi and Magway usually consume the two common dried fish products. The dried Snakehead fish is primarily consumed by migrants from Ayeyarwady Region (60%) and Bago Region (55%), Mon State (48%) and Yangon (40%) while migrants from Tanintharyi Region (26%) and Magway Region (13%) consume it less commonly since the Tanintharyi region is mostly accessible the seawater fishes originally in Myanmar and the Magway region is located in the central Dry Zone of Myanmar which have limited availability of different fish items.

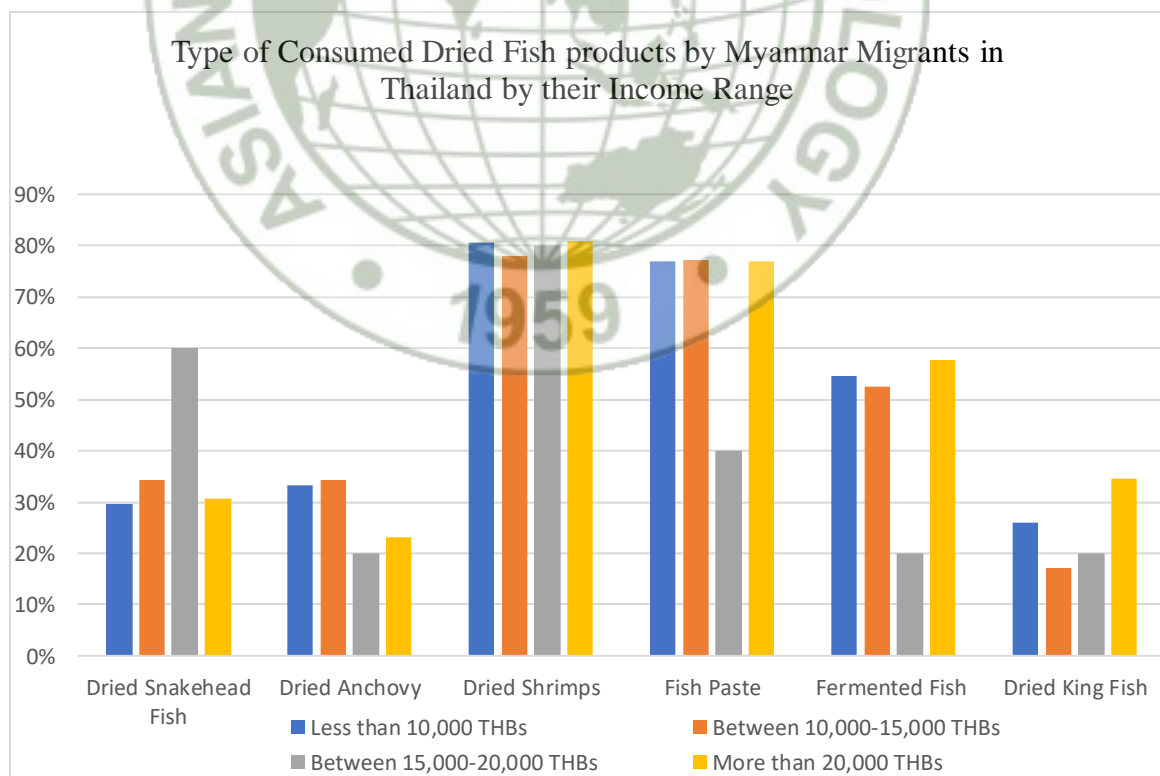
**Table 5.5. Types of the Dried Fish Products which are consumed by the Myanmar Migrants from different origins in Thailand**

State/Region	Dried Snakehead Fish	Dried Anchovy	Dried Shrimps	Fish Paste	Fermented Fish	Dried King Fish
Bago	55%	40%	70%	75%	45%	5%
Mon	48%	29%	81%	86%	52%	5%
Tanintharyi	26%	25%	77%	71%	60%	34%
Yangon	40%	80%	100%	100%	50%	0%
Magway	13%	20%	80%	80%	20%	0%
Ayeyarwady	60%	80%	100%	100%	40%	10%

Source: Primary Data from Survey Interviews collected from 6-21 November 2022

Among migrants who came from Yangon and the Ayeyarwady Region, dried anchovies are commonly consumed by 80% of the population. However, the dried anchovy is not commonly consumed by 29% of migrants from Mon State, 25% of migrants from Taninthayi, and 20% of migrants from the Magway Region while it is consumed by 40% of migrants from Bago. The fermented fish is eaten less among the migrants from Magway while more than 40% of migrants from Bago, Ayeyarwady Region eat fermented fish (Nga Chin). The migrants from the Tanintharyi Region (about 60% reported) highly consume the fermented fish (Nga Chin) including fermented calm and fermented shrimps, about half of interviewed migrants from and Mon state and Yangon Region usually consume the fermented fish. The dried king fish, the most common reported other dried fish product is highly consumed among the migrants from Tanintharyi Region and 34% of migrants responded. Nobody from Yangon Region and Magway consume the dried king fish while each 5% of migrants from Bago Region and Mon State consume it.

**Figure 5.7. Types of Dried Fish Products which consumed by Burmese migrants by their income in general after they migrated to Thailand**



Source: Primary Data from Survey Interviews collected from 6-21 November 2022

In comparison to other dried fish products, the fish paste (Nga-Pi) and dried shrimps have the highest consumption in relation to their income level. The ratio of the migrants who earn the income less than 10,000 THBs, between 10,000-15,000 THBs, above 20,000 THBs is the same which is responded for fish paste consumption (77%). The migrants who earn between 15,000-20,000 THBs consume the fish paste for 40% only. Nearly 80% of the migrants who have different income range consume the dried shrimps. The dried king fish is consumed highly among the migrants who earn above 20,000 THBs and lessly consume among the migrants who earn 10,000-15,000 THBs. The fermented fish is consumed by half of the migrants who earn below 15,000 THBs and above 20,000 THBs whereas one-fifth of those with incomes between 15,000 and 20,000 THBs consume. The detailed consumption of different dried fish products by Burmese migrants can be found in figure 5.7.

***Table 5.6. Types of the dried fish products which consumed among the different types of migrants' households generally after moving to Thailand***

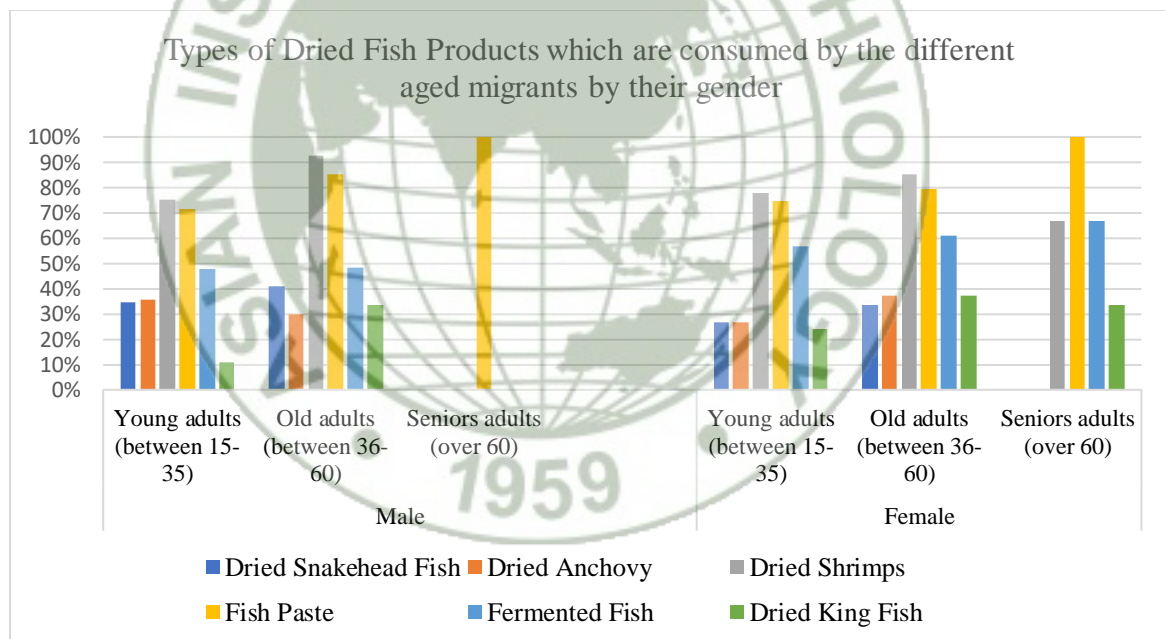
<b>Type of Dried Fish</b>	<b>Dried Snakehead Fish</b>	<b>Dried Anchovy</b>	<b>Dried Shrimps</b>	<b>Fish Paste</b>	<b>Fermented Fish</b>	<b>Dried King Fish</b>
<b>with family</b>	35 %	36%	84%	79%	56%	28%
<b>with siblings</b>	33%	21%	75%	77%	52%	17%
<b>with friends sharing foods</b>	25%	40%	70%	70%	40%	5%
<b>with friends no sharing foods</b>	22%	33%	89%	67%	78%	11%
<b>staying alone</b>	17%	25%	50%	50%	33%	25%

Source: Primary Data from Survey Interviews collected from 6-21 November 2022

Among the different household structure of migrants that they stay, the dried shrimps and fish paste (Nga-Pi) are the most reported dried fish products for each type of household. However, dried shrimps and fish paste are eaten by only half of the migrants who are staying alone while the other types of migrant's households reported more than

60%. Dried Snakehead fish is eaten mostly among the migrants who stay with family and eaten less in the migrants who stay alone because preparation is quite taking time and merely eaten for alone. The dried anchovy is consumed highly among the migrants who stay with friends by sharing foods for daily and consumed less among the migrants staying with siblings. Fermented fish is commonly eaten among the migrants who stay with friends without sharing foods for daily and eaten less among migrants who stay alone. The dried king fish is mostly consumed among the migrants who stay with the family and less in migrants staying with friends by sharing foods for daily. The share of dried fish products which are consumed by each type of migrants' household based on each household group observations can be found in table 5.6.

**Figure 5.8. Types of Dried Fish Products which are generally consumed by the different aged migrants by their gender after moving to Thailand**



Source: Primary Data from Survey Interviews collected from 6-21 November 2022

Figure 5.8. describes that the types of the dried fish products which are generally consumed by the different aged Myanmar migrants after moving to Thailand based on their gender. Like the findings in the analysis of other identities, the dried shrimps and the fish paste are the dried fish products which are consumed highly compared to the other dried fish products in both young adults (between the age of 15 and 35 years old) and old adults



(between the age of 36 and 60 years old) but that is not become in seniors adults (over 60 years old) among the male and female migrants. In the old adults migrants (who are old between 36 and 60 years), the men eat dried snakehead fish, dried shrimps and fish paste more the women migrants. The fermented fish and dried king fish are eaten more among the women migrants than men in the older adults. In the young adults, men migrants generally eat dried snake head fish and dried anchovy more than women migrants after moving to Thailand and men eat the fermented fish and dried king fish lesser than the women. Generally, women migrants are likely to eat the sour taste of fermented fish which is prepared with some chillis and onion compared to men.

*“I eat Nga-Chin (Fermented fish). Imm...sometimes only because my husband doesn’t like the taste of sour compared to me. I usually prepare the Nga-Chin salad mixing with some chillis, onion, cabbage and salt when I want to eat.”* (Female respondent, staying with family, Kayin State)

The types of dried fish consumed by migrants did not differ significantly based on their employment position such as daily waged labors, salaried labors, owned business in different workplaces, or participation in social activities. From the perspective of their living conditions, such as their employments, workplaces, and social activities, dried shrimps and fish paste (Nga-Pi) are the most common products consumed by at least two-thirds of migrants from various workplaces and who frequently or infrequently participated in social activities. Nearly half of migrants from different workplaces who are working daily waged labors and salaried labors as well as migrants who own their own business and who frequently or infrequently participate in social activities consume fermented fish, and one-third of these migrants consume dried snakehead fish and dried king fish.

### **5.3. Quantity of Consumed Dried Fish Products by Myanmar migrants in Thailand**

The quantity of any dried fish which is consumed by the migrants was calculated throughout a 7 days period of daily meals consumption as in table 5.7. During the last 7 days of the interviewed period, the migrants include an average of 3.8 meals of any dried fish dish in their daily meals’ consumption with at least 1.7 meals and at most 10 meals in



7 days period. A migrant consumes an average of approximately 0.6 kg of dried fish products per week, with a minimum of 0.4 kg and a maximum of approximately 1.5 kg per week. The average total quantity of consumed dried fish products among the male and female migrants are similar and also in minimum quantity and maximum quantity of consumed in 7 days period.

**Table 5.7. Total Quantity of Consumed Any Dried Fish product in 7 Days periods by a Myanmar Migrant while in Thailand**

Identities	Category	Total Quantity (Kg) in 7 Days		
		Average	Minimum	Maximum
<b>Overall</b>		0.64	0.46	1.53
<b>Gender</b>	Male	0.63	0.49	0.93
	Female	0.65	0.45	1.53
<b>Marital Status</b>	Single	0.63	0.45	1.53
	Married	0.65	0.47	1.38
<b>Household Type</b>	With Family	0.66	0.47	1.52
	With Siblings	0.63	0.52	0.87
	With Friends sharing foods	0.63	0.53	0.93
	With friends without sharing foods	0.61	0.52	0.62
	Staying alone	0.62	0.46	0.83
<b>Incomes</b>	Less than 10,000 THBs	0.65	0.45	1.53
	Between 10,000-15,000 THBs	0.62	0.47	0.87
	Between 15,000-20,000 THBs	0.73	0.55	0.93
	More than 20,000 THBs	0.68	0.56	1.38

Source: Primary Data from Survey Interviews collected from 6-21 November 2022

**Table 5. 8. Difference in average quantity of consumed dried fish products by Myanmar migrants based on their gender**

Variables	Obs	Mean	Std. errs.	St. dev.	95% conf. interval	
Male	120	0.630719	0.006767	0.074133	0.617319	0.644119
Female	124	0.658586	0.012944	0.144143	0.632964	0.684209
Total	244	0.644881	0.007412	0.115771	0.630282	0.65948
<b>Difference</b>		<b>-0.02787</b>	0.014747		-0.05692	0.001182
<b>t = -1.8896</b>	<b>P-Value = 0.0600</b>		<b>Degrees of freedom =</b>		<b>242</b>	

From the view of different gender, the average quantity of any dried fish products that is consumed by a female migrant and a male migrant is not significantly different and both male and female migrants consume approximately half of a Kilogram of any dried fish products in the 7 days meal consumption. The mean difference of total average quantity of consumed dried fish products among the different gendered migrants is resulted by applying the two-sample t test with equal variance as in table 5.8. The test resulted that there is a significant difference in the average total quantity of consumed dried fish products among male and female migrants in 7 days period since the p-value (0.06) is greater than 0.10 at 95% of confidence level (-0.05, 0.001). The average quantity of consumed dried fish products by male migrants is smaller only 0.02 Kg than the average quantity of consumed by female migrants.

The average frequency of the any dried fish meals in 7 days among the different types of migrants' household is similar to the frequency of all interviewed migrants in the last 7 days (3.7 meals in 7 days) but the migrants who stay alone consume any dried fish for 1.8 meals in average for 7 days period. The reason behind the migrants who stay alone eat less meals than the one who stay with family is that the migrants who stay alone can eat anything that they want without considering about the other household members, vise versa, the one who stay with family can have less opportunity to choose what they want to eat and have to eat what the one who take responsibility cook for the household because he choose the other foods as his preference rather than dried fish products if it's available. However, they choose to eat the dried fish while they feel missing home.

***“I choose the food what I like to eat as I am staying alone. So, I just eat the easy cooked fried dish or buy from outside sometimes when I am hungry or in the time to have a meal. Imm...I cook dried fish sometimes too when I want to eat but mostly, I do not cook dried fish dishes. But I chose to eat dried fish when I missed my home or mom cook.”*** (Men respondent, staying alone, Magway region)

***“My wife cooks the daily foods for us. She just cooks what she can make easily and what she likes. She makes Balachaung (Fried dried shrimps with garlic, chili, onion)***

***which can keep for long times and eat that almost every day as a side dish. As I don't want to cook, I have to eat what she cooks. Hehe.***” (Male respondents, staying with family, Tanintharyi Region)

The average amount of consumed dried fish products for a migrant from each type of household is approximately 0.6 kilogram per week. For the maximum amount of consumed dried fish products in 7 days, a migrant who stay with their family eats most (about 1.5 kg) and a migrant staying with friends without sharing foods eats less (about 0.6 kg) while the other migrants who stay with family, with siblings, with friends by sharing foods and staying alone eat approximately for 1 kg in a week. The average quantity of any dried fish products which the migrants with different ethnicities who came from various origin state and region of Myanmar is also similar to the overall average amount of 7 days consumption, approximately 0.6 kg for a person in a week.

Based on their income, a migrant who has any income consume about 0.6 kg of any dried fish products in their daily meals of 7 days consumption. A migrant who has the lowest income range of below 10,000 THBs consume a minimum of 0.4 kg of any dried fish products and a maximum of 1.5 Kg in 7 days meals which is the highest quantity compared to the migrants with other income range. The migrants who have income above 10,000 THBs consume approximately 0.5 Kg at least and 1 Kg at most of any dried fish products in their 7 days meals. The migrants who have income below 10,000 THBs usually eat the fish paste products mostly which doesn't need to eat a lot or put in the curry and the migrants who have income more than 10, 000 THBs eat different kinds of dried fish products which can be eaten as a main dish and also eat fish paste as a tasty spice in a curry.

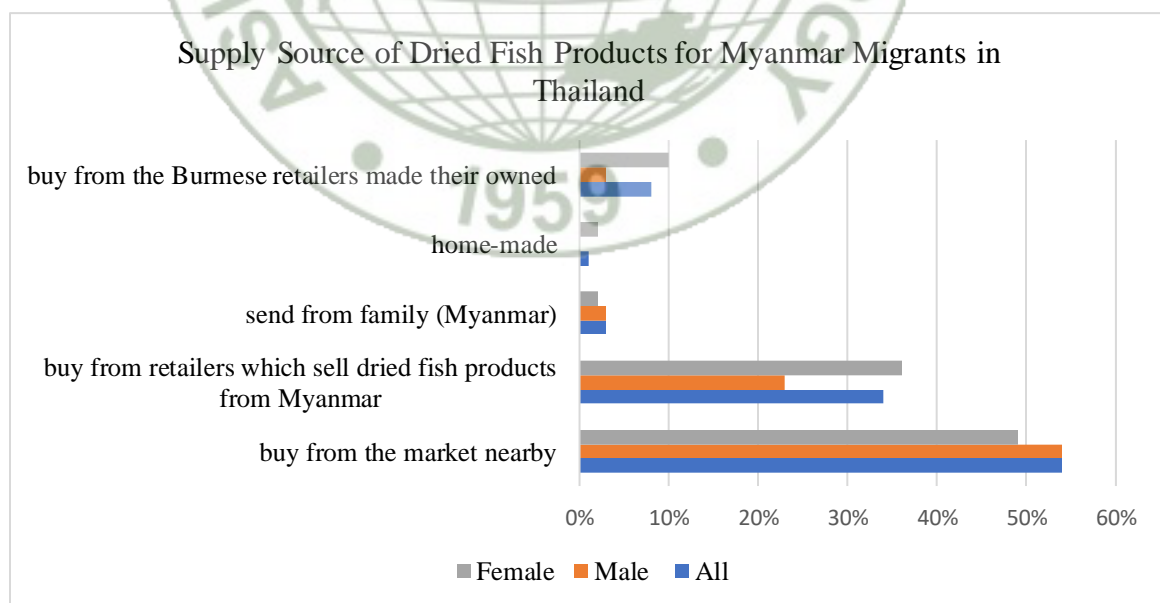
***“As I earn less and to save money, I can't eat Nga-Chauk Kyet (the main dried fish curry) like the other who have more income. But I can eat the other dried fish dish like Balachaung (Fried dried shrimps with chili and onion) or Nga-Pi Taung (Readymade fish paste) as a side dish. Harr...very small amount because it can be hypertension if we eat a lot as it's salty.***” (Male respondents, work as daily rate labor in shrimps peeling retailer, staying with family, Tanintharyi Region)

#### 5.4. Sources of Dried Fish products for Myanmar Migrants in Thailand

Migrants from Myanmar have easy accessibility to dried fish products. Figure 5.9 illustrates the places where Myanmar migrants acquire the dried fish products they consume. The market nearby the migrants' residences is one of the most common sources for easy purchasing of the different dried fish products and 54 percent of interviewed migrants responded. The nearest market which can access the plentiful of Myanmar stuffs including dried fish products is the Thai Union Market which is exiting in Mahachi Sub-district of Samut Sakhon Province and many Burmese retailers are selling the dried fish products with other cooking grocery items and the migrants go there grocery shopping to cook their daily meals and bring the dried fish products together when they go for grocery shopping.

*“Mostly I go to Thai Union Market, near Big C-Mahachai for 2 or 3 days cooking grocery. There are many Myanmar products like costumes, foods, grocery stuffs and traditional dishes. Many kinds of dried fish, dried shrimps, fish paste (Nga-Pi), Bombay duck, dried anchovy are available.”* (Female Respondent, Staying alone, Bago Region)

**Figure 5.9. Supply Source of Dried Fish Products for Myanmar Migrants in Thailand**



Source: Primary Data from Survey Interviews collected from 6-21 November 2022



Another source where the migrants purchase the dried fish products are the grocery retailers which sell the Burmese dry foods and grocery items near their residential wards. 34 percent of interviewed migrants reported that they buy dried fish products from Burmese grocery retailers because they can buy easily whenever they want and they can get the products from Myanmar. Unexpectedly, 8 percent of migrants reported that they purchase dried fish products from Burmese retailers who sell their own home-made dried fish products as they prefer to eat which is made freshly that is not kept for long time and 3 percent of migrants eat the dried fish which is sent from their home or family left behind from Myanmar. A few of migrants (only one percent) make the dried fish on their own.

***“There... (by pointing with hand). There is one retailer who sell the Myanmar products like ready-made Nga-Pi Yay (Fish paste), Balachaung (Fried dried shrimps), Thanut Kha, Betel and so many. It’s too closed and can buy anytime.”*** (Female respondent, staying with friends, Yangon Region)

## **5.5. Chapter Summery**

The Myanmar migrants from Mahachai, Samut Sakhon Province, Thailand still consume any dried fish products after they migrated to Thailand. The share of dried fish products consumption in a new setting among the gender is not different and both all men and women migrants eat the dried fish products. The varied ethnic identities of Myanmar migrants do not affect their consumption of dried fish, and their consumption of dried fish is similarly unaffected by their country of origin. Regarding staying household structure, occupation, different income ranges, workplace, and participation in social activities within the migrant community, there are no significant differences in the overall consumption pattern of dried fish products. Myanmar migrants usually consume dried Snakehead fish, dried Anchovy, fermented fish (Nga-Chin), and other dried fish varieties. Dried shrimp and fish paste are the most frequently consumed dried fish products by Myanmar migrants in Thailand, both in terms of general consumption and consumption in the last 7 days. Typically, dried shrimps and fish pastes are added to the daily curry dish alongside dried shrimps, tomatoes, and other ingredients.



During the last seven days of the interview period, migrants consumed an average of four meals per day consisting of any dried fish dish, with a minimum of two meals and a maximum of ten meals. A migrant consumes an average of approximately 0.5 kg of dried fish products per week, ranging from approximately 0.15 kg to 2.5 kg per week. Myanmar migrants have easy access to dried fish products. The most common source is the market near the migrants' residences (54 percent), followed by grocery stores that sell Burmese dry foods and grocery items (34 percent) for their convenience and Burmese retailers that sell their own home-made dried fish products (8 percent) for buying anytime and easy to reach. Some migrants get from their homes or families left behind (3%), while others make their own, only 1% of total respondents.



## **CHAPTER 6**

### **CHANGES OF DRIED FISH CONSUMPTION AMONG MYANMAR MIGRANTS IN THAILAND FROM THEIR ORIGIN**

In this chapter, the consumption pattern changes of dried fish products by Myanmar migrants are studied by contrasting the proportion of migrants who consumed dried fish products in Myanmar to the proportion who consumed dried fish products in Thailand. Changes in the frequency of consumption, the quantity consumed based on the availability of dried fish products, and the preference for dried fish products are also discussed in this chapter.

#### **6.1. Changes in Share of Myanmar Migrants Consume Dried Fish Products**

Almost all Myanmar migrants in Thailand consume any dried fish products in generally.<sup>1</sup> Recall back of the nature of Myanmar migrants before they move to Thailand, it is studied that all of migrants have eaten any dried fish products while they stayed in Myanmar. The share of Myanmar migrants who consume any dried fish products while staying in Thailand and the share while staying in origin of Myanmar is exactly the same, reported for 96 percent. Figure 6.1. describes the percentage of the Myanmar migrants who consume the dried fish products in Thailand and before they move to Thailand, i.e., while they were staying in origin Myanmar. In the analysis view of gender, there is no significant changes in the proportion of dried fish consumption among men and women migrants and the reported percentages are still similar.

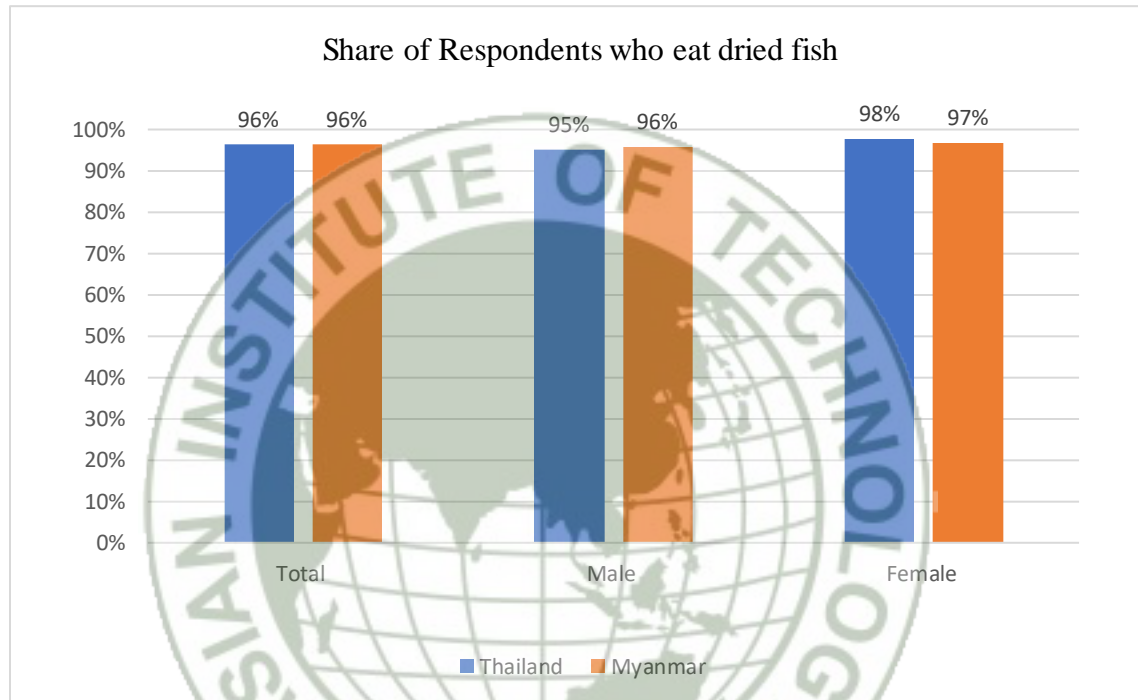
The migrants have some reasons for dried fish consumption is that the dried fish is the one of Myanmar traditional food and they still want to eat it though they are not in Myanmar. Some are because of their origin where they have been grown up and that they use to eat for their daily meals. The male respondents from in-depth interview described that he ate the dried fish while he was in Myanmar because he is from a region where dried

---

<sup>1</sup> In the previous chapter, it has been discussed that Myanmar migrants from Mahachai, Samut Sakhon Province, Thailand still consume any dried fish products after they migrated to Thailand.

fish is primarily produced. *“Since I used to eat dried fish when I was at home because my hometown is the region which produce dried fish mostly. I still want to eat dried fish when I moved here (Thailand).”* (Male respondents, staying with friends, Ayeyarwady Region)

**Figure 6.1. Changes in Share of Myanmar migrants who consumed Dried Fish after migrated to Thailand from their origin**



Source: Primary Data from Survey Interviews collected from 6-21 November 2022

**Table 6.1. Changes in Dried fish consumption practices among the Myanmar migrants in Thailand before and after migration**

Variables	Obs	Mean	Std. errs.	St. dev.	95% conf.	interval
Consumption in Myanmar	244	0.963115	0.012091	0.188868	0.939298	0.986931
Consumption in Thailand	244	0.963115	0.012091	0.188868	0.939298	0.986931
<b>Difference</b>	<b>244</b>	<b>0</b>	<b>0.015366</b>	<b>0.240027</b>	<b>-0.03027</b>	<b>0.030268</b>
t = 0.0000	P-Value = 1.0000		Degrees of freedom =		243	

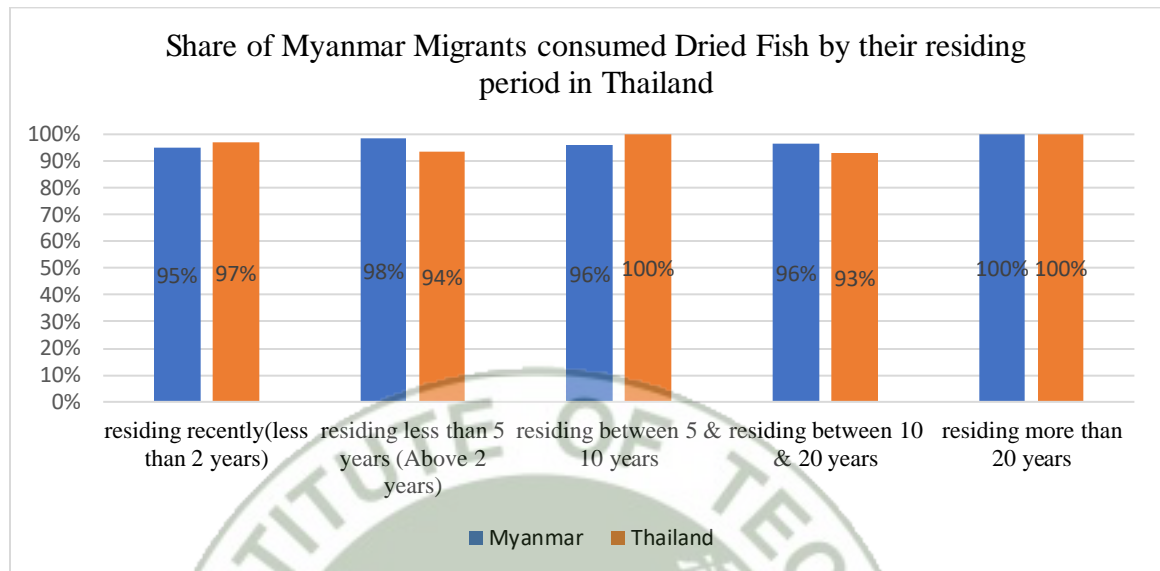
By the result of the paired t test for changes of consumption practices of Myanmar migrants before and after migrated to Thailand, there is not significantly change among the Myanmar migrants dried fish consumption in Thailand before and after moving out from the home country. Table 6.1. displays the result of the statistical test to see the changes of

the dried fish consumption among Myanmar migrants before and after migrated to Thailand. There is no difference in mean of consumption in both Thailand and Myanmar and p-value is not significant ( $>0.10$ ) at 95% confidence interval (0.03,0.03).

The share of dried fish products consumption among the migrants with different ethnicity who came from different origin states and regions doesn't change in their home country and in new setting. Every migrant who works as a daily waged labor, salaried waged labors, business owner and unemployed migrants still consume any dried fish products in their new setting of Thailand like as their home country. From the side of household structure staying Thailand, the proportion of dried fish consumption among the migrants staying with family, with siblings, with friends by sharing foods is similarly reported for consumption in Thailand and in Myanmar. Though, the reported share of migrants who stay with friends without sharing foods and migrants staying alone are slightly going down from 100 percent in Myanmar to 90 percent in Thailand.

In order to see the changes, the share of dried fish consumption is analyzed by the residing periods on migrants in Thailand. However, the longer staying in new environment doesn't influence on the dried fish consumption pattern in new setting of migrants. Figure 6.2. illustrates that the comparison of the proportion of the dried fish consumption among Myanmar migrants in their new setting, Thailand and their home, Myanmar based on the residing duration in Thailand. Surprisingly, migrants who have lived in Thailand for more than 20 years continue to consume dried fish products without altering their consumption habits. The recent migrated people are also continue eating the dried fish products like they were at home.

**Figure 6.2. Dried Fish Consumption of Myanmar Migrants in origin and in new setting based on residing periods**



Source: Primary Data from Survey Interviews collected from 6-21 November 2022

The changes of dried fish consumption among the Myanmar migrants based on their income range doesn't show apparently in Thailand and in origin, Myanmar. The migrants who have income less than 10,000 THBs, between 10,000-15,000 THBs and above 20,000 THBs responded similar for both consumption in Thailand and Myanmar about 95%. Regrettably, all of the migrants who earn between 15,000-20,000 THBs consume any dried fish products after moving to Thailand whereas only 80% of them consume any dried fish products while they were in Myanmar. These migrants do not have a strong reason of consuming the dried fish products after they move to Thailand though they did not eat any dried fish products while they are staying in Myanmar. With the reason of prepared dried fish dishes can keep for a long time and easy to eat whenever they are in rush in their new-setting daily life.

## **6.2. Changes in Types of Dried Fish Products Consumed among Myanmar Migrants**

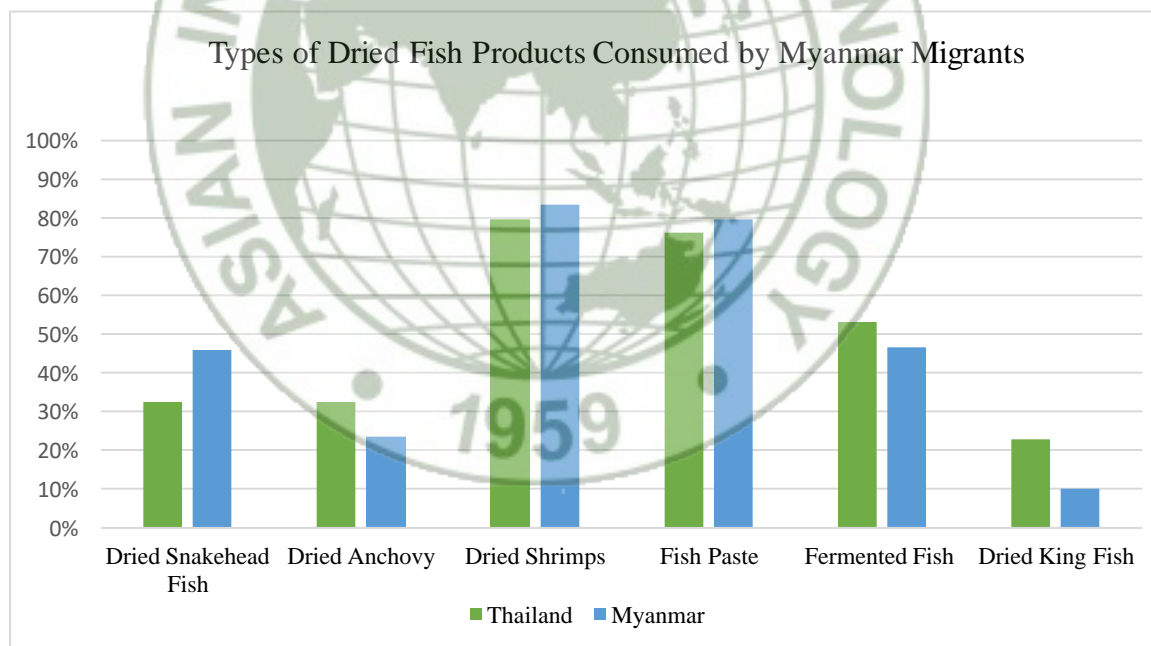
The types of the dried fish products which consume among Myanmar migrants in Thailand and Myanmar is similar. However, the share of reported migrants for each product is slightly different. The dried shrimps and the fish paste (Nga-Pi) are the products which consumed highly by Myanmar migrants while they were in Myanmar and after moving to



Thailand. The reported share of Myanmar migrants who consume these two products in Thailand is slightly lower than the share of who reported while they were in Myanmar. The share of migrants who consume dried snakehead fish after moving to Thailand is 14% lower than while staying Myanmar because the availability of dried snakehead fish. The snakehead fish is originally expensive since in Myanmar and more expensive in Thailand, but migrants select more affordable options like dried king fish or dried Bombay duck or the other dried fish products for them.

***“We cannot afford for the dried snakehead to eat frequently because it is too expensive. We do not eat daily even we were in Myanmar. We eat other small, dried fish like anchovy and Bombay duck.”*** (Women respondent, IDI, Yangon Region)

**Figure 6.3. Changes in Types of Dried Fish products consumed by Myanmar Migrants in origin and in new setting**



Source: Primary Data from Survey Interviews collected from 6-21 November 2022

The share of dried anchovy consumption among the migrants is 8 percent higher in Thailand than while they were in Myanmar. Based on the findings of the in-depths interviews, the taste of the dried anchovy is not that different in Thailand and Myanmar

compared to the other dried fish and it is available which is supplied from Myanmar retailers and the price is not that much increase from Myanmar price. The consumption of fermented fish which is called Nga-Chin becomes increase slightly in Thailand compared to the proportion of who eat fermented fish while they were in Myanmar. The migrants also eat some fermented fish which is made from shrimps, calm, and other seafoods like oyster.

***“I also like to eat fermented shrimps and fermented calm (Pazun-Chin and Kayu- Chin) which is made by the Dawei people. I started trying to eat those when migrated to Thailand. When I was in Myanmar, I have eaten fermented shrimps only. I cook as usual as I cooked at home.”*** (Women respondent, IDI, Yangon Region)

The consumption of dried king fish among Myanmar migrants while they are in Thailand is apparently higher than the consumption before migrated to Thailand. The share of migrants who eat the dried king fish in Thailand is 34 percent and the share of them before migrated to Thailand is only 10 percent. The migrants think that the dried king fish has similar texture, taste and can be cooked as the snakehead fish, so that, they eat more dried king fish while they moved to Thailand. The consumption of other dried fish products such as dried Bombay Duck, dried squid, dried Bullet Tuna and dried Lesser Spiny Eel are not changed among Myanmar migrants while they were in Myanmar and after migrated to Thailand. The numbers of migrants who eat those other dried fish are also small compared to the dried fish like snakehead, dried shrimps, fish paste, and so on since they are in Myanmar and based on their personal choice.

***“I also eat other dried fish products such as dried Bombay duck, dried bullet tuna, dried lesser spiny eel and the other doesn’t know the names. But I rarely eat them compared to the dried king fish and fish paste. Because I rarely eat those when we were at home because those dried fish products are not delicious for me.”*** (Male respondents, staying with family, Tanintharyi Region)

### 6.3. Changes in Quantity of Dried Fish Products Consumption among Myanmar Migrants

As a general, the quantity of the consumption of any dried fish products among Myanmar migrants in new setting and before migrated to new setting is slightly decreased. The paired t test was used between the two variables of the quantity consumed by migrants in Thailand and Myanmar in order to statistically analyze variations in dried fish consumption. The test results are displayed in table 6.1, and the conclusion that Myanmar migrants' consumption of dried fish products before and after their move to Thailand did not vary was rejected since the 95% confidence interval did not cross "0" and the P-value was highly significant ( $<0.10$ ). The average quantity of consumed dried fish products by Myanmar migrants after migration is 0.07 kg smaller than the quantity consumed before migration and it was highly significant at p-value  $<0.01$  and 95% of confidence interval (0.039, 0.114).

**Table 6.2. Changes in Average quantity of consumed dried fish products among Myanmar migrants in Thailand before and after migration**

Variables	Obs	Mean	Std. errs.	St. dev.	95% conf.	interval
Average quantity consumed in Myanmar	244	0.721348	0.01997	0.311946	0.682011	0.760685
Average quantity consumed in Thailand	244	0.644881	0.007412	0.115771	0.630282	0.65948
<b>Difference</b>	<b>244</b>	<b>0.076467***</b>	<b>0.018931</b>	<b>0.295704</b>	<b>0.039178</b>	<b>0.113756</b>
<b>t = 4.0393</b>		<b>P-Value = 0.0001</b>		<b>Degrees of freedom =</b>	<b>242</b>	

Table 6.3 shows the changes in the quantity of the dried fish products which were consumed in 7 days period based on the migrants' identities. The estimated quantity consumed in the 7 days meals is about 0.5 Kg in Thailand and 0.7 Kg in Myanmar. The estimated quantity consumed among the gender based on the different living place is also similar to the estimated quantity of overall consumption. According to the marital status of migrants, the estimated quantity consumed by single migrants and married migrants in Thailand is comparable and somewhat less than in Myanmar.

**Table 6.3. Quantity Changes in Dried Fish Products Consumption among Myanmar Migrants based on their identities before and after migration**

Identities	Category	Estimated Average Quantity (Kg) of a migrant in 7 Days meals	
		Thailand	Myanmar
<b>Overall</b>		0.64	0.72
<b>Gender</b>	Male	0.63	0.71
	Female	0.65	0.73
<b>Marital Status</b>	Single	0.63	0.73
	Married	0.65	0.71
<b>Household Type</b>	With Family	0.66	0.72
	With Siblings	0.63	0.74
	With Friends sharing foods	0.63	0.73
	With friends without sharing foods	0.61	0.67
	Staying alone	0.62	0.74
<b>Incomes</b>	Less than 10,000 THBs	0.65	0.72
	Between 10,000-15,000 THBs	0.62	0.69
	Between 15,000-20,000 THBs	0.73	0.88
	More than 20,000 THBs	0.68	0.84

Source: Primary Data from Survey Interviews collected from 6-21 November 2022

According to the responses in the in-depths interview, the migrants do not have much time to cook so that they choose the other option rather than to cook at home and dried fish and when the prepared dried fish run out. The quantity of the consumed dried fish difference is also depended on the household members in the household and who cook for the daily foods. One of the male respondents who is staying with friends by sharing foods mentioned that he just eat what had in room readily because he doesn't have much time for cooking. As he likes to eat the prepared dried fish products only rather than eating the curry dried fish, he doesn't eat when his friends cooks as a curry of dried fish. In this case, the quantity that he eat is different based on the one how preserved differently.

*“Imm...I usually eat if I have the prepared one likes Balachaung (Fried dried shrimps) which is already prepared and no time to cook. I eat as a side dish that and only a small amount. I don't like to eat dried fish curry. When my friends cook the dried fish curry, I just eat the other foods outside.”* (Male respondent, staying with friends, Magway)



**Table 6.4. Changes of Frequency in Dried Fish Consumption (Total meals in 7 days)**

	Myanmar			Thailand		
Types of Dried Fish	Average	Min	Max	Average	Min	Max
Dried Snakehead Fish	4.3	3	11	2.6	1	21
Dried Anchovy	2.8	1	15	2.3	0	10
Dried Shrimps	3.5	0	21	3.4	0	21
Fish Paste	8.3	0	21	7.1	0	21
Fermented Fish	2.0	0	15	1.5	0	6
Dried King Fish	2.7	0	12	2.5	1	10
Any Dried Fish	<b>4.4</b>	<b>0</b>	<b>21</b>	<b>4.2</b>	<b>0</b>	<b>21</b>

Source: Primary Data from Survey Interviews collected from 6-21 November 2022

In terms of the household structure of migrants, the estimated quantity of dried fish products consumed by the various types of households is comparable to what it was before they went to Thailand and slightly higher than what it was after they moved to Thailand. Yet, migrants who reside with their family, such as their spouse, parents, and children, consume roughly 0.6 kg of dried fish each week, regardless of whether or not they have migrated to Thailand. The migrants who stay alone eat less 0.2 Kg in Thailand compared to while they were in Myanmar. In the consideration of different range of migrants' income, the Myanmar migrants consume larger quantity of dried fish before moving to Thailand than in a new setting, Thailand. The migrants who earn more than 15,000 THBs monthly consume the highest quantity of any dried fish products in 7 days period of consumption in the time of new setting and at home.

In terms of the statistical test in 7 days consumption meals, the mean frequency of dried fish consumption before moving to Thailand and after moving to Thailand is highly significant different though the consumption meals in average meals that they consumed. This mean that the migrants consume generally similar meals in 7 days without considering the types of dried fish products, but it is different in consumed meals based on the types of the dried fish products. Table 6.5. displays the result of the paired t test to see the frequency changes of the dried fish consumption in 7 days periods among Myanmar migrants before and after migrated to Thailand. There is a difference in mean of consumption in both Thailand and Myanmar and p-value is significant ( $<0.10$ ) at 95% confidence interval.

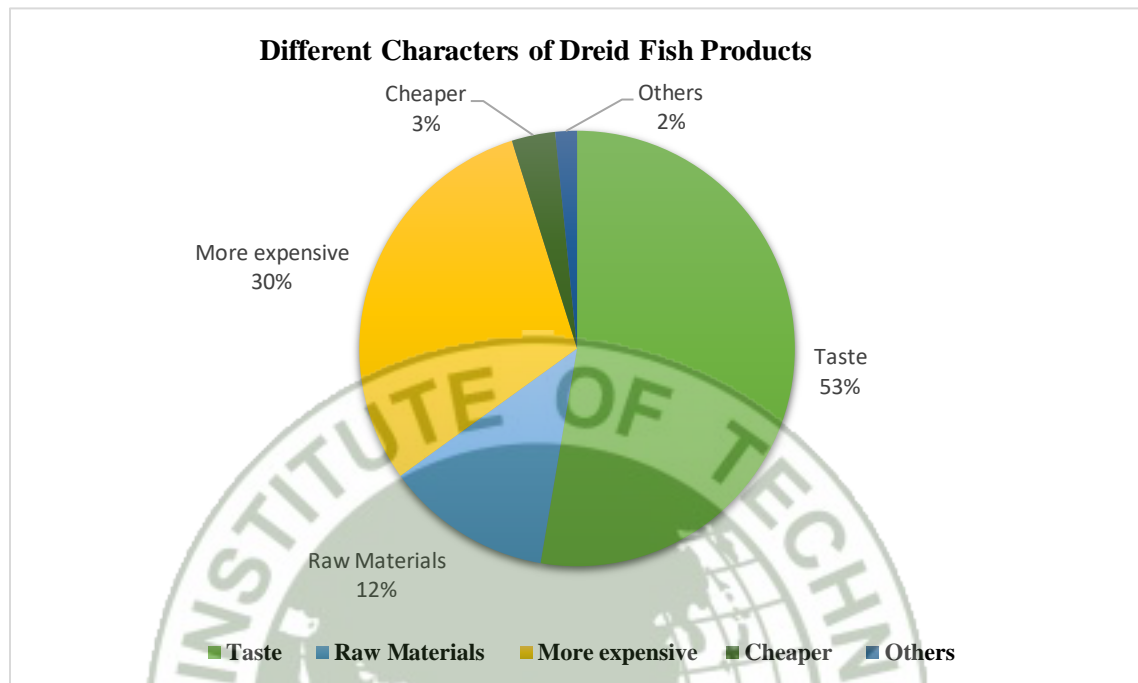
**Table 6.5. Changes in Average frequency of consumed any dried fish products in 7 days consumption among Myanmar migrants in Thailand before and after migration**

Variables	Obs	Mean	Std. errs.	St. dev.	95% conf. interval	
Average quantity consumed in Myanmar	244	4.700608	0.2168011	3.004085	4.272976	5.12824
Average quantity consumed in Thailand	244	4.274045	0.2390112	3.311946	3.802605	4.745486
<b>Difference</b>	<b>244</b>	<b>0.42365625</b>	<b>0.2030764</b>	<b>2.813909</b>	<b>0.827123</b>	<b>0.026002</b>
<b>t = 2.1005</b>		<b>P-Value = 0.0370</b>		<b>Degrees of freedom = 242</b>		

#### **6.4. Preference of the Myanmar migrants on Types of Dried Fish Products Consumed**

The preference of Myanmar migrants is one of the factors that can make the changes in the choice of the dried fish products which they consume. The migrants consider on the various kinds of characters of dried fish products such as taste, raw materials, freshness and price in order to choose for their consumption. The dried fish products which is consumed by the Myanmar migrants are mostly produced in Thailand and 44 percent of studied migrants reported. 37 percent of Myanmar migrants prefer to eat the dried fish products which were produced in Myanmar while 19 percent of Myanmar migrants likely to eat any dried fish products which are made either in Thailand or Myanmar.

**Figure 6.4. Different characters of Dried Fish products which is consumed by Myanmar Migrants**



Source: Primary Data from Survey Interviews collected from 6-21 November 2022

The figure 6.3. demonstrates the different characters dried fish products from Myanmar and Thailand based on the perception of the consumers, Myanmar migrants. 84 percent of the studied migrants said that the dried fish products that they consume in Thailand and Myanmar is different. Half of the Myanmar migrants reported that the dried fish products consumed in Thailand and in Myanmar are different in the taste. Followed up from the in-depths interviews, the taste of the dried fish which they eat in Thailand and Myanmar is different in term of sweetness and salty though the products are made in Thailand by Burmese people.

***“Ahh... so different. Different in taste especially. Maybe because of the fish species is not the same, the dried fish in Thailand is a bit sweeter than dried fish in Myanmar and it’s salty when I ate in Myanmar.”*** (Male respondent, IDIs, Tanintharyi Region)

Another difference of dried fish products in Myanmar and Thailand which the migrants use to eat is raw materials and 12 percent of Myanmar migrants assumed that the

raw materials are different to make the dried fishes. Moreover, 30 percent of migrants reported that the dried fish products in Thailand are more expensive than products in Myanmar while only 3 percent of migrants reported that products in Thailand are cheaper. There is 2 percent of migrants of who reported for other differences such as coloring and dryness of the dried fish products. Similarly to the Myanmar dried fish products, the migrants also have the perception on the Thai-dried fish since they have tried some the authentic Thai-dried fish products when they firstly arrived to Thailand. They think that the authentic Thai-dried fish products are sweet, not very dry (meant still have some moisture compared to the Myanmar dried fish products) and also coloring.

***“I have tried the Thai dried fish products when I firstly arrived in Thailand. I don’t know the name of the fish. I don’t like it because it’s sweet, not salty like Myanmar dried fish products, and wet. Dried shrimps are not peeled and also coloring with the very sweet taste. The taste of Thai dried fish products is not matched to my like.”*** (Female respondent, staying with friends, Yangon Region)

## **6.5. Chapter Summery**

96 percent of Myanmar migrants residing in Thailand consume dried fish products, which is identical to the proportion consuming dried fish items while they were in Myanmar. In terms of gender, there are no notable changes in the proportion of men and women migrants who consume dried fish, and the reported percentages remain comparable both in new setting and at home. The share of consumption for each different type of dried fish products is changed somehow related to the migrants where they originally come from Myanmar because the availability of the dried fish product is varied based on the state or region of Myanmar. Similar types of dried fish products are consumed by Myanmar migrants in Thailand and Myanmar. The dried shrimp and fish paste (Nga-Pi) are the products that Myanmar migrants consumed in big quantities both in Myanmar and in Thailand.

As a general, the quantity of the consumption of any dried fish products among Myanmar migrants in new setting and before migrated to new setting is slightly decreased.



The estimated quantity consumed in the 7 days meals is about 0.5 Kg in Thailand and 0.7 Kg in Myanmar. During a period of one week, the average frequency with which migrants consume in a new setting and before migrating is consistent. The maximal frequency of eating of dried fish in their new environment is three times lower than before they arrived in Thailand. One of the factors that impact the dried fish items that Myanmar migrants consume is their personal preference. In order to determine which dried fish products to consume, migrants consider aspects such as taste, raw materials, freshness, and cost.



## CHAPTER 7

### GENDER ROLES EFFECT ON DRIED FISH PRODUCTS CONSUMPTIONS PATTERN

This chapter includes the discussion of the gender roles among the Myanmar migrant's households and how these gender roles have been changed from their home due to migration. And how these changes in gender roles make the changes in the dried fish consumption pattern in their daily consumption and the ways of adjusting of daily meals.

#### 7.1. Gender Division of Labors in Myanmar Migrants Household and Dried Fish Consumption

**Table 7.1. Gender division of labor for Household Income Generation among the migrants while they are in Thailand**

<i>Income Responsibility</i>	<b>Frequency</b>	<b>Percent</b>
<i>Husband</i>	48	19.67
<i>Wife</i>	27	11.07
<i>Both Husband &amp; Wife</i>	59	24.18
<i>Everyone</i>	101	41.39
<i>Sons &amp; Daughters</i>	9	3.69
<i>Total</i>	244	100

Source: Primary Data from Survey Interviews collected from 6-21 November 2022

In general, Myanmar people have been influenced by the patriarchal cultural norms and values which constructed the gender roles among the men and women. Normally, men, as home leaders are responsible for decision-making and family income generation, while women are responsible for housekeeping tasks and childcare (Japan International Cooperation Agency (JICA), 2013). However, the gender division of labors among the household is shifted depended on the situation of migration. Table 7.1 describes that the gender division of labor for the household income generation among the household number while they are in Thailand based on the surveyed population. Generally, 20 percent of

household is supplied their income by their husband only and 11 percent of household is only by the wife. About 41 percent of household has all household members work for income generation in which staying with family adults members only or staying with friends or siblings adults only while 24 percent of household income is worked by both husband and wife only without considering of their parents or children who stay together. Only 4 percent are the son and daughter who work for the income generation of the household.

**Table 7.2. Difference of dried fish products consumption frequency among Myanmar migrants before and after migrated to Thailand based on their gender division of labor based on income generation**

Income Responsibility	Myanmar (meals in 7 days)			Thailand (meals in 7 days)		
	Mean	Min	Max	Mean	Min	Max
<b>Husband</b>	4.1	1	9	4.4	0	14
<b>Wife</b>	3.5	0	12	3.2	0	14
<b>Both Husband &amp; Wife</b>	4.8	1	21	4.3	1	21
<b>Everyone</b>	4.4	0	14	4.1	0	14
<b>Sons &amp; Daughters</b>	4.9	2	9	5.2	1	12

Source: Primary Data from Survey Interviews collected from 6-21 November 2022

The changes in the frequency of including dried fish products in 7 days period among Myanmar migrants based on their gender division of labor for income generation can be found as in table 7.2. Overall, it is not showing the huge difference in the average total meals of dried fish products consumption in a week period before and after moving to Thailand across the various gender roles among the household members. However, the maximum frequency of meals in a week is quite high in after they move to Thailand in every gender role of income generation apart from the households which everyone and both spouse work for income. The household which only husband work for income is higher frequency in consumption of dried fish products after moving to Thailand compared to while they were in Myanmar. This is the result of the gender division of labor shifting among the household before and after moving to Thailand.

Table 7.3. describes the shifting of gender divisions of labor for income generation among the household members of Myanmar migrants before they migrated and in a new-migrated setting from the in-depth interviews. In overview, the gender division of labor for the income generation might not be changed in terms of gender among the household. Men are still working in both Myanmar and Thailand in some cases. But the gender division of labors among the household members have been changed due to migration. For instance, only husband work for the income when the migrants are in Myanmar but both spouses in the household has to work for income when they migrated. Another case is that only parents worked for income before migrated but the children who are legal age for work has to work when they migrated.

**Table 7. 3. Gender Division of labor for Income generation within the Migrants Household**

Sr .	Respondent s	Type of HH	Income Generation	
			<i>Myanmar</i>	<i>Thailand</i>
1	Male	With Family	Himself	Both Himself and Wife
2	Female	With Family	Husband	Husband
3	Male	With Siblings	Father	Younger Sister
4	Female	With Siblings	Father, Brother	Herself and other siblings
5	Male	With friends sharing foods	Himself	All friends
6	Female	With friends sharing foods	Herself	All friends
7	Male	With friends no sharing foods	Himself	All friends
8	Female	With friends no sharing foods	Father, Sister	All friends
9	Male	Staying alone	Parents	Himself
10	Female	Staying alone	Parents, Brother	Herself

Source: In-depth interview information, collected from 6-21 November 2022

Based on the types of households that they are staying with, the gender roles of each interviewed migrant is different. The difference in gender roles can make a shift in the dried fish products consumption. Based on the gender roles of income generation, the husband or male migrants as himself take the responsibility of income generation in the migrants' household who are staying with the family when they were in Myanmar. When



they migrated to Thailand, both husband and wife take the responsibility for income in the interviewed male migrants' household. Working of all household members limited the time for the household tasks including daily meals. The limited access of time for daily meal preparation makes the changes on the dried fish consumption. As we have observed in previous chapter, the high consumption of dried shrimps and fish paste (Nga-Pi) in both quantity and frequency is resulted from the times limitation.

***“Both of us with my wife work in food box factory. Mostly I work for overtime and take rest on Sunday only. We usually make the Balachaung (which is made from the dried shrimps) which can keep long times and can eat anytime when we are hungry.”*** (Male respondents, staying with family, Tanintharyi Region)

In the female migrant household which staying with family, the only husband is working for the income generation activities though they were in Myanmar or after moving to Thailand. The wife stays at home with the child and work for the household tasks, so that they have enough time for daily meal preparation. However, the wife has to cook the dish that her husband prefers to eat because she accepted that her husband is working hard outside, and she should treat well for his preference. This also make the changes on the dried fish products consumption in term of decreased quantity, frequency, and consumed different types of dried fish products.

***“I cook for my husband what he wants to eat because he is a breadwinner. My husband prefers to eat meat rather than fish/dried fish or vegetables. I can cook what I prefer when I was at home.”*** (Female respondent, staying with family, Kayin State)

Within the migrant households who stay with friends, the gender roles within the household members is shifted before they migrated to Thailand and after migrated as every respondent become the one who have to work for income generation. The changes of gender roles within the migrant's household who stay with the friends either sharing foods or not sharing foods makes the apparent difference on their daily consumption and dried fish. Based on the story of the in-depth interviews, the men migrants who stay with friends by sharing foods have different consumption for daily meals in term of different dish menu and cooking styles because they are not at home and also effect to less consumption of

dried fish products in their daily meals. The gender roles of migrants who stay alone also shifted similarly to the migrants who stay with friends and the changes in gender roles make the less consumption of the dried fish products.

*“The meals that we eat now is quite different from the meal from home because we cook the foods quickly that we want to eat since we ate that our mom had cooked when we were at home. We do not frequently eat dried fish products here that much like in our home.”* (Male respondent, staying with friends, Ayeyarwady Region)

The gender division of labors for cooking responsibility among the household members is a crucial factor that is needed to be considered for looking for the changes on the daily consumption of the migrants by including of dried fish products dish. The allocation of cooking responsibility among the migrant’s household members for the total population of the surveyed samples is described in table 7.4. Among the migrants, 6 percent is the only husband who take responsibility for the daily meals of the household members while 41 percent is the only wife who cook the household daily meals. 5 percent is both husband and wife take care of cooking responsibility for daily while only 1 migrant mentioned that her son and daughters cook for the daily meals. Many individuals migrants, about 31 percent are cooking for their household daily alternatively whenever they have the free time with assigning the exact person for cooking responsibility. Moreover, about 8 percent is the mother who cook for the household daily meals while 10 percent is the sisters.

**Table 7.4. Gender division of labor for Household daily consumption among the migrants while they are in Thailand**

cooking responsibility	Frequency	Percent
Husband	14	5.74
Wife	99	40.57
Both Husband & Wife	12	4.92
Everyone	76	31.15
Mother	19	7.79
Sons & Daughters	1	0.41
Sister	23	9.43
Total	244	100

Source: Primary Data from Survey Interviews collected from 6-21 November 2022

Differences in the person for gender division of labor in cooking responsibility for the daily consumption is the one of the important factors that makes the changes in the consumption of the dried fish products. The changes of the total average quantity of consumed dried fish products by a migrant based on the person who cook for the daily meals is shown in the table 7.5. Generally, the average frequency of total meals which included any dried fish products in 7 days period of daily consumption doesn't change significantly according to the person of the cooking for daily meals before and after moving in Thailand. But the maximum total frequency of dried fish consumption meals is slightly decreased when the son and daughter or the sisters cook for their daily meals after moving to Thailand compared to before in Myanmar. The changes of the person who cooks household daily meals lead to these changes as a decrease in the frequency of dried fish products consumption.

**Table 7.5. Total meals of consumed any dried fish products by a migrant in 7 days period by the gender division of labor for cooking daily meals before and after moving to Thailand**

Total meals of consumed dried fish products by a migrant						
Cooking Responsibility	Myanmar			Thailand		
	Mean	Min	Max	Mean	Min	Max
Husband	3.6	0	8	3.5	0	7
Wife	4.5	0	21	4.3	0	21
Both Husband & Wife	4.0	0	11	3.7	0	10
Everyone	4.5	0	12	4.2	0	14
Mother	5.4	1	14	5.3	1	14
Sons & Daughters	5.0	5	5	3	3	3
Sister	3.0	0	8	2.9	0	14

Source: Primary Data from Survey Interviews collected from 6-21 November 2022

Table 7.6. displays the shifting of the gender roles for cooking responsibility among migrant's household members before and after migrated to Thailand which is coded from the in-depth interviews. Generally, the gender division of labors for cooking responsibility is not obvious changed in terms of gender as women are the one who takes responsibility

in both cases of Thailand and Myanmar. However, the gender roles changed among the household members because of migration and no choice to work for cooking in the specific situation for daily life. Overall, the person who take the cooking responsibility within any type of migrants' household have changed after they migrated to Thailand. The consumption of daily meals including with the dried fish products consumption was brought together with the gender roles changes for the food preparation responsibility within the household due to the migration. In the male migrant household of staying with family, the person who prepare daily food is different from his home because he had a different household after migration. This result on the different practices of his daily meals and inclusions of dried fish products dishes with different cooking styles from their home.

*“The dishes I eat daily is totally different from home because my mom cooked as the Dawei traditional dish. And my wife is Mon ethnicity...so....she cooks different dish. The dried fish products which she likes, and my likes are not the same. So, we eat the dried fish dish sometimes only.”* (Male respondents, staying with family, Tanintharyi Region)

**Table 7.6. Gender division of labor for cooking responsibility with Migrants Household**

Sr .	Respondent s	Type of HH	Cooking Responsibility	
			Myanmar	Thailand
1	Male	With Family	Mother	Wife
2	Female	With Family	Mother, Herself	Herself
3	Male	With Siblings	Mother	Younger Sister
4	Female	With Siblings	Sisters	Herself
5	Male	With friends sharing foods	Wife	Friends (man)
6	Female	With friends sharing foods	Herself	All friends(alternatively)
7	Male	With friends no sharing foods	Mother	Himself
8	Female	With friends no sharing foods	Grandmother	Herself
9	Male	Staying alone	Mother	Himself
10	Female	Staying alone	Sister	Herself

Source: In-depth interview information, collected from 6-21 November 2022



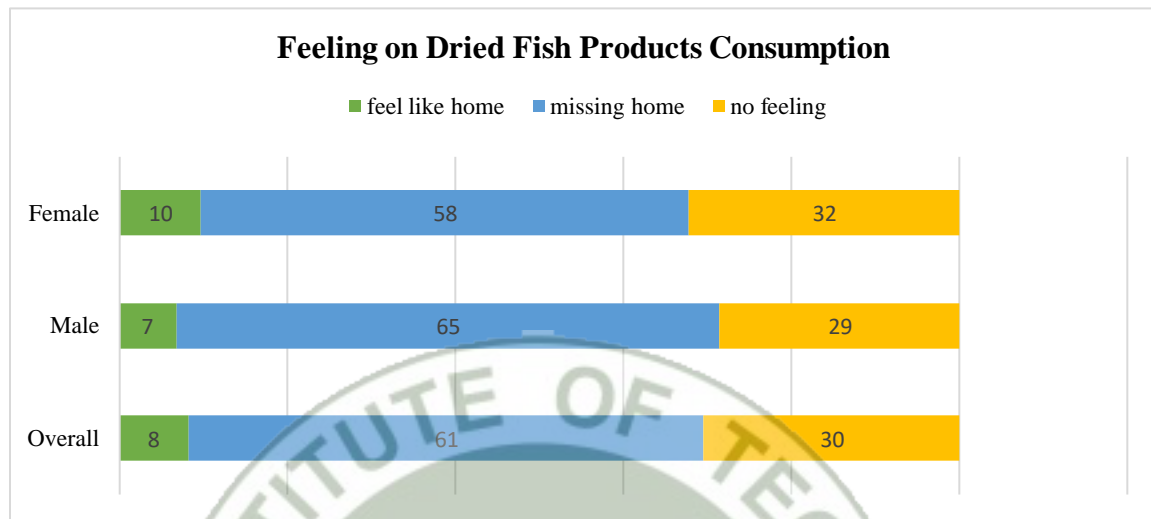
However, the shifting of gender roles within the household who stay with their siblings is not much effective on the daily meal adjusting and inclusion of dried fish products in their meals. Both male and female migrants who stay with siblings doesn't change obviously for daily consumption because the person who take the responsibility in both places is from the same family members. The female respondent from IDI mentioned that she doesn't feel any difference for daily foods because she cooks like she had eaten at home. The male respondent also said that her younger sister cooks like his mom, so that he doesn't feel differently.

*“The food is not different from home. The way I cook, and the way of my sister cooked is similar because I always help and cook together with her when I was at home.”*  
(Female respondent, staying with siblings, Kayin State)

## **7.2. Gender differences in food attachment in Dried Fish Consumption**

The choice of foods for daily meals is somehow related to the food attachment of a person with many reasons based on the gender and cultural identities (Counihan and Kaplan 1998 as cited in Reiheld, 2014). The attachment of dried fish products consumption is varied among the different gender of Myanmar migrants. Generally, the migrants eat the dried fish products for the reason of missing home. Figure 7.1. shows the feeling of Myanmar migrants after they eat dried fish products dish in their daily meals. Most of the migrants feel that they miss their home when they eat dried fish dish and about 60 percent of surveyed migrants responded. One of respondents from the in-depths interview also mentioned that she does miss her home when she eat dried fish dish, especially fish paste dish (Nga-Pi Yay) by imagining the memory of eating the Nga-Pi Yay side dish with her family on the table.

**Figure 7.1. Feeling of Myanmar migrants after eating of dried fish products in Thailand**



Source: Primary Data from Survey Interviews collected from 6-21 November 2022

***“I like to eat dried fish products dishes. I like to eat Nga-Pi Yay (made from fish paste and eating as a side fish with vegetables). By saying this, I miss home already that we ate together with my family.”*** (Female respondent, staying with friends, Yangon Region)

Interestingly, the male migrants feel missing home more than female migrants whenever they eat dried fish dish in their daily meals, male migrants reported for 65 percent and female reported for 58 percent. One-third of the migrants mentioned that they don’t feel anything and there is a similar proportion reported among men and women Burmese migrants every time they includes the dried fish dishes in their daily consumption. Those migrants provide the followed reason for this response is that they just like to eat dried fish products to be more delicious.

***“I eat ready-made fish paste (Nga-Pi Taung) almost every day. No reason. No feeling at all. Just want to eat only and it makes my meal more delicious with salty and spicy taste.”*** (Men respondent, staying alone, Magway region)

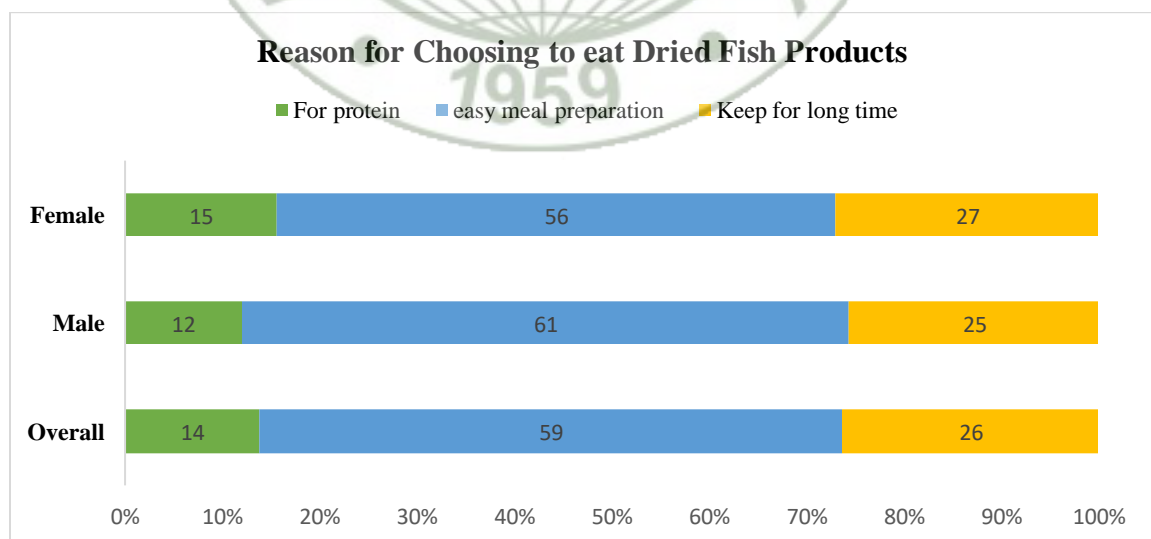
In addition to the feelings associated with food choice, the reasons for eating specific foods are inspected. There are many reasons as for nutrition or daily dietary or

personal likes for foods choice. The Burmese migrants have their reasons on choosing of the dried fish products in their daily meal's consumption. However, the reasons among the different gender of Burmese migrants is not that obvious. 60 percent of both male and female migrants indicated that they prefer dried fish products for their daily meal because it is convenient to eat when they do not have time to prepare meals (Figure 7.2).

***“I usually prepare the grilled dried king fish and fried dried shrimps and put in the bottle. So that they can be kept for long time and can eat easily when we are in rush to prepare foods. Just cook the rice and eat with the ready prepared one.”*** (Female respondent, staying with friends, Yangon Region)

Another reason for choosing dried fish products in their daily consumption is that the dried fish can be kept for long time. About 25 percent of both men and women gave this reason for inclusion of dried fish dishes in their daily meals' adjustment. In term of nutrition purposes, the Burmese migrants didn't response that much compared to the other reasons. Only 14 percent of all respondents reported nutrients of protein and only 2 percent of all interviewed migrants responded for calcium nutrient for the reason of eating dried fish products.

**Figure 7.2. Reasons for Choosing to eat Dried Fish Products among Myanmar migrants**



Source: Primary Data from Survey Interviews collected from 6-21 November 2022

### 7.3. Chapter Summery

Depending on the contexts of migration, the gender division of household tasks shift changes. The gender roles of each migrant interviewed differ based on the types of households in which they belong. The difference in gender roles can affect the consumption of dried fish products. Due to a shift in gender roles, all household members have less spare time to devote to domestic duties, such as preparing daily meals. The limited availability of time for daily meal preparation influences the consumption of dried fish. On the other hand, after migrating to Thailand, the person responsible for cooking across every type of migrant household has changed. Due to migration, the consumption of daily meals, including the consumption of dried fish products, coincided with changes in gender roles for food preparation responsibilities within the household.

The attachment to the consumption of dried fish products varies by gender among Myanmar migrants. Generally, migrants consume dried fish products because they miss their homes. When eating dried fish in their daily meals, male migrants experience a greater sense of homesickness than their female counterparts. In addition to the emotional experiences associated with food selection, the reasons for consuming particular foods are explored. The Burmese immigrants have their own reasons for choosing dried fish products for their daily diet. Both male and female migrants prefer dried fish products for their daily meal because it is convenient when they do not have time to cook. Another reason people choose dried fish for daily consumption is that it can be preserved for a long time. In terms of nutrition, the Burmese migrants did not respond as strongly as they did for other reasons.



## **CHAPTER 8**

### **CONCLUSION**

#### **8.1. Summary of Key Findings**

The Myanmar migrants, both men and women don't eat dried fish products differently when they move to a new place. The proportion of Burmese migrants who consume dried fish products while in Thailand and while in Myanmar is precisely the same. In terms of gender analysis, there are no significant differences in the proportion of dried fish intake among men and women migrants, and the stated proportions remain comparable. The consumption of dried fish products by migrants of various ethnicities from different origin states and regions remains constant in their home nation and in their new environment. Every migrant who works as a daily waged laborer, salaried waged laborer, company owner, or unemployed migrant continues to eat dried fish products in their new home nation of Thailand. From the perspective of household structure in Thailand, the proportion of dried fish intake among migrants staying with relatives, siblings, and friends by sharing foods is considered to be similar in Thailand and Myanmar.

Dried Snakehead fish, dried Anchovy, fermented fish (Nga-Chin), and other dried fish kinds are commonly consumed by Burmese migrants. Dried shrimp and fish paste are the most popular dried fish items among Myanmar migrants in Thailand, both in terms of overall consumption and consumption in the previous seven days. Because the availability of dried fish products varies by state or area in Myanmar, the share of consumption for each type of dried fish product varies in some way according to the migrants' origins in Myanmar. Myanmar migrants in Thailand and Myanmar enjoy similar dried fish delicacies. Myanmar migrants eat large quantities of dried shrimp and fish paste (Nga-Pi) while they are in both Myanmar and Thailand for the reason of easy to eat and making the dishes tastier.

Over the last 7 days of the interview period, migrants consumed an average of 4 meals of any dried fish dish per day, with at least 2 meals and a maximum of 10 meals consumed in a 7-day period. The average quantity of any dried fish products consumed by

a female migrant and a male migrant is not noticeably different, and both male and female migrants consume around half a Kilogram of any dried fish products in the 7 days meal consumption. On average, the consumption of dried fish items by Myanmar migrants in their new environment is slightly lower than it was before they migrated. Personal choice is one aspect that influences the decreasing of dried fish products that Myanmar migrants consume. While selecting dried fish for their meals, migrants think about factors including price, freshness, and quality of ingredients.

Migrants from Myanmar have easy accessibility to dried fish products. The most abundant source is the market close to the migrants' residences, followed by grocery stores that sell Burmese dry foods and grocery goods and Burmese shopkeepers that sell their own home-made dried fish products. Some migrants obtain resources from their former homes or family, while others make their own. They choose the source of supply based on their situation such as they go to the nearby market for dried fish products purchasing while they need to consider about buying other grocery items, or when they need to be in rush of cooking and just need one items, then they will go to the Burmese retailers near their residential compounds.

According to the conditions of migration, the gender division of household responsibilities varies. Every migrant's gender roles vary dependent on the type of household to which he or she belongs. The difference in gender roles and consumption of dried fish products can have an effect. As a result of a shift in gender roles, all household members have less time to dedicate to household duties such as food preparation. The short time that is available for daily meal preparation affects the consumption of dried fish. On the other hand, in every type of migrant household in Thailand, the individual responsible for cooking has shifted. Owing to migration, the consumption of daily meals, particularly the consumption of dried fish products, corresponded with a shift in gender roles regarding home food preparation responsibilities by decreasing the frequency or quantity of the consumed dried fish products.

The attachment of Burmese migrants to the consumption of dried fish products differs by gender. Normally, migrants consume dried fish items as a result of

homesickness. By consuming dried fish as a staple of their daily meal, men migrants feel more homesickness than their female counterparts. In addition to the emotional responses related with food selection, the Burmese migrants eat dried fish items for their everyday diet for their unique reasons. Both male and female migrants choose dry fish items for their daily meal due to their convenience when they are unable to prepare a proper meal. Many select dried fish for everyday eating since it may be kept for an extended period of time. The Burmese migrants did not respond as significantly to nutrition as they did to other factors.

## **8.2. Discussion**

Firstly, the objective of this research is the identification of the dried fish consumption practice of Myanmar migrants after moving to Thailand including types, quantity and supply source of dried fish which are consumed by the different gender of Myanmar migrants in Thailand accounting their identity such as ethnicity, origin, age, income, etc. The Myanmar people in Thailand or the Myanmar migrants generally consume the dried fish products when they have moved to different places or not. The consuming or not consuming of the dried fish products is not related to the various identities of the Myanmar migrants such as gender, age, ethnicity, occupation, where they are originally come from and so on. Myanmar people consume the dried fish in their daily nutrition without considering their identity and socioeconomic situation (Lin et al., 2022). The dried fish is the “delicacy foods of Myanmar”. Like the study on the effects of rural-urban migration on fish consumption in Myanmar, even among those who have relocated to cities in search of employment, dried fish remains a part of the daily dietary (Tezzo et al., 2021), the Myanmar people from Mahachai, Samut Sakhon Province, still bring dried fish products dishes as their home-foods even though they moved to Thailand. One cultural pattern that migrants carry with them is their traditional cuisine, which they often eat as "comfort foods" once they settle into a new country (Lin et al., 2020).

Virtually, all Burmese migrants living in Thailand consume different dried fish products, which is the same proportion as when they were living in Myanmar. Because the availability of the dried fish product varies based on the state or area of Myanmar, the

proportion of consumption for each type of dried fish product changes in some way related to the migrants' place of origin in Myanmar. When individuals from rural areas of Myanmar migrated to urban areas, they also had to consume the dried fish of varying types, flavors, and prices. the dried fish with different type, taste and price which vary from their origin (Tezzo et al., 2021). In Myanmar, dried fish consumption habits in Myanmar are probably not uniform, both in terms of total average consumption and regional variation. Fermented fish paste (Ngapi), the most popular fish product, is consumed on a large scale. Other popular fish products include fish sauce, shrimp paste, and other various dried fish. (Lin et al., 2022). Like the various types of dried fish products consumed in Myanmar, dried shrimp and fish paste are the most common dried fish items among Myanmar migrants in Thailand. They also usually consume dried Snakehead fish, dried Anchovy, fermented fish (Nga-Chin), and other dried fish varieties such as dried Bombay Duck, dried squid, dried Bullet Tuna and dried Lesser Spiny Eel.

In terms of the changes of dried fish consumptions practices among the Myanmar migrants in a new setting and home country, the study was aimed to analyze how the preference of Myanmar migrants on the quantity, frequency and types of dried fish consumption have been different. Basically, a Myanmar migrant consumes an average of 0.6 kilogram of dried fish products per week, with a weekly minimum of 0.46 kg and a weekly maximum of 1.5 kg. Based on this weekly consumption quantity, a Burmese migrants consume approximately 31 Kg of any dried fish products per year which is a bit higher to the national average consumption rate of around 20 kilograms per Myanmar people per year in 2006 (Needham & Funge-Smith, 2015). There is a general decline in the number of dried fish items consumed by Myanmar migrants in their new environment compared their original residence. Around 0.5 kg is consumed over the period of seven days by a Myanmar people in Thailand, whereas approximately 0.7 kg is consumed by he/her in Myanmar. This results from the availability of the dried fish products like their home, the available time for cooking since it can be more difficult for migrants to prepare home/ethnic meals in the host society since some of the ingredients may be tough to obtain by (Lin et al., 2020).

Continuously, the difficult access of the dried fish products from home country is followed by the supply source of the dried fish products retailers. Due to the demand of the



consumers, the Myanmar migrants take the market supply for the dried fish products along with migration by selling as a dried fish retailer near the market where Myanmar migrants stay variously, by selling as a Myanmar grocery items retailers in the migrants' residential compounds and also by selling the home-made dried fish products to be as an authentic product from Myanmar. This result led to the visibility of informal dried fish supply markets in Thailand and the dried fish supply channel through migration route should be carried out as a different study interest. Thus, Frost also found that migrants can find a way to better their economic situation by selling their traditional foods in the new country (as cited in Abbots, 2016).

As the last of the study objective, the changes of the dried fish consumption pattern have been affected by the migrants gender roles shifting due to migration in their daily dietary. In the consumption of the dried fish, the numbers of male and female migrants who consume dried fish remain similarly both in the new setting and back home, indicating no significant changes related to gender. However, the types of dried fish products, the frequency and the quantity of the consumed dried fish products are changed among the Myanmar migrant's consumption pattern based on their gender roles or different attachment on foods with their gender. The selection of foods for everyday diet is correlated to a person's food attachment for a variety of gender- and culture-specific reasons (Counihan and Kaplan 1998 as cited in Reiheld, 2014). in particular, women have much more health-promoting food habits than men in order to have healthier lifestyle patterns, whereas men often talk about eating as a routine and everyday action that is necessary to "fuel" their bodies (Saba et al., 2012). Though, in the consumption of dried fish products habits, both male and female migrants choose dry fish items for their daily meal due to their convenience when they are unable to prepare a proper meal. They choose dried fish for daily consumption because it can be preserved for an extended period of time. Regarding nutrition, the Burmese migrants did not place as much emphasis as they did on other factors.

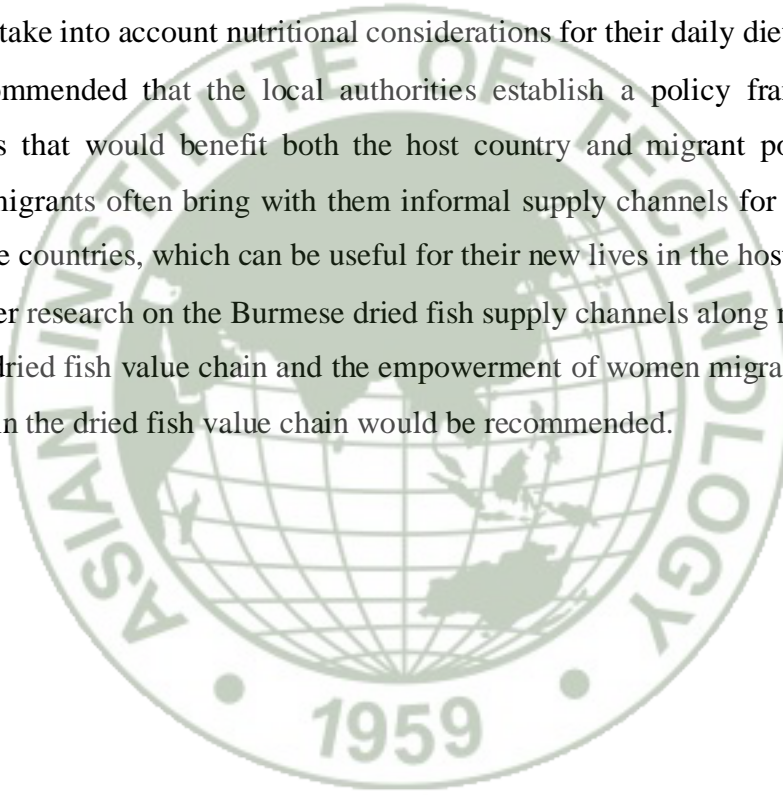
Moreover, the changes in the dried fish products consumption pattern are infected by the gender roles shifting among the household member due to migration. Migration has an influence on gender relations, which may either exacerbate changes frequently and preserve established gender roles, or it can confront and alter these roles (Jolly et al., 2005). Migration can pose a challenge to traditional gender norms, since one spouse's absence may result in the other having a greater participation in significant decisions and performing more tasks. Vis-à-vis, the one who migrated has also inherited new responsibilities in the new environment (Jolly et al., 2005). As a result of a shift in gender roles, all household members have less time to dedicate to domestic responsibilities such as food preparation. The limited amount of time available for daily meal preparation affects the consumption of dried fish. On the other hand, in every type of migrant household in Thailand, the individual responsible for cooking has shifted. Attributable to migration, the consumption of daily meals, particularly the consumption of dried fish products, corresponded with a shift in gender roles regarding home food preparation responsibilities.

### **8.3. Conclusion and Recommendation**

“Dried Fish” is the delicacy of Myanmar people. Burmese migrants which constitute a major share of Thailand's workforce in a range of industries continue to consume dried fish products as a part of their daily diet like their home country because dried fish products are accessible to low-income and vulnerable individuals in Myanmar due to their low cost and high nutrient density, and because home-cooked foods are brought along with migrants to facilitate their transition into their new environment. The Myanmar migrants still consume the various dried fish products which is made by the Myanmar authentic methods when they have migrated out of the home country. The choice to consume dried fish products in daily dietary is not associated with being of men or women as a gender and also not related to the other basic identities such as age, employment, ethnic groups, social networking and so on. Migration affects the gender roles of family members, which ultimately changes their preferences and consumption of dried fish products. As a result of the changing consumption patterns of dried fish among Burmese migrants residing in Thailand, the dried fish market sector along the migration route is noticing an increase in demand for dried fish products.

This research brought about some key recommendations.

- Firstly, it is suggested that the migrants should consider their daily consumption practices to have a proper meal with good nutrition since they do not really take care about the foods preference with nutrition purposes.
- And follow up with above recommendation, the authorities and local non-governmental organizations, as well as community-based organizations, involved in supporting migrants in Thailand should prioritize the promotion of nutrition knowledge pertaining to daily consumption practices among this population. The migrants' food preferences do not appear to take into account nutritional considerations for their daily dietary needs.
- It is recommended that the local authorities establish a policy framework for small businesses that would benefit both the host country and migrant populations. This is because migrants often bring with them informal supply channels for commodities from their home countries, which can be useful for their new lives in the host country.
- The further research on the Burmese dried fish supply channels along migration routes as a part of dried fish value chain and the empowerment of women migrants in those supply channels in the dried fish value chain would be recommended.



## REFERENCES

- Abbots, E.-J. (2016). *Approaches to Food and Migration: Rootedness, Being and Belonging*.
- Aung-Thwin, M. A., Aung, M. H., & Steinberg, D. I. (2022, July 25). *Myanmar*. Encyclopedia Britannica. <https://www.britannica.com/place/Myanmar>
- Bangkokfoodies. (2020, August 25). *The Fermented Condiment That's Deathly Smelly But Beloved By Thais*. Bangkok Foodies. <https://www.bangkokfoodies.com/the-fermented-condiment-thats-deathly-smelly-but-beloved-by-thai/>
- Belton, B., Hossain, M. A. R., & Thilsted, S. H. (2018). *Labour, Identity and Wellbeing in Bangladesh's Dried Fish Value Chains* (pp. 217–241). [https://doi.org/10.1007/978-3-319-60750-4\\_10](https://doi.org/10.1007/978-3-319-60750-4_10)
- Belton, B., Johnson, D. S., Thrift, E., Olsen, J., Hossain, M. A. R., & Thilsted, S. H. (2022). Dried fish at the intersection of food science, economy, and culture: A global survey. *Fish and Fisheries*, 23(4), 941–962. <https://doi.org/10.1111/faf.12664>
- Belton, B., & Thilsted, S. H. (2014). Fisheries in transition: Food and nutrition security implications for the global South. *Global Food Security*, 3(1), 59–66. <https://doi.org/10.1016/j.gfs.2013.10.001>
- Boutaud, J.-J., Becuț, A., & Marinescu, A. (2016). Food and culture. Cultural patterns and practices related to food in everyday life. Introduction. *International Review of Social Research*, 6(1), 1–3. <https://doi.org/10.1515/irsr-2016-0001>
- Cohen, P. N. (2004). The gender division of labor: “Keeping House” and Occupational Segregation in the United States. In *Gender and Society* (Vol. 18, Issue 2, pp. 239–252). SAGE Publications Inc. <https://doi.org/10.1177/0891243203262037>
- Corvo, P. (2016). Food culture, consumption and society. *Springer* . [https://www.academia.edu/38069683/Food\\_culture\\_consumption\\_and\\_society\\_1\\_pdf](https://www.academia.edu/38069683/Food_culture_consumption_and_society_1_pdf)
- Creswell, J. W. (2013). Research design: Qualitative, quantitative, and mixed methods approaches. *Sage Publications*.
- DFM. (n.d.). *About “Dried Fish Matters.”* Retrieved July 27, 2022, from <https://driedfishmatters.org/pub/about-dried-fish-matters.html>



- DFM Thailand. (n.d.). *Dried Fish in Thailand*. Retrieved March 5, 2023, from <https://driedfishmatters.org/pub/dfm-thailand.html>
- D'Sylva, A., & Beagan, B. L. (2011). "Food is culture, but it's also power": The role of food in ethnic and gender identity construction among Goan Canadian women. *Journal of Gender Studies*, 20(3), 279–289. <https://doi.org/10.1080/09589236.2011.593326>
- FAO. (2015). *The State of Food and Agriculture 2015 (SOFA): Social Protection and Agriculture: Breaking the Cycle of Rural Poverty*. <https://www.globalagriculture.org/fileadmin/files/weltagrarbericht/GlobalAgriculture/10Industrial/SOFA2015.pdf>
- FAO. (2018). *Sun-dried fish production to build resilient coastal communities in Somalia* ∅ Context. <https://www.fao.org/3/I8487EN/i8487en.pdf>
- FAO. (2020). *The State of World Fisheries and Aquaculture 2020*. <https://doi.org/10.4060/ca9229en>
- Ferrara, M., Hanley, E., Obadare, E. B., & Baumann, R. F. (2011). *Food, Migration, and Identity Halal food and Muslim immigrants in Italy*.
- Foner, N. (1997). The Immigrant Family: Cultural Legacies and Cultural Changes. In *Source: The International Migration Review* (Vol. 31, Issue 4). Winter. <http://www.jstor.org/stable/2547420>
- Galappaththi, M., Collins, A. M., Armitage, D., & Nayak, P. K. (2021). Linking social wellbeing and intersectionality to understand gender relations in dried fish value chains. *Maritime Studies*, 20(4), 355–370. <https://doi.org/10.1007/s40152-021-00232-3>
- Helms, B., & Leblang, D. (2019). Global Migration: Causes and Consequences. In *Oxford Research Encyclopedia of Politics*. Oxford University Press. <https://doi.org/10.1093/acrefore/9780190228637.013.631>
- ILO. (2022). *TRIANGLE in ASEAN Quarterly Briefing Note*. [www.ilo.org/asia](http://www.ilo.org/asia)
- IOM. (2021). *COVID-19 RAPID NEEDS ASSESSMENT: MAHACHAI SUB-DISTRICT SAMUT SAKHON PROVINCE (ROUND 2)*. <https://thenounproject.com/>

- Isaias, E. B. (1989). Social Effects of Group Migration Between Developing Countries. *International Migration*, 27(2), 225–231. <https://doi.org/10.1111/j.1468-2435.1989.tb00253.x>
- Jankauskait, M. (2003). *FOOD, GENDER AND REPRESENTATION* (Vol. 21, Issue 1).
- Japan International Cooperation Agency (JICA). (2013). *Country Gender Profile: Republic of the Union of Myanmar Final Report*. <https://openjicareport.jica.go.jp/pdf/12153441.pdf>
- Jolly, Susie., Reeves, Hazel., & BRIDGE (Organization). (2005). *Gender & migration*. BRIDGE.
- Khare, R. S. (1984). Women's role in domestic food acquisition and food use in India: A case study of lowi-ncome urban households. In *Food and Nutrition Bulletin* (Vol. 6, Issue 1).
- Lin, H.-M., Pang, C. L., & Liao, D.-C. (2020). Home food making, belonging, and identity negotiation in Belgian Taiwanese immigrant women's everyday food practices. *Journal of Ethnic Foods*, 7(1), 29. <https://doi.org/10.1186/s42779-020-00061-5>
- Lin, S., Belton, B., & Khiang, W. W. (2022). *Myanmar Dried Fish Consumption Survey* .
- Lush, E. (2022, January 1). *UNESCO Food Culture: 25 Amazing Culinary Traditions Around the World*. <https://wander-lush.org/food-culture-unesco/>
- MCAULIFFE, M., & TRIANDAFYLLIDOU, A. (2021). *Word migration report 2022*. International Organization for Migration (IOM).
- McClintock, A. (1991). "No Longer in a Future Heaven": Women and Nationalism in South Africa. *Transition*, 51, 104. <https://doi.org/10.2307/2935081>
- Medard, M., van Dijk, H., & Hebinck, P. (2019). Competing for kayabo: gendered struggles for fish and livelihood on the shore of Lake Victoria. *Maritime Studies*, 18(3), 321–333. <https://doi.org/10.1007/s40152-019-00146-1>
- Morrison, A. R., Schiff, M., & Sjöblom, M. (2007). *The International Migration of Women* (M. Schiff, A. R. Morrison, & M. Sjoblom, Eds.). The World Bank. <https://doi.org/10.1596/978-0-8213-7227-2>
- Murairwa, S. (2015). VOLUNTARY SAMPLING DESIGN Framework for Developing Credit Scoring Models from Zimbabwe's Sensitive Data View project Murairwa

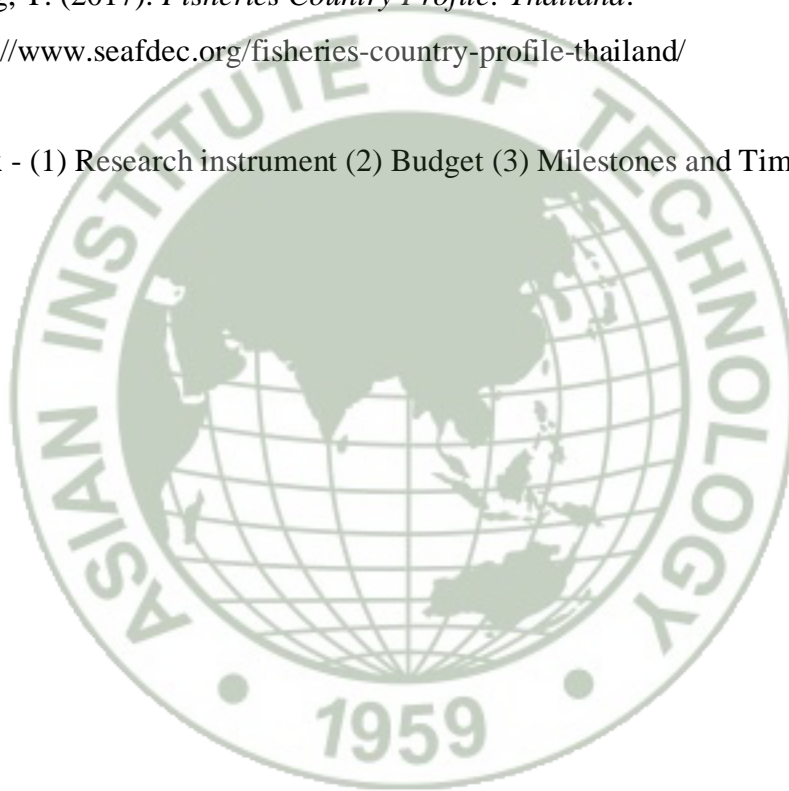
- Lab View project VOLUNTARY SAMPLING DESIGN. *International Journal of Advanced Research in Management and Social Sciences*, 4(2).  
<https://www.researchgate.net/publication/340000298>
- Needham, S., & Funge-Smith, S. (2015). *The consumption of fish and fish products in the Asia-Pacific region based on household surveys*. [www.fao.org/publications](http://www.fao.org/publications)
- Pa. (2022, May 15). *How We Make The Delicious Myanmar Ngapi : Shrimp & Fish Paste*. MyLocal Passion. <https://www.mylocalpassion.com/posts/how-we-make-the-delicious-myanmar-ngapi-shrimp-fish-paste>
- Parasecoli, F. (2014). Food, identity, and cultural reproduction in immigrant communities. *Social Research*, 81(2), 415–439.  
<https://doi.org/10.1353/sor.2014.0015>
- Pradhan, S. K., Nayak, P. K., & Armitage, D. (2022a). A social-ecological systems perspective on dried fish value chains. *Current Research in Environmental Sustainability*, 4, 100128. <https://doi.org/10.1016/j.crsust.2022.100128>
- Pradhan, S. K., Nayak, P. K., & Armitage, D. (2022b). A social-ecological systems perspective on dried fish value chains. *Current Research in Environmental Sustainability*, 4. <https://doi.org/10.1016/j.crsust.2022.100128>
- Reiheld, A. N. C. (2014). Gender Norms and Food Behavior. In Paul Thompson & David Kaplan (Eds.), *Encyclopedia of Food and Agricultural Ethics*.  
<https://philpapers.org/rec/REIGNA>
- Robalino, J. (2019). *Myanmar Ayeyarwady Delta Bio-based Value-chain Analysis for Sustainable Mangrove Restoration*.  
<https://www.researchgate.net/publication/344337577>
- Saba, A., Virgili, F., Arganini, C., Comitato, R., & Turrini, A. (2012). Gender Differences in Food Choice and Dietary Intake in Modern Western Societies. *Public Health - Social and Behavioral Health*. <http://www.intechopen.com/books/public-health-social-and-behavioral-health/gender-differences-in-food-choice-and-dietary-intake-in-modern-western-societies>
- SamutsakhonCityMunicipality. (2021). *General Condition Information* .  
<https://sakhoncity.go.th/public/list/data/index/menu/1144>

- Sarapirom, K., & Muensakda, P. (2018). Existence of quality of life among Myanmar migrant workers under Thai socio-cultural context in Samut Sakhon Province, Thailand. *Thai Interdisciplinary Research* , 13(5), 11–18.
- Sarapirom, K., Muensakda, P., & Sriwanna, T. (2020). Lifestyles of Myanmar migrant workers under Thai socio-cultural context: A challenge of state management in the future. *Interdisciplinary Research Review*, 15(5), 8–15.
- Schafer, R. B., & Schafer, E. (1989). Relationship between gender and food roles in the family. *Journal of Nutrition Education*, 21(3), 119–126.  
[https://doi.org/10.1016/S0022-3182\(89\)80094-9](https://doi.org/10.1016/S0022-3182(89)80094-9)
- Sibal, V. (2018). *FOOD: IDENTITY OF CULTURE AND RELIGION*.  
<https://www.researchgate.net/publication/327621871>
- Suastika Jaya, I., Jaiyen, T., Kay Thwe Moe, N., Panha, T., Sengkapkeo, V., Soliven, B. B., Sulit, V. T., & Villamor Chumchuen, S. (2019). Safeguarding the Niche for Southeast Asian Fish and Fishery Products in the World Market. *Journal of Muscle Foods* .
- Sukhpisit, S. (2017, February 19). Soaking up the sun. *Bangkok Magazine*.
- Suwanee. (2020, February 24). *DRIED SHRIMP*. SIMPLY SUWANEE.
- Terragni, L., & Roos, G. (2018). People Moving with Food from and to Northern Europe: Food, Migration and Multiculturalism. *Anthropology of Food*, S12.  
<https://doi.org/10.4000/aof.9123>
- Tezzo, X., Aung, H. M., Belton, B., Oosterveer, P., & Bush, S. R. (2021). Consumption practices in transition: Rural-urban migration and the food fish system in Myanmar. *Geoforum*, 127, 33–45. <https://doi.org/10.1016/j.geoforum.2021.09.013>
- Thilsted, S. H., James, D., Toppe, J., Subasinghe, R., & Karunasagar, I. (2014). *Maximizing the contribution of fish to human nutrition*.  
[https://digitalarchive.worldfishcenter.org/bitstream/handle/20.500.12348/126/3773\\_2014\\_Thilsted\\_Maximizing.pdf?sequence=1&isAllowed=y](https://digitalarchive.worldfishcenter.org/bitstream/handle/20.500.12348/126/3773_2014_Thilsted_Maximizing.pdf?sequence=1&isAllowed=y)
- Torosyan, K., Gerber, T. P., & Goñalons-Pons, P. (2016). Migration, Household Tasks, and Gender: Evidence from the Republic of Georgia. *International Migration Review*, 50(2), 445–474. <https://doi.org/10.1111/imre.12147>



- UN. (n.d.). *Migration* . United Nations . Retrieved July 13, 2022, from <https://www.un.org/en/global-issues/migration>
- UNHCR. (2019). *The impact of migration on migrant women and girls: a gender perspective*. [https://ap.ohchr.org/documents/dpage\\_e.aspx?si=A/HRC/41/38](https://ap.ohchr.org/documents/dpage_e.aspx?si=A/HRC/41/38)
- Williams, A. M., & Hall, C. M. (2000). Tourism and migration: New relationships between production and consumption. *Tourism Geographies*, 2(1), 5–27. <https://doi.org/10.1080/146166800363420>
- Yamane, T. (1967). *Statistics: An Introductory Analysis* .
- Yenpoeng, T. (2017). *Fisheries Country Profile: Thailand*. <http://www.seafdec.org/fisheries-country-profile-thailand/>

Appendix - (1) Research instrument (2) Budget (3) Milestones and Timeline



## APPENDICES

### Appendix 1. Research Instruments

#### *Questionnaire*

##### **Consent Form**

I am a master student from Asian Institute of Technology studying Gender and Development Studies. I am here with you for my thesis research which is required to fulfil my master study. My research is mainly focused on the gender relation in the household and the dried fish consumption culture changes when you moved to Thailand. I will reach out about 250 Myanmar migrants for this research in Mahachai. The interview will be last about 35 mins and you can refuse to answer any question if you are not comfortable to answer. But I really appreciate if you can participate for the whole interview. Please also note that your response will be used for the study purpose only and not shared to others.

Will you be a part of interview?

1. Yes
2. No

Thank you so much for your time and participation. You can ask question anytime if you have something not clear about the study.

## Questionnaire

### ***GENDER ANALYSIS OF DRIED FISH CONSUMPTION AMONG MYANMAR MIGRANTS IN MAHACHAI SUB-DISTRICT OF SAMUT SAKHON PROVINCE, THAILAND***

#### **A. Respondent and Household Information**

Q. No.	Questions	Response	Notes
A_01	What is your name?	(name)	
A_02	Are you male or female?	1 = Female 2 = Male	<i>Can fill out based on the name/person without asking</i>
A_03	How old are you? (In years)	(number)	<i>Fill the full age only</i>
A_04	What is your ethnicity?	1 = Bama    7 = Kayah 2 = Chin    8 = Kayin 3 = Danu    9 = Mon 4 = Dawei    10 = Shan 5 = Inn    11 = Pa O thar    9996 = other 6 = Kachin (specify)	
A_05	Which State/Region in Myanmar did you come from?	1 = Bago    9 = Sagaing 2 = Chin    10 = Shan 3 = Kachin    11 = 4 = Kayah    Taninthayi 5 = Kayin    12 = Yangon 6 =    13 = Rakhine Mandalay    14 = 7 = Mon    Ayeyarwady 8 = Nay Pyi Taw	

A_06	Who are you staying with in here (Thailand)?	1 = with family 2 = with siblings 3 = with friends sharing foods 4 = with friends no sharing foods 5 = staying alone	
A_07	How many household members are there?	(number)	
A_07a	How many men?	(number)	
A_07b	How many women?	(number)	

## B. Migration History

Q. No.	Questions	Response	Notes
B_01	How long have you been in Thailand?	(number)	
B_02	What is the first year of migrate to Thailand?	Years	
B_03a	Do you usually go back home (Myanmar)?	1 = Yes 2 = No	If yes, continue to ask B_03b.
B_03b	How frequent do you go back home?	1 = Once a year 2 = Twice a year 3 = 3 times a year 4 = 4 times a year	CAPI- enable B_03b if B_03a = 1.
B_04	How long have you stay here (residential area)?	(number) Unit: 1 = year 2 = months	



### C. Living Status

Q. No.	Questions	Response	Notes
C_01	What is your occupation?	1 = daily waged labor 2 = salaried labor 3 = owned business	
C_02	What kind of work you are working?	1 = agriculture 2 = seafood processing industries 3 = factories 4 = fishing boats 5 = restaurants/markets 6 = food vendors 7 = Grocery retailers 9996 = other (specify)	CAPI - Code can be multi-selected.
C_03	How much do you earn per month in average?	(number) THB	
C_04	Do you usually go to the community social activities? (e.g., wedding, gathering, birthday, etc.)	1 = Yes, often 2 = Yes, sometimes 3 = Yes, rarely 4 = No, not at all	

#### D. Gender Division of labor in the Household staying in Thailand

Q. No.	Questions	Response	Notes
D_01	Who work for income in your household?	(Open-ended response ) e.g., father, husband, mother, daughter, son, etc.	The response will be coded in data cleaning.
D_02	Who choose what to eat for daily meals?	(Open-ended response) e.g., father, husband, mother, daughter, son, etc.	The response will be coded in data cleaning.
D_03	Who go for the grocery shopping?	(Open-ended response) e.g., father, husband, mother, daughter, son, etc.	The response will be coded in data cleaning.
D_04	Who take care of the daily meal cooking?	(Open-ended response) e.g., father, husband, mother, daughter, son, etc.	The response will be coded in data cleaning.
D_05	Who do the other household task? (e.g., washing clothes, dishes, cleaning room)	(Open-ended response) e.g., father, husband, mother, daughter, son, etc.	The response will be coded in data cleaning.
D_06	Who take care of the children?	(Open-ended response)	The response will be coded in data cleaning.

		e.g., father, husband, mother, daughter, son, etc. 9998 = Not applicable if HH doesn't have child	
--	--	--	--

#### **E. General Food Consumption and Dried Fish Consumption Practices in Thailand**

<b>Q. No.</b>	<b>Questions</b>	<b>Response</b>	<b>Notes</b>
E_01	How do you usually have daily meal?	1 = cook at home (residence) 2 = buy from the restaurants/eat outside 3 = provide from the workplace	
E_02	Did you/your household cook in last 7 days?		If E_01 = 2 & 3, ask this question. CAPI – skip E_02 if E_01 == 1.
E_03	What kind of food do you usually cook?	1 = Home cooked (ethnic) 2 = Traditional Cuisine (Burmese) 3 = Thai food 9998 = other (specify)	
E_04	Do you usually eat dried fish products (dried fish, dried	1 = Yes 2 = No	

	anchovy, dried shrimp, fish paste, fermented fish)?		
E_05	How do you usually eat dried fish products?	1= Cook at home 2 = Buy from outside	
E_06	What kind of dried fish products do you usually eat?	1 = dried fish (snakehead) 2 = dried anchovy 3 = dried shrimp 4 = Fish paste 5 = Fermented fish 9996 = Other (specify)	CAPI – Response can be multi-selected.
E_07	Did you eat dried fish products <b>in the last 7 days</b> ?	1 = Yes 2 = No	
E_08	How many meals you ate with dried fish products <b>in the last 7 days</b> ?	(number) meals	
E_09	What kind of dried fish products did you eat <b>in the last 7 days</b> ?	1 = dried fish (snakehead) 2 = dried anchovy 3 = dried shrimp 4 = Fish paste 5 = Fermented fish 9996 = Other (specify)	CAPI – Response can be multi-selected.
E_10	How much did you eat the dried fish products per meal <b>in the last 7 days</b> ?	(Quantity) Kg	This question will ask for each product that the respondents answered.



			CAPI – ask this question for each dried products chose in E_09.
E_11	How much do you usually pay for 1 Kg of dried fish products?	(amount) THB	This question will ask for each product that the respondents answered. CAPI – ask this question for each dried products chose in E_09.
E_12	Where do you usually get the dried fish products?	1 = buy from the market nearby 2 = buy from retailers which sell dried fish products from Myanmar 3 = send from family (Myanmar) 4 = buy from the Bang Bon Burmese market 5 = home-made 6 = buy from the Burmese retailers made their owned 9996 = Other (specify)	CAPI – ask this question for each dried products chose in E_09. Will ask for each product.

E_13	Are the dried fish products that you consumed produced in Thailand?	1 = Yes, from Thailand 2 = No, from Myanmar 3 = Both	
------	---	--	--

**F. Gender Division of labor in the Household staying in Myanmar before migrated**

Q. No.	Questions	Response	Notes
F_01	Who work for income in your household?	(Open-ended response) e.g., father, husband, mother, daughter, son, etc.	The response will be coded in data cleaning.
F_02	Who choose what to eat for daily meals?	(Open-ended response) e.g., father, husband, mother, daughter, son, etc.	The response will be coded in data cleaning.
F_03	Who go for the grocery shopping?	(Open-ended response) e.g., father, husband, mother, daughter, son, etc.	The response will be coded in data cleaning.
F_04	Who take care of the daily meal cooking?	(Open-ended response) e.g., father, husband, mother, daughter, son, etc.	The response will be coded in data cleaning.

F_05	Who do the other household task? (e.g., washing clothes, dishes, cleaning room)	(Open-ended response) e.g., father, husband, mother, daughter, son, etc.	The response will be coded in data cleaning.
F_06	Who take care of the children?	(Open-ended response) e.g., father, husband, mother, daughter, son, etc. 9998 = Not applicable if HH doesn't have child	The response will be coded in data cleaning.

#### **G. Dried Fish Consumption recall from the origin Myanmar**

Q. No.	Questions	Response	Notes
G_01	Did you eat dried fish products (dried fish, dried anchovy, dried shrimp, fish paste, fermented fish) in Myanmar?	1 = Yes 2 = No	
G_02	How many meals did you usually eat with dried fish products in Myanmar in a week in average?	(number) meals	
G_03	What kind of dried fish products do you usually eat?	1 = dried fish (snakehead) 2 = dried anchovy 3 = dried shrimp 4 = Fish paste 5 = Fermented fish	CAPI – Response can be multi-selected.

		9996 = Other (specify)	
G_04	How much did you eat dried fish products in average for a meal?	(quantity) Kg	This question will ask for each product that the respondents answered. CAPI – ask this question for each dried products chose in F_03.
G_05	How much do you usually pay for 1 Kg of dried fish products?	(amount) THB	This question will ask for each product that the respondents answered. CAPI – ask this question for each dried products chose in G_03.

#### H. Perception on the different dried fish products

Q. No.	Questions	Response	Notes
H_01a	Do you think the dried fish products you buy from Thailand differ with the one from Myanmar?	1 = Yes 2 = No	
H_01b	How the dried fish products are different?	1 = taste 2 = the raw material	If H_01a is no, skip this question.



		3 = price (more expensive) 4 = price (cheaper) 5 = Other (specify)	CAPI – enable H_01b if H_01a ==1.
H_02	Which dried fish products do you prefer?	1 = from Myanmar 2 = from Thailand	
H_03	How do you feel whenever you eat the dried fish products cuisine here?	1 = feel like home 2 = missing home 3 = no feeling	
H_04	Why you want to eat dried fish products?	1= For protein 2= For calcium 3= For easy meal preparation 9996 = Other (Specify)	

#### I. Gender relation to the dried fish products consumption

Q. No.	Questions	Response	Notes
I_01	Who usually mention that want to have home-cooked cuisine in your household?	(Open-ended response) e.g., father, husband, mother, daughter, son, etc.	The response will be coded in data cleaning.
I_02	Who usually ask to cook dried fish products cuisine in your household?	(Open-ended response) e.g., father, husband, mother, daughter, son, etc.	The response will be coded in data cleaning.

I_03	How did you learn how to cook dried fish products cuisine?	1 = learnt from mom 2 = ask the other (neighboring, people from home, online)	
I_04a	Do your household members complain that your cuisines are different from home-made?	1 = Yes 2 = No	
I_04b	Who usually complain like that?	1 = Female 2 = Male 3 = Both	If H_04a is no, skip this question. CAPI – enable H_04b if H_04a ==1.
I_05	What kind of dried fish products cuisine do <i><b>your household members</b></i> prefer?	1 = Home-cooked style 2 = Burmese traditional style 3 = Thai cuisine style	<i>Note: Home-cooked means different ethnic cooking style at home.</i>
I_06a	Who usually prefer <b>home-cooked</b> dried fish cuisines in your household?	(Open-ended response) e.g., father, husband, mother, daughter, son, etc.	The response will be coded in data cleaning.
I_06b	Who usually prefer <b>Burmese traditional style</b> dried fish cuisines in your household?	(Open-ended response) e.g., father, husband, mother, daughter, son, etc.	The response will be coded in data cleaning.

I_06c	Who usually prefer <b>Thai cuisine style</b> dried fish cuisines in your household?	(Open-ended response) e.g., father, husband, mother, daughter, son, etc.	The response will be coded in data cleaning.
-------	---	---	--



## **In-depth Interview Checklists (Consumer Respondents)**

### **I. Respondent and Household Information**

- Name
- Age
- Gender
- Marital Status
- Education
- Occupation
- Ethnicity
- Place of origin
- How many people are there in your household?
- Specify who are the household members
- How long have you migrated in Thailand?
- Do you eat share the daily meal together among you household members?

### **II. Gender Division of labor in the household and Gender roles changes**

- How does your household member manage the household task?
- Who do the income generation?
- How do you usually manage for the daily meals?
- Who do cooking for daily meals? Why?
- Who go shopping for the cooking grocery?
- How are the choice of daily cuisines made among the household members?
- How the roles of household members have been changed among the household members when you migrated to Thailand?

*When you are in Myanmar,*

- How did you manage for the household task?
- How did you manage for the daily meals?
- Who did cooking in your household? Why?
- Who go shopping for the cooking grocery?
- How are the choice of daily cuisines made among the household members?

### **III. Gender difference in attachment to the daily food consumption**

- How your household members usually want to have the daily meal? Do they prefer to eat at home or outside or home cooked food?
- How do the household member have different preference on food? Can you please explain.
- Who usually have the specific food menu that they want to eat? Please explain who usually want what kind of foods, how do you manage it?
- How often you cook/have the home-cooked foods? Do you usually cook like your home recipes? Please explain.

#### **IV. Dried fish products consumption**

##### ***In Thailand,***

- Do you and your household members usually eat the dried fish products? If so, how often do you usually eat the dried fish products? Why you want to eat the dried fish products?
- Can you tell what kind of dried fish products do you usually eat?
- How do you get the dried fish products? Where, how?
- In your household members, who usually ask to cook the dried fish products cuisines in your household members?
- How do you usually cook the dried fish products cuisine? Who cook? How- (like your mom, home-cooked, Burmese traditional style)? Please explain.
- Do you share the dried fish cuisine with the other neighboring/ friends? If so, why you want to share?
- What kind of dried fish products cuisine do you usually cook? (Fish paste curry, grilled dried fish, dried anchovy salad, etc.)

##### ***In Myanmar,***

- Do you and your household members usually eat the dried fish products? If so, how often do you usually eat the dried fish products? Why you want to eat the dried fish products?
- Can you tell what kind of dried fish products do you usually eat?
- How do you usually cook the dried fish products cuisine? Who cook? How- (like your mom, home-cooked, Burmese traditional style)? Please explain.



- What kind of dried fish products cuisine do you usually cook? (Fish paste curry, grilled dried fish, dried anchovy salad, etc.)
- How do the dried fish products differ from Myanmar that you buy in Thailand?
- How do you and other household members feel whenever you eat the dried fish products cuisine?



## **Key-Informant Interview Checklists (Dried fish retailer respondents)**

### **I. Respondent Information**

- Name
- Age
- Gender
- Ethnicity
- Occupation
- Place of origin

### **II. Migration and Dried Fish Retail Selling History**

- How long have you been migrated to Thailand?
- How do you usually go back home after migration?
- What kind of works you have been working in Thailand?
- Currently, are you working as wage/salaried labor? If so, what kind of work you are working?
- Apart from working outside, do you have other income activities?
- When did you start working as a dried fish retailer?
- How did you get the idea to work as the dried fish retailer?
- How did you start selling the dried fish products? Please explain the story.

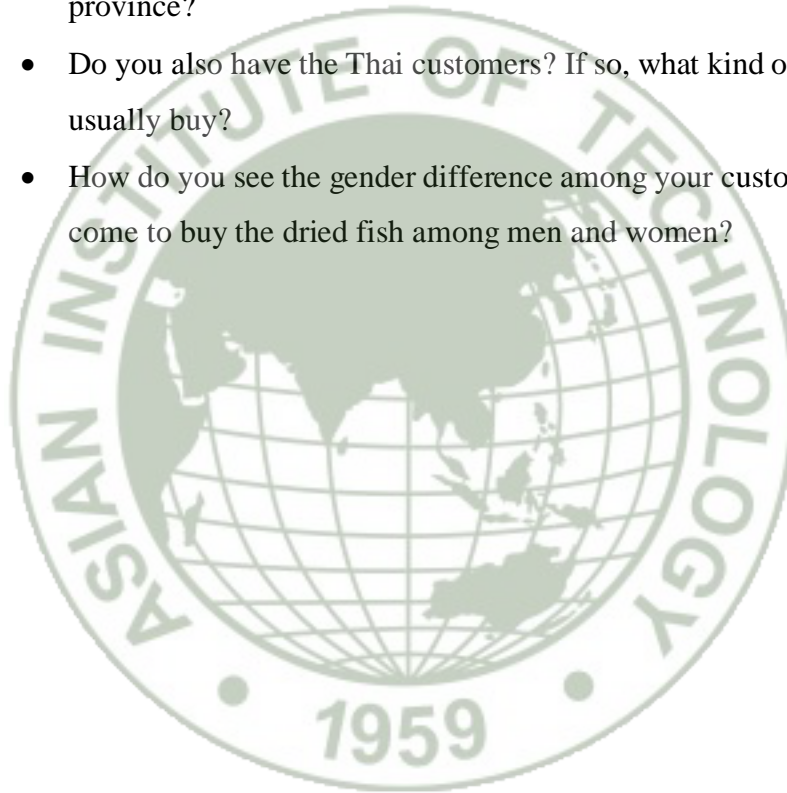
### **III. Types of Sold Dried fish products and Supply source**

- What kind of dried fish products do you sell? Please explain.
- Do you also sell the dried fish made on your owned. If so, can you explain how did you start selling home-made dried fish products and why you want to sell?
- In your opinion and experience, how is different among the dried fish products from Myanmar and Thailand? About the taste, raw material, price, etc.
- (*If the respondents sell the dried fish products from Myanmar*) How do you get the dried fish from Myanmar to sell in Thailand? Can you explain how you supply to Thailand?
- And, why do you also sell the Myanmar dried fish products?

- How many (weight-quantity) of dried fish do you sell in a month in average?

#### **IV. Consumers preference and the origin of Consumers**

- What kind of dried fish products are mostly bought from the consumers?  
Do you also know why they choose the best-selling products?
- Do you now that how and why different dried fish products are preferred by the consumers? Please explain.
- Where most of the consumers come from? Nearby your residence? Another province?
- Do you also have the Thai customers? If so, what kind of dried fish do they usually buy?
- How do you see the gender difference among your customers? Who mostly come to buy the dried fish among men and women?



## Appendix 2. Timeline of the Study

	2022							2023				
Works	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Field Observation of study area												
Title and Committee member assigned												
Literature Review												
Proposal Preparation												
Proposal Defense												
Preparation for Data Collection												
Data collection												
Data processing and analysis												
Thesis Writing												
Progress Defense												
Final Thesis Defense												
Thesis Submission												
Graduation												

### Appendix 3. Estimated Budget of the Study

No.	Subject	Quantity	Unit	Cost per unit (THB)	Amount (THB)
1.	Enumerators fee for data collection	240	Interview	70	16, 800
2.	Participants Incentive	260	Person	50	13,000
3.	Miscellaneous	-	-	2,000	2,000
4.	Transportation	-	-	10,000	10,000
5.	Printing for thesis submission	-	-	3,200	3,200
	<b>Total</b>				<b>45,000</b>