

## Foreign Workers Life Quality Development In Pak Nam Tha Ruea Subdistrict Municipality, Ranong Province

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### *Abstract*

This research paper aims to: 1) To study the quality-of-life problems of migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province. 2) To propose guidelines for improving the quality of life of migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province. There are 4 aspects: Housing conditions, Health & Hygiene, Working conditions and safety at work and Remuneration and Benefits by qualitative research. This is an in-depth interview from key informants consisting of executives and members of Paknam Tharua Subdistrict Council, Community developers, Kamnan, village chiefs, community leaders, public health, private business entrepreneurs, citizens, migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province 17 people.

The results of the research were as follows:

1. Quality of life problems of migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province. **Housing conditions** are quite crowded because workers gather a lot in one house, making the living space inside the house cramped. **Health & Hygiene** has problems with infectious diseases such as tuberculosis, AIDS, etc., and almost 100% of migrant workers do not understand good health and good hygiene. **Working conditions and safety at work**, foreign workers in some occupations are not safe enough, injured during work, safety in some occupations is at risk, such as fishing for several days due to labor negligence. In addition, there may be work accidents such as ice falling on the legs, falling off the boat, cutting the hands and

legs, etc. **Remuneration and Benefits**, the wages received do not meet the truth as stipulated by law and welfare are received from social security, and sometimes the remuneration for foreign workers will be based on the occupation and expertise in that job as agreed by the employer and the worker before starting work. In addition, some workers do not receive overtime pay, if they work more than the normal working hours as required by law. However, standardized establishments provide compensation according to the minimum wage stipulated by law, and benefits are only provided by social security.

2. Guidelines for improving the quality of life of migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province. **Housing conditions** should be arranged in non-distributed groups for easy control and monitoring. When an incident endangers the life and property of residents in the community, as well as maintaining a clean indoor and outdoor environment at all times, it is a prevention of contagious diseases that spread easily. **Health & Hygiene** should have relevant agencies publicize to migrant workers about discipline and order. By maintaining cleanliness, good and hygienic environment, doing it regularly, which rental operators and employers must be strict, regularly inspecting, will prevent the spread of contagious germs. **Working conditions and safety at work** should ensure good safety at work, thorough supervision from employers and relevant government agencies to check regularly, as well as provide better safety equipment. And the work system is organized to be efficient and appropriate. So that there will be no life-threatening incidents. **Remuneration and Benefits** should be paid truthfully and increased according to the specific abilities and skills of the worker and receive benefits from social security as stipulated by law.

Keywords: Development / Life Quality / Foreign Workers.

### Introduction

Ranong Province is a province in Thailand, the Upper Southern Province, bordered to the north by Tha Sae District, Chumphon Province. To the east, it is connected with Amphoe Muang, Amphoe Sawi, Amphoe Phato, Chumphon and Chaiya District, Tha Chang District, Ban Ta Khun District, and Vibhavadi District, Surat Thani Province. To the south, it connects with Khura Buri District, Phang Nga Province and Khiri Rat Nikhom District, Surat Thani Province. To the west, it connects with the Republic of the Union of Myanmar and the Andaman Sea. Formerly Pak Nam Subdistrict Administration Organization and raised to the status of Pak Nam Tharua Subdistrict Municipality since July 25, 2008 onwards. The total area is 22.80 km<sup>2</sup> (14,250 rai), whose territory is to the north with Sai Daeng Subdistrict, Mueang Ranong District. To the south, it connects with Bang Rin Subdistrict, Mueang Ranong District. To the east, it connects with Bang Non-Subdistrict,

Mueang Ranong District. To the west, it connects with the Kraburi River. The Thai-Burmese border (Republic of the Union of Myanmar) is divided into 5 villages: Moo 1 Ban Pak Klong, Moo 3 Ban Hin Chang, Moo 4 Ban Khao Na Hong, and Moo 5 Ban Koh Lao. For Moo 2, Ban Koh Kandee is in Pak Nam Subdistrict Municipality, Muang District, Ranong Province, which can be seen that the topography of Kraburi District is adjacent to neighboring countries, namely the Republic of the Union of Myanmar, where migrant workers are moved into Thailand both legally and unlawfully. Foreign workers have also contracted COVID-19, contributing to the spread of COVID-19. This is in line with the Local Development Plan B.E. 2561-2021 of the Nam Chut Noi Subdistrict Administration Organization, Kraburi District, Ranong Province. People also lack knowledge, understanding of communicable diseases, epidemics, lack of interest in maintaining health. Hygiene problems, youth quarrels are becoming more violent. Due to values, false imitations, the disaster prevention and mitigation system is not adequately equipped for emergency assistance, the prevention and solution of drug problems in the community is not strong, the drug epidemic continues to exist in society due to lack of continuity in suppression and prevention. As for economic problems, there are many occupational groups within the district, but there is no increase in productivity. Agricultural products have low prices but high production costs. Some groups of people still lack funds for their livelihoods, do not have a marketplace to sell products, etc.

As a result of the above-mentioned problems, the quality of life of migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province has decreased. People fear about the quality of life for themselves and their families, including their physical health, mental state, social and environmental conditions, and factors in daily life. Therefore, the researcher is interested in conducting a research study on "Foreign Workers Life Quality Development in Pak Nam Tha Ruea Subdistrict Municipality, Ranong Province" as a body of knowledge to study the real problems of quality of life of migrant workers in Pak Nam Tha Ruea Subdistrict Municipality, Muang District, Ranong Province. This will provide information to government agencies or the private sector in formulating strategies, strategies, policies, planning, to improve people's quality of life for efficiency and effectiveness in the midst of constant changes.

### **Research Objectives**

1. To study the quality-of-life problems of migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province.
2. To propose guidelines for improving the quality of life of migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province.

## Research Methods

A form of research, conducted this research by the researcher using qualitative research methodology. It is a purposive random sampling from key informants.

### 1. Scope of research

1.1 Content Scope This research has a content scope. There are 4 aspects: 1) Housing conditions 2) Health & Hygiene 3) Working conditions and safety at work 4) Remuneration and Benefits.

1.2 The scope of key contributors in specific in-depth interviews includes: Executives and members of Paknam Tharua District Council, community developers, Kamnan, village chiefs, community leaders, public health, private business entrepreneurs, people and 17 migrant workers in Paknam Tharua Subdistrict, Muang District, Ranong Province.

1.3 Spatial boundaries, this study is the area in Paknam Tharua Subdistrict, Muang District, Ranong Province, which consists of 1 sub-district, namely Paknam Tharua Sub-district, and 3 villages, namely Moo 1 Ban Pak Klong, Moo 3 Ban Hin Chang, and Moo 4 Ban Khao Na Hong.

1.4 Duration scope, the research study from October 2022 to July 2023, a total of 10 months.

### 2. Research Instruments

The researcher has created an in-depth interview using books, documents, concepts, theories, and related research, which is a Structural Interviewing Guideline. The nature of the interview form is open-ended or subjective, which is divided into Part 1 Personal Factors of the interview respondents, Part 2 Comments on the quality-of-life problems of migrant workers and guidelines for improving the quality of life of migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province, and Part 3 Other Suggestions.

### 3. Collection of Information

A collection of Information, the researchers conducted data collection based on the objectives of the research, as follows:

3.1 Send a letter of courtesy to attend the interview with clarification of the appointment date and location of the interview to the group of key information providers in person in order to obtain accurate and complete information. It relies on note-taking, recording of interviews, and recording images with interviewees.

3.2 Data were collected from qualitative research from 17 key data providers through purposive random sampling.

3.3 The results of the in-depth interview are summarized completely and accurately according to the objectives as well as suggestions and opinions obtained from the in-depth interview to examine the issues set. If the interview is found to be lacking or there is still unclear, the researcher will have to go to the field for another interview until the issues and results of the study are comprehensive and complete according to the research objectives.

#### 4. Data analysis

To analyze the data, we analyzed the data obtained from the study of the document. In-depth Interview uses Content Analysis and presents research results by means of Descriptive Analysis.

### **Research Results**

#### **Personal Data Analysis Results**

According to the study, in-depth interview participants consisted of: 1 person of Permanent Commissioner, 2 persons of Political Officials, 1 person of Administrative Officer, 1 person of Former Director of Pak Khlong Sukpha Promotion Hospital, 1 person of Paknam Subdistrict, 2 members of the community committee, 1 person of chairman of the estuary fishery farmer group, 2 persons of business owners, 4 persons of citizens, 3 persons of migrant workers, total 17 persons.

#### **Analysis of quality-of-life problems of migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province**

**Housing conditions**, that affect migrant workers It was found that the living conditions were quite crowded because workers would gather in large numbers in one house, making the living space inside the house cramped.

**Health & Hygiene**, those affect the quality of life of migrant workers It was found that migrant workers still have problems with infectious communicable diseases such as tuberculosis, AIDS, etc., and almost 100% of migrant workers do not understand good health and good hygiene.

**Working conditions and safety at work**, it was found that migrant workers in some occupations were not sufficiently safe, injured during work, some occupations were at risk, such as fishing for several days, caused by the workers' own negligence. In addition, there may be work accidents such as ice falling on the legs, falling off the boat, cutting the hands and legs, etc.

**Remuneration and Benefits** affect the quality of life of migrant workers It was found that the wages received did not meet the truth as required by law and welfare would be received from social security, and sometimes the remuneration for foreign workers received would be according to the occupation and expertise in that job as agreed by the employer and the worker before starting work. In addition, some workers do not receive overtime wages, if they work more than the normal working hours as required by law, but standardized establishments, provide compensation according to the minimum wage stipulated by law, and benefits are only provided by social security.

#### **Analysis of guidelines for improving the quality of life of migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province**

**Housing conditions** should be arranged in non-dispersed groups for easy control and inspection. When an incident endangers the life and property of residents in the community, as well as maintaining a clean indoor and

outdoor environment at all times, it is a prevention of contagious diseases that spread easily.

**Health & Hygiene** should have relevant agencies publicize to migrant workers about discipline and orderliness by maintaining cleanliness, good environment and hygiene regularly. Rental operators and employers must be strict, regularly inspected, to prevent the spread of contagious diseases.

**Working conditions and safety at work**, it is found that there should be good safeties at work, thorough supervision from employers and relevant government agencies to check regularly. This includes providing better safety equipment and organizing the operation to be efficient and appropriate, so that there will be no life-threatening incidents.

**Remuneration and Benefits** found that actual remuneration should be provided and remuneration should be increased according to the specific abilities and skills of the worker and receive benefits from social security as stipulated by law.

## Discussion

The research study titled "Foreign Workers Life Quality Development in Pak Nam Tha Ruea Subdistrict Municipality, Ranong Province" was conducted to study the quality-of-life problems of migrant workers in Pak Nam Tha Ruea Subdistrict Municipality, Muang District, Ranong Province. And presented guidelines for improving the quality of life of migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province, as follows:

1. Quality of life problems for migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province.

**1.1 Housing conditions** found that living conditions are quite crowded because workers gather a lot in one house, making the living space inside the house cramped. This is in accordance with the concept of **Daycho Khaenamkhaew. et al. (2019: 305-306)** who found that the side with the lowest mediocre average compared to other aspects is housing, such as because migrant workers work in areas that are not in their place of birth, so they must come together as a group. That also want to save money each month in order to have enough money for their daily living and send money back to their families to have a better life.

**1.2 Health & Hygiene** found that migrant workers still have problems with infectious diseases such as tuberculosis and AIDS, and almost 100% of migrant workers do not understand good health and good hygiene. This is in line with **Chularat Konpern's (2015)** research that found that the environment has a significant impact on health. This is because the internal and external environment surrounding migrant workers affects the health of migrant workers. If the migrant workers' surroundings are unhygienic, polluted, or slums or slums, spoiled or mingled by drug addicts, thieves, or gambling sites, prostitution, or even the migrant workers' working hours are too much, they do not eat, they cannot sleep, or they do not get enough

rest, it will surely result in deterioration of the workers' health. And many diseases, as well as migrant workers do not care about their physical health just to earn a lot of money so that they can live in society and have to bear the expenses of having to support or send their families to their home countries.

**1.3 Working conditions and safety at work**, it was found that migrant workers in some occupations were not sufficiently safe, injured during work, and some occupations were at risk. This is in line with research by **Pewika Chubunjong, Worada Dangson (2011)** that found that the quality of life of migrant workers before entering Thailand in terms of family, social and work aspects is low. It affects the quality of life that does not exist. The livelihood of migrant workers before entering Thailand depends on the situation and limited resources. The quality of life of migrant workers is moderate, because of the risks associated with work and may encounter minor problems in the workplace. The employer or entrepreneur will take measures and solutions to such problems. This is because most migrant workers who come to work in Thailand come to work in a labor-intensive manner, such as working on fishing boats, working on fish bridges, working as waitresses in restaurants, etc.

**1.4 Remuneration and Benefits** found that the wages received did not meet the legal requirements and that the benefits would be received from social security. And sometimes the remuneration for foreign workers is received, according to the occupation and expertise in that job, as agreed by the employer and the worker before starting work. In addition, some workers do not receive overtime pay, if they work more than the normal working hours as required by law. However, standardized establishments provide compensation according to the minimum wage stipulated by law, and benefits are received only from social security. This is in line with **Niwat Sripok's (2006)** research that found that social factors that contribute to the desire of migrant workers of Burmese nationality are: Hope for a Better Life, the independence and generosity of the Thai people and economic factors have contributed to the desire of Burmese migrant workers to move. This is in line with research by **Jomkwan Kwanyuen (2006)** that found that the main problems and obstacles stem from the unpreparedness of the government, both in terms of policy fluctuations in each period, affecting the introduction of foreign workers into the registration system, and the unavailability of resources and personnel in the area. And because of the unavailability of the public sector, employers are the most important variable in providing basic welfare to foreign workers. In the latter period, employers have shifted from exploiting workers to competing for wages and benefits because the labor shortage has led to the competition for foreign workers, this is because entrepreneurs want to reduce costs. Therefore, hiring foreign workers to work can be hired at a lower labor cost because it is a labor that requires labor to eat. However, migrant workers want to work to earn their own living wages and send them

back to their families abroad, including the benefits that migrant workers will receive are minimal, especially migrant workers who have fled or entered illegally in their homeland.

2. Guidelines for improving the quality of life of migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province.

**2.1 Housing conditions** that affect migrant workers found that living conditions are quite crowded, housing should be arranged in groups not scattered. To control and monitor easily, when an incident endangers the life and property of residents in the community, as well as to keep the indoor and outdoor environment clean, it is a prevention of contagious diseases that spread easily. This is in line with **Chularat Konpern (2015)** that Social Relations, with an overall moderate quality of life. The satisfaction with making friends or getting along with other people as in the past has the highest opinion. Secondly, they are satisfied with the current housing conditions and have enough money to spend as needed. This is because if government agencies or related agencies or entrepreneurs who rent out residential units Organize a management system in the residential rooms that allow migrant workers to stay well, free from dangers or pollution, and provide regular care and care for migrant workers, resulting in a complete quality of life for migrant workers in terms of housing.

**2.2 Health & Hygiene** should have relevant agencies publicize to migrant workers about discipline and orderliness by maintaining cleanliness, good environment and hygiene, doing it regularly. Rental operators and employers must be strict, regularly inspected, to prevent the spread of contagious diseases. This is in line with the research of **Anak Ishoh (2019)** that found that the policy to increase sports fields should be promoted, provide exercise equipment to serve the public, as well as cooperate with local health authorities. The psychologist should provide counseling points, increase channels for group formation and expression of various groups. Social relations should organize activities that promote family relationships or may create other activities to encourage people to reduce their thinking of sexuality and focus on collective and environmental issues. This is because by providing regular health services to migrant workers, migrant workers will be able to perform their duties fully. However, government agencies or related agencies should provide health & hygiene services to migrant workers regularly, including taking care of illegal migrant workers.

**2.3 Working conditions and safety at work** should ensure good safety at work, thoroughly supervised by employers and relevant government agencies to check regularly. In addition, better safety equipment and work systems are organized efficiently and appropriately to prevent life-threatening incidents. This is in line with **Niwat Sripok's (2006)** research that found that social and economic factors are all factors affecting the migration of Burmese migrant workers. This is due to persecution by



Burma's military junta, property security, drug problems, entry and exit between Burma and Chiang Mai, Thailand's immigration laws, and migrant workers' registration. Chiang Mai's labor wage rate, medical benefits for foreign workers, the minimum wage set by the Thai government, living expenses and overtime pay, etc. These factors are the reason why Burmese migrant workers want to migrate to Chiang Mai and other places in Thailand. This is because the control of working conditions and safety is not continuous, consistent. Therefore, government agencies or related agencies should pay attention to the working conditions and work safety of migrant workers.

**2.4 Remuneration and Benefits** found that actual remuneration should be provided and remuneration should be increased according to the specific abilities and skills of the worker and receive benefits from social security as stipulated by law. This is in line with the research of **Kedchapan Kamput (2007)** found that the problems and obstacles faced by recruitment agencies were more difficult to recruit workers who wanted to work in Thailand and delays in the process of applying for imported labor. As a result, it is more difficult for registered workers to select workers according to the qualifications that large enterprises have specified standards. The problem of having an oversupply broker is also a problem for the management of labor delivery. Workers often request to travel to work in the same establishment, the problem of workers fleeing back to the country. These hinder workers and fail to bring back their important documents. They may be arrested by authorities while fleeing the country, problems and obstacles of local agencies, related to the lack of mutual policy understanding by agencies resulting in a lack of integration and collaboration. Coordination with agencies involved in the import of labor is limited, and the establishment of procedures at various levels of consideration is a regulatory obstacle. This is in line with **Kanolwan Jitrojjanaruk's (2015)** research that found that from the perspective of migrant workers who work in domestic service, they perceive themselves as having a good quality of work life, work-life balance, decent living, fair and adequate remuneration, and freedom to communicate with outsiders. But in terms of legal status, they found that they were willing to work even if they did not have a valid work permit. This is in line with the research of **Chanadda Padthong, Wanchai Panjan, Sageemas Na Wichian, Nounla-Or Saengsook, Chompon Rodjam**. This is because hiring foreign workers has lower wages than required by law. As well as hiring migrant workers who flee to work illegally, wages and benefits are minimal. Entrepreneurs can reduce the cost of hiring labor, which will result in a steady increase in profits from their business operations.

#### **Research Knowledge**

This research found that the quality-of-life problems of migrant workers in Paknam Tharua Subdistrict Municipality, Mueang District, Ranong Province.

The problem is that the living conditions are crowded and there are also infectious diseases such as tuberculosis and AIDS, and most workers do not understand good health and good hygiene, making it easily contagious.

In addition, residential areas should be arranged in non-dispersed groups for easy control and monitoring. And the relevant agencies shall publicize to the migrant workers the awareness of discipline and orderliness by maintaining cleanliness, good environment and hygiene, which will prevent the spread of contagious diseases. In addition, ensure good work safety, thorough care, provide better safety equipment, and organize the work system to be effective so that there will be no life-threatening incidents. In addition, they should provide realistic remuneration and increase remuneration according to the specific abilities and skills of workers and receive benefits from social security.

### **Research Suggestions**

#### **1. Recommendations for the implementation of research findings**

1.1 Suggestions on the quality-of-life problems of migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province, should tighten the aggressive behavior of migrant workers, if spotted, return to the country of origin should emphasize cleanliness, to prevent the spread of various pathogens.

1.2 Suggestions on ways to improve the quality of life of migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province by creating foreign health volunteers to be intermediaries to communicate health and other important matters. Foreign workers should be able to pay attention and help in various tasks continuously. It should establish an association for migrant workers in the working area so that the group of workers can easily and conveniently clarify the problems they receive.

#### **2. Next research suggests**

2.1 Further research should be conducted by studying entrepreneurs, businessmen, business owners, and migrant workers in the area and in other provinces where there are many migrant workers.

2.2 Additional variables affecting the quality of life of migrant workers in Paknam Tharua Subdistrict Municipality, Muang District, Ranong Province, such as guidelines for solving problems to improve the quality of life of migrant workers in the form of municipal development plans, solutions to problems of improving the quality of life of migrant workers in the form of public health, etc.

### **References**

Anak Ishoh. (2019). **Quality of Life of People in Tambon Sakom Administrative Organization, Thepha District, Songkhla Province**. A Minor Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Public Administration. Prince of Songkla University.

- Chanadda Padthong, Wanchai Panjan, Sageemas Na Wichian, Nounla-Or Saengsook, Chompon Rodjam. (2020). **Development Model of Human Resources Management for The Small and Medium Enterprises (SME)**. Journal Of Innovation and Management. 5(January-December 2020): 59-71.
- Chularat Konpern. (2015). **Quality of life of people in the Subdistrict Administration Organization Area Song Klong, Bang Pakong District, Chachoengsao Province**. This thesis is a Master of Public Administration program. Major in General Administration. College of Public Administration: Burapha University.
- Daycho Khaenamkhaew, Phra Suthirattanapundit, Parichart Valaisathien. (2019). **Transnational Workers: Quality of Life and Value Creation Under Experience at The Destination, A Case Study of Nakorn Si Thammarat**. Journal Of MCU NAKHONDHAT. Vol.6 No 1 (January –March 2019): 305-325.
- Jomkwan Kwanyuen. (2006). **The Study on Social Welfare for Foreign Migrant Labour: In A Case of Samutsakorn**. A Thesis Submitted in Partial Fulfillment of The Requirement for The Degree of Master of Arts Program in Political Economy. Faculty Of Economics Chulalongkorn University.
- Kanolwan Jitrojjanaruk. (2015). **Quality Of Work Life of Domestic Workers**. An Independent Study Submitted in Partial Fulfillment of The Requirements for The Degree of Master of Business Administration. Faculty of Commerce and Accountancy Thammasat University.
- Kedchapan Kamput. (2007). **Imported Laotian Workers in Songkhla Province: Process, Problems and Consequences**. A Thesis Submitted in Partial Fulfillment of The Requirements for The Degree of Master of Arts Program in Human and Social (Interdisciplinary Program). Graduate School Chulalongkorn University.
- Niwat Sripok. (2006). **Factors affecting the migration of Burmese migrant workers in Mueang Chiang Mai District**. Graduate School Research Report. North Chiang Mai University.
- Pewika Chubunjong, Worada Dangson. (2011). **A Studying the Quality of Life of Migrant Workers in The District Town, Samutsakorn**. A Research Submitted in Partial Fulfillment of The Requirements for The Degree Bachelor of Arts Program in General Business Management. Faculty Of Management Science Silpakorn University.