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Report: The Study on the Economic and Social Impact of Granting Work Rights to Refugees in Thailand: A Case Study of Tak, Chiang Mai and Bangkok

MRN
Myanmar Response Network

CEE CENTER OF EXCELLENCE IN ECONOMETRICS

This study was conducted in collaboration between
The Center of Excellence in Econometrics, Faculty of Economics (CEE), Chiang Mai University
and
Myanmar Response Network (MRN)

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Executive Summary

This research aims to examine the impacts of granting work rights to Myanmar refugees in Thailand through an integrated mixed-methods approach. The study evaluates the economic and social cost–benefit dimensions and proposes appropriate policy recommendations under the guiding principle of "***Refugee Economic Inclusion***" which emphasizes fair participation of refugees in the Thai economy while maintaining a balance with the domestic labor force and ensuring long-term structural stability. The study's findings are presented in three main parts:

1) Labor Dynamics and Provincial Economies

Findings indicate that Thai workers play a vital role in driving local economies. Statistical analysis reveals that an increase in the number of Thai workers is associated with higher per capita income at the provincial level, highlighting the continuing importance of Thai workers in driving local economic development. In contrast, Myanmar migrant workers, particularly low-skilled groups, do not significantly impact overall provincial income. *In other words, an increase in the number of Myanmar migrant workers does not clearly improve or worsen the local economy as a whole.*

However, in areas with a high proportion of Myanmar migrant workers, the study finds that an increase in Thai workers in the same locality can lead to a significant decline in average income. This may be due to competition in the labor market, especially in occupations that rely heavily on manual labor or low-skilled work, where Thai and Myanmar workers are interchangeable, thereby reducing income or employment opportunities for Thai workers. *This suggests that Thailand should implement policies that enable Thai and migrant workers to coexist effectively in the labor market for example, by encouraging Thai workers to develop skills that differentiate them from migrant labor and by designing appropriate employment arrangements that benefit both workers and the national economy in the long term.*

2) Impact Pathways: Assessing the effects of refugee worker policies

Using an *Impact Pathways* framework, the research assessed five policy scenarios: 1) restricting refugees to refugee camps (encampment); 2) opening access for low-skilled workers to enter the system; 3) supporting the integration of skilled refugee workers into the formal system; 4) allowing temporary low-skilled work near refugee camps; and 5) promoting the formal inclusion of skilled refugees into the workforce.

The findings indicate that policy options that promote the participation of refugee workers under clear regulatory frameworks such as *scenarios (3) and (5), which focus on formally integrating skilled refugees in line with labor market needs tend to generate more positive impacts across multiple dimensions.* Such policies can reduce the state's long-term burden, as refugees become more self-reliant, decreasing dependence on aid or humanitarian assistance. At the same time,

they can increase government revenue through taxes, social security contributions, and other employment-related fees.

Furthermore, opening legal pathways for refugees to work under appropriate conditions can enhance Thailand's international reputation in terms of human rights and accountability for migrant labor, especially in light of international human rights treaty obligations and the importance of maintaining good diplomatic relations with neighboring countries.

At the local economic level, allowing refugees to work legally in productive activities such as manufacturing, agriculture, or small businesses in communities near refugee camps can stimulate income circulation, alleviate labor shortages, and foster tangible collaboration between host communities and refugees. The effectiveness of such policies will be significantly greater if conditions are carefully tailored to local contexts and job types for example, by permitting employment only in activities that do not negatively affect domestic workers or in areas facing acute labor shortages.

3) Microeconomic impacts

Analysis of data from 298 Myanmar migrant workers indicate that income significantly affects expenditure both before and after obtaining legal work rights, with the positive effect being even stronger prior to obtaining legal status. This demonstrates that the legal status of migrant workers directly influences their spending patterns. *An economic assessment using a Multiplier Analysis estimates an annual GVA of THB 70–86 billion, and a five-year Net Present Value (NPV) of THB 344.9–378.3 billion, with a Benefit-Cost Ratio (BCR) of over 7 times.* This reflects the clear long-term returns of integrating refugees into the formal economy, even when hidden costs slightly reduce the multiplier effect.

Key Policy Recommendations

Based on empirical evidence and systemic analysis, the study proposes policy recommendations at three levels: national policy, business sector, and local implementation. A central recommendation is to *adopt the principle of "Refugee Economic Inclusion" with clear conditions, allowing refugees to work in specific occupations or areas experiencing labor shortages, within a robust legal and monitoring framework.*

Simultaneously, there should be efforts to upgrade the skills of Thai workers to prevent direct competition in low-skilled segments of the labor market. *Reducing barriers to formalization for migrant workers such as lowering document fees and establishing effective One-Stop Services would help ease their transition into the formal system.*

In addition, incentives should be designed to encourage migrant workers to spend and save more within Thailand, minimizing capital outflows and enhancing economic efficiency. Examples

include Bangladesh's **Wage Earner's Development Bond** or Germany's **FreDI** model for supporting migrant savings and investments.

Finally, the *Thai government should actively promote a transition toward a productivity-driven labor market rather than reliance on low-cost labor, through investments in technology, skills development, and high-quality employment practices.* Such measures will strengthen the foundations for Thailand's sustainable economic growth in the long term.

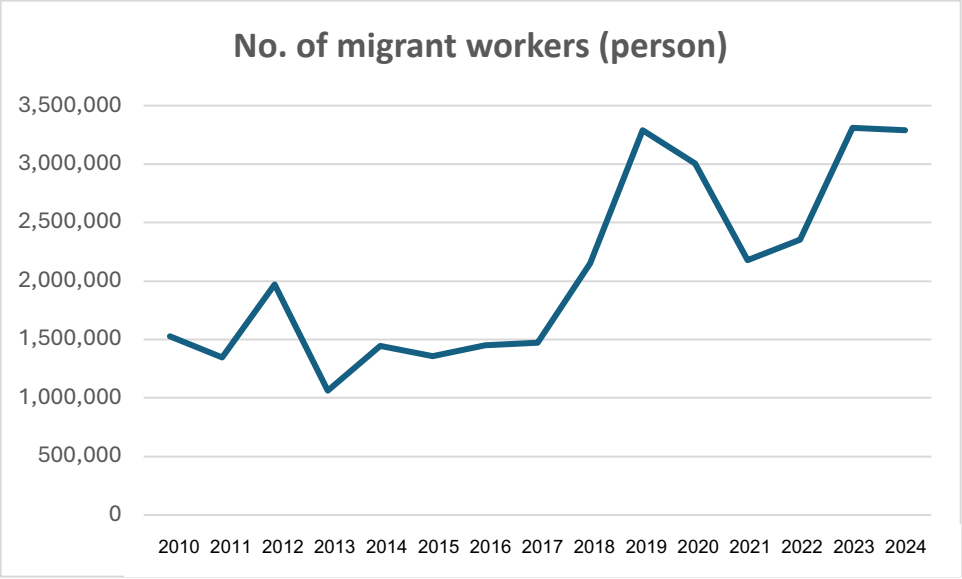
Chapter 1 Introduction

1.1 Background and Significance

Thailand has long served as a key hub for population movement in Southeast Asia. Over the past several decades, the number of migrant workers in Thailand has steadily increased. According to the Foreign Workers Administration Office (2024), the migrant workforce has grown continuously over the past 15 years, particularly among workers from CLMV countries (Cambodia, Lao PDR, Myanmar, and Vietnam). Currently, there are a total of 3,289,536 migrant workers in Thailand, comprising 1,859,827 men and 1,429,709 women. As shown in Table 1, this trend reflects a consistent increase in the number of migrant workers within the country.

Migrant workers from CLMV countries play a vital role in Thailand's economy, predominantly working in various industries such as construction, general services, agriculture and livestock, as well as food and beverage production and distribution. These data underscore the significance of migrant workers especially those from CLMV countries to Thailand's economic growth and development.

Figure 1 Migrant Worker Statistics, 2010–2024



Source: The Foreign Workers Administration Office, Department of Employment, Ministry of Labour

Table 1 Migrant Worker Statistics, 2010–2024

Type of Migrant Worker	Number of Workers (persons)	Additional Details
Skilled Workers	178,725	Investment: 52,965
		General group: 125,760
Ethnic Minorities	89,663	-
Seasonal Workers	21,601	Cambodia: 19,092
		Myanmar: 2,509
Workers Permitted under MOUs	565,071	Cambodia: 147,240
		Myanmar: 262,213
		Lao PDR: 155,618
Workers Permitted under Cabinet Resolution (7 Feb 2023)	1,620,602	Cambodia: 190,089
		Myanmar: 1,364,282
		Lao PDR: 64,761
		Others: 924
Workers Permitted under Cabinet Resolution (3 Oct 2023)	813,869	Cambodia: 103,442
		Myanmar: 646,515
		Lao PDR: 31,170
		Others: 2,742

Source: The Foreign Workers Administration Office

Currently, Thailand hosts a substantial number of migrant workers employed across various sectors of the economy. These workers can be categorized into six main groups, reflecting the structure of the migrant workforce as well as trends that shift in response to government policies and economic factors.

1) Skilled Workers

This group comprises 178,725 individuals, divided into workers under investment promotion schemes (BOI) with 52,965 workers, and a general category of 125,760 workers. This reflects the importance of skilled labor in driving Thailand's economic development, particularly in industries that require specialized expertise, such as engineering, information technology, and advanced manufacturing.

2) Ethnic Minorities

There are 89,663 individuals in this category, most of whom reside in border areas or share cultural ties with Thailand. They play a significant role in sectors such as agriculture, cross-border trade, and basic industries that rely on workers able to operate in specific environments such as

farming on highlands, steep slopes, or in areas with a cool climate year-round. These tasks require laborers familiar with the local terrain and lifestyle.

3) Seasonal Workers

This group consists of 21,601 workers, mainly from Cambodia (19,092 workers) and Myanmar (2,509 workers). These workers meet the demand for seasonal labor in agriculture and certain industries, such as crop harvesting and fisheries, which require additional labor during specific periods of the year.

4) Workers Permitted under MOUs

Thailand has established bilateral Memoranda of Understanding (MOUs) with its neighboring countries to facilitate the legal entry of migrant workers. Currently, there are a total of 565,071 workers in this category, comprising workers from Cambodia (147,240), Myanmar (262,213), and Lao PDR (155,618). These figures highlight that workers from Myanmar form the largest group, which may be attributed to various economic and social factors driving labor migration to Thailand.

5) Workers Permitted under the Cabinet Resolution (7 February 2023)

This group consists of 1,620,602 workers who have been temporarily regularized by the Thai government. Workers from Myanmar make up the majority (1,364,282), followed by Cambodia (190,089) and Lao PDR (64,761). This reflects Thailand's significant reliance on migrant labor in both industrial and service sectors, with Myanmar workers playing a particularly prominent role in sustaining the Thai economy.

6) Workers Permitted under the Cabinet Resolution (3 October 2023)

There are 813,869 workers in this group, who have been granted permission under an extended migrant labor management measure. Once again, workers from Myanmar account for the largest share (646,515), followed by Cambodia (103,442) and Lao PDR (31,170). This demonstrates that workers from these countries continue to be a vital source of labor for the Thai labor market.

Based on the information above, migrant workers play a crucial role in driving Thailand's economic growth, particularly in the industrial, agricultural, and service sectors. Government policy remains a key factor influencing the annual number of migrant workers, whether through labor regulations or bilateral MOUs with neighboring countries. Migrant workers from Myanmar, Cambodia, and Lao PDR continue to form the core of Thailand's migrant workforce, and their numbers are likely to increase in line with labor market demand. If Thailand can further enhance the efficiency of its migrant labor management mechanisms, this will help sustain economic growth and better meet the labor needs of Thai industries in a sustainable manner.

Nevertheless, while migrant workers are undeniably vital to Thailand's economy, a significant number still enter the country irregularly. In particular, over the past two to three years, the country has seen an influx of refugees fleeing conflict and political crises in neighboring countries, especially Myanmar. Although Thailand provides shelter for these refugees, legal constraints remain a major barrier preventing them from gaining access to lawful employment and achieving self-reliance.

The exclusion of refugees from the labor market has multifaceted implications. It not only affects the quality of life and well-being of the refugees themselves but also imposes economic and social constraints on Thailand as a whole. Restricting refugees' right to work forces this group into the informal sector, thereby increasing the burden on the government to regulate and manage labor effectively. This situation undermines economic efficiency, reduces potential tax revenues, and hampers the sustainable development of the country's labor structure.

At the same time, Thailand is facing significant labor shortages across various industries, particularly in manufacturing, agriculture, and services. Integrating refugees into the formal labor market would not only help address these shortages but could also generate long-term economic benefits by increasing productivity, reducing reliance on irregular labor, and expanding the country's tax base. Therefore, reviewing and revising laws and policies related to refugees in the context of labor is of critical importance. Establishing policy frameworks that facilitate the integration of refugees into the labor market would enable Thailand to maximize the potential of its available human resources, reduce informality, and enhance overall economic capacity. Simultaneously, this approach would promote human rights and social justice in line with international standards.

This study thus aims to analyze the economic and social impacts of granting work rights to refugees in Thailand. Using both quantitative and qualitative approaches, it seeks to assess how policy changes that enable refugee employment could stimulate economic growth, reduce social costs, and increase state tax revenues. The study will also examine the effects on refugees' quality of life and the feasibility of developing policy recommendations that balance humanitarian considerations with economic benefits. In particular, the research will focus on Bangkok, Tak, and Chiang Mai, which are among the provinces with the highest numbers of migrant workers in the country. These areas illustrate the critical role of migrant labor in Thailand's economy and highlight the need for efficient labor management strategies (see Table 2).

Table 2 Migrant Worker Data in Thailand, Disaggregated by Region

Region	No. of migrant workers (person)	Provinces with the Highest Numbers of Migrant Workers	No. of migrant workers (person)
Bangkok	774,587	-	-
Bangkok Metropolitan	948,487	Samutsakorm	288,977
		Samutprakarn	233,743
		Prathumthani	178,679
		Nonthaburi	126,229
		Nakornprathom	120,859
Central	755,645	Chonburi	198,133
		Rayong	93,344
		Chachernsoa	60,096
		Ratchaburi	59,270
		Ayutthaya	40,415
North	299,852	Chiang Mai	151,957
		Chiang Rai	36,761
		Tak	36,558
		Lampun	15,801
		Petchaboon	12,354
Northeast	69,329	Nakornratchasima	28,266
		Khon Kaen	8,287
		Udonthani	3,937
		Ubonratchathani	3,178
		Loei	2,729
South	441,636	Suratthani	108,782
		Phuket	102,572
		Songkla	52,522
		Chumporn	48,699
		Rayong	37,115

Source: The Foreign Workers Administration Office, Department of Employment, Ministry of Labour

Moreover, this study aims to examine the economic and social impacts of granting work rights to refugees in Thailand through the application of Cost-Benefit Analysis (CBA). The evaluation focuses on the costs and benefits associated with three key policy approaches:

- The enforcement of Section 63 of the Alien Work Management Act to legally permit refugees to work and reside in Thailand.

- The revision of the Prime Minister's Office regulations concerning the National Screening Mechanism (NSM) to allow refugees to have the right to work while awaiting determination of their refugee status.
- The provision of protection for refugees against exploitation by employers, pursuant to Section 17 of the Immigration Act, aimed at preventing rights violations and workplace abuse.

The expected outcomes of this research include a deeper understanding of the potential contributions of refugee workers to Thailand's economy, including supporting economic sectors, reducing social costs, and increasing government revenues. This study will serve as a fundamental basis for developing labor policies that balance humanitarian principles with economic benefits. Furthermore, it promotes sustainable development by integrating refugee workers into Thailand's formal economic system.

Hence, the consideration of labor policies for refugees should not be viewed merely as an economic burden but rather as an opportunity to add value to the national labor system, meet labor market demands, and enhance Thailand's competitiveness in the global economy.

1.2 Objectives of the Study

1. To examine the impacts of legally employing refugees on the economy, labor market, and public services.
2. To investigate the economic costs and benefits of granting work rights to refugees in Thailand and to assess the economic and social impacts of refugees working legally through scenario simulation assuming such benefits are granted.
3. To analyze the costs and benefits arising from the implementation of three refugee-related policies in Thailand.

1.3 Expected Outcomes

This study aims to provide in-depth data to inform policymaking on refugee labor, with an emphasis on balancing humanitarian considerations and economic benefits. The expected results will assist the government in identifying the most effective approaches for regulating refugee employment.

One potential policy direction supported by the study's findings is the amendment of laws related to migrant labor. This includes permitting refugees to work legally under Section 63 of the Alien Work Management Act, revising the National Screening Mechanism (NSM) regulations to allow refugees to work while awaiting status determination, and providing protection to refugees against exploitation by employers pursuant to Section 17 of the Immigration Act. Furthermore, the study's results may contribute to the development of appropriate labor rights protection mechanisms, mitigating issues such as wage suppression and forced labor. By enabling refugees

to enter the labor market fairly, the government will be better positioned to oversee employment practices and reduce labor rights violations.

Another important aspect is that the study could assist the government in reducing budgetary burdens associated with refugee care. If refugees are able to support themselves through legal employment, the government may reduce expenditures on housing, food, and healthcare services for refugees without income. Additionally, income generated by refugee workers can help sustain the local economy and public services, particularly at the community level.
Finally, policies promoting refugee employment can enhance Thailand's international image as a country committed to human rights and sustainable development. This reputation may lead to increased collaboration with international organizations and greater opportunities to attract foreign investment.

Chapter 2 Research Conceptual Framework

This study aims to analyze the impacts of Myanmar migrant workers in Thailand using both qualitative and quantitative approaches to propose policy recommendations. It focuses on assessing the economic and social effects of granting work rights to refugees in Thailand, evaluating how policy changes facilitating refugee employment can stimulate the economy, reduce social costs, and increase government tax revenue. The conceptual framework is based on three main components:

- Collection and review of relevant literature on educational innovation research.
- Conducting focus group discussions with faculty members and students to identify additional needs from actual users.
- Drafting and designing the system architecture for the application.
- Developing R-code scripts for data input, processing, and output visualization.

Primary data		Economic Modelling and Analysis		Identify the top 10 provinces with the highest concentration of migrant workers and assess their economic impact.		Policy Recommendations Identification of three potential policy options for enhancing the productive integration of migrant labor into the local economy.
				Analyze the connection between labor mobility and local economic integration.		
Stakeholder Interviews		Assess both positive and negative consequences through impact pathway in migrant labour integration in different dimensions.		Qualitative impact both in positive and negative dimensions.		
		Evaluate the economic benefits and costs to stakeholders involved.				
Data from survey with migrant workers.		Analyze positive and negative consequences of migrant workers in different dimensions.		Quantitative Assessment of Economic Costs and Benefits to Thailand		
		Economic costs and benefits from migrant workers.				
		Factors that influence the spending of Myanmar migrant workers in the study areas		Factors that affect the spending of Myanmar migrant workers.		

Chapter 3 Research Methodology

This section outlines the entire research methodology under the following sub-sections: 3.1 Scope of the Study, 3.2 Data Sources, 3.3 Research Methods, and 3.4 Work Plan. Details for each are as follows:

3.1 Scope of the Study

This study focuses on analyzing the impacts of migrant workers, specifically refugees from Myanmar who have settled and worked in Thailand following the military coup in 2021. The aim is to assess the effects on the local economy, labor market, and public services at the regional level. The study covers three key areas:

- **Mae Sot District, Tak Province:** The primary study site, located along the border, with a high concentration of refugees and migrant workers residing and working there.
- **Chiang Mai Province:** Known for extensive employment of migrant workers in the service sector and small-to-medium enterprises (SMEs).
- **Bangkok Metropolitan Area:** A major urban center with diverse labor demand across sectors, serving as the national policy hub.

The term “refugee” in this study refers to individuals forcibly displaced from their country of origin due to serious threats to life, safety, or freedom caused by war, political conflict, ethnicity, religion, natural disasters, or persecution of various forms, who are unable to return safely. To enable a comprehensive systemic impact assessment, this study uses migrant workers as a practical proxy for the refugee group. This includes both legally authorized workers (e.g., through MOUs) and those who entered as refugees. Despite differing legal statuses, they share limitations in accessing rights and welfare and play a significant economic role in the target areas. The main study population comprises refugees and migrant workers from Myanmar, local employers and workers in the study areas, as well as experts in labor, border economics, and public services.

3.2 Data Used in the Study

- Secondary Data include:
    1) Sectoral and provincial product data using the input-output tables for the year 2022.
    2) Number of foreign workers legally authorized to remain throughout the kingdom.
    3) Number of authorized general foreign workers remaining.
    4) Number of authorized skilled foreign workers remaining.
    5) Number of authorized Myanmar nationality foreign workers remaining in the general labor group.
    6) Total number of migrant workers excluding Myanmar migrant workers.
    7) Number of employed persons in both formal and informal labor sectors.
    8) Private sector investment index.
    9) Provincial consumer price index.

- **Primary Data include:**
  1) 300 Myanmar migrant workers.
  2) Government agencies, including the Office of Foreign Worker Administration; Chiang Mai Provincial Labour Protection and Welfare Office; Immigration Office in Tak Province; Health Economics and Health Security Division, Ministry of Public Health; Strategy and Planning Division; Public Health Administration Division, Ministry of Public Health; and Mae Sot Hospital (Occupational Medicine Department).
  3) Non-Governmental Organizations (NGOs) and community organizations, including two migrant children learning centers in Mae Sot District, Tak Province, and the Myanmar community at Wat Sai Mun.
  4) Business operators, including the Tak Chamber of Commerce, Green Power Solar Company, and Nomo Clean & Clear Company.

3.3 Research Methods

Objective 1: To examine the impacts of legal refugee employment on the economy, labor market, and public services.

1) Conduct a comprehensive review of relevant literature, theories, and previous studies on migrant workers, and identify stakeholders involved in policies that open the labor market to refugees. These stakeholders include government agencies (such as the Ministry of Labour and the Ministry of Public Health), employers, Thai workers, migrant workers, and the service sector. This serves as the basis for drafting an Impact Pathway that illustrates both the positive and negative outcomes resulting from policy implementation.
2) Collect secondary data on economic and labor indicators in the ten provinces with the highest numbers of Myanmar migrant workers. The secondary data will be gathered from official sources such as the National Statistical Office, Ministry of Labour, and Fiscal Policy Office. The study will focus on the following ten provinces with the largest Myanmar migrant worker populations: Bangkok, Samut Sakhon, Samut Prakan, Pathum Thani, Chonburi, Chiang Mai, Nakhon Pathom, Nonthaburi, Rayong, and Tak. Details of the data are presented in Section 4.1.
3) Analyze how opening the labor market to refugees would affect Thailand's economic growth (GDP) and labor productivity, using secondary data. This analysis will employ estimation or regression equations to quantify the relationships.

$$\log(GPP_t^{percap}) = \beta_0 + \alpha \log(GPP_{t-1}^{percap}) + \beta_1 \log(L_t^{TH}) + \beta_2 \log(L_t^{F}) + \beta_3 K_t + \beta_4 CPIP_t + e_t \quad (1)$$

$$\log(GPP_t^{percap}) = \beta_0 + \alpha \log(GPP_{t-1}^{percap}) + \beta_1 \log(L_t^{TH}) + \beta_2 \log(L_t^{F_skill}) + \beta_3 K_t + \beta_4 CPIP_t + e_t \quad (2)$$

$$\log(GPP_t^{percap}) = \beta_0 + \alpha \log(GPP_{t-1}^{percap}) + \beta_1 \log(L_t^{TH}) + \beta_2 \log(L_t^{F_unskill}) + \beta_3 K_t + \beta_4 CPIP_t + e_t \quad (3)$$

$$\log(GPP_t^{percap}) = \beta_0 + \alpha \log(GPP_{t-1}^{percap}) + \beta_1 \log(L_t^{TH}) + \beta_2 \log(L_t^{M_unskill}) + \beta_3 K_t + \beta_4 CPIP_t + e_t \quad (4)$$

$$\log(GPP_t^{percap}) = \beta_0 + \alpha \log(GPP_{t-1}^{percap}) + \beta_1 \log(L_t^{TH}) + \beta_2 \log(L_t^{F-M_unskill}) + \beta_3 K_t + \beta_4 CPIP_t + e_t \quad (5)$$

where GPP_t represents the provincial gross domestic product (GDP); L_t^N and L_t^M refer to the number of Thai workers and migrant workers, respectively; K_t represents capital; and INF_t indicates inflation.

In addition, when examining the economic impacts of refugees, an important aspect is to assess whether the relationship between migrant labor and domestic labor is characterized by **complementarity** or **substitution**. This relationship directly affects labor market dynamics and the economic outcomes in each area.

From a theoretical perspective, if migrant workers are employed in sectors that local workers are reluctant to work in such as agriculture or construction they may "complement" the domestic labor force. This enables Thai workers to shift to higher-skilled positions, generating a positive **productivity spillover** effect on the overall economy. Conversely, if migrant workers compete directly for the same jobs as Thai workers and accept lower wages, the impact may be "substitutional," potentially leading to wage suppression or displacement of domestic workers from the labor market.

To accurately analyze the interaction effects between the two labor groups, the research team constructed **interaction terms**, which are modeled in two forms as follows:

$$interaction_M = \log L_t^{TH} \times \log L_t^{M_unskill} \quad (6)$$

Therefore, the analytical model is specified as follows:

$$\log(GPP_t^{percap}) = \beta_0 + \alpha \log(GPP_{t-1}^{percap}) + \beta_1 \log(L_t^{TH}) + \beta_2 \log(L_t^{M_unskill}) + \beta_3 interaction_M + \beta_4 K_t + \beta_5 CPIP_t + e_t \quad (7)$$

The interaction term in this model captures the **joint marginal effect** of Thai workers and unskilled Myanmar migrant workers on provincial GDP per capita. If the estimated coefficient is statistically significant and positive, it suggests that an increase in both labor groups simultaneously has a positive effect on the economy indicating a **complementary relationship**. For example, unskilled Myanmar migrant workers may fill low-skilled positions, allowing Thai workers to move into higher-skilled jobs, thereby generating overall productivity gains.

Conversely, if the coefficient is statistically significant but negative, this would imply a **substitution effect**, indicating that the two groups compete for similar jobs rather than complement each other. Such competition could suppress wages or displace domestic workers in certain sectors.

Equation (7) therefore addresses the question: *"If both Thai labor and Myanmar migrant labor increase simultaneously, does the economy benefit or lose?"*

$$interaction_{M_share} = \log L_t^{TH} \times (\frac{\log L_t^{M_unskill}}{\log L_t^{F_unskill}}) \quad (7)$$

Therefore, the analytical model is specified as follows:

$$\log(GPP_t^{percap}) = \beta_0 + \alpha \log(GPP_{t-1}^{percap}) + \beta_1 \log(L_t^{TH}) + \beta_2 \log(L_t^{M_unskill}) + \beta_3 interaction_{M_share} + \beta_4 K_t + \beta_5 CPIP_t + e_t \quad (8)$$

This form of interaction term reflects the impact of Thai labor **conditional on the share of unskilled Myanmar migrant workers** within the total unskilled migrant workforce. Specifically, $\log L_t^{M_unskill} / \log L_t^{F_unskill}$ is the proportion of unskilled Myanmar migrant workers relative to the total unskilled migrant labor force. This proportion indicates the structural composition of the migrant workforce in Thailand. If the $interaction_{M_share}$ is positive and statistically significant, it suggests that Myanmar migrant workers tend to **complement Thai workers**, but only when the proportion remains at an appropriate level for instance, helping to alleviate labor shortages in specific sectors.

Conversely, if the coefficient is negative and significant, it indicates that an increase in Thai labor, **conditional on a higher share of unskilled Myanmar migrant workers**, has a negative effect on GDP per capita. This reflects a **conditional substitution effect**, meaning that the higher the share of Myanmar migrant labor within the unskilled migrant group, the more likely it is that Thai workers are displaced or their economic contribution diminishes. **Equation (8)** therefore addresses the question: *"To what extent does the change in Thai labor affect the economy, under different levels of the share of Myanmar migrant workers within the unskilled migrant labor force?"*

Objective 2: To examine the economic benefits and costs of granting work rights to refugees in Thailand and to assess the estimated socio-economic impact of legal employment for refugees.

1) To comprehensively assess the benefits and costs in all relevant dimensions, the research team begins by identifying key stakeholder groups and conducting in-depth field interviews (details of stakeholders are provided in Section 4.2 and the Appendices). The interviews aim to gather information on current costs and benefits to Thailand, the current situation of migrant labor, and the expected impacts of an increase in legally employed migrant workers.
2) The research team designs a structured questionnaire and interview guide for field data collection. The instruments include the following components (details of the questionnaires and interview guidelines are provided in the Appendices).

Questionnaire for migrant workers:
Section 1: General information of the respondent
Section 2: Employment status
Section 3: Household information
Section 4: Financial situation and household expenditures
Section 5: Perceptions of the impact of migrant workers on the Thai economy and society
Section 6: Impacts in various dimensions

Key interview questions for stakeholders:
Section 1: What is your current situation regarding Myanmar migrant workers? (e.g., share/number of workers involved)
Section 2: If legal work rights for Myanmar refugees in Thailand were expanded, how do you think this would change the situation?
Section 3: What is the current budget and expenditure of your agency related to Myanmar migrant workers and refugees? In your opinion, if more Myanmar refugees were granted legal work rights in Thailand in the future, how would this budget and expenditure change?
Part 4: What benefits does Thailand currently gain from Myanmar migrant workers and refugees? How might these benefits change in the future if more refugees gain legal work rights?

3) Field Data Collection Plan

3.1 Survey of Myanmar Migrant Workers (N=300)

Primary data will be collected through face-to-face interviews conducted by trained field staff using the prepared questionnaire. The research team will primarily conduct on-site data collection for rural areas in Mae Sot District (Tak Province) and Chiang Mai Province. For Bangkok, data will be collected through online meetings (Zoom) and online surveys (Google Forms). To address potential access or cooperation barriers in rural areas, alternative methods such as phone interviews, online forms, or mail-in questionnaires will be employed as needed.

3.2 In-depth Interviews with Government Agencies, Independent Organizations, and Employers

Interviews with relevant administrative bodies and stakeholders responsible for migrant labor policy will cover topics such as migrant household consumption, labor expenditures, actual budget allocations, support mechanisms, and operational challenges. Data collection will include on-site visits for agencies located in Chiang Mai and Mae Sot District, Tak Province, and online meetings for central agencies based in Bangkok and surrounding provinces. The results will inform key indicators related to inputs, outputs, administrative processes, and policy recommendations for improvement.

4) Analysis of Benefits and Costs across Multiple Dimensions

To examine the social impacts of Myanmar migrant workers and refugees on Thailand, the study will employ Content Analysis and Thematic Analysis to synthesize data from relevant sources. This approach will help identify trends, policies, measures, and the effects of refugees' access to public services. Findings will be presented as Outcome Maps, Impact Pathways, and Descriptive Analyses explaining the structural relationships and socio-economic dynamics involving Myanmar migrant workers in Thailand. Key areas of analysis include:

4.1 Positive Social Impacts

- **Labor market support and alleviation of labor shortages:** Migrant workers primarily fill jobs in industries that local workers are unwilling to do, such as construction, agriculture, and services. Their presence helps mitigate labor shortages and supports the operation of small and medium-sized enterprises (SMEs).
- **Enhancing Social Dynamics and Cultural Diversity:** Migrant workers bring their native cultures, languages, and traditions into Thai society, contributing to greater cultural diversity. In areas with significant migrant populations, multicultural communities often emerge, blending local Thai and migrant cultures in local markets, restaurants, and cultural exchanges.
- **Stimulating Local Economies:** Migrant workers increase demand in local economies through daily spending on housing, goods, and services, thereby boosting economic activity in areas with high migrant concentrations. Moreover, the remittances sent back to their home countries strengthen economic ties between Thailand and its neighboring countries.

4.2 Negative Social Impacts

- **Social Tensions and Competition with Local Labor**: In certain sectors, particularly low-skilled jobs, migrant workers may compete with local workers, potentially driving wages down or displacing local workers in some industries. This competition can lead to resentment among local populations who may perceive migrant workers as a burden or a cause of economic strain.

- **Inequality and Limited Access to Social Services**: Many migrant workers live in overcrowded conditions and face barriers in accessing basic services such as healthcare, education, and adequate housing. Some lack proper documentation, which restricts their eligibility for public services and can exacerbate social inequality and public health concerns within the migrant community.
- **Crime and Security Issues**: Migrant workers without legal employment opportunities may be more vulnerable to exploitation and involvement in illegal activities, such as human trafficking, illicit trade, or other criminal activities.
- **Impact on Public Health Systems and Infrastructure**: This study examines how high concentrations of migrant workers affect local public health systems and infrastructure, focusing on two key areas: healthcare and education. *Healthcare:* Local hospitals and health centers may face increased burdens in providing services to uninsured migrant workers, straining budgets and service capacity. Overcrowded living conditions can also lead to hygiene challenges and increased risk of communicable disease outbreaks. *Education:* Schools in affected areas may experience overcrowding, shortages of teachers, and insufficient educational resources due to the influx of migrant workers' children, impacting the overall quality of education.

Objective 3: To Assess the Costs and Benefits of Implementing Three Refugee Employment Policies

This objective aims to evaluate the economic viability and societal implications of three proposed policy options that would enable refugees to legally access the labor market in Thailand. The study adopts a **Cost-Benefit Analysis (CBA)**approach to systematically assess both the potential costs and benefits that each policy would generate for Thailand's economy, labor market, and public services. The underlying assumption is that these policies would increase the number of refugees and migrant workers integrated into the formal economy in the target areas.

1) Analysis of Influencing Factors Expenditure Patterns of Myanmar Migrant Workers

Understanding the expenditure behavior of Myanmar migrant workers in the study areas provides key insights into their economic contribution and supports the design of labor and social protection policies, as well as the allocation of public services. **Process of Analysis:**

- **Data Preparation:** Primary data were collected through structured questionnaires using a cross-sectional design (see details in Appendix). Quantitative data were obtained from Myanmar migrant workers residing and working in three provinces: Chiang Mai, Tak (Mae Sot), and Bangkok.
- **Quantitative Analysis:** A multiple linear regression (MLR) model is employed to analyze the relationship between various socio-economic and demographic factors and the expenditure levels of migrant workers. The general form of the model is as follows:

$$Y_i = \beta_0 + \beta_1 INC_i + \beta_2 HHSIZE_i + \beta_3 WLEGAL_i + \beta_4 SSCURE_i + \beta_5 EDU_i + \beta_6 GENDER_i + \beta_7 AGE_i + \varepsilon_i \quad (9)$$

2) Estimating Economic Impacts Using the Migrant Labor Multiplier

This component of the study estimates the broader economic impact generated by Myanmar migrant workers' financial activities through the application of economic multiplier concepts. Financial data are obtained from structured surveys, including income, expenditure patterns, savings, remittances, and the use of public services (see details in Appendix). These data are used to measure the size of economic effects created by migrants' income circulation, local consumption, and reinvestment in the host economy.

The analysis applies two core multiplier approaches:

- **Keynesian Multiplier**

The **Keynesian Multiplier** is a macroeconomic model that explains how an initial injection of spending in an economy such as the income earned and spent by migrant workers can generate a chain reaction of additional spending, ultimately expanding the total income or GDP by more than the initial amount. The key principle is when migrant workers spend their income locally, that spending becomes the income of local suppliers and service providers. In turn, these recipients spend a portion of their new income within the economy, triggering successive rounds of spending.

$$M_{Keyne} = \frac{1}{1 - MPC(1-t)} \quad (10)$$

Where:

M_{Keyne} = Keynesian Multiplier

MPC = Marginal Propensity to Consume (the proportion of income that is spent)

t = Average tax rate

Output Multiplier Type I

Output Multiplier Type I: is derived from the Input–Output Model (or I–O Table) developed by Leontief. This model analyzes the economic structure by examining how a change in output in one sector affects the output of other sectors through supply chains. In this study, this principle is applied to calculate the economic multipliers based on expenditures and investments generated by various economic units related to the employment of migrant workers, such as income and expenses. This reflects the total impact on the size of the local economy. The estimation of economic impact using this multiplier covers two main effects:

Direct Effect: The immediate impact of spending and investment by migrant workers.

Indirect Effect: The subsequent impact on related industries through inter-sectoral linkages.

However, this calculation does not include the Induced Effect, which arises from household consumption spending resulting from increased incomes. The calculation of the Output Multiplier Type I is detailed as follows:

$$Type\ I\ SE\ Multiplier(M_{SE}) = \frac{(Direct\ effect + Indirect\ effect)}{Direct\ effect} \quad (11)$$

Were

$Direct\ effect$ = average wage per migrant worker

$Indirect\ effect$ = average expenditure per migrant worker

The multipliers obtained from the calculations using both methods (Keynesian Multiplier and Output Multiplier Type I) will be applied to the net expenditure of the remaining migrant workers in the area to estimate the overall economic impact as follows:

$$Economic\ impact = (Income - Leak\ out) \times M_{SE} or\ M_{Kayne} \quad (12)$$

Where

$Economic\ impact$ = economic impact in the area

$Income$ = total income, calculated as average wage (WW) multiplied by the total number of Myanmar refugee workers in the area

$Leak\ out$ = money flowing out of the area, calculated as (average remittance + average expenditure outside the province) multiplied by the total number of Myanmar refugee workers in the area

$M_{SE} or\ M_{Kayne}$ = multiplier obtained from the Output Multiplier Type I and Keynesian Multiplier calculations

3) Economic Cost Assessment

The assessment of economic costs incurred by Thailand due to an increase in migrant labor under the three studied policy scenarios will be conducted through in-depth interviews with relevant agencies and stakeholders at both policy and operational levels. The focus is on analyzing the costs borne by the Thai government to accommodate migrant labor, particularly in key sectors such as public health and education. Costs considered include the government budget allocated for public health services, such as medical treatment expenses, vaccination programs, and health insurance schemes. Additionally, expenses related to providing education to the children of migrant workers including personnel costs, learning materials, and supplementary language instruction will be analyzed. This analysis will gather data from major agencies involved, such as

the Ministry of Public Health, Ministry of Education, local government bodies, and humanitarian support organizations. Details of the interviewed agencies are presented in Section 4.2.

4) Cost-Benefit Analysis (CBA) of Policies

The evaluation of both direct and indirect economic benefits arising from policy implementation will be conducted using the Cost-Benefit Analysis (CBA) framework. The key steps include:

1.1 Identification of both direct and indirect impacts of the policies, which will be quantified or monetized using various methods such as market prices, willingness-to-pay estimates, actual expenditure data from workers, or data derived from multiplier models. The results obtained from the previous analyses—Part 1 (Benefit Assessment) and Part 2 (Cost Assessment)—will be consolidated at this stage to facilitate policy comparison.

1.2 Discounting costs and benefits to present value using an appropriate discount rate. After gathering annual cost and benefit data, the researchers will discount both past and future values into "Present Value" terms using a suitable discount rate. For this study, a five-year retrospective period will be used, with the discount rate determined based on economic factors such as inflation rate and GDP growth from 2019 to 2023. This approach reflects the time value of money and assumes stable consumption behavior of workers over time, enabling a comparison of the economic impacts of workers entering the system before and after 2021.

$$PV = \frac{V_t}{(1+r)^t} \tag{13}$$

Where:

PV = Current value

V = Value of benefits or impacts in year t

r = Discount rate

t = Number of years elapsed

1.3 Calculation of Net Present Value (NPV): After converting all values to their present values, the final step is to calculate the net difference between benefits and costs for each year and then sum these to obtain the Net Present Value (NPV). The NPV is a critical indicator used to evaluate the economic feasibility of a policy. If NPV>0NPV>0, it indicates that the policy yields economic returns greater than the costs, thus considered economically worthwhile. However, if NPV<0NPV<0, it suggests that the policy may not be economically justified.

$$NPV = \sum_{t=0}^{T} \frac{B_t - C_t}{(1+r)^t} \tag{14}$$

where:

- B_t = benefits in year tt
- C_t = costs in year tt
- r = discount rate
- T = total number of years considered

1.4. Calculation of Internal Rate of Return (IRR): In this step, the Internal Rate of Return (IRR) will be calculated. IRR refers to the discount rate that makes the Net Present Value (NPV) of the policy equal to zero. In other words, it is the internal rate of return of the net benefit cash flows generated from implementing the policy. If this IRR is compared with the cost of capital (or discount rate, denoted as *r*) that the government or agency uses to implement the policy, and it is found that the IRR is higher than *r*, then the policy is considered economically worthwhile and should be implemented. This is because the return on investment exceeds the cost of the resources used. Generally, if the IRR is at least higher than the long-term average inflation rate, it can be regarded as an economically viable option.

$$NPV = \sum_{t=0}^{T} \frac{B_t - C_t}{(1+IRR)^t} = 0 \quad (15)$$

1.5 Calculation of Benefit-Cost Ratio (BCR): Another important indicator used alongside NPV and IRR is the Benefit-Cost Ratio (BCR), which compares the "present value of benefits" to the "present value of costs." If the BCR is greater than 1, it indicates that the policy or project yields benefits that outweigh the costs, thus considered economically worthwhile for investment or implementation. However, if the BCR is less than 1, it suggests that the costs outweigh the benefits, and the suitability of the policy should be reconsidered.

$$BCR = \frac{\sum_{t=0}^{T} \frac{B_t}{(1+r)^t}}{\sum_{t=0}^{T} \frac{C_t}{(1+r)^t}} \quad (16)$$

Using IRR and BCR together helps improve the accuracy and comprehensiveness of decision-making because IRR provides information on the comparative rate of return, while BCR clearly shows the cost-effectiveness of the policy in proportional terms.

3.4 Work Plan

Duration: 3 months, starting on March 15, 2025, and ended on June 15, 2025.

Work Plan	Mar	Apr	May	Jun
1. Review literature, theories, and related research to identify stakeholders and draft impact pathways.	●			
2. Collect secondary economic and labor data from the 10 provinces with the highest Myanmar migrant workers.	●			
3. Analyze economic impact of employing migrant workers via regression analysis with interaction terms.	●			
4. Identify stakeholder groups for field interviews to assess project impacts.	●			
5. Design questionnaires and interview guidelines for field data collection.		●		
6. Conduct field data collection from stakeholders:		●	●	
a. Migrant workers in 3 provinces (questionnaires & Google Forms)			●	●
b. Government agencies (in-depth interviews)			●	●
c. Independent organizations (in-depth interviews)			●	●
d. Employers (in-depth interviews)			●	●
7. Evaluate impacts on stakeholders and analyze economic costs and benefits using outcome mapping.			●	
8. Calculate economic impacts using multiplier effects.				●
9. Present study findings.				●

Chapter 4: Key findings

4.1 Data Used in the Study

This study employs provincial-level panel data from the ten provinces with the largest populations of Myanmar migrant workers in Thailand, as presented in Table 3. The dataset covers a nine-year period (2015–2023). Details of the variables used in the model are shown in Table 4.

Table 4.1: Number of Myanmar Migrant Workers in the Ten Provinces with the Largest Populations, 2023

No.	Province	Total
1	Bangkok	471,896
2	Samutsakon	256,959
3	Samutprakarn	171,006
4	Prathumthani	120,199
5	Chonburi	109,734
6	Chiang Mai	107,395
7	Nakornprathom	100,975
8	Nonthaburi	80,144
9	Rayong	42,568
10	Tak	37,902

Source: Data obtained from the Foreign Workers Administration Office, Department of Employment and calculated by the research team.

Table 4.2 Variable Descriptions

Variable	Description	Unit	Source
Dependent Variable			
GPP^{percap}	Gross Provincial Product (GPP) per capita (chain volume measures, base year 2022)	Million Baht	National Economic and Social Development Council
Independent Variables			
$Labor^{F}$	Total registered foreign workers nationwide (remaining permits)	Person	The Foreign Workers Administration Office, Department of Employment
$Labor^{F_unskill}$	Total registered general foreign workers (remaining permits)	Person	The Foreign Workers Administration Office, Department of Employment

$Labor^{F_skill}$	Total registered skilled foreign workers (remaining permits)	Person	The Foreign Workers Administration Office, Department of Employment
$Labor^{M_unskill}$	Total registered Myanmar migrant workers in general labor category (remaining permits)	Person	The Foreign Workers Administration Office, Department of Employment
$Labor^{F-M_unskill}$	Total migrant workers minus Myanmar migrant workers	Person	Calculated by the research team
$Labor^{TH}$	Total employed persons in both formal and informal sectors	Person	National Statistical Office
K	Private Investment Index	%yoy	Provincial Treasury Office; Fiscal Policy Office (Bangkok)
$CPIP$	Provincial Consumer Price Index (CPI)	index	Trade Policy and Strategy Office

4.2 Qualitative Interview Data

In this study, qualitative data were collected through an in-depth interview process to gain a comprehensive understanding of the multiple dimensions related to migrant workers, with a particular focus on Myanmar migrant workers residing and working in Thailand. This approach provided stakeholders with an opportunity to freely share their views, first-hand experiences, structural challenges, and policy recommendations insights that cannot be fully captured through academic literature or secondary data alone.

The interviews aimed to capture in-depth perspectives from stakeholders in the field, covering economic, social, legal, and health aspects, with the following details:

Agency	Roles and Responsibilities
Government Agencies	
The Foreign Workers Administration Office, Department of Employment	A national-level policy unit under the Ministry of Labour responsible for the overall governance of migrant worker employment, including quota management, MOU schemes, and international cooperation
Chiang Mai Provincial Office of Labour Protection and Welfare	Enforces labour protection laws in the northern region, focusing on workplace inspections involving migrant workers and handling complaints related to labour rights violations, particularly regarding security and immigration matters
Tak Immigration Office	Plays a key role in verifying the legal status of migrant workers, issuing visa extensions, and controlling undocumented labour, especially in border areas with high volumes of Myanmar migrant crossings

Division of Health Economics and Health Security, Ministry of Public Health	Analyses the costs and benefits of healthcare services for migrant workers using health economics data for policy planning, such as calculating per capita expenditures and impacts on the Universal Health Coverage system
Strategy and Planning Division, Ministry of Public Health	Develops national-level policies and strategic plans for providing health services to vulnerable migrant groups, ensuring preparedness in public health systems.
Public Health Administration Division, Ministry of Public Health	Connects healthcare providers nationwide with migrant worker groups to ensure equitable and comprehensive service provision
Mae Sot Hospital (Occupational Medicine Department)	Serve as the frontline provider of healthcare services for migrant workers, with an emphasis on addressing work-related illnesses and injuries among Myanmar migrant workers. Additionally, it collects statistical health data to reflect the overall occupational health issues and needs of workers in the border areas
Non-Governmental Organizations (NGOs) and Community-Based Organizations (CBOs)	
Migrant learning center 1	Provides basic education for children of Myanmar migrant workers through bilingual Thai-Myanmar teaching, focusing on life skills, academic knowledge, and children's rights, while connecting families with government agencies and NGOs for access to healthcare and legal documentation.
Migrant learning center 2	An educational centre for out-of-school children of Myanmar migrant workers, focusing on basic learning, language acquisition, and social adaptation in Thailand, while providing parents with information about labour rights and public services in collaboration with local civil society networks
Wat Saimoon Myanmar Community	A community hub for Myanmar migrant workers living and working in Chiang Mai, serving as a refuge and mediator with government agencies or NGOs to ensure access to basic services such as health, education, and legal identification documents
Private Sector	
Tak Chamber of Commerce	A business association that facilitates collaboration between local employers and government agencies, representing policy issues, recommending migrant workforce management strategies, and promoting mutual understanding between the public and private sectors.
Green Power Solar Co., Ltd.	A solar energy business employing migrant workers in the renewable energy sector
Namo Clean & Clear Co., Ltd.	A comprehensive cleaning services company employing migrant workers across various operational levels.

4.2.1 Government Agencies

1) The Foreign Workers Administration Office, Department of Employment

- **Economic Impacts of Myanmar Migrant Workers on Thailand**
    1. **Driving the Low-Skilled Labour Economy**: Myanmar migrant workers function as *foundational labour* that sustains key labor-intensive sectors within the Thai economy. They are especially vital in agriculture, where they provide seasonal workers during critical harvesting periods that require large workforces within tight timeframes. In the fisheries sector, they often take on high-risk, physically demanding roles on fishing vessels and in seafood processing plants jobs that are unattractive to most Thai workers. Similarly, in construction and certain service industries, Myanmar workers help maintain competitive operational costs, enabling businesses to keep the prices of goods and services affordable for the broader population. This dynamic helps mitigate cost-push inflation and contributes to overall macroeconomic stability.
    2. **Filling Labour Shortages Without Displacing Thai Workers**: Despite concerns about labor market competition, the interviews indicated that Myanmar migrant workers predominantly occupy so-called "3D jobs" (dirty, dangerous, and difficult) that have become increasingly unpopular among Thai workers due to a general shift toward higher-paying or less physically demanding jobs. This structural shortage persists even amid domestic unemployment. As a result, Myanmar migrant workers primarily fill *labour market gaps* rather than displacing local workers. This ensures the continuity of small businesses and labor-intensive industries, which might otherwise face rising labor costs that could threaten their competitiveness or force relocation of production to lower-cost countries.
    3. **Generating Tax Revenue and Stimulating Local Economies**: When employed legally, Myanmar migrant workers contribute directly to public revenue through work permit fees, visa application costs, annual health insurance premiums, and personal income tax payments. Moreover, they support local economies by spending on daily living expenses, including rent, food, basic household items, and educational expenses for their children. This spending creates a clear *community-level multiplier effect*. National-level analyses have estimated that legally employed migrant workers contribute an annual increase of approximately 0.75–1.25% to Thailand's GDP. For example, given Thailand's GDP in 2023, this contribution is equivalent to an estimated 134–224 billion baht in added economic value.
    4. **Public Sector Costs and Systemic Challenges**: Although Myanmar migrant workers deliver substantial economic benefits, they also create significant *hidden costs* for the government. These costs include managing work permit issuance and renewals, verifying documentation, conducting health screenings, and enforcing compliance with labor and immigration regulations. There are also indirect social costs related to worker training, translation services, and public

awareness of labor rights. Crucially, gaps in coordination between agencies and incomplete data-sharing mechanisms result in long-term inefficiencies and regulatory challenges, especially when migrant workers move between employers or sectors without proper documentation.

- **Social Impacts of Myanmar Migrant Workers on Thailand**
  1. **Concentration of Migrant Workers in Specific Areas**: The in-depth interviews indicate that Myanmar migrant workers tend to cluster in specific regions, particularly border provinces and designated Special Economic Zones (SEZs) such as Tak, Ratchaburi, Samut Sakhon, and Ranong. These provinces consistently record migrant worker employment levels that far exceed the national average, resulting in notably high densities of Myanmar migrant communities. However, the integration of these migrant populations into local society remains limited and, in many cases, ineffective. Barriers such as language differences, cultural gaps, and the absence of meaningful community engagement activities hinder social cohesion. As a result, segments of the local Thai population in these areas often perceive a sense of social insecurity or feel that their access to public resources, utilities, and basic services such as healthcare and public safety is being encroached upon. Such perceptions can foster negative stereotypes and social resistance, which, if left unaddressed, have the potential to evolve into structural social conflicts.
  2. **Security Concerns**: Although the majority of Myanmar migrant workers enter Thailand primarily for economic reasons, there remains a significant proportion who do so under refugee status or without clearly defined legal documentation. Granting work permits to such groups requires careful management that balances economic needs with national security considerations. This is particularly pertinent during periods of political instability in Myanmar, as some migrant groups may have direct or indirect affiliations with political movements or resistance networks that could pose domestic security challenges. Furthermore, workers who have not undergone rigorous screening and verification processes in their country of origin may inadvertently facilitate transnational crime, human trafficking, or emerging security threats. This underscores the necessity for robust pre-departure vetting, comprehensive screening, and ongoing monitoring mechanisms.
  3. **Accompanying Children and Gaps in Legal Status:** Children born to Myanmar migrant workers residing in Thailand, although permitted to access the Thai education system under humanitarian principles and not subject to immediate repatriation, often face an ambiguous legal status due to their lack of Thai citizenship. This legal vacuum creates a persistent status gap, potentially resulting in a future administrative and fiscal burden for the government, particularly in allocating budgets for education, healthcare, and social welfare without adequate

legal and demographic records. Without appropriate protective measures, these children may eventually enter the labour force without the safeguards afforded by legal recognition, effectively becoming a permanent class of stateless, undocumented workers in Thai society.

4. **Fragmented Data Systems:** A critical structural challenge within Thailand's migrant labour management framework is the absence of an integrated data system that links relevant government agencies. This fragmentation severely limits the ability to effectively track the mobility of Myanmar migrant workers, especially in cases involving changes of employers, relocation across regions, or transitions in employment status. Disjointed and non-interoperable databases result in data redundancies, missing information, and outdated records, which in turn lead to policy planning that is misaligned with on-the-ground realities. Consequently, this undermines the efficiency of labour regulation, the monitoring of rights and entitlements, and the delivery of essential public services for migrant workers.

Policy Recommendations from this Agency

1. **Develop an Integrated Central Database for Migrant Workers**: It is imperative to establish a centralized database system linking relevant government agencies to enable effective tracking of migrant workers. Such integration will reduce data redundancies and enhance the accuracy and efficiency of labor planning and management.
2. **Streamline the MOU Labor Importation Process**: The current Memorandum of Understanding (MOU) system should be simplified to remove redundant procedures and reduce unnecessary costs. This will incentivize both employers and migrant workers to participate in the legal labor migration system more readily.
3. **Enhance Wage and Welfare Incentives**: The government should encourage employers to offer fair wages and basic welfare benefits to Myanmar migrant workers. Providing such incentives will help retain workers within the formal system, minimizing turnover and illegal employment.
4. **Facilitate Skilled Labor Entry from Myanmar in Shortage Occupations**: Special channels should be created to allow skilled Myanmar professionals, such as engineers and healthcare personnel, to work legally under recognized certification systems. This will help address labor shortages in key economic sectors.
5. **Sustainably Manage the Status of Children of Migrant Workers**: Policies should be developed to ensure that children born to migrant workers in Thailand can access essential public services and reduce stateless. This preparation will facilitate their future integration into the labor market.
6. **Balance Security and Humanitarian Considerations**: Selective permission should be granted for certain refugee groups to engage in controlled employment activities that do not threaten national security. This approach will promote self-reliance and alleviate the burden on the government.

2). Chiang Mai Provincial Labor Welfare and Protection Office

- **Economic Impacts of Myanmar Migrant Workers on Thailand**
    1. **The "Silent Cog" Driving the Thai Economy**: Myanmar migrant workers have become crucial contributors to Thailand's economy, particularly in sectors such as construction, fisheries, and services. These sectors often face labor shortages or lack sufficient Thai workers willing to perform such jobs. Myanmar migrant workers fill these gaps, enabling businesses to operate continuously without disruptions caused by labor scarcity.
    2. **Taxation and Social Security Systems:** Granting legal working rights to Myanmar migrant workers enhances the government's ability to regulate and monitor this labor force effectively. It also enables systematic collection of taxes and social security contributions, thereby increasing government revenue and strengthening the sustainability of social security systems over the long term.
    3. **Fair Labor Markets Begin with Legal Employment:** Incorporating Myanmar migrant workers into the formal labor system helps reduce the costs associated with enforcing labor laws, curbs illegal employment, and motivates employers to comply with labor regulations. This fosters fair competition within the labor market, preventing exploitation and inappropriate wage suppression relative to worker quality.
    4. **Migrant Workers as Stabilizers of Thai Businesses:** Industries heavily reliant on migrant labor, such as construction and commercial agriculture, significantly benefit from the substantial labor supply provided by Myanmar workers. This workforce helps maintain production stability and ensures uninterrupted business operations despite broader labor shortages.
    5. **Informal Agricultural Sector: A Persistent Challenge:** Despite clear economic benefits, a large portion of Myanmar migrant workers in agriculture remains informal, characterized by irregular mobility and lack of documentation. This situation complicates government efforts to monitor, regulate, and formulate precise labor policies, resulting in long-term challenges in managing the migrant workforce.
    6. **Potential Structural Burdens on the Government Without Proper Management:** Without effective management systems, the continued presence and employment of Myanmar migrant workers could impose structural costs on the government, such as healthcare and education expenditures, especially considering that many children of migrant workers attend Thai schools. Current budget allocation frameworks inadequately address the needs arising from migrant populations, leading to resource shortages in high-density migrant areas.
    7. **Underpaid Skilled Labor: A Waste of Human Capital:** A significant concern is the mismatch between the skills and compensation of Myanmar migrant workers, particularly those with specialized expertise in sectors like construction. Many receive wages only at the legal minimum, which falls short of reflecting their true

abilities. This underutilization of labor resources may undermine worker morale and long-term productivity.

- **Social Impacts of Myanmar Migrant Workers on Thailand**
  1. **No Resistance from Thai Workers: Coexistence in Balance**: One key finding is that there is no evidence indicating that Myanmar migrant workers significantly compete with Thai workers to the extent of causing notable adverse effects. This is particularly true in sectors such as construction and fisheries, where Thai workers are either insufficient in number or unwilling to work. The presence of Myanmar migrant workers thus does not displace Thai workers but rather complements and supports the continued efficiency of production systems in these business sectors.
  2. **Effective Communication Fosters Social Cohesion**: The government plays a clear role in promoting mutual understanding within society through language support and labor rights cooperation. This includes providing interpreters, conducting legal labor training, and producing informational materials to help migrant workers comprehend their rights. These efforts not only help prevent rights violations but also significantly reduce misunderstandings and cultural conflicts within labor communities.
  3. **Legal Status Reduces Social Vulnerability**: When Myanmar migrant workers obtain legal recognition, they gain access to fundamental rights such as minimum wage, workplace safety, and the ability to file complaints against unfair treatment. This directly decreases their vulnerability, reduces exploitation, and enables these workers to become stable “cogs” within the economic and social systems.
  4. **The Silent Voice of Undocumented Workers: Invisible Risks**: Undocumented Myanmar migrant workers often suffer in silence despite clear rights violations. Fear of scrutiny or deportation discourages them from reporting abuses or disclosing information. Consequently, this group becomes a vulnerable population without support, creating conditions ripe for unchecked exploitation due to lack of government oversight.
  5. **Assistance Mechanisms Fail to Reach Informal Workers**: Migrant workers lacking legal status tend to avoid accessing government services, highlighting gaps in labor protection systems. Even though the government has various assistance measures, the lack of trust in data privacy and fear of arrest causes many workers to remain silent and refrain from exercising their rights, perpetuating social inequality.
  6. **Hidden Burdens on the Thai Education System**: The children of Myanmar migrant workers entering the Thai education system, especially in areas with high migrant populations, may cause schools to exceed their capacity if budgets and resources are not properly allocated. This can lead to shortages of teachers, equipment, and classroom space, potentially impacting the overall quality of education. While the

human rights framework intends to allow all children access to education, the government's supporting mechanisms remain a significant constraint.

Policy Recommendations from this Agency

- **Policy**: Accurate data and targeted budgeting are essential. A comprehensive database of migrant workers should be established, especially covering agricultural and temporary labor sectors that are often overlooked. This will enable more effective labor planning and management, allowing policies to better reflect on-the-ground realities. Furthermore, budgets for areas with large migrant populations should be allocated based on actual service usage rather than merely population registries, ensuring sufficient and equitable provision of public services such as education and healthcare.
- **Labor Protection**: Safety and accessibility must be prioritized. Develop a secure and confidential grievance system that encourages undocumented workers to exercise their rights without fear of deportation. Support community labor volunteers to disseminate knowledge of labor rights in accessible languages and formats, thereby bridging gaps between workers and government agencies. Increase inspections of workplaces in areas with high migrant worker concentrations to prevent violations such as unfair employment practices and underpayment.
- **Collaboration and Communication**: Comprehensive connectivity and clarity are crucial. Foster partnerships with international organizations and NGOs to strengthen knowledge, resources, and protection mechanisms for vulnerable labor groups. Produce and continuously disseminate multilingual labor rights information and complaint channels through accessible media, such as audio clips, leaflets, and social media platforms frequently used by migrant workers.

3) Immigration Office, Tak Province

- **Economic Impacts of Myanmar Migrant Workers on Thailand**
    1. **Myanmar Migrant Workers as Essential Labor Substitutes in the Lower-End Thai Labor Market:** Thailand, especially in border areas such as Mae Sot, faces ongoing shortages of low-skilled labor. Many Thai workers are unwilling to engage in physically demanding, hazardous, or low-paying jobs in factories, food industries, fisheries, or restaurants. Consequently, Myanmar migrant workers have become a necessary "replacement labor" force, enabling the economy to function smoothly. Without their presence, many border area economies would experience significant disruption. Numerous businesses, particularly SMEs and restaurants, might be forced to close due to the lack of available workers.
    2. **Low-Cost Labor as a Competitiveness Factor:** Wages in Thailand remain higher than in neighboring countries like Vietnam, Cambodia, and Laos, making production costs relatively high. Without the availability of low-cost migrant labor from Myanmar, Thai businesses would struggle to reduce costs and compete in export markets. Myanmar migrant workers thus allow the economy to "keep

moving" at a competitive cost level, helping maintain affordable prices for goods and food consumed by Thai consumers daily.

3. **Purchasing Power and Local Money Circulation:** Although some income earned by Myanmar migrant workers is remitted back to Myanmar, a substantial portion circulates within Thailand through purchases of consumer goods, housing, food, healthcare, and education for their children. This spending positively impacts the local economies in border areas and stimulates various economic activities. While not producers themselves, Myanmar migrant workers act as consumers who inject money directly into the Thai economy on a daily basis.
4. **Irregular Labor Problems Lead to Capital Leakage:** Undocumented Myanmar migrant workers are unable to participate in the social security system or pay taxes. This results in employers' payments not being taxed, leading to lost government revenue. Workers also miss out on basic rights such as healthcare access. Income generated by illegal labor leaks out of the formal economy through remittances and informal circulation via markets, black-market labor, or informal businesses.
5. **Legal Gaps Excluding Skilled Migrant Workers:** Some skilled Myanmar migrants, such as doctors, nurses, teachers, and engineers, possess high potential but are barred from working in Thailand due to "prohibited professions" or the lack of professional licenses. This forces these skilled workers to remain idle despite their ability to contribute to the healthcare and education systems. These high-skilled labor groups represent a valuable resource for the economy that remains untapped.
6. **Lost Opportunities Without Legal Migrant Registration Systems:** If the government does not establish a proper system for legal labor migration including registration, health screening, and contract regulation desired quality workers will be unable to enter Thailand. This perpetuates labor shortages and causes economic losses for Thai businesses. Conversely, allowing legal entry enables the government to control, monitor, and tax labor migration, benefiting the government, employers, and workers alike.

Policy Recommendations from this Agency

- Establish legal pathways to facilitate easier work access for migrant workers.
- Design control systems utilizing technology, such as labor tracking cards or online registration platforms.
- Integrate undocumented workers into the legal system to reduce labor outside the formal economy.
- Consider employing skilled labor from neighboring countries to supplement the mid-level labor market.

- **Social Impacts of Myanmar Migrant Workers on Thailand**
    1. **Demographic Changes in Border Areas:** A significant number of Myanmar migrant workers no longer come solely for temporary work but are settling down with families, enrolling children in Thai schools, and living near workplaces. Many children are born in Thailand, speak Thai fluently but lack Thai citizenship, creating "stateless" group in the country.
    2. **Legal and Identity Status Issues:** Officials report unclear legal status for children and dependents of migrant workers. Children born in Thailand to migrant parents often do not receive national ID numbers and cannot access rights despite attending Thai schools. This lack of clear legal status poses risks of rights violations and exclusion from government care systems.
    3. **Conflict Between Rights and Security Concerns:** Security agencies worry that allowing Myanmar migrants permanent residence and work without strong controls could increase crime risks, illegal trade, community conflicts, especially during unemployment or economic downturns.
    4. **Lack of Coordination Among Government Agencies and Communities:** Interviews reveal unclear roles and inconsistent policies among immigration, interior ministry, public health, and labor agencies regarding special groups such as skilled migrants, pregnant workers, or children. This leads to policy gaps and confusion in implementation.
    5. **Education and Adaptation of New Generations:** Younger Myanmar migrants tend to pursue higher education in Thailand, including secondary and tertiary levels. Officials believe that with proper support and management, these youth could become valuable human capital for Thai society. However, lack of legal status limits their full potential.
    6. **Crime and Social Image:** Although some crimes (e.g., fights, alcohol-related offenses, violent crimes) involve Myanmar migrant workers, these are mostly isolated cases among undocumented or marginalized groups. Such incidents contribute to suspicion and misunderstandings in Thai society about migrant workers, ignoring underlying structural causes of migration.
    7. **Culture and Social Integration:** Despite long-term residence, Myanmar migrant workers have limited cultural integration, with Myanmar culture having little public presence. Thai society largely perceives them as "outsiders" rather than contributors to social development. Thus, fostering cultural understanding and adaptation remains a key challenge.

Policy Recommendations from this Agency

- Revise laws to reflect current realities, e.g., enabling skilled migrant workers to work legally in Thailand.
- Develop registration and monitoring systems using technology to ensure security without imposing excessive burdens on the government.

- Enhance inter-agency cooperation to unify migrant labor management and reduce confusion among ministries.
- Promote peaceful coexistence through education, training, and joint activities between Myanmar migrant workers and Thai communities.

4) Ministry of Public Health

- **Economic Impacts of Myanmar Migrant Workers on Thailand**
    1. **Filling Labor Shortages in Key Sectors:** Myanmar migrant workers play a structural role in supporting Thailand's economy, particularly in sectors that Thai workers generally avoid, such as construction, agriculture, and lower-level service industries. These sectors require intensive labor and often involve income uncertainty. The presence of Myanmar migrant workers helps alleviate labor market tightness in these areas and serves as a critical mechanism enabling continuous business operations without disruptions caused by labor shortages.
    2. **Promotion of Health Insurance Enrollment and Tax Compliance:** Legally registered Myanmar migrant workers, for example through Memorandums of Understanding (MOUs) between governments or with work permits issued by the Ministry of Labor, are eligible to enroll in the Ministry of Public Health's health insurance scheme and may join the social security system if employed by registered employers. This contributes positively to the overall economy, as these workers pay premiums, access healthcare services, and contribute taxes and social security funds. This reduces the government's burden of caring for undocumented workers and increases government revenue in the long term.
    3. **The fiscal implications of the informal labor sector:** However, a significant portion of Myanmar migrant workers remain undocumented and tend to purchase health insurance cards only when necessary—such as during illness or when renewing visas. This practice places heavy financial strain on hospitals, especially in border areas. For example, Umphang Hospital carries a debt exceeding 60 million baht, and outstanding healthcare payments nationwide exceed 3 billion baht, with 90% attributable to migrant workers. This demonstrates the direct fiscal burden undocumented migrant workers impose on public healthcare providers.
    4. **Lack of Financial Sustainability in the Health System:** A structural problem is that migrant workers often buy health insurance cards only when ill or as documentary proof, preventing the risk-pooling principle essential to sustainable insurance schemes. As a result, fund revenues are insufficient to cover expenses, while average per capita costs continue to rise annually. This threatens the sustainability of the system and risks compromising service delivery capacity if there are no government subsidies or policy reforms to appropriately adjust insurance premiums.

- **Social Impacts of Myanmar Migrant Workers on Thailand**
    1. **Access to Healthcare Rights and Disease Control:** The Ministry of Public Health's health insurance card system has become a crucial mechanism for ensuring public health safety for both migrant workers and the Thai population. Myanmar migrant workers registered in the system can effectively access basic medical care, health promotion, disease surveillance, and control measures. For example, lymphatic filariasis ("elephantiasis"), which is prevalent among Myanmar migrant workers, could spread to the general population if neglected. The insurance system thus serves as an important tool to reduce the risk of disease transmission and is part of the overall public health protection framework.
    2. **Development of Multi-agency Collaboration Mechanisms:** Although the migrant healthcare system is complex, the linkage of entry pathways across ministries from the Ministry of Interior (regarding legal status) to the Ministry of Labor (employment issues), and then to the Ministry of Public Health (health rights) represents a significant governmental effort to establish an integrated management mechanism. Despite challenges such as inconsistent data usage and incomplete system integration, this approach reflects an ongoing development trend with the potential to sustainably shape labor and health policies in the long term.
    3. **Undocumented Workers Still Lack Access to Rights:** Migrant workers without legal documentation remain a vulnerable population lacking access to basic health rights. Even when facing chronic illnesses or acute health problems, this group is often reluctant to disclose their identity or register for healthcare services due to fears of detection or deportation. Additionally, many undocumented workers tend to purchase health insurance cards only for visa renewals or residency permits rather than for genuine health protection and care. This situation undermines the health system's efficiency in screening and managing the health of these workers.
    4. **Unseen Burden of Refugees in Refugee Camps:** The population of refugees residing in temporary camps along the border, such as in Mae Sot, Tak, or Umphang, exceeds 100,000 individuals, with many more unofficial refugees in the hundreds of thousands, particularly in NGO-managed camps. Although these refugees lack clear legal status under Thai law, in practice, Thai health service providers—especially hospitals in border areas—bear the responsibility of treating them when they become ill. Reimbursements from international organizations or external sponsors often cover only 60–70% of actual medical costs, resulting in accumulating debts for healthcare facilities. Furthermore, issues such as unauthorized entry into camps and payments to access the system led to exploitation and systemic control gaps.

Policy Recommendations from this Agency

1. **Improve Data Systems and Interagency Linkages:** Current management systems for migrant labor suffer from insufficient data integration across key agencies, including the Ministry of Interior, Ministry of Labor, and Ministry of Public Health. This fragmentation leads to redundancy, delays, and uncertainty in defining migrant workers' rights and benefits. Therefore, urgent development of a "Bio ID" system, utilizing biometric data such as fingerprints and facial recognition as a unified identification method is recommended. Establishing a centralized, shared database accessible by all relevant agencies will enhance accuracy in rights administration, reduce vulnerable populations falling through gaps, and minimize duplicated verification efforts that waste resources.
2. **Develop a Sustainable Health Insurance System:** The health insurance mechanism for migrant workers should be enhanced to effectively and sustainably manage health risks. Key improvements include incentivizing workers to purchase insurance proactively rather than waiting until emergencies occur. Insurance cards should offer motivating benefits, such as premium discounts for regular purchasers or additional privileges for pre-entry health screenings. Integration of proactive health screening before enrollment can prevent controllable diseases, reduce long-term treatment costs, and encourage healthier behaviors among migrant workers.
3. **Alleviate Financial Burden on Border Hospitals:** Hospitals in border areas with high numbers of migrant patients such as Umphang, Mae Sot, and Tak are currently facing budget shortfalls and accumulating debt. It is recommended to allocate additional targeted funding from central government sources or establish a "central joint fund" to reimburse these hospitals based on actual costs of care provided to migrant workers, rather than on the limited revenue from insurance card sales. This approach will empower hospitals to manage healthcare services effectively without compromising quality of care for the local population.
4. **Consider Conditional Work Rights for Refugees:** In situations where repatriation of refugees is not feasible and third-country resettlement is limited; the government should explore granting conditional work rights to certain groups of refugees. This would enable self-sufficiency, provide income opportunities, and reduce long-term government care burdens. Such measures must be tightly controlled by security agencies and monitored collaboratively by the Ministries of Interior, Labor, and Public Health to mitigate security risks while respecting human rights principles within the Thai context.

5) Mae Sot Hospital

- **Economic Impacts of Myanmar Migrant Workers on Thailand**
    1. **Public Health Cost Burden on the Government:** Mae Sot Hospital bears a significant medical service burden for many Myanmar migrant workers, both insured and uninsured. Especially for undocumented workers or refugees without any insurance, the hospital often incurs unrecovered expenses, directly impacting

its budget and revenue. *"Some buy insurance for just 3 months, but when they get seriously ill, the hospital still has to provide care even after the insurance expires."*

2. **Complex Insurance System and Care Costs:** Although the government mandates health insurance for migrant workers annually, enrollment remains very low. The compulsory insurance costs around 1,600 baht per year, which does not cover chronic diseases or emergency treatment. Consequently, actual medical costs far exceed hospital revenue from insurance. Uninsured patients often rely on free emergency services or leave bills unpaid, accumulating uncollectible medical debts.
3. **Impact on Hospital Staff and Resources:** Healthcare workers, especially nurses, face increased workload due to the high volume of migrant patients, many with chronic illnesses or severe symptoms caused by delayed access to healthcare. The shortage of beds and staff turnover aggravate personnel shortages, yet equal service must be provided to all patients.
4. **Microeconomic Activity Generated by Migrant Workers:** Despite the strain on health services, Myanmar migrant workers stimulate local economies through consumption of goods and services, including shopping, dining, housing rentals, and public services. Some have started small businesses—such as barber shops, vehicle repairs, or clothing sales—boosting grassroots economic activity in border special economic zones, though often informally and unregistered.
5. **Hospital Revenue Limitations:** While the hospital can collect some fees (e.g., 500 baht for health check-ups or 1,600-baht annual insurance premiums), these revenues do not cover the real costs of caring for seriously ill, surgical, or chronically ill migrant patients. Consequently, the hospital relies heavily on donations and funding from specialized health service units to supplement its budget.

Economic Management Approaches: To ensure the sustainability of the healthcare system in border areas and effectively accommodate migrant workers, Mae Sot Hospital has implemented several adaptive measures, including:

- Allowing migrant workers to purchase short-term private health insurance.
- Organizing health screening programs in collaboration with employers to provide early detection and healthcare services.
- Partnering with non-governmental organizations (NGOs) to help alleviate financial burdens and support service provision.
- Developing biometric registration systems to enhance accuracy and efficiency in managing migrant worker data.

These efforts highlight that without clear and comprehensive government policies to support migrant workers particularly in healthcare the economic impacts in border regions will persist continuously, both directly and indirectly.

- **Social Impacts of Myanmar Migrant Workers on Thailand**
    1. **Inequity in Access to Public Health Services:** Myanmar migrant workers residing in Thailand, particularly those without proper documentation or valid health insurance, face significant barriers to accessing appropriate medical care. Consequently, many delay seeking treatment until their conditions become severe. This situation reflects systemic disparities between "entitled individuals" and the "stateless." Numerous children born in Thailand without citizenship lack equal access to public health benefits compared to Thai nationals, creating opportunity gaps from birth.
    2. **Pressure on Healthcare Systems and Personnel:** The increasing number of migrant patients has intensified demands on hospitals and healthcare professionals, resulting in time constraints, resource shortages, and workforce strain. Some healthcare workers experience burnout due to excessive workloads, particularly in caring for undocumented migrants who face language barriers or have limited ability to pay. The emotional toll is exacerbated when treating patients without family support or clear referral pathways.
    3. **Cultural and Communication Barriers:** Language limitations among Myanmar migrant workers who often have limited proficiency in Thai lead to communication breakdowns, potentially causing misunderstandings in diagnosis, treatment, and adherence to medical advice. Additionally, differences in health beliefs and familiarity with formal healthcare systems exist; some groups prefer traditional remedies or are unfamiliar with the structured services offered by Thai hospitals.
    4. **Permanent Settlement and Emerging Family Structures:** Many Myanmar migrants are establishing long-term residence and family life in Thailand, including cross-national marriages and children born locally. However, challenges regarding legal status (e.g., lack of national identification or citizenship) persist. Hospitals report cases of children born in Thailand without official ID numbers, limiting their access to fundamental rights such as vaccination, treatment, and school registration. This reflects the emergence of a "social shadow" population arising from the migrant labor system.
    5. **Burden on Public Care Systems:** Vulnerable groups among migrant workers such as pregnant women, HIV-positive individuals, and children without guardians depend heavily on government-supported care systems. Hospitals must provide services often without adequate funding, prompting societal debates in Thailand regarding whether and to what extent these populations should be supported.
    6. **Ethical Conflicts in Practice:** Healthcare personnel acknowledge that while humanitarian principles mandate equitable care for all, in practice, migrant workers often receive differential treatment due to systemic limitations such as lack of legal documentation and communication challenges. This can foster implicit

segregation, potentially evolving into long-term social issues if not addressed through clear policies.

- **Social Impacts of Myanmar Migrant Workers on Thailand**
    1. Establish translation services or cross-cultural volunteer programs to facilitate communication within hospitals.
    2. Develop targeted support mechanisms for stateless individuals, especially children, to ensure access to basic rights.
    3. Create shared spaces and programs promoting mutual understanding and coexistence, such as joint training for migrants and healthcare workers.
    4. Encourage Myanmar migrant workers' participation in community activities to enhance social integration and cohesion.

4.2.2 Non-Governmental Organizations (NGOs)

1) A Migrant Learning Center in Mae Sot District (MLC 1)

- **Economic Impacts of Myanmar Migrant Workers on Thailand**
    1. **Supporting Local Economies**: This migrant learning center currently serves approximately 300 students per year, with around 70% of its annual operational budget contributed directly by the students' parents, either in cash or in-kind donations. This share amounts to an estimated 700,000 THB per year (from a total annual budget of around 1,000,000 THB). This figure illustrates that Myanmar migrant parents possess sufficient economic capacity to invest in their children's education, despite often having insecure legal status or limited income. When aggregated across hundreds of migrant households, these expenditures contribute significantly to the circulation of money within the local Mae Sot community and help reduce the financial burden on the government in providing education for "out-of-school children".
    2. **Stimulating Local Demand for Services and Commerce**: The learning center's annual operating expenses, totaling approximately 1,000,000 THB, cover staff salaries, facility rent, utilities, and other necessities. Of particular note is the payment of salaries for 17 staff members (15 teachers and 2 support staff), each receiving a monthly wage of 4,000 THB, which amounts to roughly 816,000 THB per year in total. This sum circulates back into the local economy through household spending, local purchases, and rent paid for the school premises. While the exact figures for utilities and land rental are not specified, these costs are estimated to be around 184,000 THB per year, consistent with local expenditure patterns.

In addition, the center receives food support from the Mae Tao Clinic, which contributes approximately 45% of staple food items such as rice, chilies, and salt. This in-kind assistance not

only reduces the center's operational costs but also generates regular local procurement activities within the community.

Table 4.3 Summary: The overall estimated annual economic impact generated by Migrant Learning Center

Category	Estimated Annual Value (THB)	Source of Funds / Economic Impact
Contributions from Parents (70%)	≈ 700,000	Indicates the purchasing power of Myanmar migrant households
Salaries for Teachers and Staff (17 people)	≈ 816,000	Stimulates local household income and consumption
Utilities and Land Rental	≈ 184,000	Generates income for local service providers
Staple Food Support from Mae Tao Clinic	Approx. 45% of food supply	Reduces operating costs and strengthens food security
Total Operating Budget	≈ 1,000,000	Represents overall local economic circulation

Additional Policy Recommendations: From the structure of revenue and expenditure of this migrant learning center, it is evident that nearly 100% of its total annual budget (approximately THB 1 million) circulates within the local economy and directly involves migrant worker households. This mechanism not only drives the grassroots economy but also demonstrates the capacity of the migrant community to self-organize and sustain their own educational services. If the government were to support such learning centers with supplementary funding equivalent to just 30–40% of their annual operating costs (around THB 300,000–400,000 per year), it would significantly strengthen the financial stability of these schools, reduce dependence on private donations, and expand educational opportunities for out-of-system children without duplicating the burden on formal public schools. Such a policy would represent a low-cost yet highly tangible investment, yielding both economic and social returns for communities along the Thai–Myanmar border.

- **Social Impacts of Myanmar Migrant Workers on Thailand**
    1. **Reducing the Burden on the Government Education System and Expanding Access to Education**: This migrant learning center plays a critical role in providing educational opportunities for migrant and displaced children from Myanmar who fall outside the formal Thai education system. These children often cannot enroll in Ministry of Education schools due to a lack of legal status or identity documents. The center therefore serves as a vital channel for educational access, enrolling around 300 students annually from kindergarten through lower secondary levels without relying on government resources. Tuition fees are intentionally kept very low approximately THB 200 per year for kindergarten, THB 500 for primary, THB 1,000 for lower secondary, and THB 3,500 for boarding students significantly below

the fees of typical private schools. Such a system reduces inequality in access to education and helps prevent vulnerable children from dropping out, without imposing additional costs on the government.

2. **Providing Psychological Support and Enhancing Social Stability**: Following the 2021 military coup in Myanmar, the center observed a significant demographic shift. Whereas most students were previously ethnic Karen living near the border, the student body has become increasingly diverse, including Chin, Mon, and Bamar children displaced from conflict-affected areas deeper inside Myanmar cities such as Yangon, Taungoo, Bago, and Karen regions. Many of these children have first-hand experiences of violence, conflict, and forced migration, which has led to mental health challenges such as stress, depression, and trauma. This manifests in classroom behaviors such as lack of concentration and heightened anxiety. In response, the learning center has begun providing structured psychological counseling services. These services not only support each student's mental well-being but also help prevent long-term social problems by addressing trauma early on, thereby reducing the future burden on Thailand's mental health system.
3. **Legal Status Constraints for Children**: One of the major structural obstacles faced by students at this migrant learning center is their uncertain legal status. Although some students hold basic identification documents, such as the 10-year "white card" issued by the Thai government or a Thai birth certificate, the majority still have no official documentation whatsoever. This legal insecurity has far-reaching consequences: students often cannot enroll in formal secondary schools, cannot sit for standardized or GED-equivalent exams, and cannot legally work or migrate once they reach adulthood. This precarious status perpetuates cycles of social vulnerability and increases the risk that these children will become undocumented workers in the future if there is no policy intervention.

Policy Recommendations from this Agency

1. **Integrate the Legal Status of Migrant Children into Formal Registration Systems**: There should be coordinated policies among the Ministry of Interior, Ministry of Education, and Ministry of Labour to facilitate the registration of over 300 students per year into the national civil registry system. At minimum, children should be granted a temporary identification card, such as a migrant child ID or "white card," which would enable them to continue their education and seek lawful employment in the future.
2. **Support Community-Based Schools that Reduce the Government's Burden**: Based on this learning center's operational data, the total annual expenditure is approximately THB 1 million, yet there is currently no direct government funding provided. Allocating even 30–40% of the operating budget (about THB 300,000–400,000 per year) would significantly strengthen the center's financial stability and ensure the quality of its

services. This would also reduce the pressure on public schools to absorb out-of-system students.

3. **Develop Health and Psychosocial Support Systems for Refugee and Migrant Children**: More than 95% of the students at this learning center come from migrant or refugee families, with many having fled violent conflict. Establishing community-level psychosocial support mechanisms—such as deploying volunteer psychiatrists or providing dedicated child health and mental health funds to each school—would help mitigate stress and mental health challenges from an early stage, thereby reducing long-term social and healthcare burdens.

- **Economic Impacts of Myanmar Migrant Workers on Thailand**: **Case Study of a Migrant Learning Center in Mae Sot (No. 2)**
    1. **Demonstrating Household-Level Capacity to Support Education**: This migrant learning center illustrates the significant capacity of Myanmar migrant communities to invest in education at the household level, despite prevailing legal and economic instability. Each year, the school enrolls approximately 180-day students. Tuition fees have increased substantially from 400–500 THB per student per year before the COVID-19 pandemic and the political crisis in Myanmar, to 3,000 THB per student per year at present. This generates approximately 540,000 THB annually in parental contributions, reflecting both the purchasing power and strong commitment of migrant families to invest in their children's future, even amid uncertain documentation status and unstable incomes.
    2. **Local Employment Generation**: Beyond its educational mission, the learning center plays a clear economic role as a local employer. It currently employs a total of 11 teachers: five teachers receive 4,500 THB per month (equivalent to 270,000 THB per year), six teachers receive 5,000 THB per month (360,000 THB per year), and one Thai part-time teacher earns 5,000 THB per month (60,000 THB per year). Altogether, the center's staff salaries total approximately 690,000 THB per year, representing income that circulates within migrant households in the Mae Sot community and directly supports the livelihoods of teachers, many of whom are themselves migrants or persons with vulnerable legal status.
    3. **Local Economic Circulation through Utilities and Taxes**: The center also contributes to the local economy through regular payments for utilities and municipal services, such as average monthly utility bills of 2,500 THB (30,000 THB per year), annual land taxes of 20,000 THB, and waste disposal fees of 175 THB per month (2,100 THB per year), totaling approximately 52,100 THB annually. These payments flow back into local government bodies, such as the municipal office, subdistrict administrative organizations, and local utility providers. When combined with teacher salaries and tuition fees paid by parents, these expenditures demonstrate that the migrant learning center serves as a local economic hub, driving meaningful financial circulation within the community.

- **Social Impacts of Myanmar Migrant Workers on Thailand**
    1. **Expanding Access to Education Outside the Formal System**: This migrant learning center plays a crucial role in providing an alternative educational pathway for children from Myanmar migrant worker families who are unable to enroll in Thai public schools due to legal or civil registration barriers. By accepting students who fall outside the formal education system, the center helps reduce the burden on the Ministry of Education while also preventing vulnerable children from dropping out entirely or becoming underage laborers prematurely. This is a strong example of a community-based educational model that effectively fills policy gaps in the national system.
    2. **Adapting to Displaced Populations from Conflict Areas**: Following the 2021 coup in Myanmar, the student demographics at this learning center have changed significantly. Currently, more than two-thirds of its students come from families displaced by armed conflict and internal strife within Myanmar, while about one-third are children of long-term migrant workers in Thailand. This shift means that the learning center must now serve not only as an educational institution but also as a social support system for children who have experienced violence, displacement, and psychological insecurity. This requires staff to have deep understanding, flexibility, and the ability to adapt curricula and teaching methods to the diverse backgrounds and needs of their students.
    3. **Facilitating Pathways to Further Education and Vocational Skills**: This migrant learning center does not merely function as a provider of basic education; it is a critical starting point for building students' pathways toward sustainable futures. Upon completing the pre-secondary level, students have multiple progression options: continuing to a migrant high school, enrolling in vocational training in fields such as electrical work, beauty services, or baking, or pursuing equivalency certifications such as the GED through other educational providers. These pathways not only increase the likelihood that students will enter the labor market with higher skills and more stable incomes, but they also reduce their risk of becoming involved in informal labor markets or economic exploitation.
    4. **Limitations Related to Legal Status and Rights**: While there is no specific data on the legal status of students and teachers at this center, its operations and context strongly suggest similarities to Learning Center No. 1 studied in this research. Many students likely lack key documents such as birth certificates, identity cards, or valid residence permits. This reality restricts their access to various rights and services, including continuing education in the formal system, access to health services, and the possibility of working legally as adults. Without targeted policy interventions to provide documentation or secure legal status for these children, they risk remaining trapped in a cycle of vulnerability and exclusion from basic rights throughout their lives.

Policy Recommendations from this Agency

1. **Support Community-Based Schools that Alleviate Government Burdens**: This migrant learning center plays a vital role in supporting children who fall outside the formal government education system. If the government could provide supplementary support in the form of budget allocations or in-kind contributions equivalent to just 30–40% of the school's annual operating budget (approximately 300,000–400,000 THB per year), it would significantly enhance the school's capacity to operate sustainably and maintain service quality.
2. **Develop a Migrant and Displaced Children Registration Mechanism**: The government should establish a dedicated "Migrant and Displaced Children Registry" that is separate from the national civil registry but functions as an official identity mechanism for education and healthcare access. This would ensure that children who lack civil status documents do not fall through the cracks when it comes to accessing fundamental rights and basic services.
3. **3. Strengthen Linkages to Employment Pathways Post-Graduation**: Relevant government agencies, such as the Ministry of Labour, should explore partnerships with border learning centers to create clear pathways for students graduating from vocational tracks to enter skill development programs or secure formal employment quotas in the private sector under an appropriate regulatory framework. This would help ensure that young migrant graduates can transition into decent work opportunities in a safe and legal manner.

4.2.3 Private Sector

1) Tak Chamber of Commerce Perspective

- **Economic Impacts of Myanmar Migrant Workers on Thailand**: Myanmar migrant workers play a crucial role in Thailand's economic system, especially in border areas and key production and export hubs such as Mae Sot, Tak province. These workers are not merely low-cost labor; they are a vital mechanism that sustains the continuity and competitiveness of Thailand's economy.
    1. **Filling Labor Market Gaps in Positions Thais Will Not Do**: In lower-tier economic sectors such as garment factories, agriculture, fisheries, and low-wage service industries, most Thai workers tend to reject jobs that are physically demanding, difficult, or poorly paid. Younger Thais with higher education prefer more comfortable office jobs with air-conditioning and fixed hours. Consequently, Myanmar migrant workers become the main workforce filling these labor gaps. Without them, many production systems would immediately grind to a halt due to a lack of available workers.
    2. **Cost Control for Competitiveness**: In the time of intense cost-based competition within the ASEAN market, Thailand faces growing pressure from neighboring countries such as Vietnam, Cambodia, and Laos, all of which have lower labor costs. Without maintaining competitive production costs, Thai exports would be severely affected. Myanmar migrant workers help businesses

keep production costs at an appropriate level, ensuring that Thai goods remain competitive domestically and internationally for example, garments produced in Mae Sot for export to Europe and the US. If all workers had to be Thai nationals, production costs would rise so sharply that Thai products could lose their market competitiveness.

3. **Survival of SMEs and Local Factories**: Many factories in Mae Sot are small- and medium-sized enterprises (SMEs). A general wage increase directly impacts their survival, as labor-intensive businesses cannot absorb significant rises in labor costs. The presence of Myanmar migrant workers helps these businesses "stay alive," thereby preserving other jobs such as procurement, quality control, and accounting—which are typically filled by Thai workers. This benefit thus spreads throughout the local economy.
4. **Role in the Local Economy Beyond Labor Supply**: Myanmar migrant workers are not just laborers; they are also active consumers who help stimulate the local economy through market spending, patronizing shops and restaurants, and enrolling their children in Thai schools. The wages they earn do not all flow back to Myanmar; instead, a substantial portion circulates within local border economies such as Mae Sot. It is estimated that the economic value generated by Myanmar migrant workers may account for as much as 50% of the local economy.
5. **Taxes and Indirect Returns to the Government**: Even though Myanmar migrant workers remit some of their income to Myanmar, the businesses that employ them remain within Thailand's tax system, paying value-added tax (VAT), corporate income tax, and other related taxes, which continuously feed into the national fiscal system. Thus, Myanmar migrant workers is not merely an "outflowing cost" but also generates economic returns through taxation and local consumption.
6. **Cross-Border Trade and Purchasing Power from the Myanmar Side**: Thai businesses in Mae Sot also benefit from "cross-border trade" when Myanmar migrants and Myanmar residents cross the border to buy goods in Thailand. Particularly during times of political crisis or shortages in Myanmar, the stable and accessible prices of Thai goods create sustained economic stimulus. Cross-border trade sales thus extend beyond domestic Thai consumers to directly include Myanmar buyers.
7. **Potential Impacts of a Labor Shortage**: If Thailand were unable to import Myanmar migrant workers or overly restricted their numbers, many businesses would be unable to offer wages high enough to attract Thai workers and would be forced to close. The resulting consequences would include widespread unemployment, loss of tax revenue, and a significant decline in Thailand's global competitiveness.

8. **High Turnover: An Hidden Cost for Businesses**: Most Myanmar migrant workers in Mae Sot are transient, not staying permanently or working long-term. As a result, business owners and factories must constantly bear the cost of training new workers, especially in industries that require specific skills or technical processes, such as food processing, textiles, or logistics.

- **Social Impacts of Myanmar Migrant Workers on Thailand**: Myanmar migrant workers who come to work in Thailand influence not only the economy but also the social structure and dynamics in multiple dimensions, including culture, coexistence, education, and long-term community security.
    1. **Coexistence between Myanmar Migrant Workers and Thai People:** Most Myanmar migrant workers in Mae Sot primarily seek livelihoods rather than competing culturally or altering social structures. This fosters cooperation rather than conflict. Generally, Thai workers hold supervisory or managerial roles, while Myanmar migrants fill operational positions such as production line workers, general laborers, or service staff. This clear division of roles reduces social friction.
    2. **Changes in Demographic Structure:** Recently, Myanmar migrants increasingly bring their families, including children who attend Thai schools or are born in Thailand. This leads to more permanent settlement and greater diversity in border town populations.
    3. **Impact on the Education System:** Some Myanmar migrant families with stable economic standing enroll their children in Thai schools from primary and secondary to international schools in Tak province reflecting a long-term commitment and hope for better futures. The Thai education system must adapt to accommodate these students, considering language barriers, cultural differences, and integration with Thai peers.
    4. **Concerns about Unemployment and Inequality:** Certain Thai social groups perceive Myanmar migrants as job competitors, especially in low-skilled sectors. However, interviews reveal that such jobs are often undesirable to Thai workers due to difficulty, lack of benefits, or risks. Migrants generally replace rather than compete for these roles. Nonetheless, inadequate management of migrant labor numbers may lead to social burdens such as unemployment, illegal work, crime, or insecurity.
    5. **Hygiene and Quality of Life Issues:** Interviewees note that Thai workers excel in cleanliness, orderliness, and hygiene practices such as the “5S” methodology (Sort, Set in order, Shine, Standardize, Sustain), which may not be uniformly observed among Myanmar migrants due to differing backgrounds. Consequently, training and supervision are needed to ensure safety, particularly in food processing and agriculture.
    6. **Community Security:** While Myanmar migrants generally coexist peacefully with Thai residents, risks remain. Economic downturns or factory closures can push

migrants into marginalization unemployed, homeless, or involved in crime. Thus, maintaining balanced migrant numbers and proper regulatory controls is critical to prevent system overload.

7. **Cultural Impacts:** Myanmar migrants typically do not play prominent roles in cultural dissemination or joint activities, except within specific communities, such as displaced ethnic groups or mixed families linked across the Moei River.
8. **Transition to a "Multi-Cultural Society":** The growing number of Myanmar children who speak Thai, attend Thai schools, and live as local children signals that border areas are evolving toward greater ethnic mixing. Without adequate preparation, this transformation may pose future challenges regarding identity, equity, and access to resources.

Social Policy Recommendations

- Develop policies to support and manage multicultural social structures.
- Promote peaceful coexistence and intercultural understanding.
- Implement training programs on hygiene and life skills for migrant workers.
- Support Thai workers to upgrade skills to reduce job friction at the lower labor tiers.

2) Employer Representatives

- **Economic Impacts of Myanmar Migrant Workers on Thailand**
    1. **Myanmar Migrant Workers Help Stabilize SME Businesses**: Namo Clean & Clear, a cleaning service company specializing in big cleaning projects, relies heavily on labor-intensive, physically demanding work requiring high endurance. The company employs approximately 20 workers, over 80% of whom are Myanmar migrant workers. This illustrates the critical role of this labor group in sustaining the business. Most Thai workers are unwilling to work in such positions or cannot maintain work continuity beyond 2–3 days. This reflects that Myanmar migrant workers are not merely an alternative labor source but are a core driving force for SMEs in the specialized service sector.
    2. **Stimulating Economic Activity in Labor Recruitment Systems**: The company hires workers primarily through labor agencies, which act as key mechanisms to source workers meeting the company's criteria. These agencies operate both legally registered systems and informal networks within migrant communities. Many migrants enter Thailand without legal status and subsequently regularize their status with the help of agencies, which assist with job placement, accommodation, and documentation such as work permits and employer registration. This creates significant economic circulation through fees, paperwork, and labor services, linking to other supporting businesses in the area.
    3. **Myanmar Migrant Workers Help Control Labor Costs in the Service Sector**: The company adopts a flexible wage system, allowing employees to choose between daily or monthly payments based on preference and performance rather than

ethnicity. Skilled Myanmar migrant workers, especially supervisors, receive wages equivalent to Thai workers. While this wage system enables the company to manage labor costs effectively in a highly competitive economy, it faces challenges from workers who resign to become informal freelancers, thereby evading taxes and social security contributions. This creates unfair competition against legally compliant companies and exposes weaknesses in government control over the informal economy.

- **Social Impacts of Myanmar Migrant Workers on Thailand**
    1. **Filling Labor Gaps in Jobs Unwanted by Thai Workers**: In-depth interviews with employers reveal that Thai workers who apply for big cleaning jobs typically quit after 2–3 days to take up lighter cleaning roles with fixed hours. This indicates that Thai workers face limitations in undertaking physically demanding, labor-intensive jobs with irregular schedules. Conversely, Myanmar migrant workers meet these demands consistently and efficiently, becoming the main labor group for positions "undesired" (not "unable") by Thai workers. This pattern is widespread across the service sector nationally, not limited to Chiang Mai.
    2. **Reducing the Government's Burden in Basic Services**: Although some Myanmar migrant workers have not enrolled in social security due to reasons such as unwillingness to have salary deductions or language barriers accessing public services many use the Universal Health Coverage Scheme (Gold Card) responsibly without overburdening healthcare facilities. Moreover, the Myanmar migrant workforce is disciplined, diligent, and willing to work under flexible conditions, providing stable labor turnover. Despite high resignation rates, workers typically remain within the industry, ensuring a continuous labor base that reduces structural uncertainty for service businesses.
    3. **Children of Migrant Workers Face Status and Rights Limitations**: While children of Myanmar migrants born in Thailand can attend public schools and access basic health services if they have birth certificates, in practice, they remain excluded from deeper welfare rights, such as core health insurance or early childhood financial support granted to Thai citizens. Non-citizenship remains a significant barrier to accessing broader public entitlements, potentially affecting their long-term social security in health, education, and civic participation.
    4. **Workforce Relations and Employment Security**: In service work requiring teamwork, interpersonal relationships directly impact work efficiency and service quality. Employers observe conflicts arising from cultural differences (language, beliefs, lifestyles) and between veteran and new migrant workers. Additionally, some workers resist enrolling in social security due to mistrust or misunderstanding of the system, leading to inadequate labor protection and disparities between formal and informal workers. These gaps may affect long-term labor management and social cohesion

Policy Recommendations from this Agency

1. **Promote a Systematic Approach to Migrant Labor Recruitment**: The government should develop a labor recruitment system capable of promptly and legally meeting the demands of the SME service sector. This may include flexible short-term employment arrangements and streamlined, transparent mechanisms for employer transfers. Additionally, regulatory oversight of recruitment agencies is necessary to prevent exploitation and abuse of migrant workers.
2. **Support Alternative Health and Social Insurance Schemes**: There should be health insurance models tailored to migrant workers, such as low-premium plans providing basic coverage, to incentivize their participation in the formal system and reduce resistance related to payroll deductions. Furthermore, the government could design multilingual educational materials explaining worker rights and insurance benefits, enhancing accessibility and comprehension among migrants.
3. **Enhance Educational Support for Migrant Workers' Children**: The Ministry of Education should implement systems to track and promote the education of foreign-born children in Thailand comprehensively. Support for documentation such as birth certificates or identity verification should be provided to ensure equitable access to schooling and other fundamental services.
4. **Regulate the Informal Labor Market**: Measures must be enacted to control the informal labor market, particularly regarding workers who resign to engage in freelance work without registration, such as contract labor without business licenses or permits. This aims to prevent unfair competition and protect businesses compliant with legal labor standards.

4.3 Key Results According to Objective 1: Examining the Impact of Legal Employment of Refugees on the Economy, Labor Market, and Public Services

This study aims to evaluate the role of migrant workers particularly those from Myanmar within the provincial economic system of Thailand. The research analyzes the statistical relationship between the number of workers from various groups and the Gross Provincial Product per capita (GPP per capita). Panel data covering the 10 provinces with the highest numbers of Myanmar migrant workers over a 9-year period from 2015 to 2023 is employed.

The analysis is divided into three main parts: 1) Descriptive statistics and preliminary data distribution; 2) Examination of preliminary data properties, including stationarity and pairwise correlation; and 3) Estimation of impacts using an econometric panel regression model.

4.3.1 Data and Descriptive Statistics

Prior to econometric estimation, all primary variables were transformed using logarithms (log transformation) to ensure data suitability for analysis, reduce the influence of outliers, and enhance interpretability of results in terms of percentage change rates.

Table 4.4 presents the preliminary descriptive statistics of the variables

Variable	Number of Observations (Obs)	Mean	Standard Deviation (SD)	Minimum (Min)	Maximum (Max)
$\log(GPP_t^{percap})$	90	12.68	1.16	10.19	15.22
$\log(Labor^{TH})$	90	13.75	0.73	12.34	15.55
$\log(Labor^{F})$	90	11.38	1.00	6.88	13.44
$\log(Labor^{F_unskill})$	90	8.64	1.37	4.98	11.50
$\log(Labor^{F_skill})$	90	11.14	1.56	0.00	13.28
$\log(Labor^{M_unskill})$	90	0.91	2.44	-2.93	11.34
$\log(Labor^{F-M_unskill})$	90	10.23	2.91	0.00	12.91
$\log(K)$	90	2.59	10.93	-48.40	46.80
$\log(CPIP)$	90	100.73	3.85	95.70	110.80

From Table 4.4, the preliminary analysis shows that the **Gross Provincial Product per capita (GPP per capita)** calculated using chain volume measures with 2022 as the base year has an average of 12.68 units (in the logarithmic form of million baht), with a standard deviation of 1.16. This indicates a significant variation in per capita economic size across provinces.

Regarding the labor force, **total Thai employment** ($\log(Labor^{TH})$), which includes both formal and informal workers, has an average value of 13.75 and a standard deviation of 0.73, suggesting that the structure of the Thai workforce is relatively similar across the provinces. In contrast, **total migrant workers** ($\log(Labor^{F})$) show an average of 11.38 with a standard deviation of 1.00, reflecting considerable variability in the number of migrant workers between provinces. When disaggregated by type, **low-skilled migrant workers** ($\log(Labor^{F_unskill})$) referring to general labor have an average of 11.14 and a high standard deviation (1.56), indicating that some provinces have no workers in this category during certain periods. Meanwhile, **skilled migrant workers** ($\log(Labor^{F_skill})$) calculated from skilled labor have a lower average (8.64) with a standard deviation of 1.37, highlighting the relatively low proportion of skilled workers among the migrant workforces. For **unskilled Myanmar migrant workers** ($\log(Labor^{M_unskill})$), the mean is 10.23 with a standard deviation as high as 2.91, showing their concentration in specific areas. **Migrant workers of other nationalities** ($\log(Labor^{F-M_unskill})$), calculated as the total migrant workforce minus Myanmar workers, have an average of only 0.91 but a high standard deviation of 2.44, indicating that while some provinces have large numbers of these workers, others have very few or none at all.

Regarding economic control variables, the **private investment index** ($\log(K)$) has an average of 2.59 with a large standard deviation of 10.93 and a wide range (from -48.4 to 46.8), reflecting the volatility of private investment conditions at the provincial level. The **Consumer Price Index for Provincial Level (CPIP)** shows an average of 100.73 with a standard deviation of only 3.85, indicating stable price levels across provinces.

Additionally, the pairwise correlation analysis presented in Table 7 reveals that **GPP per capita** is highly and positively correlated with Thai labor ($\log(Labor^{TH})$) with a correlation coefficient of 0.8861, statistically significant at the 1% level, confirming the critical role of Thai workers in driving provincial economies. In contrast, the relationship between GPP and **total migrant labor** ($\log(Labor^{F})$) shows a slightly negative correlation (-0.1889), implying that migrant labor may not have a direct positive effect on the economy in a linear sense, or that there could be underlying factors influencing their productivity.

When further disaggregated, low-skilled migrant labor shows a negative correlation with GPP, while non-Myanmar migrant workers are significantly and positively correlated. In particular, **Myanmar migrant workers** ($\log(Labor^{M_unskill})$) have a significant negative correlation with GPP, possibly indicating that they are concentrated in low-value-added sectors, such as agriculture or general services.

Table 4.5 Pairwise Correlation Matrix

Variable	$\log(GPP_t^{percap})$	$\log(Labor^{TH})$	$\log(Labor^{F})$	$\log(Labor^{F_skill})$	$\log(Labor^{F_unskill})$	$\log(Labor^{M_unskill})$	$\log(Labor^{F-M_unskill})$	$\log(K)$	$\log(CPIP)$
$\log(GPP_t^{percap})$	1.0000								
	—								
$\log(Labor^{TH})$	0.8861	1.0000							
	(0.0000)	—							
$\log(Labor^{F})$	-0.1889	-0.2084	1.0000						
	(0.0746)	(0.0487)	—						
$\log(Labor^{F_skill})$	0.0903	0.1101	0.4995	1.0000					
	(0.3972)	(0.3015)	(0.0000)	—					
$\log(Labor^{F_unskill})$	-0.1988	-0.1936	0.9113	0.2966	1.0000				
	(0.0603)	(0.0675)	(0.0000)	(0.0045)	—				
$\log(Labor^{M_unskill})$	-0.4924	-0.5407	0.5325	0.0431	0.5451	1.0000			
	(0.0000)	(0.0000)	(0.0000)	(0.6868)	(0.0000)	—			
$\log(Labor^{F-M_unskill})$	0.4603	0.5213	-0.0534	0.1379	-0.0118	-0.8448	1.0000		
	(0.0000)	(0.0000)	(0.6169)	(0.1949)	(0.9119)	(0.0000)	—		
$\log(K)$	-0.1202	-0.1245	0.0617	0.1590	-0.0009	0.1089	-0.1304	1.0000	
	(0.2592)	(0.2422)	(0.5636)	(0.1344)	(0.9932)	(0.3070)	(0.2204)	—	
$\log(CPIP)$	-0.0359	0.0033	-0.0309	-0.0367	0.0029	0.1037	-0.1218	0.0409	1.0000
	(0.7367)	(0.9756)	(0.7727)	(0.7315)	(0.9784)	(0.3308)	(0.2528)	(0.7018)	—

4.3.2 Stationarity Test (IPS)

Before estimating the panel regression model, it is necessary to examine the stationarity properties of each variable to avoid the problem of **spurious regression** and to determine the appropriate structure of the variables for use as instruments in the analysis. In this study, the **Im–Pesaran–Shin (IPS) test** was employed under the following hypotheses:

H_0: All panels contain a unit root (non-stationary)

H_1: At least one panel is stationary

Table 4.6 Results of the Stationarity Test

Variable	I(0)	f	Variable	I(0)	I(1)
$\log(GPP_t^{percap})$	-0.3181	-2.1977**	$\log(Labor^{F-M_unskill})$	-3.2971***	-3.6782***
$\log(Labor^{TH})$	6.0978	-1.969**	$\log(Labor^{M_unskill})$	-2.0031**	-3.4188***
$\log(Labor^{F})$	-1.7298**	-3.7619***	$\log(K)$	-2.7724***	-3.8775***
$\log(Labor^{F_skill})$	-4.0103***	-4.4492***	$\log(CPIP)$	7.0137	-1.9379**
$\log(Labor^{F_unskill})$	-1.7894**	-3.7683***			

Note: * indicates statistical significance at the 10% level ($p < 0.10$); ** at the 5% level ($p < 0.05$); and *** at the 1% level ($p < 0.01$)

The results indicate that several key variables such as $\log(GPP_t^{percap})$, $\log(Labor^{TH})$, $\log(Labor^{F})$, $\log(K)$, and $\log(CPIP)$ are non-stationary, which supports the use of lags and GMM-style instruments in the model to address potential endogeneity and dynamic effects. In contrast, some variables such as $\log(Labor^{M_unskill})$ and $\log(Labor^{F-M_unskill})$ exhibit stationarity, suggesting that they can be appropriately employed as IV-style instruments.

Therefore, to ensure consistency with the underlying assumptions of panel data estimation and to avoid spurious results caused by non-stationary data, the non-stationary variables were transformed into their first-difference form for further analysis. The general transformation is represented as follows:

$$\Delta logY_{it} = logY_{it} - logY_{it-1}$$

The transformation not only helps ensure that the variables achieve stationarity but also reduces the influence of long-term trends that may otherwise lead to spurious correlations. Furthermore, expressing variables in this form allows the results to be interpreted in terms of relative changes or percentage changes over time, which is particularly useful for understanding the dynamic relationships within the panel dataset.

4.3.3 Assessment of the Impact of Migrant Labor on the Overall Economy

This study aims to evaluate the impact of migrant labor, particularly Myanmar migrant workers, on the Gross Provincial Product per capita (GPP per capita) at the provincial level in Thailand. Panel data were utilized, and the estimation was performed using a Random Effects (RE) model with cluster-robust standard errors at the provincial level to control for heteroskedasticity and serial correlation within provinces over time.

The model specifies the dependent variable as the logarithm of GPP per capita. Key independent variables include the lagged value of GPP (L.log_GPPpercap), Thai labor (log_laborTH), total migrant labor (log_laborF), and a breakdown of migrant labor into skilled (log_laborF_skill) and unskilled (log_laborF_unskill) groups. Control variables for capital stock (capital) and consumer price index (CPIP) are included to account for underlying economic fundamentals across provinces.

Table 4.7 presents the effects of migrant labor on provincial per capita income based on the panel regression analysis using the Random Effects model.

Variable	**Migrant Workers (eq 1)** Coef. (SE)		**Skilled Migrant Workers (eq 2)** Coef. (SE)		**Unskilled Migrant Workers (eq 3)** Coef. (SE)	
Lagged GPP per capita (-1)	0.977	***	0.977	** *	0.977	** *
	(0.004)		(0.004)		(0.004)	
Thai Labor	0.009	*	0.013	**	0 .010	**
	(0.005)		(0.004)		(0.004)	
Myanmar Migrant Worker	-0.006					
	(0.006)					
Skilled Migrant Worker			0.007	**		
			(0.003)			
Unskilled Migrant Worker					-0.002	
					(0.002)	
Capital	0.001	*	0.001	**	0.001	*
	(0.000)		(0.000)		(0.000)	
Consumer Price Index	0.001	*	0.002	*	0.002	*
	(0.001)		(0.001)		(0.001)	

Constant	0.040	-0.002	-0.040
	(0.153)	(0.163)	(0.129)
R-squared (within)	0.3654	0.3777	0.3643
Observations	70	70	70
Number of groups	10	10	10

The estimation results presented in Table 4.7 indicate that Thai labor positively influences the Gross Provincial Product per capita (GPP per capita). In Model 1, which aggregates all migrant workers into a single category, the coefficient for Thai labor is positive (0.009) and statistically significant at the 10% level, suggesting that Thai labor plays an important role in driving provincial economic performance.

In contrast, the coefficient for total migrant labor is negative, although not statistically significant. However, when migrant labor is disaggregated into skilled and unskilled categories in Models 2 and 3, the coefficient for Thai labor remains positive and statistically significant at the 5% level in both models. This demonstrates that Thai labor does not experience a negative impact from migrant workers, regardless of their skill level. Moreover, Model 2 shows that skilled migrant labor has a positive and statistically significant coefficient at the 5% level. This finding reflects a complementary relationship between Thai labor and skilled migrant workers within the provincial economy. It suggests that skilled migrant workers help fill skill gaps that Thai labor cannot fully address and may also contribute to knowledge transfer, technology adoption, and productivity improvements in higher value-added sectors.

The study later focusing the analysis specifically on migrant workers from Myanmar and other migrant groups, the estimation results in Table 4.8 examine the impact of Myanmar migrant workers on provincial Gross Provincial Product per capita (GPP per capita). The findings indicate that, on average, Myanmar migrant worker does not have a statistically significant effect on GPP per capita in either model whether considering Myanmar migrant workers alone or alongside other migrant labor groups. The coefficient for Myanmar migrant workers in both cases is approximately -0.002 and statistically insignificant, reflecting that Myanmar migrant workers do not directly affect the level of provincial output in a significant way. This result may be attributed to the relatively limited economic growth during the study period and a somewhat balanced labor market between supply and demand. Consequently, an increase in migrant labor participation does not translate into a statistically significant expansion of GPP per capita at the provincial level. However, it remains possible that Myanmar migrant workers contribute to the economy through other channels not captured by GPP per capita, such as supporting labor-intensive production sectors, reducing labor costs for employers, or alleviating labor shortages in certain regions or industries, particularly in agriculture and construction.

Meanwhile, the coefficient for Thai labor differs slightly between the two models. In the model considering only Myanmar migrant workers (left column), Thai labor shows a positive coefficient

of +0.008, statistically significant at the 10% level, suggesting that Thai workers play a positive role in driving provincial GPP per capita even in contexts where Myanmar migrant workers coexist in the labor market. This may reflect a division of labor between the two groups rather than direct competition, especially if Thai labor tends to occupy positions requiring more specialized skills or expertise. In the model including all migrant labor groups (right column), Thai labor still exhibits a positive coefficient of 0.007 but lacks statistical significance. This may imply that while Thai labor continues to contribute to provincial economic activity, the strength of this relationship depends on the composition and characteristics of migrant labor in the area—such as the ratio of skilled to unskilled workers or the economic sectors in which migrant workers are involved.

Other control variables, such as capital investment and consumer price index, show positive statistical significance at the 5%–10% levels, consistent with macroeconomic theory that links fixed capital investment and rising consumer prices to expanding economic activity and increased production. In contrast, the cost of living does not have a statistically significant effect in any model specification.

In summary, the analysis results from Table 4.8 indicate that Myanmar migrant workers have not yet had a statistically significant impact on provincial productivity at the macroeconomic level. However, they may play a crucial role in the structural foundations of the economy or in social dimensions that are not directly captured by the GPP per capita variable. This finding highlights the necessity to understand the role of migrant labor beyond productivity metrics and underscores the importance of designing migrant labor policies that balance both economic and social objectives comprehensively.

Table 4.8 The Impact of Myanmar migrant workers on Provincial Gross Provincial Product (GPP) per Capita in Thailand

Myanmar Migrant Workers				**Foreign Labor + Myanmar Migrant Workers**		
Variable	Coef. (SE)			Variable	Coef. (SE)	
Lagged GPP per capita (-1)	0.979	** *		Lagged GPP per capita (-1)	0.977	***
	(0.004)				(0.004)	
Thai Labor	0.008	.		Thai Labor	0.007	
	(0.005)				(0.001)	
Myanmar Migrant Worker	-0.002			Foreign Labor + Myanmar Migrant Workers	-0.002	
	(0.001)				(0.001)	
Capital	0.001	**		Capital	0.001	**
	(0.000)				(0.000)	
Consumer Price Index	0.002	*		Consumer Price Index	0.002	*

	(0.001)			(0.001)	
Constant	-0.048		Constant	-0.005	
	(0.130)			(0.130)	
R-squared (within)	0.3638		R-squared (within)	0.3643	
Observations	70		Observations	70	
Number of groups	10		Number of groups	10	

Table 4.9 Panel Regression Results of GPP per Capita Considering the Interaction Term

Interaction = Thai Labor x Myanmar Migrant Worker				**Interaction = Thai Labor x The proportion of Myanmar migrant workers to total migrant workers**		
Variable	Coef. (SE)			Variable	Coef. (SE)	
Lagged GPP per capita (-1)	0.068			Lagged GPP per capita (-1)	0.036	
	(0.077)				(0.070)	
Thai Labor	−0.519	***		Thai Labor	−0.430	***
	(0.083)				(0.114)	
Myanmar Migrant Worker	−0.003			Myanmar Migrant Worker	−0.004	
	(0.002)				(0.002)	
Interaction	0.062			Interaction	−0.118	**
	(0.051)				(0.039)	
Capital	0.000			Capital	0.000	
	(0.000)				(0.000)	
Consumer Price Index	0.020	**		Consumer Price Index	0.019	**
	(0.005)				(0.004)	
Constant	−0.001			Constant	−0.001	
	(0.006)				(0.005)	
R-squared (within)	0.268				0.291	
Observations	70				70	
Number of groups	10				10	

Based on the results in Table 4.9, which examine the effects of Thai labor and Myanmar migrant workers on provincial Gross Provincial Product per capita (GPP per capita), incorporating interaction terms to analyze the joint impact of both labor groups, it was found that Thai labor has a statistically significant negative coefficient in both models. In Model 1, where the interaction term is the product of the number of Thai workers and Myanmar migrant workers, the coefficient of Thai labor is -0.519 and highly statistically significant. In Model 2, where the interaction term is adjusted to be the product of Thai labor and the proportion of Myanmar migrant workers to total migrant workers, the coefficient of Thai labor remains negative at -0.430 and statistically

significant at the 1% level. These results indicate an important implication that Thai labor may be facing productivity constraints or limited adaptability in labor markets where Myanmar migrant workers play a role within provincial economies.

Regarding Myanmar migrant workers, the coefficients are slightly negative in both models (-0.003 and -0.004) but are not statistically significant. This suggests that Myanmar migrant workers have no directly measurable impact on provincial-level productivity in the short term. Interestingly, the interaction term in Model 1, representing the product of changes in Thai labor and Myanmar migrant worker, has a positive coefficient (0.062), although not statistically significant. This suggests a possible complementary relationship between the two labor groups in certain contexts, such as industries where work is divided between workers of differing skill levels. However, due to the lack of statistical significance, it cannot be empirically confirmed that unskilled Myanmar migrant workers systematically complement Thai labor in a way that enhances productivity

In contrast, in Model 2, where the interaction term is defined as the product of Thai labor and the proportion of Myanmar migrant workers to total migrant labor, the coefficient of the interaction term is negative (-0.118) and statistically significant at the 5% level. This result indicates that in areas where Myanmar migrant workers constitute a high proportion of the total migrant workforce, an increase in Thai labor may have a negative impact on GPP per capita. This reflects a mechanism of "conditional structural substitution," particularly in labor sectors that require similar skills or roles, such as manufacturing or low-skilled service industries. The presence of a large number of unskilled Myanmar migrant workers may reduce the demand for Thai labor at the same skill level, potentially leading to an overall decline in productivity if Thai workers are unable to transition to higher value-added jobs.

4.3.4 Results explanation

This study reveals a complex relationship between Thai labor and migrant labor, particularly unskilled Myanmar migrant workers, on provincial per capita gross provincial product (GPP per capita). The panel regression results consistently show a positive and statistically significant coefficient for Thai labor across several models, reflecting the important role of Thai workers in promoting local economic growth. In contrast, Myanmar migrant workers exhibit a negative coefficient in the baseline model, without statistical significance, suggesting that this group does not have a significant short-term impact on macro-level productivity. The ambiguity in the impact may stem from limitations within the Myanmar migrant workers group itself, such as labor quality, limited skills, or allocation to low-productivity economic sectors. These factors contribute to issues of skill mismatch and underemployment. This aligns with Pholphirul (2012), who highlighted the vulnerability of such labor systems. Additionally, Tipayalai (2020) pointed out structural constraints in the Thai economy that relies heavily on cheap labor from neighboring countries, which contributes to Thailand's entrapment in the middle-income trap. While low-skilled migrant workers play a crucial role in alleviating labor shortages and boosting short-term

output growth, their contribution to long-term, qualitative, and sustainable economic development remains unclear. This underscores the necessity of recalibrating Thailand's labor policies to balance the use of migrant labor alongside upgrading the quality of domestic labor.

When considering models incorporating interaction terms between Thai labor and Myanmar migrant labor, especially in the "interaction-share" model reflecting the structure of unskilled Myanmar migrants within the total migrant labor force, results indicate that increases in Thai labor in contexts with a high proportion of Myanmar migrant workers significantly reduce provincial GPP per capita. This suggests the presence of a conditional substitution effect, particularly in sectors where the two groups have similar skill levels, such as labor-intensive industries, semi-skilled jobs, or lower-tier service sectors. Such dynamics may lead to direct competition in the labor market regarding positions, wages, and job security for local workers.

This finding is consistent with Borjas (2003), who argued that migrant workers with skills similar to local workers exert downward pressure on wages and reduce employment opportunities, especially for those unable to adapt or switch occupations timely. Borjas further explained that migrants not only increase labor supply but also restructure the labor market, forcing locals to accept lower-paying or less secure jobs.

This is also in line with the substitutable factors of production model in labor economics, which posits that higher similarity between labor groups leads to greater substitution, resulting in more intense competition. On the other hand, Ottaviano and Peri (2012) proposed a contrasting view that migrant workers can enhance overall economic productivity when there is skill complementarity between migrants and locals, enabling efficient task division and reducing competition friction. This theory is supported by Peri and Sparber (2009), who observed that local workers tend to move toward jobs requiring language skills, communication, or specialized expertise as migrants fill more manual labor roles, representing a positive labor market adjustment. However, the present study did not find clear empirical evidence supporting such complementarity, especially regarding unskilled Myanmar migrant workers. This may be due to a lack of policy mechanisms that facilitate skill-based job allocation or structural economic constraints at the provincial level, where economies still rely heavily on low value-added jobs with limited upward mobility for workers.

In the context of Thailand, the mechanism of complementarity remains unclear, as Thai and Myanmar migrant workers often occupy the same job positions—such as domestic helpers, cooks, security guards, and factory workers—without significant upward mobility or "job ladder mobility." This contrasts with the United Governments, where highly skilled workers from India enter advanced technology industries such as Google and NASA, while Mexican workers tend to fill jobs that native Americans are less willing to do. This vertical labor flow allows local workers to move up to higher-skilled positions. In Thailand, however, the overlap between Thai and Myanmar migrant workers at the lower skill levels leads to an overall reduction in productivity

due to the absence of productivity-based competition. This situation differs markedly from countries like Japan and South Korea, which, despite limited acceptance of migrant labor, have established systems for regulation, selection, and skill development to incentivize quality labor rather than rely permanently on low wages. Moreover, wage disparities between Thai workers and Myanmar migrant workers in many areas have caused wage pressure, particularly in labor-intensive industries. This pressure diminishes incentives for Thai workers to develop their skills and undermines their ability to compete based on productivity.

According to an analysis by the Bank of Thailand (2024), the Thai labor market increasingly depends on migrant workers. Although most migrants perform 3D jobs—difficult, dirty, and dangerous there is a growing trend of migrants working in other business sectors, raising the risk of job displacement for Thai workers. While the use of migrant labor helps alleviate labor shortages in the short term, it is crucial to establish clear policies regarding low-skilled migrant labor. Furthermore, research by Yongyut Chalermwong (2021) indicates that employing migrant workers generally benefits Thailand's economic activities except in wholesale trade, retail trade, and construction sectors, which lose out in terms of business unit income relative to GDP contributions from migrant labor. The agricultural and manufacturing sectors appear unaffected economically by migrant employment. Overall, the 2014 analysis estimated that migrant labor contributed approximately 0.16% to Thailand's GDP.

These findings underscore the urgent need for "quality-oriented" migrant labor policies that are implemented alongside efforts to enhance Thai labor skills, thereby preventing adverse effects from structural substitution. Additionally, an integrated migrant labor system should be developed to effectively support Thailand's long-term economic growth. Therefore, policymaking on migrant labor must strike a balance between addressing immediate labor shortages and preserving the employment opportunities and quality of life for Thai workers over the long term.

4.4 Key Results According to Objective 2: Study of the Economic Benefits and Costs of Granting Work Right to Refugees in Thailand and Evaluation of the Economic and Social Impact of Refugees Working Legally

Input factors refer to the resources, driving forces, and infrastructure necessary to initiate and operationalize policies or programs in practice. These factors serve as preconditions that enable the policy implementation process to proceed efficiently and link to subsequent outputs, outcomes, and impacts.

Process refers to the operational mechanisms that actualize policy application in practice. This involves legal frameworks that define the rights and status of refugee workers, alongside various supportive measures that play a crucial role in facilitating refugees' access to their rights. These mechanisms advance the granting of work rights to refugees beyond mere issuance of work permits, promoting sustainable integration into the Thai labor system.

Output refers to tangible and observable results arising from the implementation of practical policies and related support measures. These outputs indicate that policies have been applied in practice and have begun to produce systemic changes.

Outcome in this study analyzes the results of legally granting work rights to refugee workers, particularly Myanmar workers. The analysis focuses on outcomes arising from an increase in the number of Myanmar migrant workers legally employed, divided into both positive and negative aspects.

Impact refers to the study's analysis of the effects stemming from the outcomes of increased legal work rights granted to Myanmar migrant workers, considering both the economic and social impacts on Thailand.

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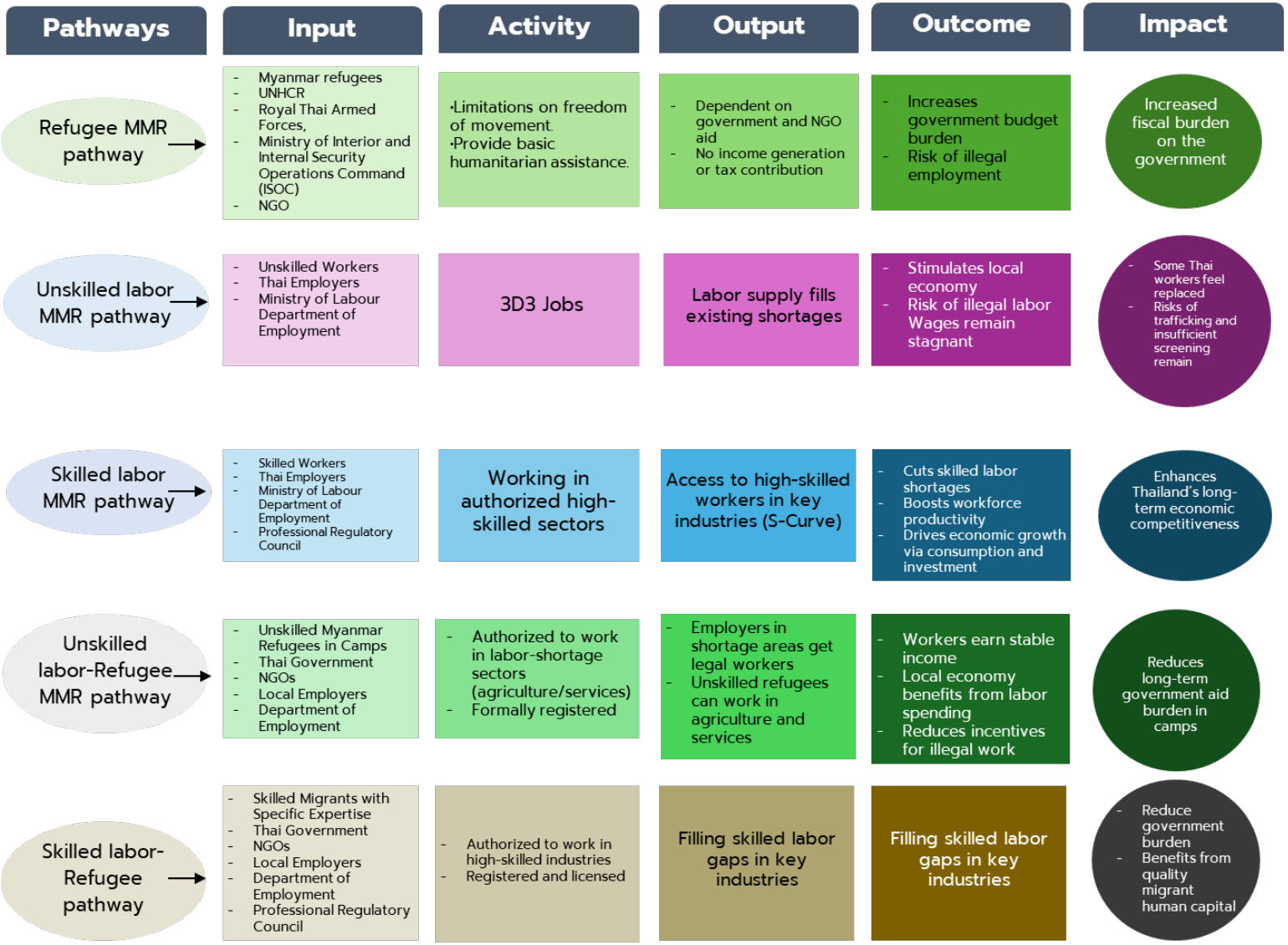

Analysis of Impact Pathways of Myanmar Refugee workers in Thailand

The management of Myanmar refugee workers in Thailand is a significant issue that affects national security, the economy, and the country's international image. Currently, Thailand hosts a large number of Myanmar refugees, both within temporary shelters for those fleeing armed conflict along the border and outside these shelters. These two groups differ in legal status and access to the labor market. A systemic analysis using the "Input – Activity – Output – Outcome – Impact" framework provides a comprehensive understanding of the mechanisms by which policy interventions translate into long-term economic and social impacts, as outlined below.

4.4.1 Refugees in Temporary Refugee Camps without Work Right (Refugee MMR Pathway) (Current Situation)

The current approach to managing Myanmar refugees in Thailand, who are not legally permitted to work, involves restricting their residence exclusively to temporary shelters for conflict-affected persons along the border, such as in Mae Sot and Umphang. These areas provide refuge for those fleeing violence and civil war in Myanmar, under Thailand's national security legal framework. Refugees in this group are not allowed to leave the shelters or engage in economic activities within the country's formal labor market.

Input: Myanmar nationals fleeing war and unrest in their home country enter these temporary shelters located along the border in Thailand. They receive basic assistance from the United Nations High Commissioner for Refugees (UNHCR) and various non-governmental organizations (NGOs), including food, shelter, primary education, and health services, under the supervision of the Ministry of Interior. Provincial governors, together with military and security personnel, are primarily responsible for oversight in these areas.

Activities: Within the shelters, activities focus on basic humanitarian protection, including provision of food, housing, healthcare, primary education, allocation of survival resources, and maintaining security. In some cases, refugees who become ill are referred to local government hospitals for treatment.

Output: The burden of refugee care falls entirely on the Thai government and international organizations. Refugees have no opportunity to generate income or contribute economically.

Outcome: The Thai government must continuously allocate public budgets and resources to support these temporary shelters, covering health, food, clean water, and infrastructure. Additionally, the lack of opportunities for skill development or access to income-generating employment increases the incentives for refugees to seek unauthorized work outside the shelters, exposing them to risks such as exploitation, human trafficking, or unsafe working conditions.

Impact: This approach imposes a long-term fiscal and administrative burden on the Thai government, with no corresponding economic returns. It also heightens risks related to human rights, social integration, and border security. Consequently, the government may miss opportunities to leverage the existing human capital within the country, potentially forfeiting sustainable development gains in both economic and social dimensions.

4.4.2 Unskilled Myanmar migrant workers Outside Temporary Refugee Camps (Unskilled Labor MMR Pathway) (Current Situation)

In this approach, the **input** consists of Myanmar laborers entering Thailand both legally (e.g., via the Memorandum of Understanding (MOU), Cabinet resolutions, or Section 63 of the Alien Employment Act) and illegally (undocumented workers). These workers typically engage in unskilled or 3D jobs characterized as: **Dirty:** Jobs in unhygienic environments, such as drilling, agriculture, and factory work. **Dangerous:** High-risk jobs, including construction, mining, and heavy machinery operation. **Difficult:** Labor-intensive, repetitive, or long-hour work. Employers are predominantly small-scale entrepreneurs and businesses in the foundational sectors of the economy, which demand large numbers of low-cost laborers. Government agencies such as the Ministry of Labor and Immigration authorities supervise these activities.

Activities within this pathway involve the employment of migrant workers, some under formal government control—through work permits, visas, and health insurance—while a significant number remain informal, unregistered, or controlled via employer-issued documents. These undocumented workers lack access to basic rights and are vulnerable to exploitation, including wage theft, document confiscation, and human trafficking.

At the **output** level, this labor system enables Thai businesses, particularly in rural and industrial zones, to access continuous low-cost labor. This reduces production costs and enhances short-term competitiveness. The government gains revenues from work permit fees, health insurance, and taxes on registered workers. However, the large informal labor segment results in revenue loss and inefficiencies in labor resource management.

The **outcomes** present both positive and negative aspects. Positively, this system fills labor shortages in undesirable jobs for Thai workers, stimulates local economies through migrant consumption, and supports small business income generation. Negatively, it suppresses wages for Thai laborers especially at lower skill levels displaces some Thai workers in certain labor markets, and increases risks of labor rights violations, human trafficking, and illegal employment.

Considering the **long-term impact**, this approach influences Thailand's labor structure by fostering displacement sentiments among Thai workers and reducing incentives for skills development in foundational sectors. Thailand faces risks of being classified as a country with trafficking in persons (TIP) issues if labor screening and protection are inadequate. Social tensions may rise in areas with dense migrant populations. Moreover, this undermines the establishment

of a sustainable and equitable labor system, impeding policy development and long-term economic progress.

4.4.3 Skilled Migrant Labor within the System (Skilled Labor MMR Pathway) (Current Situation)
In this approach, the **input** comprises Myanmar migrant workers who are legally authorized to work in Thailand, predominantly through the Memorandum of Understanding (MOU) bilateral agreements or employed as skilled laborers, such as technicians, translators, assistant nurses, or workers in service industries requiring language, cultural skills, and craftsmanship. Employers facilitate the formal importation of labor via the Ministry of Labor's regulatory framework, including work permits, visas, and health insurance arrangements.

Key activities for this labor group include formal employment in sectors with high skill demands, promotion of skill development, participation in government-mandated training programs, enrollment in the social security system, contract-based employment, and lawful tax payment. These processes are strictly overseen by the Ministry of Labor and Immigration authorities.

The **output** of this pathway is the integration of capable skilled workers into Thailand's economy, fulfilling labor demands in developing industries along the S-curve such as food processing, logistics, tourism, and healthcare services. This enhances the competitiveness of the private sector at the regional level. Additionally, the government benefits from efficient revenue collection through taxes, fees, and social security contributions. The **outcomes** of this approach include promoting lawful employment, reducing illegal labor issues, and increasing opportunities for long-term skill development among migrant workers. It also stimulates income circulation and domestic consumption, boosts employment in supporting sectors, and elevates the overall quality of the labor force within the Thai system.

The **long-term impacts** encompass building a high-quality labor structure aligned with innovation-driven economic policies (value-based economy), mitigating social tensions through equitable labor rights protection, and enhancing Thailand's international image as a country that manages migrant labor fairly and in accordance with international human rights standards. Moreover, this pathway opens opportunities for cooperation with neighboring countries through labor collaboration and skill development initiatives

4.4.4 Granting Work Right to Unskilled Refugees (Unskilled Labor – Refugee MMR Pathway) (Policy Proposal)
The policy of granting work rights to unskilled Myanmar refugees residing in temporary shelters for conflict-affected persons is a promising option to reduce Thailand's long-term government burden. At the same time, it allows the country to utilize the existing labor force without the need for continual external labor imports. This approach represents a significant "transition from aid recipients to economic actors" within Thailand's grassroots economic system.

Inputs consist of unskilled refugees currently living in temporary shelters for conflict refugees, most of whom have potential to perform 3D jobs (Dirty, Dangerous, Difficult). Relevant government agencies include the Ministry of Interior, Ministry of Labor, Ministry of Public Health, and Immigration Office, alongside international humanitarian organizations.

Activities under this approach involve revising regulations or laws to temporarily authorize refugees to work legally under controlled conditions. This may include issuing special work permits, matching refugee workers with businesses facing shortages of low-cost workers, promoting registration of workers within the camps in collaboration with civil society organizations, providing basic skill training to prepare refugees for employment, and implementing labor rights and safety oversight measures.

The expected **outputs** are that refugees can legally enter the workforce, especially near temporary shelters. This enables businesses immediate access to an existing domestic labor pool, reducing the need to import foreign workers. Meanwhile, the government can collect fees, licenses, and related revenues. It also encourages greater civil society participation in overseeing refugee employment and fundamental rights.

The **outcomes** include reduced budgetary burdens on the government to maintain refugee shelters and a shift from "humanitarian expenses" toward "local economic income and production." This increases consumption, savings, and use of services within the formal economy, enhancing money circulation in border areas and reducing incentives for illegal work.

The **long-term impacts** of this approach are reduced government burdens for ongoing refugee care and strengthened grassroots economic capacity through utilizing the existing labor force. It promotes social integration and decreases conflicts between refugees and local communities. Moreover, it improves Thailand's international image regarding human rights and sustainable refugee management. The approach also enhances effectiveness in combating human trafficking and illegal labor practices, potentially serving as a model for refugee management in the Southeast Asian context.

4.4.5 Skilled Labor – Refugee Pathway (Proposed Policy Option)

In the context of Thailand's ongoing labor shortages in key economic sectors — such as services, tourism, and food processing industries — allowing skilled refugees to legally work within the formal labor system presents a high-potential policy option. This approach would leverage untapped human capital, uphold human rights standards, and address pressing labor market gaps.

Inputs: This pathway targets Myanmar refugees who fled to Thailand following the 2021 political crisis and are currently residing in temporary shelters along the border. Many of them possess valuable skills or work experience for example, artisans, technical workers, assistant nurses,

language teachers, and workers in the food and service sectors often with prior work histories in their country of origin. Key stakeholders include relevant Thai ministries (e.g., Ministry of Labor, Ministry of Interior, Ministry of Public Health), UNHCR, and civil society organizations that can collaborate on screening and skills development.

Key Activities: Developing and implementing a skills verification and certification system for refugees. Allowing temporary work registration in designated areas under controlled conditions. Matching refugees with employers who need skilled labor. Supporting refugees' entry into the social security system and basic welfare schemes. Establishing robust monitoring mechanisms for labor rights protection and workplace safety, involving civil society and international partners.

Outputs: Thailand would gain immediate access to a legal, skilled workforce without needing to import new labor, thereby lowering recruitment costs and lead times. Businesses could tap into experienced workers, improving productivity and service continuity. Simultaneously, refugees would gain stable income and self-reliance, reducing their dependence on humanitarian aid.

Outcomes: The labor market would benefit from filling skill-specific gaps in the short to medium term while raising labor standards for vulnerable groups. Illegal employment would decrease, as would the incentives for undocumented work.

Long-Term Impacts: In the longer run, this policy option would ease Thailand's fiscal burden of fully supporting refugee populations, while strengthening the domestic economy by harnessing available human capital. It would also enhance Thailand's international image as a country that implements **"Refugee Economic Inclusion"** policies in a systematic, fair, and rights-respecting manner — potentially serving as a model for regional policy innovation within ASEAN.

4.5 Key Results According to Objective 3: Analysis of Costs and Benefits of Three Refugee Policy Options in Thailand

This section presents an analysis of the costs and benefits associated with three key policy options concerning refugees in Thailand. The study specifically focuses on evaluating both economic and social impacts by using primary data collected from Myanmar migrant workers and refugees in three targeted locations: Mae Sot District in Tak Province, Chiang Mai Province, and Bangkok. Structured questionnaires were employed to capture comprehensive information on worker behaviors, household spending patterns, and migrant perspectives on their economic and social conditions under the current legal frameworks. The analysis integrates these insights to reflect real-world conditions across economic, social, and policy dimensions. The findings are organized into five main parts, covering:

4.5.1 Descriptive Analysis and Initial Distribution of the Sample

The data analysis in this report is divided into six main sections. The first section presents the general demographic characteristics of the respondents, detailing their gender, age, education level, religion, and ethnicity. The second section examines employment status, analyzing the types of jobs held by the migrant workers, the industries in which they are employed, their workplaces, and any changes in employment patterns before and after the military coup in Myanmar in 2021. The third section focuses on household information, highlighting the structure and composition of the households in which the migrant workers reside. The fourth section explores their financial situation and expenditures, with an emphasis on household income, spending patterns, and remittances sent to families back home. The fifth section deciphers the respondents' perceptions of the economic and social impacts of Myanmar migrant workers on Thai society. These insights are further elaborated in the appendix. Finally, the sixth section examines the broader impacts across various dimensions, including economic, social, security, and human rights outcomes.

From the general profile of Myanmar migrant workers in Thailand, it was found that the majority of respondents are male and within the working-age range of 20–39 years. There is a high concentration of these workers in border provinces such as Mae Sot, followed by Bangkok and Chiang Mai, which serve as key labour market hubs. The data further indicate that these workers tend to have relatively high educational attainment, especially at the upper secondary and tertiary levels. Additionally, there is significant ethnic diversity within the migrant worker population, with the Myanmar ethnic group forming the largest proportion; most of them are Buddhist, which facilitates their cultural adaptation within Thai society. In terms of employment status, the study revealed that the number of migrants coming to work in Thailand has increased rapidly since the 2021 military coup in Myanmar. The majority had work experience in their home country prior to migrating. Regarding legal status, a substantial portion of workers have entered Thailand through regular channels, including valid work permits, visas, and bilateral Memoranda of Understanding (MOUs). However, there remains a segment of workers who lack proper documentation or hold refugee status.

Section 2 examines the employment situation in greater detail. Approximately 40% of respondents are currently employed, while 41% are not working and another 19% are unemployed. Among the 118 respondents who are employed, more than 70% have not changed jobs since arriving in Thailand. Nevertheless, up to 63% expressed an intention to change jobs either now or in the near future. When comparing their previous employment in Myanmar, the main sectors they worked in were higher education, healthcare, and agriculture, respectively. Currently in Thailand, most migrants are employed in accommodation and food service activities, construction, and other service sectors, in that order. Looking ahead, many hope to work in the accommodation and food service industry, construction, and healthcare if given the opportunity to change jobs. With respect to labour protections, the data indicate that over 51 respondents do

not receive any welfare or benefits. Among those who do, the majority reported access to only one to four types of benefits, with social security and housing being the most common.

Findings from Section 3 provide an overview of household composition and the financial circumstances of Myanmar migrant workers residing in Thailand. On average, each household consists of approximately 2.25 members, which indicates that most households have around two people, but the mode is one, suggesting that many migrants live alone. Furthermore, the average number of household members currently working in Thailand is significantly lower, at just 0.92, implying that in many households, there is less than one active worker on average (for example, only one person in the household may be working, or the worker may have only recently entered the labour market). This highlights that the majority of migrant workers tend to migrate to Thailand alone, without accompanying family members. Even when family members reside together, not all are able to access employment opportunities, possibly due to legal constraints, immigration status, age, or gender-related barriers. Additionally, most migrant households in Thailand do not have income sources other than direct wages from employment. More than half of all households reported having no non-labour income, such as remittances from relatives or assistance from support organizations. Only about 10–15% of households receive between 1,000–2,999 THB per month from such sources, and very few households reported receiving over 10,000 THB per month. Non-labour income typically includes remittances from family members in the country of origin or third countries, as well as assistance from civil society organizations or NGOs.

Findings from Section 4 further illustrate the financial situation of migrant workers in Thailand by comparing their circumstances in the past, present, and projected future, should they gain legal access to employment. The workers were categorized into four groups: (1) those with valid work permits, (2) those residing on other types of visas (e.g., student or dependent visas), (3) undocumented migrants, and (4) refugees. Survey results show that for Group 1, who have legal work status, there has been a clear and significant positive shift when comparing their situation before and after gaining legal employment rights. This improvement is evident in main household income, income from other working members, and expenditures in various categories, such as healthcare, education, savings, and investment. In particular, the notable increase in core household income demonstrates that legal access to employment rights can effectively unlock the economic potential of migrant workers.

Conversely, for groups who have not yet been granted legal work rights (Groups 2–4), current household incomes remain comparatively low. However, projections suggest that if these workers were granted the legal right to work, their household incomes especially core income would significantly increase. This trend is particularly evident for migrants residing in Thailand on alternative visas (such as student or dependent visas), who currently report higher average incomes than undocumented migrants or refugees. Forecasts further indicate that, if granted legal rights, the incomes of this group could rise to levels comparable to, or even surpassing,

those of migrants who already hold valid work permits. Refugees and undocumented migrants currently report the lowest income levels across all dimensions. Nevertheless, the potential income projections after obtaining legal rights strongly suggest that the main constraint is not workers' capacity or willingness to work but rather their legal status. If these groups could legally access the labour market, their households' core income and savings capacity would likely increase accordingly.

Regarding the impact of legal status on the cultural, social, and public service dimensions of migrants' livelihoods in Thailand, findings show that migrant workers are still largely able to preserve and express their cultural identity. This is most evident in areas such as food (204 respondents), traditional clothing and customs (125 respondents), and music or cultural arts (119 respondents). These findings illustrate that there is generally an open cultural space and an environment of peaceful multicultural coexistence. Although some workers reported feeling restricted or excluded in expressing their culture at moderate to high levels (scores 4–7 on a scale of 10) only a small number (9 respondents) felt severely excluded (score of 10). Overall, this indicates that most migrant workers can express their cultural identity without experiencing major conflict with the Thai community.

In terms of access to social and health services, the data indicate that a significant proportion of migrant workers did not receive any medical treatment in the past 12 months. The primary reasons were prohibitively high costs and language barriers in communicating in Thai. When migrants did seek care, they mainly used government hospitals and local pharmacies. In the social dimension particularly concerning experiences of discrimination or conflict with Thai people the majority of respondents (286 individuals) reported never having experienced direct conflict. However, among those who had faced conflict, the main issues included discriminatory treatment by employers or co-workers, labour rights violations, and problems related to their residency status.

Lastly, when comparing overall quality of life before and after acquiring legal work status, the data show that, before obtaining legal rights, most migrants reported low to moderate levels of life satisfaction, with the largest proportion in the "low" category. After gaining legal status, however, the distribution of life satisfaction shifted noticeably towards higher levels, with a clear increase in the number of respondents reporting "high" satisfaction. This comparative result underscores the critical role that legal status plays in enhancing migrants' overall quality of life—not only economically but also in terms of social security, future confidence, and their sense of belonging within the communities where they live and work.

4.5.2 Analysis of Factors Influencing the Spending Behavior of Myanmar Migrant Workers in the Study Areas

To systematically understand the spending patterns of Myanmar migrant workers in Thailand, this section analyzes the factors that influence average household expenditure, distinguishing between the periods before and after workers obtain legal work rights or legal status. Comparing these two periods helps illustrate changes in spending behavior in response to shifts in rights and legal context.

Dependent variable: Average household expenditure before/after obtaining legal status (*Expense Avg*)

Independent variable: Average household income before/after obtaining legal status (*Income Avg*)

Control variables: Gender (male/female); Education level (lower secondary/upper secondary/vocational/tertiary); Household size (*HH Size*); Number of working household members (*NoWorking Mem*); Number of children in the household (*NoChildren*); Migration status related to the 2021 coup (*Coup*); Duration of stay in Thailand (*Years*); Previous work experience in Myanmar (*Worked_MMR*); Amount of remittances sent back to Myanmar (*Remittance*); and Expenditure on savings/investment (*Saving*).

This analysis considers both periods "before" and "after" obtaining legal rights and, to reflect contextual differences across study locations, the analysis is disaggregated by study area: Chiang Mai, Bangkok, and Mae Sot District in Tak Province. However, Chiang Mai is excluded from the comparative area analysis due to an insufficient sample size, which could otherwise introduce statistical bias. The results are presented in Table 4.10.

Table 4.10 Influencing Factors to the Spending Behavior of Myanmar Migrant Workers in the Study Areas

Variable	3 Provinces		Bangkok		Mae Sot	
	Before	After	Before	After	Before	After
Constant	6186.665 **	4217.944 *	4381.017	-6593.156	7291.872 **	11320.640 **
	(1585.99) *	(2218.47)	(2787.34)	(4979.18)	(1908.46) *	(1925.35) *
Income	0.506 **	0.446 **	0.480 **	0.453 **	0.326 **	0.145 **
	(0.072) *	(0.082) *	(0.066) *	(0.070) *	(0.121) *	(0.041) *
Male	**	**	*		**	- **
	-5057.660 *	-5341.434 *	-2422.941	784.819	-5816.355 *	10780.400 *
	(1375.48)	(1395.81)	1279.43)	(1233.59)	(1187.61)	(978.626)
Female	**	**			**	- **
	-4585.994 *	-6804.735 *			-6166.535 *	10818.600 *
	(1417.02)	(1250.90)			(1166.88)	(998.530)
Lower Secondary Education	690.536	-1405.910	1252.165	-740.899	2133.515	-1457.501
	(1315.397	(1360.02)	(2035.76)	(2354.23)	(1853.83)	(1327.631)
Upper Secondary Education	1224.760	821.296	4018.614 **	5661.553 **	262.315	-484.843
	(768.759)	(1109.79)	(1849.45)	(2563.01)	(1374.27)	(1404.912)
Vocational Education	2242.000 **	1296.142	7448.209 **	3479.168	1203.805	366.885
	(949.794)	(1319.31)	(2881.47)	(3063.58)	(1553.85)	(1512.023)

Variable	3 Provinces		Bangkok		Mae Sot	
	Before	After	Before	After	Before	After
Higher Education	2044.371 **	2062.517 **	3660.300 **	3458.888	1164.104	882.588
	(712.373) *	(987.712)	(1357.60) *	(2270.96)	(1335.93)	(1350.061)
Previously Employed in Myanmar	445.033	541.972	456.458	695.864	603.196	1129.764 **
	(481.058)	(587.862)	(1734.30)	(1146.10)	(455.023)	(511.640)
Migrated After the 2021 Coup	1183.963 *	1324.078	812.599	1669.313	1271.537 **	2155.028 **
	(630.950)	(865.573)	(1323.22)	(2055.01)	(552.768)	(642.225) *
Number of Household Members	-467.197 ** *	-199.287	-1313.886 **	334.696	-413.821 ** *	-250.706
	(172.085)	(309.898)	(618.598)	(833.476)	(156.474)	(162.676)
Number of Employed Household Members	-364.351	91.058	-1175.436	-296.947	-88.422	452.193
	(221.375)	(291.331)	(773.192)	(879.711)	(308.278)	(322.537)
Number of Children in the Household	-215.710	435.367	-1381.775	-74.521	137.976	-251.300
	(237.736)	(630.805)	(1134.40)	(1371.35)	(227.127)	(250.459)
Amount of Remittance	-0.139	-0.000	-0.388 *	0.152	0.011	0.447 **
	(0.157)	(0.000)	(0.229)	(0.166)	(0.108)	(0.119) *
Length of Stay in Thailand	-360.863 ** *	-44.147	-473.793	251.421	-222.101	-566.303 *
	(136.641)	(214.824)	(308.309)	(507.472)	(235.483)	(305.721)
Investment/Savings	0.005 **	0.007	0.335	-0.006	0.003	0.001
	(0.002)	(0.007)	(0.243)	(0.165)	(0.002)	(0.002)
R-squared	0.5921	0.5274	0.0000	0.0000	0.2910	0.356
(p-value)	0.0000	0.0000	0.6836	0.7438	0.0000	0.0000

Based on the multiple regression analysis presented in Table 4.10, which examines the factors influencing the average expenditure of Myanmar migrant workers in Thailand—both before and after obtaining legal work permits, it was found that several factors significantly affect workers' spending behavior. These results also highlight contextual differences between Bangkok and Mae Sot District, Tak Province.

A key factor that consistently and significantly affects expenditure is average income, which shows a positive relationship with spending across all periods and areas. Notably, prior to obtaining legal work rights, income has a greater impact on expenditure than after regularization. This suggests that this group of workers tends to consume in accordance with rising income levels, in line with basic economic principles, and may face constraints in planning their expenses in advance before gaining stable legal status. Another important factor is gender. The analysis reveals that male workers tend to have a significantly lower average expenditure compared to the reference group in several cases, especially before obtaining legal work permits in both Bangkok and Mae Sot. This outcome may reflect the role of male workers as "primary breadwinners" or "remittance senders," who often prioritize saving and remitting income to their home country rather than spending within the destination country. Similarly, female workers may display comparable financial behavior patterns in certain cases.

Education level is another factor that significantly influences the spending behavior of migrant workers. In particular, workers with higher levels of education, compared to those with no formal education or only primary education (the reference group), tend to have significantly higher average expenditures in various areas, especially in Bangkok and during the period before obtaining legal work permits. This trend may reflect that better-educated workers have greater opportunities to access higher-paying jobs and may hold spending attitudes that emphasize quality of life—for example, purchasing higher-quality goods, investing in health, their children's education, or accumulating other forms of assets. In contrast, household size shows a significant negative relationship with average expenditure in several cases, especially before acquiring legal work status, such as in the pooled sample of all three provinces and in Mae Sot.

This result suggests that when household size increases, the average expenditure per person tends to decrease. This may indicate resource sharing within the household or more frugal spending behaviors in larger families, such as cooking and eating together, sharing utility costs, and providing mutual care within the household instead of relying on external services.

Contextual factors, such as migrating to Thailand after the military coup, were found to have a significant positive relationship with the average expenditure of migrant workers in certain areas, particularly in Mae Sot District, Tak Province. This result implies that workers who migrated after the coup often urgently displaced due to political reasons, insecurity, or fear in their home country may need to spend more to adapt to the new environment. These expenses may include rental housing, food, or healthcare during the initial resettlement phase, reflecting a higher economic burden compared to workers who migrated earlier and had more time to adjust.

The **previous employment experience in Myanmar** and the **number of employed household members** are factors that influence spending behavior in some areas, though the effects are not consistent across all cases. Specifically, in Mae Sot, workers with prior work experience in Myanmar tend to have significantly higher expenditures after obtaining legal work permits. This may reflect their greater ability to adapt, previously accumulated skills, or social networks that help them access better opportunities in the Thai labor market, resulting in higher income levels and spending behavior that shifts upward accordingly.

The number of children and **length of stay in Thailand** are two additional factors that tend to have a negative effect on average expenditure, particularly within the pooled sample of the three provinces (Bangkok, Samut Sakhon, and Mae Sot) during the period before obtaining legal work rights. This finding may reflect the increased financial burden associated with raising children and the need to allocate household income more broadly, which in turn lowers the average expenditure per capita or necessitates more careful management of household resources especially during periods without stable legal status.

With regard to factors that reflect **financial planning behavior**, such as the **amount remitted to Myanmar** and **investment or savings expenditure**, the analysis shows varying impacts depending on area and time period. Notably, in Mae Sot after workers have obtained legal work rights, those who remit money to their home country tend to spend significantly more within Thailand as well. This may illustrate the dual role of Myanmar migrant workers as family breadwinners supporting dependents who remain in the country of origin, demonstrating that their spending behavior is not confined to the destination country alone but is instead connected to cross-border economic obligations and family ties an inherent structural characteristic of transnational migrant labor.

4.5.3 Economic Impact Assessment of Migrant Workers Using the Multiplier Effect

This economic valuation aims to examine the impact generated by the spending of Myanmar migrant workers who have obtained legal work permits. This group of workers constitutes an essential labor force that plays a significant role in the community-level economy, particularly in border areas and urban economic zones such as Mae Sot District in Tak Province, Chiang Mai Province, and Bangkok areas where migrant workers typically reside and continuously spend for their livelihoods.

The economic value used in this assessment was derived from a survey of the daily financial activities of Myanmar migrant workers, divided into two periods: before and after obtaining legal work status. Data collection covered various economic dimensions of the workers. On the income side, this includes earnings from primary occupations as well as supplementary jobs, reflecting their capacity to generate income from multiple sources and their adaptability to economic conditions. On the expenditure side, the survey captured personal expenses such as food, housing, and clothing costs; health expenses; children's educational costs; remittances sent back to Myanmar; and other miscellaneous daily living expenses. These data illustrate the overall economic burden that migrant workers must bear. In addition, data on savings and investments were collected, specifying the amounts workers were able to save or invest in various forms, along with the amounts remitted to Myanmar, highlighting the role of migrant workers as economic supporters of their households in the country of origin. This time-based disaggregation allows for a clear analysis of changes in workers' financial behavior across income, expenditure, and their capacity to save and remit money after obtaining more secure legal status.

The detailed financial information described above is presented in Table 4.11, which includes income, expenditure, savings, investment, and remittance data. These data serve as the basis for calculating the Marginal Propensity to Consume (MPC) and the Economic Multiplier, which are critical tools for assessing the economic impact of migrant workers' spending—particularly the estimation of Gross Value Added (GVA) generated by the economic activities of this workforce in each area. This type of analysis makes it possible to measure both the direct and indirect

economic effects arising from migrant workers' consumption and concretely demonstrates the role of migrant labor in Thailand's economy.

Table 4.11 Summary of Financial Data of Myanmar Migrant Workers

Unit: THB/Month

Variable	3 Provinces		Bangkok		Mae Sot	
	Before	After	Before	After	Before	After
Income	7,901.174	17,920.642	13,447.468	29,114.55	4,541.27	12,530.687
Average Income (Primary Occupation)	5,331.208	11,259.4	8,955.696	17,953.16	2,864.021	7,854.497
Average Income (Supplementary Occupation)	2,569.966	6,661.242	4,491.772	11,161.39	1,677.249	4,676.19
Expenditure	6,918.691	9,211.409	9,193.291	11,889.24	5,480.952	7,361.111
Average Personal Expenditure	4,956.711	6,435.235	7,307.595	9,098.734	3,454.497	4,626.455
Average Other Expenditure	1,961.98	2,776.174	1,885.696	2,790.506	2,026.455	2,734.656
Savings or Investment	3,169.631	5,021.98	1,739.873	4,686.709	3,974.074	4,924.868
Amount Saved or Invested	3,169.631	5,021.98	1,739.873	4,686.709	3,974.074	4,924.868
Remittance	1,126.510	2,966.779	1,739.241	4,282.278	601.0582	2,108.995
Amount Remitted to Myanmar	1,126.510	2,966.779	1,739.241	4,282.278	601.0582	2,108.995

To measure the magnitude of the economic impact generated by the income, consumption, and investment that these workers inject into the economy, this study utilizes the financial data of Myanmar migrant workers to calculate the economic multiplier in two cases: the Keynesian Multiplier and the Output Multiplier Type I, as follows:

1) Calculation of the Keynesian Multiplier: The calculation of the Keynesian Multiplier assumes that an initial expenditure such as the income of migrant workers spent within the local area will generate a circulation of income within the economy, resulting in total income (or GDP) expanding by an amount greater than the initial spending. The expenditure by migrant workers becomes the income of sellers of goods and services, who will then spend part of this income further, creating a chain effect of economic multipliers throughout the system.

$$M_{Keyne} = \frac{1}{1 - MPC(1-t)}$$

M_{Keyne} is the **Keynesian Multiplier**.

MPC is the **Marginal Propensity to Consume**, calculated from the coefficient of income on consumption derived from the regression results presented in Section 4.5.2, Table 4.10;
t is the **average tax rate**, which is set to zero in this study since the income of Myanmar migrant workers, when combined with personal allowances and deductions, does not reach the legal threshold for income taxation under Thai law.

2) Calculation of the Output Multiplier Type I

This multiplier is used to analyze how a change in output in one sector affects other sectors through supply chain linkages. In this study, the Output Multiplier Type I is applied to estimate the economic impact of migrant workers' income and expenditure, capturing both direct and indirect effects, but excluding the induced effects arising from household spending. The approach is as follows:

$$Type\ I\ SE\ Multiplier(M_{SE}) = \frac{(Direct\ effect + Indirect\ effect)}{Direct\ effect}$$

=Income of Migrant Workers Income of Migrant Workers
Expenditure of Migrant Workers

The financial data of Myanmar migrant workers were converted into a consistent unit of measurement Thai Baht per month per Myanmar migrant worker before being used to calculate the two types of multipliers. The data utilized for these calculations, along with the resulting multiplier values, are presented in Table 4.12.

Table 4.12 Results of the Two Types of Multiplier Calculations

Variable	3 Province		Bangkok		Mae Sot	
	Before	After	Before	After	Before	After
MPC	0.503	0.413	0.325	0.144	0.480	0.453
1) Multiplier (M_{Keyne})	2.013	1.704	1.482	1.169	1.924	1.829
2) Multiplier (M_{SE})	1.876	1.514	1.684	1.408	2.207	1.587

For the economic valuation of the contribution made by Myanmar migrant workers, the impact can be assessed through the Gross Value Added (GVA) generated by their livelihood expenditures within the study areas. This can be calculated as follows:

$$Economic\,impact = (Expenditure - Leak\ out) \times M_{SE} or\ M_{Kayne} \times Myanmar\ Labour$$

where:

$Economic\ impact$ is the economic impact within the area or Gross Value Added (GVA).

$Expenditure$ is the average monthly expenditure of Myanmar migrant workers.

$Leak\ out$ is the leakage, calculated as the average monthly remittance sent back home by Myanmar migrant workers.

$M_{SE} or\ M_{Kayne}$ is the multiplier, derived from the calculation using either the Output Multiplier Type I or the Keynesian Multiplier.

$Myanmar\ Labour$ is the number of Myanmar migrant workers.

Table 4.13 Results of Gross Value Added (GVA) Calculation

Unit: THB/Month

Variable	3 Provinces		Variable		3 Provinces	
	Before	After	Before	After	Before	After
Income	7,901.174	17,920.642	13,447.468	29,114.55	4,541.27	12,530.687
Expenditure	6,918.691	9,211.409	9,193.291	11,889.24	5,480.952	7,361.111
Savings or Investment	3,169.631	5,021.98	1,739.873	4,686.709	3,974.074	4,924.868
Remittance	1,126.510	2,966.779	1,739.241	4,282.278	601.0582	2,108.995
Number of Workers	704,878.00	704,878.00	539,628.00	539,628.00	59,077.00	59,077.00
1) Multiplier (M_{Keyne})	2.013	1.704	1.482	1.169	1.924	1.829
Total GVA per Month (Million Baht)	8,218.64	7,500.50	5,961.22	4,798.66	554.67	567.50
Total GVA per Year (Million Baht)	98,623.66	90,006.01	71,534.61	57,583.95	6,656.03	6,810.01
2) Multiplier (M_{SE})	1.876	1.514	1.684	1.408	2.207	1.587
Total GVA per Month (Million Baht)	7,659.30	6,664.18	6,773.75	5,779.74	636.25	492.41
Total GVA per Year (Million Baht)	91,911.56	79,970.13	81,284.94	69,356.89	7,635.06	5,908.96

Source: Department of Employment Administration, Ministry of Labour (2023); calculations by the research team.

Table 4.13 presents the results of the economic valuation (Gross Value Added: GVA**)** generated by Myanmar migrant workers, comparing their status before and after obtaining legal work

permits. The study area is divided into three provinces: Bangkok, Mae Sot District in Tak Province, and Chiang Mai Province. However, this in-depth analysis focuses only on Bangkok and Mae Sot, as the sample size from Chiang Mai was too limited to yield reliable comparative results.

The findings reveal that migrant workers who have obtained legal work permits exhibit a clear increase in their average monthly income. In Bangkok, total average income rose from THB 13,447.47 to THB 29,114.55, while in Mae Sot it increased from THB 4,541.27 to THB 12,530.69. This change has contributed to the expansion of local consumption, savings, and investment. Nevertheless, legal status also leads to higher levels of remittances sent back home especially in Bangkok, where average monthly remittances increased from THB 1,739.24 to THB 4,282.28. This outflow of funds results in a portion of income leaving the domestic economy, thereby contributing to a decline in the local economic multiplier. For example, the Keynesian Multiplier in Bangkok decreased from 1.482 to 1.169, while in Mae Sot it declined from 1.924 to 1.829. However, despite the reduction in the multiplier, the total annual GVA in each area remains substantial. In Bangkok, the Keynesian-based GVA is THB 6,078.66 million per year, and in Mae Sot it is THB 2,751.12 million, demonstrating that migrant workers continue to play a significant role in driving local economic growth.

The decrease in the economic multiplier and changes in GVA in certain areas may reflect the impact of new costs incurred after migrant workers enter the formal labor system. These costs include documentation fees, visa fees, health insurance premiums, and other expenses associated with being part of a regulated labor system, which can increase workers' fixed expenditures and reduce the net income available for local consumption. Moreover, although overall income rises after legalization, this does not necessarily mean that all income circulates within the local economy particularly when workers maintain financial obligations to families in their home country, resulting in significant outflows through remittances that do not recirculate within the Thai economy. Another important point is that some migrant workers are still unable to enter higher-productivity or higher-paying sectors due to limitations related to language, skills, or social opportunities. Therefore, even with legal status, their income and spending behavior may not change significantly enough to fully generate a local economic multiplier effect.

Overall, these results highlight that bringing migrant workers into the formal system is only the first step toward realizing their full economic potential. It remains necessary to provide additional support, such as skills development, reducing the costs associated with formal employment, and designing policies that encourage income circulation within Thailand. Such measures are essential to ensure that local economies truly benefit from this group of workers.

Analysis of the Impact of Granting Work Right to Myanmar Migrant Workers Before and After the 2021 Coup

Based on the findings in Section 4.5.2, which analyzed the factors influencing the spending behavior of Myanmar migrant workers particularly the contextual factor of the period of entry into Thailand following the 2021 coup in Myanmar it was found that this period has a statistically significant influence on workers' expenditure patterns. Migrant workers who entered after the coup have a significant positive correlation with higher average expenditures, especially in border areas such as Mae Sot District in Tak Province, which serves as a major entry point for Myanmar migrants. This outcome reflects the specific characteristics of workers who arrived post-coup, most of whom migrated urgently due to political violence, instability, and other push factors in their country of origin. These workers often had no time to prepare or accumulate sufficient resources, resulting in higher initial settlement costs, including housing rent, food, and healthcare expenses. At the same time, they lacked the established social networks that could help alleviate these burdens, making them more vulnerable in the short term compared to those who migrated before the coup. In contrast, migrants who entered before the coup were mostly economic migrants with more time to adapt, better access to information about available services, and both formal and informal support networks. This longer adjustment period generally enabled their monthly expenditures to remain relatively stable or increase at a slower rate compared to new arrivals.

Building on these initial observations, this research further extends to a comparative analysis of the economic impact of granting legal work permits. The results indicate that both groups experienced a clear increase in average income after obtaining legal work status. Workers who entered before the coup saw their average income increase from THB 5,705 to THB 15,900, while those who arrived after the coup experienced an increase from THB 8,059.17 to THB 18,066.01. This demonstrates that post-coup arrivals have a consistently higher average income both before and after receiving legal status, with similarly high-income growth rates. However, despite the increase in income, the post-coup group also has a higher level of average expenditure, consistent with previous findings that highlight the greater economic burden during the initial resettlement phase. As a result, their spending patterns and expenditure structure differ systematically from the pre-coup group, which tends to have lower average monthly expenses.

When considering the macroeconomic impact, **Table 4.14** shows that total annual GVA decreased for both groups, despite higher income levels. For those who entered before the coup, annual GVA declined from THB 42,195.49 million to THB 21,639.42 million, while for those who entered after the coup, GVA fell from THB 84,896.37 million to THB 74,988.22 million. This decline in GVA may reflect the significant increase in remittances sent back to Myanmar. The pre-coup group increased their remittances from THB 1,915 to THB 4,710, while the post-coup group increased theirs from THB 1,069.78 to THB 2,841.37. When a large portion of income flows back to the

country of origin instead of circulating within the Thai economy, it inevitably reduces the overall systemic efficiency.

In summary, while granting legal work permits is a policy that clearly improves the quality of life for Myanmar migrant workers in terms of income, when contextual factors such as timing of entry and spending behavior are considered, it becomes evident that the post-coup group consistently demonstrates higher income and expenditure levels. However, they still have not been able to generate the full potential systemic benefits for the Thai economy. This underscores the need for complementary policy measures, such as promoting local spending, supporting savings and investments within host communities, encouraging workers' participation in social security or tax systems, and designing public welfare schemes that address their specific vulnerabilities particularly in border areas. Such integrated measures will help enhance economic and social outcomes more equitably and sustainably in the long term.

Table 4.14 Results of Gross Value Added (GVA) Calculation: A Comparative Analysis Before and After the Coup

Unit: THB/Month

Variable	*Pre-2021 Coup Entrants*		*Post-2021 Coup Entrants*	
	Before	**After**	**Before**	**After**
Income	5,705.00	15,900.00	8,059.17	18,066.01
Expenditure	4,380.00	6,215.00	7,101.33	9,426.98
Savings or Investment	825.00	3,338.31	2,750.00	5,185.43
Remittance	1,915.00	4,710.00	1,069.78	2,841.37
Number of Workers	704,878.00	704,878.00	539,628.00	539,628.00
1) Multiplier (M_{Keyne})	2.024	1.700	2.174	1.758
Total GVA per Month (Million Baht)	3,516.29	1,803.29	7,074.70	6,249.02
Total GVA per Year (Million Baht)	42,195.49	21,639.42	84,896.37	74,988.22
2) Multiplier (M_{SE})	1.768	1.391	1.881	1.522
Total GVA per Month (Million Baht)	3,071.50	1,475.50	6,122.75	5,408.17
Total GVA per Year (Million Baht)	36,858.05	17,706.04	73,472.98	64,898.03

Source: The Foreign Workers Administration Office, Department of Employment, Ministry of Labour, 2023; calculations by the research team

4.5.4 Cost Assessment

The assessment of the government's cost burden in providing services to Myanmar migrant workers in Thailand reflects the expenses borne by the government across multiple dimensions, including public health, education, labor management, and security. These costs are summarized in Table 4.15. The calculation of the total government cost for managing Myanmar migrant workers focuses on two primary study areas: Bangkok Metropolitan Area (BMA) and Mae Sot District, Tak Province (Chiang Mai Province was excluded due to the inability to compute multipliers using panel data analysis). The costs are categorized into four major areas: (1) healthcare services, (2) education, (3) labor registration and administration, and (4) security and public order. Overall, the total annual cost borne by the Thai government in the study areas amounts to approximately 2,314.55 million baht per year. When disaggregated by area, Bangkok bears the highest cost at 1,379.35 million baht/year, followed by Mae Sot at 235.57 million baht/year.

In terms of healthcare, the government bears costs related to medical treatments that cannot be recovered from Myanmar migrant workers outside the health insurance system, totaling 631.11 million baht/year. Bangkok incurs the highest burden at 483.15 million baht/year, while Mae Sot bears 52.89 million baht/year. This aligns with findings from in-depth interviews and studies by the Ministry of Public Health, which indicate that many public hospitals must care for uninsured migrant workers, especially in border areas and urban slums. Furthermore, reports highlight a continuous increase in outstanding health debt from migrant workers, compelling the government to subsidize through central or emergency budgets.

Regarding education, the government shoulders costs from learning centers for displaced youth and per-student subsidies through the Office of the Basic Education Commission (OBEC), amounting to 888.85 million baht/year. This includes 20.10 million baht in costs from learning centers in Mae Sot and 868.75 million baht from educational support for Myanmar students enrolled in formal education, with Bangkok having significantly more enrolled students than Mae Sot.

For migrant registration and administrative management, the total cost is 27.81 million baht/year, primarily funded through allocations from the migrant worker management fund, distributed proportionally to the number of authorized workers in each area. Although this cost appears relatively low compared to other categories, it may not fully reflect hidden costs related to data system management, ID card issuance, and inter-agency coordination.

Concerning security and public order, which includes budgets for combating human trafficking, managing detention centers, and controlling illegal labor, the government spends 766.78 million baht/year. Bangkok bears 587.02 million baht/year, while Mae Sot bears 64.27 million baht/year. This underscores the interconnection between security dimensions and migrant labor,

particularly the government's responsibilities in prevention, enforcement, and protection of vulnerable groups in accordance with human rights and labor commitments.

Table 4.15 Total Government Cost Calculation Results

Unit: Million/Year

		Total	Bangkok	Mae Sot	Remark
1. Public Health Service Costs borne by Government					
1) Unrecoverable Medical Expenses	**3,000 million Baht per year** (Calculated by dividing the total amount by the total number of all migrant workers, then multiplied by the number of Myanmar migrant workers in the study area)	631.11	483.15	52.89	1) Source: in-dept interview 2) From หนี้เสีย "ค่ารักษาพยาบาล" เปิดแนวทางแก้-พัฒนาสาธารณสุขชายแดน
2. Public Education Costs borne by Government					
1) Migrant Learning Center	**300,000 Baht per center per year** (Calculated from 300,000 × number of learning centers in the study area)*)*	20.10	0	20.10	1) Source: in-dept interview 2) Student data https://hardstories.org/th/stories/minority-rights/myanmar-refugees-children-education-thailand-border
2) Average subsidy rate from the Office of the Basic Education Commission (OBEC)	6,021 THB per student per year (Calculated as 6,021 multiplied by the number of students in the study area)	868.75	278.89	95.98	1.Data from the Policy and Planning Division, Office of the Basic Education Commission (average across all education levels) 2. Number of students = Number of workers × Average number of children receiving education in

Unit: Million/Year

		Total	Bangkok	Mae Sot	Remark
					Thailand (based on survey data)
3. Costs of Labor Registration and Administrative Management					
1) Fund for the Management of Foreign Workers' Employment	132 million baht/year (Calculated from total amount/(total number of all foreign workers × number of Myanmar migrant workers in the study area))	27.81	21.29	2.33	1) Source: https://www.bora.dopa.go.th/wp-content/uploads/2022/01/mt03098_v32286.pdf
4. Security and Public Order Costs					
1) Budget for addressing issues related to migrant labor and human trafficking	3,644 million THB/year (calculated from total amount/ total number of all migrant workers × number of Myanmar migrant workers in the study area)	766.78	587.02	64.27	1) Source: https://web.parliament.go.th/view/82/News_Detail/2562/457/TH-TH
Total Public Sector Cost		**2,314.55**	**1,379.35**	**235.57**	

4.5.5 Cost-Benefit Analysis (CBA)

This study aims to evaluate the economic returns of granting legal work rights to Myanmar migrant workers in Thailand, focusing on key indicators including Gross Value Added (GVA), Net Present Value (NPV), and Benefit-Cost Ratio (BCR) over a 5-year period, considering a discount rate or inflation rate of 0.4% per annum. The analysis covers three comparison groups: the combined provinces, Bangkok, and Mae Sot.

1. **Net Benefit**

The calculation of net benefit, derived by subtracting government costs from the economic value measured by GVA, illustrates the overall economic efficiency in each area. Particularly, using the first set of multipliers, the combined three provinces show a very high net benefit of 96,309 million baht per year before the policy implementation. Although this decreases slightly to 87,691

million baht per year after the policy, it remains substantially higher than the government cost of only 2,314 million baht per year (see Table 4.16).

In Bangkok, the net benefit is 70,155 million baht per year before the policy and declines to 56,205 million baht per year after. This reduction may reflect the formalization of the workforce, which reduces the workers' net income due to taxes or new expenses, while government costs remain high, leading to a slowdown in net returns.

Conversely, in Mae Sot, where the total GVA is relatively limited, net benefits continue to rise, standing at 6,420 million baht per year before and 6,574 million baht per year after. This suggests that the relatively low government costs in this border area can be converted into comparatively high net returns when considered in terms of ratios.

2. Net Present Value (NPV)

The net present value of the net benefits over a five-year period was calculated using a discount rate of 0.4%, based on the average inflation rate in 2024. The analysis consistently indicates the economic viability of the policy across all studied areas. Specifically, the combined three-province group exhibits an NPV of 475,820 million baht before the policy implementation and 433,244 million baht after. Although there is a slight decline due to changes in the economic multipliers, the results still demonstrate a sufficiently high return on investment from a policy perspective.

In Bangkok, the NPV is the highest among all areas, with values of 346,606 million baht before and decreasing to 277,682 million baht after the policy. The sharper decline relative to other regions reflects the persistently high structural costs associated with urban settings.

Conversely, Mae Sot shows an increase in NPV from 31,721 million baht before to 32,481 million baht after the policy. Despite the smaller economic scale, this increase reflects the border area's potential to generate stable returns due to its relatively low public sector costs.

3. Benefit-Cost Ratio (BCR)

The Benefit-Cost Ratio (BCR) is a critical indicator for assessing the economic efficiency of policies, especially when comparing the effectiveness of public expenditure across different regions. The data reveal that the combined three-province area has a BCR of 42.61 before the policy and 38.89 after, indicating that every 1 baht of government expenditure generates more than 38–42 baht in Gross Value Added (GVA), which is considered exceptionally high.

In Bangkok, the BCR stands at 51.86 before and declines to 41.75 after the policy, yet it continues to demonstrate high cost-effectiveness. Meanwhile, Mae Sot exhibits a BCR of 28.25 before and slightly increases to 28.91 after, reflecting a consistent and efficient use of public funds in an area with lower structural costs.

Table 4.16 Costs and Benefits of the Policy

Unit: Million/Year

Variable	3 Provinces		Bangkok		Mae Sot	
	Before	**After**	**Before**	**After**	**Before**	**After**
Income	7,901.174	17,920.642	13,447.468	29,114.55	4,541.27	12,530.687
Expenditures	6,918.691	9,211.409	9,193.291	11,889.24	5,480.952	7,361.111
Saving/Investment	3,169.631	5,021.98	1,739.873	4,686.709	3,974.074	4,924.868
Amount remitted	11,26.510	2,966.779	1,739.241	4,282.278	601.0582	2,108.995
No. of Labours	704,878.00	704,878.00	539,628.00	539,628.00	59,077.00	59,077.00
Cost	2,314.55	2,314.55	1,379.35	1,379.35	235.57	235.57
1) Multiplier (M_{Keyne})	2.013	1.704	1.482	1.169	1.924	1.829
Total GVA per Month (Million Baht)	8,218.64	7,500.50	5,961.22	4,798.66	554.67	567.50
Total GVA per Year (Million Baht)	98,623.66	90,006.01	71,534.61	57,583.95	6,656.03	6,810.01
Net Benefit = GVA – cost	96,309.11	87,691.46	70,155.26	56,204.60	6,420.45	6,574.44
Net Benefits over 5 Years	475,820.49	433,244.52	346,605.95	277,681.94	31,720.61	32,481.37
Net Benefits over 1 Year	95,164.10	86,648.90	69,321.19	55,536.39	6,344.12	6,496.27
Benefit-Cost Ratio (BCR)	42.61	38.89	51.86	41.75	28.25	28.91
2) Multiplier (M_{SE})	1.876	1.514	1.684	1.408	2.207	1.587
Total GVA per Month (Million Baht)	7,659.30	6,664.18	6,773.75	5,779.74	636.25	492.41
Total GVA per Year (Million Baht)	91,911.56	79,970.13	81,284.94	69,356.89	7,635.06	5,908.96
Net Benefit = GVA – ต้นทุน	89,597.01	77,655.58	79,905.59	67,977.54	7,399.49	5,673.38
Net Benefits over 5 Years	442,659.03	383,661.69	394,778.00	335,846.80	36,557.57	28,029.67
Net Benefits over 1 Year	88,531.81	76,732.34	78,955.60	67,169.36	7,311.51	5,605.93
Benefit-Cost Ratio (BCR)	39.71	34.55	58.93	50.28	32.41	25.08

Note: The Net Present Value (NPV) is calculated over a 5-year period with a discount rate (r) of 0.4% per annum, based on the average inflation rate for the year 2024.

Chapter 5: Policy recommendations

5.1 Summary of Findings

This study aimed to analyze the impacts of Myanmar migrant workers in Thailand through both quantitative and qualitative approaches, in order to develop evidence-based policy recommendations. Specifically, the research assessed the economic and social impacts of granting employment rights to refugees in Thailand, evaluating how policy changes that enable refugee employment could stimulate the economy, reduce social costs, and increase government tax revenue.

The first part of the study highlights the effects of migrant labor, particularly low-skilled Myanmar migrant workers, on provincial-level income growth measured by Gross Provincial Product (GPP) per capita. Using a panel regression model, the findings reveal that Thai labor has a positive and statistically significant coefficient, indicating its critical role in local economic growth. In contrast, Myanmar migrant workers show a negative coefficient in certain model specifications but does not reach statistical significance in the baseline model. This suggests that, overall, this group does not yet have a clearly positive or negative impact on the wider economy.

However, when using a model that incorporates an interaction term between Thai labor and Myanmar migrant workers especially the interaction-share specification that reflects changes in Thai labor within the structural context of migrant labor the results show a statistically significant negative effect on GPP per capita. This reflects a **conditional substitution effect**, indicating that both labor groups share similar skill sets and tend to compete for the same types of low-skilled jobs. Consequently, Thai workers may lack incentives to upskill or move up the occupational ladder. Unlike in advanced economies, such as the United Governments.

Furthermore, Thailand's labor market lacks mechanisms for productivity-based competition, which undermines overall efficiency, especially in labor-intensive industries. The significant wage gap between Thai workers and Myanmar migrant workers also creates wage pressure and reduces Thai workers' incentives for self-development. This study thus underscores the need for migration policies that emphasize **quality over quantity** of labor inflows. This should go hand in hand with substantial efforts to enhance the skill levels of Thai workers in order to prevent adverse structural substitution effects and to ensure that migrant labor can sustainably contribute to Thailand's long-term economic growth.

Another key finding from this study is the development of a comprehensive *Impact Pathways* analysis for the management of Myanmar refugee labour in Thailand. This analysis highlights that the governance of refugee labour is inherently complex and deeply interlinked with national security concerns, economic considerations, human rights obligations, and the country's international image. By employing a systematic framework based on the Input–

Activity–Output–Outcome–Impact model, the analysis provides an integrated perspective on how different policy options may generate distinct consequences at multiple levels. Five primary impact pathways were identified as follows:

1. **Encampment without the right to work:** Under the current policy, refugees are confined to temporary shelters for displaced persons fleeing armed conflict, with no legal right to work. The government and international organizations bear the full responsibility for providing humanitarian assistance. Refugees lack opportunities to develop skills or earn an income, which results in long-term fiscal burdens for the government without any economic returns. Additionally, such restrictions increase the risk of informal movement outside the camps and exploitation through illegal labour channels.
2. **Low-skilled Myanmar migrant labour:** This group typically works in 3D jobs (*dirty, dangerous, and difficult*) both formally and informally. While businesses benefit from low labour costs, the government loses potential tax revenue due to the prevalence of informal employment and faces heightened risks of rights violations and human trafficking. Furthermore, this dynamic may lead to the displacement of low-skilled Thai workers and diminish their incentives for skill development.
3. **Skilled Myanmar migrant labour in the formal sector:** This scenario involves allowing skilled migrant workers to enter the formal labour market, thereby filling critical skill gaps in the economy. Such integration contributes positively to the tax system, social security schemes, and enhances the country's long-term competitiveness. This approach aligns with the vision of building a high-quality workforce and supports a transition towards an innovation-driven economy.
4. **Providing temporary work rights for refugees within proximity to shelters:** This policy would shift refugees from passive recipients of aid to active economic contributors by granting them temporary work rights in nearby areas under regulated conditions. This model can reduce the government's fiscal burden, stimulate the foundational local economy, increase household consumption and savings, and promote circulation within the domestic economy. It may also reduce incentives for refugees to seek illegal employment.
5. **Granting work rights for skilled refugees in urban areas:** This approach enables businesses to access an existing pool of skilled labour without relying on additional labour imports. It helps reduce recruitment costs, improves overall workforce quality, and fosters refugee self-reliance. Additionally, such a policy could strengthen Thailand's reputation for upholding human rights and serve as a potential model for labour migration governance within ASEAN.

The final component of the study involved a microeconomic assessment of the costs and benefits associated with implementing refugee labour policies in Thailand. Data collected from 298 Myanmar migrant workers in the study areas revealed that the majority were male, within working age (20–39 years), and relatively well-educated, with a significant proportion having completed tertiary education. Respondents were ethnically and religiously diverse, and most had

entered Thailand legally, with numbers increasing after the 2021 military coup in Myanmar. Regarding employment status, although a number of workers were employed, many remained unemployed or lacked valid work documentation, which limited their access to social welfare benefits. Most of their income derived directly from wage labour, with few alternative sources of livelihood, and their spending levels remained low, particularly among those without legal status.

A multiple regression analysis confirmed that income is a significant determinant of expenditure across all study areas, with a stronger effect observed during the “pre-legal status” period. This finding indicates how an insecure legal status constrains the economic behaviors of migrant workers. An economic impact assessment was conducted using Multiplier Analysis, drawing on income and expenditure data from the Myanmar migrant sample to calculate Gross Value Added (GVA) with both Keynesian and Output Type I multipliers. The results indicate that annual GVA prior to legal employment status ranged from THB 80.5 to 86.4 billion (depending on the multiplier used). Following legalization, the annual GVA decreased slightly to THB 70.0 to 78.8 billion. Although both income and expenditure increased after obtaining legal work status, the rise in remittance outflows contributed to capital leakage from the domestic economy and reduced the overall multiplier effect. Specifically, the average Keynesian Multiplier declined from 2.01 to 1.70, while the Output Type I Multiplier decreased from 1.88 to 1.51 across the three study areas. The main factors underlying this decline include additional costs borne by workers in the formal system, such as documentation fees, healthcare expenses, and wage adjustment constraints, which partially offset the economic gains of formalization.

When the findings from all three analytical components are synthesized, the evidence strongly indicates that granting Myanmar refugees legal rights to work, despite some short-term costs, yields clear net benefits for the broader economy. Legal labour market inclusion enhances refugees’ capacity to save, spend, and secure more stable livelihoods, while simultaneously mitigating human rights risks, curbing illegal employment, reducing the long-term fiscal burden on the government, and strengthening the country’s foundational economic capacity at the local level. From an economic perspective, although the spending multiplier slightly declines due to additional costs embedded in formalization, the annual Gross Value Added (GVA) remains substantial.

In the study areas combined, annual GVA attributable to Myanmar migrant labour was estimated at approximately THB 70–86 billion. The Net Present Value (NPV) over a five-year horizon is also significant: THB 378.3 billion in the pre-formalization scenario and THB 344.9 billion post-formalization. In Mae Sot district, despite its relatively smaller economic base, the proportional returns are high, with an NPV of THB 9.7 billion compared to the government’s investment of only THB 791 million. Moreover, the benefit-cost ratio (BCR) further demonstrates the policy’s cost-effectiveness, with a BCR as high as 7.83 before formalization and 7.14 afterwards, indicating that each baht invested by the government can yield more than seven baht in

economic returns. These findings underscore the imperative that Thailand's migrant labour system should be designed and governed with a long-term vision, rooted in the principle of **"Refugee Economic Inclusion",** balancing humanitarian commitments, security considerations, and sustainable economic growth.

5.2 Policy Recommendations

Based on the empirical findings and the system-level analyses, the study proposes policy measures grouped into three levels: national policy, business sector practices, and area-based interventions.

The core recommendations are as follows:

1. Adopt the principle of conditional "*Refugee Economic Inclusion":* The government should open pathways for Myanmar refugees to access legal employment in selected occupations or designated areas where demand for labour is clearly unmet, such as agriculture, construction, and health care. Priority should be given to refugees with relevant skills, and all work rights should be time-bound (e.g., temporary work permits) and accompanied by robust socio-economic monitoring mechanisms.

2. Upgrade Thai workers' skills alongside migrant labour management: The Ministry of Labour should implement targeted vocational training programs in regions with high concentrations of migrant workers to support Thai workers' upward mobility into higher-skilled positions. This would mitigate structural substitution effects with Myanmar migrants and promote systematic pathways for the progression of low-skilled Thai workers into mid- and high-level jobs. Employers and workers should be encouraged to clearly differentiate roles by skill level for example, employing migrants for basic tasks while supporting Thai workers to advance to supervisory or technical roles thus fostering complementary labour market dynamics and reducing direct competition in the low-skilled segment.

3. Develop an integrated migrant labour database: An integrated database covering both formal and informal Myanmar migrant workers should be established, leveraging digital technologies for registration, verification, and employment tracking. This would support more effective tax collection and social security contributions, while strengthening governance over the migrant workforce.

4. Reduce the costs of legal labour market entry for refugees: The findings show that new costs incurred through formalization such as work permit fees, medical check-up expenses, renewal fees, and other hidden costs can significantly burden refugees economically, contributing to a lower economic multiplier. The government should therefore consider temporary fee waivers during pilot periods (e.g., the first one to two years), subsidize certain expenses through a migrant labour development fund, and consolidate administrative processes into a One-Stop Service system to reduce time and

travel costs. Extending the validity period of work permits (e.g., two years) could also reduce renewal burdens. These measures would incentivize migrants to enter the formal system, minimize capital leakage, and enhance their economic participation sustainably.

5. Design tax or fee mechanisms to address capital outflows (remittances): Although the GVA generated by migrant labour clearly increases post-formalization, the spending multiplier tends to decline, reflecting capital leakage through high-volume remittances. The government should therefore incentivize greater in-country spending by migrant workers for example, by improving access to essential services, promoting local economic activities near refugee settlements, and facilitating financial inclusion (e.g., through bank accounts and savings schemes). Encouraging domestic savings and investments would help retain capital within the national economy.

6. Promote productivity-based labour market competition: Thailand's labour market should gradually transition from low-cost labour competition to productivity-based competition. The current system's overreliance on low-skilled, low-wage migrant labour may reduce short-term business costs but simultaneously disincentivizes skill development among Thai workers, constraining long-term improvements in living standards. The shift towards a productivity-driven market should be supported by investments in technology, efficient human resource management, and employment practices that truly reflect workers' capabilities. Aligning wages with productivity, rather than cost suppression, would encourage skills upgrading among Thai workers and position migrant labour as a complementary workforce that adds value, rather than displacing locals. In the long term, this approach could also ease tensions between domestic and migrant workers while mitigating some remittance-related leakages, as workers who earn wages tied to productivity are more likely to spend or invest within Thailand. Accordingly, the government should foster an enabling environment for productivity-based competition through measures such as tax incentives for firms investing in technology and workforce training, tax credits for upskilling activities, and stronger linkages between vocational training institutions and the private sector. These efforts would strengthen Thailand's labour system for sustainable and inclusive economic development.

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