

# Strategies For Upgrading Goat Farmers In Chiang Rai Province For Export To The Greater Mekong Subregion Countries

Lutthaphon Mungthaisong<sup>1</sup>, Vikrom Boonnun<sup>2</sup>, & Aree Binprathan<sup>3</sup>  
lutthaphon.mun@crru.ac.th<sup>1</sup>, krittamate2017@gmail.com<sup>2</sup>, aree.bin@crru.ac.th<sup>3</sup>

---

## Abstract

Goat farming for export in Chiang Rai Province is gaining much attention among farmers because goats are resilient to climate change, suitable for small-scale farmers, require low investment, popular among consumers, and more beneficial than other types of meat. This research aims to analyze the current situation and needs of the goatherd group in Chiang Rai Province, as well as prepare the strategy development for enhancing the goatherd group for export to countries in the Greater Mekong Subregion. The research used mixed-method research, consisting of quantitative data collection from 200 members of the goatherd community enterprise and stakeholders, and focus group discussions with 20 representatives from the government, private sector, and related entrepreneurs. The instrument included a questionnaire that had been tested for reliability and an opinion assessment form in form of Likert Scale, as well as SWOT and TOWS Matrix analysis to prepare strategy development that appropriate to the context of Chiang Rai Province.

The results found that the majority of goatherd group in Chiang Rai Province have high intentions to develop their farms to meet GAP standards, but lack in-depth knowledge and strong grouping. In addition, found problems in business management, lack of direct market channels, and reliance on middlemen, resulted in prices that farmers receive being significantly lower than the export price. The SWOT analysis indicated that Chiang Rai Province has appropriate geographical potential and resources, but has limitations in technology, finance, and complex policies. Therefore, the results prepared the strategy development that focus on developing farmers' potential, promoting GAP standards, systematic grouping, developing logistics infrastructure, and creating direct export market channels to countries in the Greater Mekong Subregion, which will help increase competitiveness and generate sustainable income for the goatherd group in Chiang Rai Province.

**Keywords:** Strategy Development, goatherd group, export

---

## INTRODUCTION

In 2000, the goat population was estimated at 715 million, with over 60 % of them in Asia and over 95% in developing countries (FAO, 2001). India has the largest goat population with 123 million, representing slightly more than 17% of the world's population (FAO, 2001). Found that goat numbers have been increasing significantly (48%) worldwide. In most developing countries, the average herd is between 3 and 10 goats. Goats serve the material, cultural and recreational needs of farmers by providing income, employment, security, energy and food. Selling goats can be very profitable with little investment risk (Norman, 1991). In developed countries, goats are managed under a variety of systems. In Australia, dairy goat management has traditionally been intensive, while fiber-producing breeds are managed through integrated farming (Murray and Shand, 2003), making goat farming a valuable cash crop. Goats are easy to raise and are very tolerant of climate change, making them suitable for farmers because of low investment. Goat meat is popular among consumers and its meat offers many nutritional benefits and is not prohibited by many religions (Meat & Livestock Australia, 2021). Most importantly, goats are able to produce both meat and milk at the same time, and their small size makes them easy to transport.

The promotion of goat farming abroad has been seriously promoted, but faced many problems. Although goat farming is important to developing countries and has more advantages than other types of animal farming (Morand-Fehr and Lebbie, 2004), it has not yet been expanded to market where it can generate profits for farmers. There are also many shortcomings in goat farming, such as goats growing slowly and not producing much meat, and goats are more susceptible to parasites in the digestive system if raised on pasture, which is a general intensive system (Olmo et al., 2023). At present, goat farming among farmers is still not large, and goat meat production is not sufficient to meet market demand,

especially in foreign markets. In countries where the majority of the population is Muslim, there are many challenges in developing the goat business, such as (a) controlling the goat trade chain takes a relatively long time; (b) the business environment is not conducive; (c) law enforcement is not strong; (d) uncertainty in goat meat prices; (e) farmers' knowledge and ability to apply agricultural technologies are still low; (f) threats from a decrease in the number of livestock and an increase in costs. (g) High market meat prices; (h) Emergencies in goat meat-borne diseases such as anthrax and avian influenza; (i) Lack of awareness of trade offenders; (j) Low exchange rates of farmers' products reduce their bargaining position; (k) Farmers' financial plans and access to financial institutions are limited; (l) Farmers' livestock management model remains traditional; (m) Human resources are of low quality in terms of skills, technological expertise, professionalism and entrepreneurship, and (n) Lack of collaboration between sectors and regions (Rasyid, et al., 2018: 7-8) as well as that Jima and Daheisa (2025) studied goat and sheep meat exports in Ethiopia and found that although the export of these types of meat is in high demand in the world market, especially in Muslim countries, there are several problems, such as poor management, lack of hygiene regulations, farmers' use low technology, weak export policies, and the country faces competition in the livestock and product markets from other countries.

For goat farming in Thailand, most of them are meat goat farming, which in the past was only a second job or second occupation. It was found that in the past decade, goat farming has become an important option for Thai farmers, especially in border areas and the northern of the country, which have geographical advantages for international trade connections. The increasing demand for goat meat consumption of countries in the Greater Mekong Subregion, such as Laos, Vietnam, and China, has created an important opportunity for Thailand to develop a sustainable goat farming industry for export, especially in Chiang Rai Province, which is an area with potential in terms of geography, agriculture, and transportation, directly connecting to neighboring countries via the R3A route (Regional Office of Agricultural Economics 3, 2022). The strategy for systematically enhancing the goatherd groups must cover everything from developing farmers' potential as entrepreneurs, promoting goat farming standards that are accepted in the world market (GAP/Halal), causing those involved to try to find solutions to create strategic value for goat farming. Jima and Daheisa (2025) proposed solutions by promoting the improvement of the quality of production factors, improving packaging quality standards, branding, and setting goat meat quality standards. Chiang Rai Province as of the gateway to the upper Mekong Basin, then it should be promoted to become a center for goat production and export using the "Strategic Agricultural Export Economy" model that focus on the integration of body of knowledge in production, management, marketing, and logistics systematically, along with support from the government and private sectors in creating sustainable trade and export networks, which will lead to increased competitiveness of the goatherd group and create stable income for the community in the long term. Therefore, the study of the strategy for enhancing the goatherd group in Chiang Rai Province for export to countries in the Greater Mekong Subregion has an important intention in analyzing the current goat farming conditions and the need to develop effective goat farming approach for export, and searching for important information from relevant individuals and agencies to bring information to prepare strategy development to enhance the potential of the goatherd group to obtain proper knowledge in goat farming methods that will produce quality goat meat that is in demand in the market, knowledge of marketing, and export laws, which will lead to the development of farmers' potential and the concrete strength of the supply chain system, not only to meet the demands of the international market, but also to lay the foundation for sustainable agricultural development at the regional level.

### Objectives

1. To analyze the current situation and needs of the goatherd group in Chiang Rai Province.
2. To prepare the strategy development for enhancing the goatherd group in Chiang Rai Province for export to countries in the Greater Mekong Subregion.

### METHODOLOGY

**Mixed-method Research** with population and sample group according to Objective 1 in collecting quantitative data. The sample group consisted of members of the Northern Goatherd Community

Enterprise for export and those directly stakeholders in goat export, consisting of 200 goat farm owners in Chiang Rai and Phayao Province (Department of Livestock Development, 2024). Objective 2; the target group used in strategy development consisted of representatives of stakeholders in goat export to countries in the Greater Mekong Subregion, consisting of representatives of Regional Livestock Office 5, Chiang Rai Provincial Livestock Office, Chiang Rai Animal Quarantine Station, Customs, Provincial Commerce Office, the Northern Goatherd Community Enterprise for export, goat gathering business operators in Chiang Rai and Phayao Province, goat meat transport business operators in Chiang Rai and Phayao Province, goat meat export business operators in Chiang Rai and Phayao Province, slaughterhouse business operators in Chiang Rai and Phayao Province, and goat meat restaurant operators in Chiang Rai and Phayao Province, totaling 20 people.

### **Instrument**

The researcher used a questionnaire with the sample group on issues related to the current situation, GAP/Halal standards, and entrepreneurship. The questionnaire was divided into 5 parts: Part 1: General information of the respondents, which was a multiple-choice question; Part 2: Opinions of the goatherd community enterprises regarding GAP standards for export, which was check-list question in form of 5-point Likert Scale and Part 3: Additional recommendations. The researcher used a questionnaire with the sample group on issues related to the current situation, GAP/Halal standards, and entrepreneurship. The questionnaire was divided into 5 parts: Part 1: General information of the respondents, which was a multiple-choice question; Part 2: Opinions of the goatherd community enterprises regarding GAP standards for export, which was check-list question in form of 5-point Likert Scale and Part 3: Additional recommendations. In addition, the focus group discussion was used to analyze alternatives (Parichat Sriharun, Lunjakon Nillakan, and Panya Lertkrai, 2025) with representatives of stakeholders in goat export to countries in the Greater Mekong Subregion to develop a strategy to enhance the goatherd groups in Chiang Rai Province for export to countries in the Greater Mekong Subregion by using SWOT Analysis and TOWS Matrix Analysis techniques, then prepared the strategy development, missions, indicators, and responsible agencies.

### **RESULT**

Strategy development for enhancing the goatherd group in Chiang Rai Province for export to countries in the Greater Mekong Subregion, the researchers have summarized the research results divided by objectives as follows:

#### **Part 1:** General information of the Northern Goatherd Community Enterprise for export

The majority of sample group was male at 78.50%, followed by females at 18.00% and LGBTQ at 3.50%, respectively.

In terms of age, found that the majority of sample group was in 41-50 years at 30.00%, followed by 21-30 years at 22.50% and 31-40 years at 16.00%, while 61 years and over at 15.50% and 51-60 years at 13.50%. The youngest group was 15-20 years at 2.50%.

In terms of education level, found that the majority of sample group completed primary education at 46.00%, followed by upper secondary education at 16.00%, and lower secondary education at 15.00%, while those with higher education than bachelor's degree accounted for only 1.00%.

In terms of monthly income, found that the majority of sample group had an average income in the range of 0-10,000 baht at 37.00%, followed by the group with an income of 10,001 - 15,000-baht at 34.50% and the group with an income of 15,001 - 20,000-baht at 16.00%, while the group with an income of more than 30,001-baht at 2.50%.

After considering the business status, found that the majority of sample group are a member of the community enterprise at 76.50%, followed by other groups at 13.50%, and entrepreneurs or business owners at 10.00%. The duration, found that the majority of sample group had been in business for 11-15 years at 31.50%, followed by 16-20 years at 27.00%, and 6-10 years at 19.00% and had been in business for more than 25 years at 7.50%. Number of goats under care, found that the majority of sample group had the number of goats under care between 1-50 at 33.00%, followed by 101-150 at 25.00%, and 51-100 at 21.50%, for more than 250 at 5.00%.

#### **Part 2:** Opinions of goatherd community enterprises on GAP standards for export

**Table 1:** Opinions of goatherd community enterprises on GAP standards for export

Issues	X	S.D.	Results
1. Applying GAP standards helps increase the quality of goat farming products.	4.23	0.906	Agree
2. Compliance with GAP standards make the goat farming process safer and more hygienic.	4.61	0.741	Strongly Agree
3. GAP standards help your farm become more credible and accepted in the export market.	3.89	0.753	Agree
4. GAP requirements on animal health can be applied in your farm.	3.96	0.966	Agree
5. Recording various data according to GAP standards was beneficial to farm management.	4.10	0.915	Agree
6. You have sufficient knowledge and understanding of GAP standard requirements.	3.41	0.755	Neutral
7. GAP training can be effectively applied on farms.	4.53	0.907	Strongly Agree
8. The operating cost to comply with GAP standards was reasonable when compared to the results obtained.	3.21	0.849	Neutral
9. Obtaining GAP certification resulted in greater opportunities to sell goats for export.	3.88	0.977	Agree
10. You intended to continuously develop your farm to obtain GAP certification in the future.	4.70	0.851	Strongly Agree
<b>Total Mean</b>	<b>4.05</b>		Agree

From Table 1; the opinions of the goatherd community enterprises on GAP standards for export found that the sample group had "Strongly Agree" level in opinion on the issue that you intended to continuously develop your farm to obtain GAP certification in the future (Mean = 4.70, S.D. = 0.851), followed by the issue that the compliance with GAP standards make the goat farming process safer and more hygienic (Mean = 4.61, S.D. = 0.741), and the GAP training can be effectively applied on farms (Mean = 4.53, S.D. = 0.907).

The sample group had opinions at "Agree" level, including: applying GAP standards helps increase the quality of goat farming products (Mean = 4.23), recording various data according to GAP standards was beneficial to farm management (Mean = 4.10), GAP requirements on animal health can be applied in your farm (Mean = 3.96), obtaining GAP certification resulted in greater opportunities to sell goats for export (Mean = 3.88), and GAP standards help your farm become more credible and accepted in the export market (Mean = 3.89). The opinions were at "Neutral" level, including: you have sufficient knowledge and understanding of GAP standard requirements (Mean = 3.41), and the operating cost to comply with GAP standards was appropriate when compared to the results obtained (Mean = 3.21). In summary, the total mean of all 10 opinions was at "Agree" level (Total mean = 4.05), indicating that the majority of sample group had positive attitudes toward using GAP standards for goat exports.

**Table 2:** Additional recommendations and comments from community enterprises

Issues	Details
1. Development of knowledge, skills and business management	The data showed that the majority of respondents had less than high school education and had long experience in the goat farming business. However, despite their commitment to business development (e.g., having ideas for market expansion or money management), they still lacked tools,

Issues	Details
	information, and knowledge in strategic decision-making and innovation. Some respondents reflected that “We want to expand our business but are not sure where to start and do not have comparative data to decide on investment or development of new breeds.” Therefore, training and technical support systems should be provided to enable entrepreneurs to analyze their business and plan more rationally.
2. Enhancing standards and entering export markets	The majority of sample group saw the benefits of GAP standards in increasing farm quality and safety and intended to develop their farms to continuously receive certification. However, there was still insufficient understanding of some requirements, especially in terms of operating costs to comply with the standards. One respondent commented that “We are ready to improve our farms to meet GAP standards, but the cost is still the main threats and we still do not understand some requirements on how to do it.” Therefore, it should have government or private agencies help promote both easy-to-understand training and money support or basic equipment in order to truly reach the standards.
3. Networking and collaboration	Although the majority of sample group saw the benefits of collaborating with government agencies and external organizations in business development, there was still a lack of channels or structures that facilitated continuous coordination. Some entrepreneurs suggested that “we would like to have an intermediary or agency that acts as a link between us and the export market or certification organization so that we do not work individually.” A recommendation in this regard is to establish a community coordination center or entrepreneur network to enhance the exchange of knowledge, grouping, and access to various sources of support more conveniently.

Objective 2: Strategy development for enhancing the goatherd group in Chiang Rai Province for export to countries in the Greater Mekong Subregion; the researcher presented the results of objective 1 to the focus group discussion and jointly conducted an analysis of the external and internal environments in the context of goatherd in Chiang Rai Province for export to countries in the Greater Mekong Subregion (SWOT Analysis), including conducting a TOWS Matrix analysis to determine strategies.

Internal Factor Analysis; the researcher used 4Ms concept to analyze the internal environment, which consisted of Management, Money, Man and Materials, and assigned importance scores for each issue, as follows: 5 = most important and 1 = least important.

**Table 3:** Internal Factor Analysis

Field	Issues	Strength	Weakness
Management	Intention to develop farms to meet GAP standards	5	
	Lack of knowledge in business management and export		4
	Lack of strong grouping to build bargaining power		4

Field	Issues	Strength	Weakness
	Begin to apply data recording systems to use on farms	3	
Money	Manufacturing cost in some areas is still lower	3	
	Compliance expenses to meet GAP standards is still high		4
	Revenue from domestic goat sales is low compared to export prices	5	
	Lack of sources of funding or financial support		4
Man	Having long experience in goat farming	4	
	Personnel still lack of academic knowledge for self-development		3
	Farmers have intention to develop themselves and business	5	
	Lack of marketing skills and negotiation with purchasers		3
Materials	Having an area and landscape suitable for goats farming	5	
	Lack of application of modern technology and equipment		4
	The majority of farms have not been developed to meet standards	4	
	In some areas, feedstuff is still cheap and sufficient		2

From Table 3, in terms of management, found that the goatherd group has a strength on its intention to develop their farm to meet GAP standards to international standards, which affects bargaining power in both marketing and resource acquisition. If they can develop body of knowledge and promote grouping systematically to achieve sustainable competition. In terms of money, some areas have strengths due to manufacturing cost is low, but still have problems with the compliance expenses to meet GAP standards that is high. Revenue from domestic sales is low compared to export prices and lack of sources of funding or financial support.

In terms of materials and man, found that the main strengths are that the area and landscape of Chiang Rai Province are suitable for goat farming, and in some areas, feedstuff can be obtained at a low price and in sufficient quantities. However, the majority of farms have not been developed to meet standards and lack of application of modern technology or equipment in goat farming, therefore, it is necessary to urgently promote the development of infrastructure and access to appropriate technology to increase productivity and quality.

**Table 4:** External environment analysis

Field	Issues	Opportunities	Threats
Policy	Government pushes forward the border agricultural policy and export promotion	4	
	Increased support measures for GAP and Halal	4	
	Export regulations remain complex		4
	Uncertainty in border trade policy		3
Economic	Demand for goat meat in the Mekong Basin continues to grow	5	
	Export prices are higher than domestic prices	5	
	Farmers still rely on middlemen		5
	Cross-border logistics costs are still relatively high (especially in China)		4
Social	Some consumers are increasingly interested in goat meat	3	
	Society's cognition of standardized farms is low		3

Field	Issues	Opportunities	Threats
	Community has a cultural background of goat farming	3	
	The collaboration within farmer groups is still unclear		4
Technology	Goat farming technology and farm management are continuously developing	4	
	Lack of opportunities to learn modern technology		3
	Farmers' readiness to accept technology is still limited		3
	Digital farm database systems are not yet widespread		3
Environment	Chiang Rai's landscape is suitable for goat farming	4	
	Risks of drought and animal disease		3
	Weather is good for animal health and production	3	
Legal	Government is likely to push forward GAP/Halal to become an export standard	4	
	International laws of some countries have strict requirements		4
	Lack of legal staff or consultants for exporting		3

From Table 4, can summarize the data analysis results as follows:

Policy is a factor that significantly affects the business operations of farmer groups. Government pushes forward the border agricultural policy and export promotion, which is an important opportunity to expand the market for farmer groups, including supporting GAP and Halal standards more at the policy level. However, it still has threats in terms of complicated export regulations, which affect the continuity of long-term business planning. Economic is a factor that affects the positive trend from the continuous growth in demand for goat meat consumption of countries in the Mekong Basin and the export price being higher than the domestic price. However, the majority of farmers still rely on middlemen, cross-border logistics costs are still high, resulting in lower net profits. Social, found that the community already has a background in goat farming, and some consumer groups are starting to consume more goat meat. However, society's cognition of standardized farms is low and the collaboration within farmer groups is still unclear. Technology, found that it has been continuous development on farm management and animal raising, but access to technological knowledge is still limited, the use of technology is not widespread and some groups are not ready to accept technological changes, therefore, the use of technology that is more appropriate for the local context must be promoted. Environment, Chiang Rai Province has a landscape suitable for goat farming, air circulation and weather are conducive to animal health, therefore, it is an important supporting factor for the quality and quantity of produce. However, there is still risks of drought and animal disease that must be managed effectively. Legal, the government is likely to push forward GAP/Halal to become a concrete export standard. However, the laws of destination country still have strict requirements and still lack of local officials or experts in export laws.

**Table 5:** Calculation of strategic positioning scores from internal factors

Internal Factors	Weight	Mean		Weighted Score		Total
	Full Score = 1	Strength	Weakness	Strength	Weakness	
Management	0.15	4.00	4.00	0.60	0.60	0.00
Man	0.20	4.00	4.00	0.80	0.80	0.00
Money	0.30	4.50	3.00	1.35	0.90	0.45
Material	0.35	4.50	3.00	1.58	1.05	0.53

<b>Environmental Summary</b>	<b>4.33</b>	<b>3.35</b>	<b>0.98</b>
------------------------------	-------------	-------------	-------------

From Table 5, found that the sum score of the internal environment is 0.98 (or approximately 1.00), which falls in the area of not much strengths. Internal factors of the context in Chiang Rai Province for export to countries in the Greater Mekong Subregion still have unclear strengths.

**Table 6:** Calculation of strategic positioning scores from external factors

External Factors	Weight	Mean		Weighted Score		Total
	Full Score = 1	Opportunities	Threats	Opportunities	Threats	
Policy	0.20	4.00	3.50	0.80	0.70	0.10
Economic	0.15	5.00	4.50	0.75	0.68	0.08
Social / Culture	0.10	3.00	3.50	0.30	0.35	-0.05
Technology	0.10	4.00	3.00	0.40	0.30	0.10
Environment	0.10	3.50	3.00	0.35	0.30	0.05
Legal	0.25	4.00	3.50	1.00	0.88	0.13
<b>Environmental Summary</b>				3.60	3.20	
						0.40

From Table 6, found that the external environment is 0.40, which is an area with a small opportunity. The context of goat farming in Chiang Rai Province for export to countries in the Greater Mekong Subregion is still unclear or close to the core area (symmetrical).

Summary of the strategic approach of the context of goatherd in Chiang Rai Province for export to countries in the Greater Mekong Subregion is in an area with strengths and opportunities, but close to the core area. For Quick Win results that will occur then is used Strengths and Opportunities Strategy (SO Strategy) to create TOWS Matrix Analysis as shown in Table 7.

**Table 7:** TOWS Matrix Analysis

<b>TOWS MATRIX</b>	<b>Strength (S)</b> – Some farms are starting to meet GAP standards – Farmer is experienced and intended to develop – Having an area and environment suitable for goats farming – Manufacturing cost in some areas is lower	<b>Weakness (W)</b> – Lack of knowledge in business management and export – Lack of strong grouping – Lack of sources of funding – Lack of modern technology and infrastructure
<b>Opportunities (O)</b> – Government policy supports export and GAP/Halal	<b>SO-Strategy</b> 1. Enhance farms to meet standard to enter an export market systematically	



<ul style="list-style-type: none"> <li>– The Mekong Basin market has a high demand for goat meat</li> <li>– Export price is higher than the domestic market</li> <li>– Consumers are increasingly interested in goat meat</li> </ul>	2. Strengthening the capacity of farmer leaders to act as mentors in transferring body of knowledge 3. Establishing and developing farmer groups’ networks to increase bargaining power and access to support sources 4. Developing local brand with selling points on quality, naturalness and price competitiveness	
<b>Threat (T)</b> – Regulations for export are complicated <ul style="list-style-type: none"> <li>– High logistics costs</li> <li>– Limited access to technology</li> <li>– Risks from drought and animal diseases</li> </ul>		

From Table 7, the strategic analysis results, the context of the goatherd group in Chiang Rai Province for exporting to countries in the Greater Mekong Subregion, it is the extension of local body of knowledge and the creation of product identity to push forward into the export market of countries in the Greater Mekong Subregion in a sustainable manner.

Strategy of enhancing farms to meet standard to enter an export market systematically, requires developing goat farms to pass the certification of hygiene and animal raising standards to enter the export system efficiently, linking the trade and export mechanisms of the state and private sectors for countries in the Greater Mekong Subregion.

Strategy of strengthening the capacity of farmer leaders to act as mentors in transferring body of knowledge, recruit role model farmers with experience in goats farming standard to act as mentors in transferring body of knowledge and production skills to new farmers in order to expand the potential farmer base at the local level.

Strategy of establishing and developing farmer groups’ networks to increase bargaining power and access to support sources, promote farmers for grouping to form community enterprise networks or cooperatives to gain access funding sources, technology, training, and supportive policies from the government, and increase their ability to jointly manage production and marketing.

Strategy of developing local brand with selling points on quality, naturalness and price competitiveness, create identity of goat products of Chiang Rai Province to stand out in the Greater Mekong Subregion Market, focus on natural raising quality, food safety and appropriate production cost to create difference and credibility in the export market.

## DISCUSSION

This research reflects the big picture of goatherd in Chiang Rai Province who have high potential and intention to develop their farms to meet GAP standards to support the export market of the countries in Greater Mekong Subregion, but still face limitations in field of business knowledge, weak of grouping, and reliance on middlemen, which reduces the opportunity to access export prices directly. These problems are consistent with the study results of Duangsi et al. (2018) who found that farmers in Northern still lack of marketing support and access to sufficient body of knowledge, and are continuously being forced the price down by middlemen. In addition, the farmer groups in Nan Province also expressed their desire to develop production quality and standards through group activities and goat-sheep central marketplace (Office of Nan Provincial Farmers Council, 2023), which is consistent with the recommendations of this research that focuses on creating networks and grouping to increase bargaining power and reduce marketing costs systematically.

In terms of policy and support, the government and research agencies have given importance to promoting goat farming in border areas and Northern, such as the Youth Promotion Project in the three southern border provinces of National Research Council of Thailand (2023), which focuses on integrated goat farming and the use of modern technology to increase income and career stability, which is in line with the needs of farmers in Chiang Rai Province who want the body of knowledge and technology to enhance their farms to meet GAP and Halal standards. However, there are still regulatory and logistics cost threats that affect farmers' competitiveness. Therefore, the strategic planning that integrates both the development of farmers' potential to be able to make a living and have relationships with growing networks (Wikrom Boon-nun, Lanjakon Nilkan, and Panya Lertkrai, 2023), grouping, financial support, and international cooperation negotiations will be the key to enhance the goat industry in Chiang Rai Province to be able to respond to export market demands in the region more sustainably and efficiently.

#### **Policy Recommendations**

1. The government should support the establishment and development of a network of goatherd community enterprises in Chiang Rai Province to be strong in terms of management, market negotiations, and body of knowledge sharing to increase bargaining power, reduce dependence on middlemen, and create opportunities to access export markets directly.
2. The government should organize training programs and provide in-depth advice on GAP and Halal standards for farmers, including supporting money or low-interest loans to improve farms to meet international standards, as well as supporting the introduction of modern livestock technology and innovation on farms.
3. The government should invest in logistics infrastructure such as warehouse and distribution center, border crossing point, and promote international negotiations to reduce export regulatory restrictions, facilitating farmers to export goats to countries in the Mekong Basin efficiently and at low cost.

#### **Recommendations for applying research results**

1. The results can be applied as a prototype for developing the goatherd group in other provinces or regions of the country, with an emphasis on grouping, farm standard enhancement, and creating cooperation networks with government and private agencies.
2. The farmer groups and community enterprises can use these results to develop business plan, farm development plan, and marketing plan that are appropriate to their potential and limitations to be able to compete sustainably in the export market.
3. The provincial agricultural extension office or the office of provincial commercial affairs can use the findings and recommendations from this research to determine policies, support measures or development projects for the goatherd group in border areas to increase the country's production and export potential.

#### **REFERENCES**

1. The goatherd community enterprise in Chiang Rai Province (2022). *Report of goat farming and marketing situation in Chiang Rai Province*. Chiang: The goatherd community enterprise in Chiang Rai province.
2. Ministry of Agriculture and Cooperatives (2022). *Report of goat production and marketing situation in Thailand 2022*, Bangkok: Ministry of Agriculture and Cooperatives
3. Rachen Duangsi, Sungwarl Somboon, Saran Parisuthikul. (2018). Sustained Competitive Advantage Strategy of Meat Goat Farmer in Northeastern Thailand. *Journal of MCU Peace Studies*, 6(1), 217-231.
4. Parichat Sriharun, Lunjakon Nillakan, and Panya Lertkrai (2025) Fieldwork Research Analysis, Nakhon Si Thammarat: Nakhon Si Thammarat Rajabhat University
5. Vikrom Boonnun, Lunjakon Nillakan, and Panya Lertkrai 2023 "Local ethnographic research" Chiang Rai: Chiang Rai Rajabhat University
6. Mongkol Thepparat, Monchai Duangjinda, & Somkiat Saithanoo.  
a. (2010). Breeding strategy of goat in Thailand for Sustainable  
b. Production. *Khon Kean Agriculture Journal*. 38(4). 395-408.  
c. Office of Nan Provincial Farmers Council. (2023). Report on the promotion and development of Nan province's goat and sheep central market. Nan: Office of Nan Provincial Farmers Council.
7. Office of Agricultural Economics Zone 3. (2022). Agricultural economic situation report 2022 and 2023 trends for the Northeast. Office of Agricultural Economics Zone 3 Udon Thani.
8. Thairath. (2018). Thai goat logistics to China: Opportunities and obstacles. Retrieved from <https://www.thairath.co.th/news/local/north/1312345>

9. FAO. (2001). *Agro-ecological distribution for Africa, Asia, and North and Central America*, Consultant's Report, Food and Agriculture Organization, Rome.
10. Meat & Livestock Australia. (2021). *Analysis – Australian goat meat makes an impact on the global market*, <https://www.agriculture.gov.au/about/news/analysis-australian-goat-meat-makes-an-impact-on-the-global-market>
11. Morand-Fehr, P. and Lebbie, H.S.B. (2004). Proposals for improving the research efficiency in goats, *Small Ruminant Research* 51(2):145-153.
12. Norman, G. A. 1991. The potential of meat from goat. In: *Developments in Meat Science* (Ed. R. A. Lawrie). Elsevier Applied Science, London. pp. 57-87.
13. Olmo R. P. et al. (2023). Mosquito vector competence for dengue is modulated by insect-specific viruses, *Nat Microbiology*, Jan;8(1):135-149.