

Edited from the Thai-language Staff Paper No. 161 titled "5 Decades of ALRO: Securing a Sustainable Future" (original title: "5 ทศวรรษ ส.ป.ก. ก้าวที่มั่นคงสู่อนาคตที่ยั่งยืน")

## **Preamble**

**Agricultural land reform** has emerged in Thailand with the goal of reducing economic and social inequality, ensuring fairness for farmers by providing them with land for cultivation, and maximizing land utilization. This includes organizing production and marketing systems for agricultural products and protecting the country's agricultural areas. The Agricultural Land Reform Office (ALRO) serves as the primary agency implementing agricultural land reform to improve farmers' quality of life.

Throughout five decades of land reform in Thailand, ALRO has been committed to driving agricultural land reform efforts through land management for farmers, area development, career development for farmers, and administration of the Agricultural Land Reform Fund. These efforts aim to ensure that farmers in land reform areas have a good quality of life, income security, reduced inequality, opportunities to access capital sources, enhanced economic stability, and environmental conservation and restoration. This aligns with the organization's vision of being a "modern organization in managing land reform to elevate farmers' quality of life." However, with current societal changes as we move toward an aging society, urban expansion, and severe climate change impacts affecting the agricultural sector, ALRO faces challenges in moving forward with steady steps toward sustainable development goals. The aim is to maintain balance across economic, social, and environmental dimensions while passing on a better future to the next generation. This has led to the creation of this academic document under the concept "5 Decades of ALRO: Securing a Sustainable Future."

This academic document contains important stories along the land reform journey, including **special articles from ALRO executives** presenting key policies for moving forward steadily to drive ALRO's future development. It covers dimensions of past successes and farmer development to improve quality of life in changing contexts. The document explores how ALRO will utilize technology and innovation to reach a turning point that addresses farmers' and organizational needs, including reviewing, improving, and developing laws to keep pace with changes and respond to future contexts in agricultural careers.

Additionally, it presents future directions for land reform through articles compiled from interview with Mr. Werachai Narkwiboonwong, former Secretary-General of ALRO, regarding economic, social, and environmental challenges and perspectives on future work while maintaining commitment to protecting agricultural areas and strengthening farmers. The document also features interview with community leader and model farmer in land reform area, including Phrakhru Suchinnanthakit from Wat Pong Kham in Nan Province and Mr. Banjong Sanyamoon from Maha Sarakham Province, discussing the importance of farmer development based on public participation through community leader and model farmer mechanisms, and their views on ALRO's future work.

Furthermore, this document presents external perspectives on land reform through articles from academic network regarding the results of land allocation on farmers' livelihoods by Asst. Prof. Dr. Uchook Duangbootsee from the Faculty of Economics, Kasetsart University, and land reform for transitioning sustainable agricultural systems toward food security by Ms. Supha Yaimuang from the Sustainable Agriculture Foundation. It also includes public sector excellence article from empirical work by the Uthai Thani Provincial Agricultural Land Reform Office (ALRO Uthai Thani), which received the "Outstanding" Public Sector Excellence Awards 2024 in the category of Participatory Governance, Effective Change Award. This guarantees the commitment to participatory work between ALRO, farmers in communities, and network partners in promoting environmentally friendly production that meets community needs.

The editorial board sincerely hopes that the content in this academic document will deliver beneficial stories from the past to the present, achievements, and future directions of ALRO to all readers. We would like to express our gratitude to the Secretary-General of ALRO (Mr. Sedthakiat Krajangwongs) and all executives who have provided support and guidance on policies and directions for driving ALRO's mission forward. Moving forward will be steady steps leading to a sustainable future. We thank former Secretary-General of ALRO, academic networks, community leader, and model farmer in land reform areas, as well as ALRO Uthai Thani, who have shared their knowledge and approaches for future land reform through academic articles and interviews. We appreciate ALRO experts who provided suggestions for improving the content of this academic document, and we thank all staff involved in successfully completing this academic document.

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Mrs. Narumon Pinyosinwat
Minister of Agriculture and Cooperatives

#### On the occasion of the 50th anniversary of ALRO



On the occasion of the 50th anniversary of the Agricultural Land Reform Office (ALRO), I would like to extend my congratulations on the success and dedication in reducing inequality and improving land access, continuously elevating the quality of life for farmers in land reform areas. I encourage ALRO to continue advancing its mission toward the goal of sustainable agricultural development. This includes modernizing traditional farming practices through the concept of "Market-led, Innovation-enhanced, Income-increased," supporting farmers in all aspects to access markets while simultaneously allocating agricultural land and developing agricultural infrastructure. This should be coupled with the implementation of modern technologies such as precision farming and smart agriculture to enhance the potential of farmers and agricultural institutions, increasing the value of agricultural products and crop prices to prepare them as comprehensive agricultural service providers that can meet global food security demands.

Regarding concrete solutions to land issues in all dimensions, particularly the development of rights and utilization of agricultural title deeds, ALRO have focused on increasing the value of agricultural title deeds and using them as loan collateral to strengthen job security. Another crucial aspect is promoting quality production that ensures consumer safety and environmental consciousness following the BCG (Bio-Circular-Green Economy) approach, in alignment with the situation, direction, and trade policies related to the environment such as the European Union Deforestation Regulation (EUDR), Carbon Border Adjustment Mechanism (CBAM), and opportunities for generating income from Carbon Credits. This includes proactive planning to address climate change and natural disasters, from prevention and resolution to rehabilitation, including promoting farmers' participation in agricultural insurance systems. Furthermore, the integration of cooperation between ALRO and public and private sector agencies is another key factor in developing strong and competitive farmers and agricultural institutions in land reform areas.

On this 50th anniversary of ALRO's establishment, I wish all executives and personnel of ALRO to continue working at full capacity, collaborating with determination to create sustainability for all our farming families. May you all succeed in all your future endeavors.



#### Message

Mr. Itthi Sirilatthayakorn
Deputy Minister of Agriculture and Cooperative

#### On the occasion of the 50th anniversary of ALRO



The Agricultural Land Reform Office (ALRO) is a key agency responsible for advancing the agricultural sector through land allocation, developing farmers and agricultural institutions, and area protection. Its mission ensures that farmers within the land reform areas can sustain their livelihoods through agriculture, a crucial foundation for generating income and stability. This, in turn, contributes to the long-term sustainability and enhancement of the quality of life for farmers.

Currently, the Agricultural Land Reform Office (ALRO) is executing the key policies of the Ministry of Agriculture and Cooperatives across various dimensions. These include land management through the promotion of agricultural title deeds, the enhancement of land value, and land ownership inspections to ensure equitable land distribution to landless farmers. ALRO is committed to promoting equal access to land resources. Additionally, ALRO is engaged in land development by creating a 20-year infrastructure development plan for land reform areas, ensuring sustainable and systematic growth. The promotion of farmer development is also a priority, with a focus on enhancing the potential of farmers and farmer institutions, as well as providing financial support through capital development initiatives. The utilization of information technology plays a key role in facilitating income collection and the development of revolving funds to benefit farmers. Furthermore, regulations and laws have been revised to remain current, and the organizational structure and workforce have been realigned to meet the demands of ongoing missions. These efforts are designed to improve operational efficiency and maximize the impact of support for farmers within the land reform areas.

Finally, On the occasion of the 50th anniversary of the establishment of the Agricultural Land Reform Office (ALRO), I would like to extend my heartfelt wishes to the executives, civil servants, and all staff members. May you all enjoy happiness, prosperity, and good health. Let us continue to work together to create impactful initiatives that contribute to the development of the nation's agricultural sector, always upholding the values of integrity and transparency to ensure the sustainably long-term benefit of Thai farmers.



Mr. Akara Prompow Deputy Minister of Agriculture and Cooperatives

#### On the occasion of the 50th anniversary of ALRO



The Agricultural Land Reform Office (ALRO) is a crucial agency under the Ministry of Agriculture and Cooperatives that drives the improvement of land tenure rights, land rights distribution, and land allocation to farmers and agricultural institutions. Additionally, it has important missions in developing infrastructure, enhancing skills, and promoting agricultural knowledge among farmers, as well as providing credit support as working capital for agricultural operations, creating occupations, generating income, and improving the quality of life for farmers in land reform areas.

Throughout the past 50 years, ALRO has participated in agricultural development following the Ministry of Agriculture and Cooperatives' policies by expediting land allocation to farmers, converting land use certificate (Sor-Por-Kor 4-01) into agricultural title deeds to enhance land rights and increase land value by promoting and increasing opportunities to convert land-based assets into capital. This includes developing water resources and promoting efficient water management among farmers, strengthening the potential of farmers and agricultural institutions, promoting environmentally friendly farming practices, reducing burning in agricultural areas and utilizing agricultural waste, as well as developing channels for accessing funding sources to create stable and sustainable income for farmers.

On the occasion of the 50th anniversary of ALRO's establishment on March 6, 2025, I wish all executives, officials, and operating staff good health, happiness, and success. May you continue to be a vital force in driving the country's agricultural sector and fulfilling your assigned duties to improve the quality of life for farmers in land reform areas.



### Message

Mr. Prayoon Inskul Permanent Secretary Ministry of Agriculture and Cooperatives

#### On the occasion of the 50th anniversary of ALRO

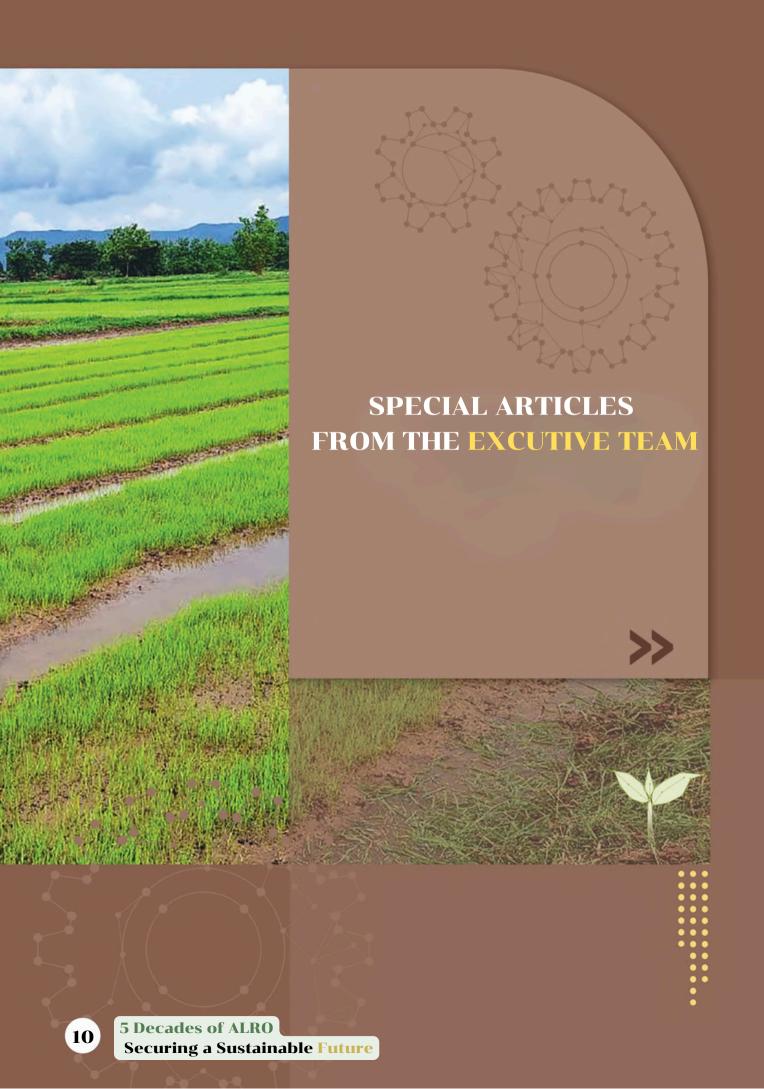


The Agricultural Land Reform Office (ALRO) is a pivotal agency within the agricultural sector, with a primary mission to allocate land to farmers with insufficient land, landless individuals, and agricultural institutions for rental, lease, or utilization. Additionally, ALRO is responsible for developing infrastructure, fostering the growth of farmers and agricultural institutions, and supporting the Land Reform Fund for Agriculture.

Over the past 50 years, the Agricultural Land Reform Office (ALRO) has facilitated access to agricultural land for over 3 million farmers, covering more than 36 million rai. The agency has also played a key role in developing infrastructure, promoting agricultural livelihoods, and encouraging the adoption of innovative technologies to enhance farmers' potential while supporting environmentally friendly production practices. Notably, ALRO has advanced the Ministry of Agriculture and Cooperatives policy to upgrade land title deeds, transitioning from ALRO 4-01 to agricultural title deeds, and has actively sought collaboration to expand access to capital sources and enhance land values.

Due to the ongoing changes in the economy, society, environment, and climate, the agricultural sector must continuously adapt its production methods. Consequently, it is a significant challenge for the Agricultural Land Reform Office (ALRO) to ensure that its personnel, knowledge, regulations, laws, and work processes remain flexible and responsive to these changes. This adaptability is essential to ensuring stability in the agricultural livelihoods of farmers, which in turn will contribute to food security and strengthen the grassroots economy of the country.

On the occasion of the Agricultural Land Reform Office's (ALRO) 50<sup>th</sup> founding anniversary, I would like to extend my heartfelt wishes to the executives and staff of ALRO for happiness, prosperity, and continued inspiration in performing their duties to the best of their abilities. I also wish to express my sincere hopes that all will continue to serve as a strong support system for farmers in the land reform areas, ensuring the stability and sustainability of the Thai agricultural sector.





Mr. Sedthakiat Krajangwongs

Secretary-General of Agricultural Land Reform Office

## 9 Policies Driving Development: **Moving Forward to the Future**

When we think of the term "farming land," this word holds great significance for farmers as it is a fundamental factor essential for agricultural occupation and is crucial for farmers' livelihood security. However, due to problems faced by Thai farmers in losing land rights and becoming tenants who must pay high rental fees, combined with agricultural land lacking proper maintenance, agricultural productivity has declined. This has resulted in widespread problems for the country in economic, social, and environmental aspects.

Given this importance, the government under Prime Minister Sanya Dharmasakti proposed the Agricultural Land Reform Act to the National Legislative Assembly, which was promulgated and enforced as law on March 5, 1975 (B.E. 2518). The Act comprises 5 chapters and 48 sections to address farmers' land problems by improving rights and land tenure for agriculture, including providing residential land within agricultural areas for farmers who have no land of their own or have insufficient land for their livelihood. This enables them to benefit from leasing or purchasing land, along with assistance in improving resources and production factors, production, and marketing for better outcomes. The Agricultural Land Reform Office (ALRO) was established as the agency with authority to implement agricultural land reform, with the Agricultural Land Reform Executive Committee (ALREC) responsible for formulating policies, measures, regulations concerning agricultural land reform, and overseeing ALRO's administration.

From then until now, ALRO has been implementing agricultural land reform alongside farmers and Thailand's agricultural sector for 50 years, experiencing various situations and changes including economic slowdowns leading to unemployment problems and landless people, natural resource and environmental degradation, climate change impacts on natural disasters affecting agriculture, aging society, and various forms of trade restrictions. Throughout this period, ALRO has participated in solving problems and reducing impacts from these situations by continuing to provide farming land to farmers and agricultural institutions, developing necessary infrastructure, supporting agricultural knowledge, promoting environmentally-friendly production systems, including modern agriculture that applies technology and innovation, emphasizing participatory processes among farmers, communities, and officials together with network partners.

During this period, based on government policies to create and expand opportunities for people to have land rights for further development to access funding sources and improve land to create better quality of life, ALRO has been upgrading the value of farming land for farmers in land reform areas by improving title documents from Land Use Permits in Land Reform Areas (Sor Por Kor 4-01) to Agricultural Title Deeds, including promoting valuable tree planting, expanding access to funding sources, and enhancing cooperation in developing agricultural infrastructure so that farmers in land reform areas have secure land tenure rights, potential land, can create assets on land, and convert them into capital for agricultural development, improving product quality and standards according to international principles, creating income and sustainability for farmers. However, ALRO's development must continue for farmers' well-being, good living, happiness, and sustainability through 9 development policies as follows:

#### Agricultural Title Deed Policy

Focusing on creating clear plans for issuing Agricultural Title Deeds and accelerating implementation to meet targets. At the same time, ALRO must expedite developing approaches for utilizing Agricultural Title Deeds to create value and continuously develop the potential of areas that receive Agricultural Title Deeds. Various bureaus should integrate in formulating development plans under common goals for efficient work and maximum benefit to farmers. Additionally, expanding cooperation with various sectors to jointly develop areas in land reform zones through development work and educational research, promoting ALRO's Agricultural Title Deed areas as important target areas for budget planning consideration from relevant agencies for efficient implementation.

For operational level implementation, provincial Agricultural Land Reform Offices have been assigned to accelerate Agricultural Title Deed issuance, targeting 1,066,643 plots covering 10,520,782 rai in 2025, and converting Sor Por Kor 4-01 to Agricultural Title Deeds within 2 years so farmers have secure and sustainable land tenure rights.

#### **Tree Title Deed Policy**

Establishing approaches for creating tree title deeds to add value and benefits from perennial and valuable trees on land, both in terms of utilization and income generation alongside conservation, integrating cooperation with relevant agencies in tree resource management technology, including knowledge in calculating or evaluating carbon credit values and data management for perennial trees aged 3 years and above, enabling conversion of perennial trees on land into assets that can be used as collateral and increase land value, along with creating networks to expand farmers' access to funding sources, and cooperating with the Rubber Authority of Thailand in developing para rubber tree title deeds.

#### Infrastructure and Water Source Development Integration

Emphasizing infrastructure investment starting with workforce and machinery restoration planning, along with integrating cooperation with local administrative organizations and relevant government agencies according to cooperation agreements with 16 agencies including the Royal Irrigation Department, Land Development Department, and Groundwater Resources Department to develop water sources in ALRO areas for farmers' maximum shared benefit, such as agricultural groundwater well drilling projects in land reform areas to increase water quantity in source water supplies, temporary temporary check dam projects to improve water source efficiency in land reform areas to help store water in watershed sources and reduce soil erosion, with systematic planning and implementation support, including establishing approaches for knowledge exchange and technical support to upgrade infrastructure for farmers who received land allocation.

## Community Land Management Adaptation and Development to Support Economic and Social Changes

By classifying areas according to potential and land use characteristics to collect revenue from land use permits for activities supporting or related to land reform, bringing funds into the Agricultural Land Reform Fund for use in developing living conditions and supporting farmers in land reform areas, along with developing modern revenue collection systems with accurate and clear data. ALRO must create cooperation with external agencies to exchange knowledge and new technologies, focusing on developing efficient work systems appropriate for current contexts. Future community land management may be adjusted according to suitable environmental factors while complying with correct regulations and laws accepted by society.

In this process, ALRO will consider approaches for amending land reform laws, including studying land reform models from other countries to enable efficient and appropriate operations for future land management system development.

#### Supporting Land Reform Work with Agricultural Land Reform Fund

Such as supporting low-interest agricultural credit to help farmers or agricultural institutions develop occupations and income, including solving household debt problems for farmers to have better living conditions, as well as increasing revenue collection efficiency by developing knowledge and skills of fund personnel at the area level regarding credit management and land valuation, enabling revenue to return as revolving funds for land reform development work, creating stability and sustainability for farmers and agricultural institutions in land reform areas.

#### Creating Organizational Culture for Transparency and Accountability

Promoting operations toward the goal of becoming a "trustworthy organization" through ALRO's operational approaches that must adhere to good governance principles, maintain civil service standards according to regulations and laws strictly, with responsibility, transparency, ethics, creating participation, using rule of law in operations, emphasizing value for money, opening channels for stakeholder participation to build trust among farmers, stakeholders, and society as a whole, including improving regulations and procedures for fast and timely services.

#### **Human Development**

Both ALRO officials and farmers in land reform areas. The key principle of development must jointly create good spirit and honesty in one's duties. Officials must constantly develop skills and expertise in their work, study, research, and exchange new knowledge, especially legal and regulatory knowledge to enable careful and correct work under relevant regulations and laws. Additionally, emphasis must be placed on service provision to create satisfaction for farmers or people receiving services.

For farmers, besides agricultural knowledge, the important thing is understanding their rights and duties as recipients of land allocation, recognizing the value of the land they received and developing care and protection of the land together. These will lead to farmer development toward becoming farmer leaders and Agricultural Land Reform volunteers, which are important mechanisms for coordinating and connecting officials to reach farmers in communities.

#### **Creating Participation**

ALRO's operations must be based on people's participation and community access through both formal and informal communication, creating opportunities to listen to problems to build understanding and use participatory processes to constructively gather community opinions, creating forums from community level to academic forums for learning exchange and ability to create participatory community development plans, including promoting ALRO's Center for the promotion and development of additional careers outside of agriculture as important learning sources and skill development through various activities such as product exhibitions and training, which promote community participation in learning exchange and create opportunities for people to participate in occupational skill development, income generation, and strengthen communities sustainably, becoming learning organizations under the concept "ALRO Family, Our Family."

#### Working with an Accurate and Up-to-Date Database

Operations leading to trust, transparency, and accountability require database-driven work that is accurate, precise, and up-to-date. ALRO must develop and improve data compilation regarding land, development, and other important organizational data for use in efficient land reform operational planning. Additionally, ALRO must prioritize data governance to ensure clear data access and awareness among officials, farmers, and external stakeholders, fostering a shared understanding of accurate information. It should also enhance service systems by improving data connectivity with external agencies to reduce bureaucratic delays, enable farmers to transparently verify information, and minimize conflicts between agencies and the public throughout all processes.

Today, as ALRO is about to enter its 51st year of agricultural land reform in Thailand, we remain committed to continued development in line with development policies and agricultural structural systems in the country, primarily considering farmers' well-being, creating opportunities for farming land tenure for agriculture, generating income and livelihood from land for maximum benefit, which will reduce inequality and effectively distribute farming land tenure in the future.





Deputy Secretary-General of Agricultural Land Reform Office

## 50 Years of ALRO, Elevate Success to Sustainable Future

Throughout the 50 years, the Agricultural Land Reform Office (ALRO) has demonstrated its commitment and determination to continuously carry out its mission to improve the quality of life of farmers in the land reform area, focusing on providing land for farmers, developing farmers' potential, promoting land use for sustainable agriculture, and strengthening communities and society as a whole through promotion and support under various projects and activities, ranging from training and promotion of agricultural knowledge, promotion of group formation, support for agricultural development, and development of necessary infrastructure to facilitate farmers in the land reform area, as well as promotion of the use of technology and innovation to improve production and product management and increase efficiency in the organization's operations. ALRO aims to achieve the vision of being a "modern organization in land reform management to improve the quality of life of farmers."

#### 50 years of success in agricultural land reform

Following past agricultural land reforms, in addition to securing land rights for farmers in the reform areas, the ALRO has continuously worked on enhancing land potential and agricultural livelihoods. This has led to successful development efforts aimed at improving farmers' quality of life, as reflected in the development outcomes across four key dimensions, including:

First, "The Land (Farmland)", focuses on land allocation and land tenure rights for farmers, thereby creating opportunities for them to access land resources for agricultural purposes. ALRO has successfully allocated farmland to over 3 million farmers, covering approximately 36 million rai across 72 provinces. Additionally, there has been significant infrastructure development, particularly in water resource management and the promotion of sustainable agriculture practices, such as organic farming, agroforestry, and the New Theory of Agriculture—agricultural systems that are environmentally friendly. As a result, over 400,000 rais of land reform areas have been dedicated to sustainable agricultural practices. Furthermore, the conversion of land use certification to agricultural title deeds, starting last year, along with the promotion of valuable tree planting on the land, is viewed as a means of creating assets and enhancing land value.

Second, "The Fund" plays a crucial role in driving agricultural development. ALRO supports farmers by providing funds through the Agricultural Land Reform Fund, offering low-interest loans that serve as working capital for their agricultural activities. This financial support reduces risks and enhances stability in their operations. The Land Reform Fund is also utilized for infrastructure development within the land reform areas, including agricultural water sources, roads on agricultural plots, buildings, and related structures. These developments contribute to greater agricultural production and management, reducing production costs while increasing product value. Additionally, ALRO has fostered partnerships with other funding sources, such as the Bank for Agriculture and Agricultural Cooperatives (BAAC), agricultural cooperatives within the land reform areas, and other state financial institutions, to expand credit access for farmers in these regions."

Third, "The Farmer" represents another significant achievement of land reform, with the creation of model farmers who have become experts and successful in various agricultural fields. Approximately 2,000 model farmers and 100 model agroforestry instructors have been established as key figures for transferring and expanding knowledge within the community. These model farmers provide knowledge on appropriate farming methods and technologies that increase production efficiency and reduce costs. They also serve as sources of inspiration, building confidence among other farmers to pursue agricultural endeavors. Furthermore, an essential component of success in farmer development is the support for forming formal and informal groups, such as collaborative farm, community enterprises, and agricultural cooperatives. These groups foster collective strength in production, enhance product value, improve marketing channels, and facilitate knowledge and resource sharing, increasing competitiveness. The power of group formation also aids in accessing technology, raising production standards, and strengthening communities in the sustainable management of natural resources."

Lastly, "The Farm Product" focuses on increasing the value and quality of agricultural products, a key priority for ALRO to enhance competitive opportunities in domestic and international markets, improve farmers' quality of life, and strengthen the country's economy for sustainable growth. ALRO supports farmers in developing product standards through the Agricultural Product Standards Inspection and Certification Center within the Land Reform Area, offering Good Agricultural Practice (GAP) certification services for seven types of crops: rice, Thai Hom Mali rice, pineapple, dry corn, cassava, industrial sugarcane, and food crops. Today, more than 1,600 plots, covering an area of approximately 11,000 rai, have been certified, benefiting over 1,500 farmers. Additionally, ALRO promotes production following organic agricultural standards, including the Organic Thailand standard and the Participatory Guarantee System (PGS) certification, with other agricultural product standards. ALRO also encourages value addition to agricultural products through processing and packaging development, creating a diverse range of trusted agricultural products from the land reform area.

#### Improvement and Development to Enhance Success

Agricultural land reform is not a one-time process; it requires continuous improvement and development to achieve sustainable results and address challenges such as the economy, the environment, and social change. Therefore, ALRO must prioritize enhancing success in areas such as land, capital, farmers, and products, all of which are crucial for improving the quality of life for farmers and strengthening the agricultural economy to ensure its stability and sustainability. Another key factor in guiding Thai farmers and the agricultural sector toward a sustainable future is the adoption of innovative farm technology. This will support the development of the four dimensions mentioned above.

In terms of land, improving land potential and infrastructure is crucial for increasing land use efficiency and boosting agricultural productivity, especially in the face of severe climate change. To enhance ALRO's development, GIS (Geographic Information System) technology should be used to identify target areas for developing water sources. This should be based on geographical characteristics, land use, water availability for agriculture, and data on natural disasters such as droughts or recurrent flooding, alongside information on the needs of farmers in the area. This approach will allow for efficient development planning and maximize benefits.

Beyond water source development, improving the water distribution system for agricultural plots ensures that farmers can use water efficiently. ALRO must expedite the development of these systems while also providing farmers with knowledge on effective water management. This includes educating them on plant water requirements, selecting suitable watering systems, and using technologies like Smart IoTs or AI to control irrigation and reduce drought risk, all while maintaining continuous production.

Moreover, for the long-term sustainability of the agricultural sector, ALRO must continue promoting sustainable agriculture practices that benefit farmers, consumers, and the environment. This includes encouraging perennial tree planting and establishing agricultural areas as carbon sinks, which help reduce the impact of climate change. It can be said that agricultural land reform plays a key role as a carbon sink, acting as the "lungs" of Thailand.

Regarding funding, ALRO needs to enhance the Agricultural Land Reform Fund's efficiency by improving regulations, offering appropriate and up-to-date loan options, simplifying procedures, and incorporating technology to make it easier for farmers to access financial resources. This will help meet the needs of farmers and adapt to the rapidly changing economic environment. Additionally, comprehensive service channels, such as financial management and project management advice should be introduced so farmers can use their funds effectively and efficiently. A monitoring and evaluation system should also be developed to ensure proper oversight of the Land Reform Fund's disbursement across various projects. This will position the Fund as the primary financial resource for farmers in land reform areas, with the motto: "When you need funds, think of the ALRO Fund."

For farmers, one key factor in enhancing their success is the creation of networks and the expansion of successful model farmer outcomes to other communities. This approach fosters sustainable development by allowing farmers to exchange valuable information, knowledge, and experiences with each other, such as cultivation techniques, technological innovations, and market linkages. It also serves as a source of inspiration for better agricultural practices. Expanding the impact of model farmers' success is another crucial step that ALRO must take to improve farmers' success on a broader scale.

To further develop agricultural products by improving their quality and standards, ALRO should promote and diversify marketing channels suitable for the modern era. This includes utilizing online markets and digital technology to expand domestic and international markets, reduce reliance on middlemen, and create branding for agricultural products. The branding should highlight the positive image and credibility of products, emphasizing their safety for consumers and environmentally friendly production processes. This includes promoting unique local agricultural products at affordable prices, adding value, and ensuring the sustainability of products from farmers in the land reform areas.

Additionally, if ALRO can encourage the adoption of a traceability system, it will help build consumer awareness and trust in products from farmers in these areas. "When thinking of safe agricultural products, think of products from the land reform areas."

#### Two Key Factors for Success in Achieving a Sustainable Future

To foster success and ensure a sustainable future, ALRO must focus on internal organizational development. Two critical factors driving land reform efforts into the future are human resource development and effective farmer promotion and support. ALRO personnel must acquire both knowledge and a deep understanding of the farmer development process, while also enhancing their skills in applying technology to meet the demands of the digital age. This will improve work efficiency and accelerate operations in the field.

Furthermore, to maximize efficiency in the development process, ALRO staff must actively seek opportunities to collaborate with government agencies, the private sector, and educational institutions. "Listening to farmers' feedback helps ensure that development efforts meet the community's needs."

Another key factor is the improvement of laws and regulations related to land reform. These laws must be updated and adapted to align with the changing social landscape, focusing primarily on benefiting farmers. Regulations should be made more flexible and convenient. Generally, effective laws should support farmers' needs in various areas, such as access to capital, infrastructure improvement, and land management. Modern, adaptable laws will help agricultural development progress smoothly and without hindrances, ultimately contributing to a sustainable future for farmers and the agricultural sector.



Deputy Secretary-General of Agricultural Land Reform Office

# Stepping into the Turning Point of Land Reform with Technology and Innovation for Farmers' Smiles and Organizational Success

#### 50 Years of Growth to Reduce Inequality and Improve Farmers' Quality of Life

The Agricultural Land Reform Office (ALRO) was established on March 6, 1975, under the Agricultural Land Reform Act of 1975. Its primary mission is to allocate land to farmers and agricultural institutions while simultaneously developing essential infrastructure and promoting occupational development based on the needs of farmers both within and outside the agricultural sector. Additionally, ALRO manages the Agricultural Land Reform Fund to improve the quality of life of land-receiving farmers. Over the years, ALRO has remained committed to its mission, ensuring that farmers can live sustainably and happily on ALRO land.

From its inception to today, ALRO has spent 50 years growing and progressing with pride. It has allocated land to over 3 million farming households, covering more than 36 million rai. The organization has also developed infrastructure such as roads, water sources, water distribution systems, and essential buildings, as well as provided knowledge and career development opportunities within and outside the agricultural sector. Additionally, ALRO has supported low-interest credit for farmers and agricultural institutions and provided assistance for those affected by natural disasters. At the same time, ALRO has continuously enhanced its organizational capacity by developing its personnel, process improvement, and applying appropriate technology and innovation to improve efficiency for stakeholders, particularly farmers and the public.

#### Advancing Change for Farmers' Smiles and Organizational Success

To move forward toward future success in agricultural land reform, both internal and external changes play a significant role in shaping ALRO's direction and operations. Key global trends include Sustainable Development Goals (SDGs), global warming and climate change, food security, artificial intelligence (AI) advancements, the emergence of Generation Alpha, the transition to a digital government, carbon credit trading, soft power influence, and localism movements. These inevitable changes require adjustments in operational mechanisms, propelling ALRO toward becoming a "modern organization for land reform management that enhances farmers' quality of life," ultimately bringing joy to farmers and success to the organization.

Essential operational mechanisms that must be adapted for both present and nearfuture challenges include **personnel**, processes, and technology. Personnel are the key drivers of success, requiring broad and deep knowledge, digital technology and communication skills, a growth mindset, and adaptability to change. Work processes should be continuously reviewed to reduce steps and processing time, ensuring efficiency and effectiveness. In terms of **Technology and Innovation**, ALRO must adopt advanced digital solutions such as cloud computing, the Internet of Things (IoT), drones, web portal management systems, and artificial intelligence to enhance efficiency, accuracy, and speed in its operations.

#### Using Technology and Innovation to Improve Services and Develop a Modern Organization

The continuous advancement of science and technology has significantly impacted daily life and work processes. ALRO has integrated various technologies and innovations into land reform efforts to enhance service quality and set operational standards, ensuring long-term modernization.

#### Utilizing Geospatial Technology and Mapping for Land Reform

ALRO applies geospatial technology and mapping systems to ensure accuracy, efficiency, and standardization in land reform operations. Key technologies include remote sensing (RS), satellite imagery, aerial photography, Geographic Information System (GIS), and Global Navigation Satellite System (GNSS). Currently, ALRO is using a satellite-based surveying network to improve land parcel maps, reducing errors from traditional methods. Land use monitoring identifies five main categories of misuse: 1) Resorts, hotels, or golf courses 2) Structures requiring further investigation 3) Excavation or soil surface alterations 4) Large-scale single-crop plantations 5) Misuse of land for other purposes is investigated based on the principles of reading, translating, analyzing, and interpreting satellite images and aerial photographs. At the same time, geoinformatics technology and mapping are also utilized to prevent and resolve overlapping land issues between government agencies. This process is known as the "Integrated State Land Boundary Mapping (One Map)", which is currently being developed in collaboration with relevant agencies.

#### **Developing Software and Information Systems for Communication and Mapping**

ALRO recognizes the importance of information and communication technology in enhancing land reform services. Over the years, various software and systems have been developed to improve accessibility, efficiency, and responsiveness to stakeholders' needs. Examples include: ALRO Land Online – A database of land parcel records, detailing acquisition, allocation, rights changes, and contracts. "Song Suk System" – An online reporting and monitoring system for land survey progress, offering real-time updates. Survey and Mapping Management System (SPS) – A database for land parcel surveys, maps, and relevant geographic data and Online Public Service Center – A digital platform for farmers and the public to submit requests and inquiries, reducing travel costs and improving service convenience.

#### Applying Technology and Innovation to Drive Policy Implementation

Beyond geospatial and mapping applications, ALRO has integrated technology into key policy initiatives, such as issuing **agricultural title deeds** using satellite-based real-time kinematic (RTK GNSS) surveying to ensure geographical accuracy. This technology enables precise land parcel verification, even in cases of boundary marker loss or displacement. Additionally, ALRO is developing **"Tree Title Deeds"** using satellite imagery and aerial photography to establish trees as collateral for financial institutions, such as the Bank for Agriculture and Agricultural Cooperatives (BAAC), the Agricultural Land Reform Fund, and agricultural cooperatives. This initiative is currently in the planning phase and under discussion with relevant financial institutions.



In summary, ALRO has continuously adapted over its 50-year history, responding to change through personnel development, process improvements, and appropriate technology adoption. These efforts aim to maximize efficiency in land reform management while improving farmers' quality of life and advancing toward a modern organization. Moving forward, ALRO remains committed to progress, innovation, and sustainable agricultural development, ensuring lasting smiles and prosperity for farmers in land reform areas.

"Developing People, Advancing Work, and Strengthening the Organization through Technology and Innovation."



Deputy Secretary-General of Agricultural Land Reform Office

## The Land Reform Law: Improvement and **Development for the Future of Thai Farmers**

#### The Importance of Land Reform Law for Thai Farmers

Land Reform Law is an essential tool or mechanism for solving problems for Thai farmers, most of whom still lack farmland or have insufficient land for their livelihood, or farmers who were landowners who lost their land rights and later became tenants. Farmers have persistently faced unfair treatment and disadvantages in the land rental system and product distribution, significantly impacting the country's economy, society, administration, and politics. Therefore, the Agricultural Land Reform Act B.E. 2518 (1975) was enacted on March 5, 1975, establishing the Agricultural Land Reform Office (ALRO) with the authority to implement agricultural land reform by acquiring land from large landholders under the Land Code or state land that has been transferred, to distribute land tenure rights to farmers fairly and comprehensively. This includes developing infrastructure, occupational development, and the improvement, promotion, and support of necessary production factors. The Agricultural Land Reform Fund was established as working capital and for land reform expenses, which led to the establishment of ALRO on March 6, 1975, with the mission to implement land reform to achieve its objectives. Currently, ALRO has allocated more than 36 million rai of land to farmers.

#### Improving and Developing Land Reform Law

Over the past 50 years, the Agricultural Land Reform Act B.E. 2518 (1975) has been amended twice - Amendment No. 2 B.E. 2518 (1975) and Amendment No. 3 B.E. 2532 (1989). As time passed, some parts of the law that were suitable for the context at the time became inconsistent and difficult to enforce appropriately with current economic and social conditions. It also does not facilitate additional land acquisition for distribution to those without farmland. Moreover, while some acquired land is not suitable for agriculture or could be used for other purposes to maximize its benefits, ALRO is constrained by the original law's mechanisms that limit land use specifically to agriculture and related activities, preventing the office from managing these areas optimally. Furthermore, land rights received from land reform have restrictions on land distribution and rights transfer, except for inheritance or transfer to heirs, resulting in the inability to use the land as collateral or to apply for loans from financial institutions for capital to support occupation and income generation. Therefore, reviewing the appropriateness of the law, improving and developing it regularly is important, especially improving criteria for land acquisition, determining land use zones, land allocation, land rights transfer, controlling land use, and measures to prevent land holding illegally. This includes adding measures to protect agricultural areas to promote systematic farming and increase competitiveness in the agricultural sector and maintain suitable areas for agriculture as a stable production base. It also responds to government policies in reducing economic and social disparities as specified in the Constitution of the Kingdom of Thailand. ALRO has not only amended the Agricultural Land Reform Act B.E. 2518 (1975) and its amendments but has also drafted a new Agricultural Land Reform and Agricultural Area Protection Act B.E. .... with new principles such as adding measures for classifying land use zones in land reform areas to

maximize land use benefits, adding measures to protect suitable areas for agriculture to maintain agricultural use and promote full potential agricultural operations, as well as measures to control land use and implementing administrative enforcement measures instead of the original penal provisions.

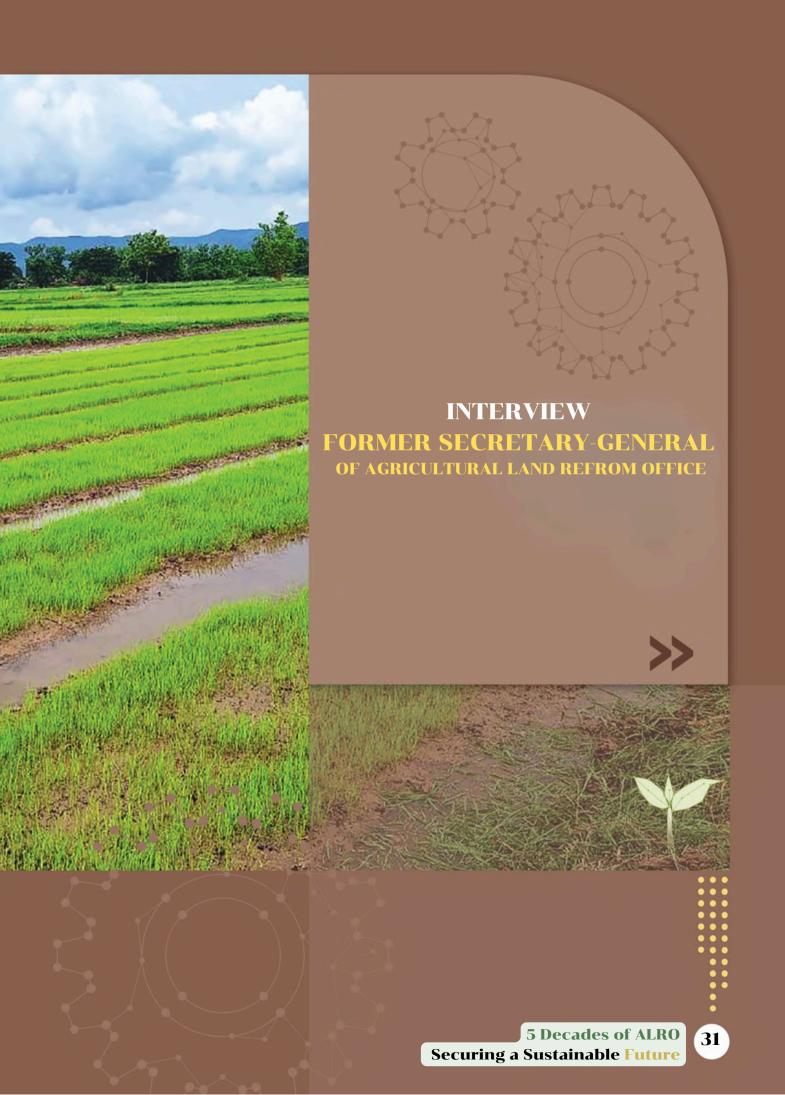
Currently, the draft Act is being proposed to the Agricultural Land Reform Executive Committee (ALREC) for review. If approved, it will be presented to the Ministry of Agriculture and Cooperatives' Law Reform Commission for proposal to the Minister of Agriculture and Cooperatives. Subsequently, the draft Act will be sent to the Secretariat of the Cabinet to present to the Cabinet for consideration of principles, and forwarded to the Office of the Council of State for review, then returned to the House of Representatives for three readings, presented to the Senate for three additional readings. After that, the approved draft Act will be presented by the Prime Minister to His Majesty the King for royal endorsement, and the Secretariat of the Cabinet will publish it in the Royal Gazette to be enforced as law. Alternatively, if ALREC reviews certain provisions, ALRO will propose for approval from the Ministry of Agriculture and Cooperatives to present the draft Act to the Office of the National Land Policy Board (ONLB) to propose to the Land and Soil Management Legal Screening Subcommittee for consideration before presenting to the National Land Policy Board for further consideration.

#### **ALRO Moving Forward for the Future of Thai Farmers**

The expedited enforcement of the draft Agricultural Land Reform and Agricultural Area Protection Act B.E. .... will provide multiple benefits. Not only will it benefit farmers' income generation, which will positively affect the country's economic development, but it will also increase the value of state-allocated land through area potential development, aligning with current government policies, including the protection of agricultural areas and promotion of occupation based on area potential for farmers.

Although ALRO has amended several laws under its responsibility, effective enforcement is even more crucial, particularly in helping farmers understand land reform laws and regulations to prevent violations that could result in the loss of their land rights. After all, farmers are the cornerstone of land reform. In 2025, ALRO will mark its 50th anniversary while continuing its mission to develop and enhance land reform laws. This ongoing effort aims to increase operational efficiency, facilitate farmers' activities in reform areas, and support agricultural production capabilities. These improvements will enhance farmers' quality of life, paving the way for their sustainable future in land reform areas.

"The appropriateness of laws should be reviewed and improved or amended regularly to suit changing economic and social conditions, which will result in better quality of life for farmers."





Former Secretary-General of Agricultural Land Reform Office

## Future Directions for Land Reform Amid Economic, Social, and Environmental Challenges

#### Economic, Social, and Environmental Challenges to Thailand's Agricultural Sector

The agricultural sector remains a crucial production sector of the country as it is a source of food security, generates income for farming households, and serves as a starting point connecting to other production sectors, both industrial and service. However, the agricultural sector continues to face challenges in multiple dimensions. **Economically**, there is increasing competition, especially in international agricultural markets that emphasize safe agricultural products and focus on international quality standards. This puts small-scale farmers at a disadvantage in terms of competitiveness. At the same time, socially, the agricultural sector faces the problem of aging farmers. A study of the age structure of landholders in land reform areas found that more than 47 percent of farmers who have been allocated land are over 60 years old. These elderly farmers hold more than 50 percent of the land in land reform areas. This issue directly leads to decreased production capacity, as they cannot fully utilize their land efficiently, especially in households without heirs to inherit the land and continue farming. Younger generations view farming as a laborious occupation with lower income compared to other professions, while also facing risks from weather conditions and volatile market prices. This has led elderly farmers to decide to leave their land fallow, rent it out, or sell it to others. If this occurs in land reform areas, it means farmers are not using the land according to intended purposes and regulations. Additionally, environmentally, climate change presents another significant challenge to the agricultural sector, whether it be seasonal volatility affecting production planning, flooding and drought problems, and outbreaks of plant diseases and insect pests causing crop damage. These lead to income losses for farmers, resulting in household debt problems.

Given these initial challenges, the Agricultural Land Reform Office (ALRO) is responsible for overseeing more than 36 million rai of land and farmers in agricultural land reform areas, those lands account for over 24 percent of the country's agricultural area. Therefore, it is necessary to adjust the land reform implementation model and agricultural land management to align with changing contexts, appropriately address various challenges, protect agricultural land as a source of national food security, and create livelihood security for farmers in land reform areas.

#### **ALRO** and the Protection of Agricultural Land

Land is a crucial production factor, especially for the agricultural sector. However, currently, agricultural land tends to be converted to use for other purposes such as residential communities, commercial, industrial, etc. For the land in land reform areas, which stems from the intention to reduce inequality in access to farmland for farmers and protect the country's agricultural areas, the key issue to consider is how to ensure that the land in land reform areas remains used for agricultural purposes and generates stable income for farmers. The important task that ALRO must undertake is developing mechanisms for agricultural land management that can properly circulate land to those who want to engage in farming, and creating incentives for farmers' heirs to inherit agricultural occupations.

In the past, ALRO has recognized this necessity, as evidenced by efforts to improve relevant regulations and laws to create flexibility in circulating land from aging farmers whose production capacity is decreasing or who have no heirs, to those who wish to engage in agriculture. For example, expanding the definition of farmers who can receive rights from original landholders from "heirs" to "relatives," whereby those allocated land must still meet qualifications set by ALRO, and establishing a conceptual framework for compensating original landholders who wish to return their land to ALRO for allocation to other farmers—essentially a pension for elderly farmers who have maintained and used the land for agriculture throughout their lives. However, these measures, especially regarding compensation for land circulation, have not been fully implemented in practice.

Regarding incentives for inheriting agricultural occupations, in the past, ALRO's work focused on developing people, creating leaders, and instilling ideals and sentimental values in the profession. However, currently, another important consideration is economic incentives, through promoting and developing new forms of agriculture that use technology and innovation to increase efficiency and add value, showing younger generations that modern farming can generate stable income and encouraging them to return to the agricultural sector.

#### **Future Directions for Land Reform**

With changing contexts and challenges in multiple dimensions—economic, social, and environmental—land reform in the future has two key issues that require clear operational direction, comprising "land" and "people," both of which are interrelated and interconnected.

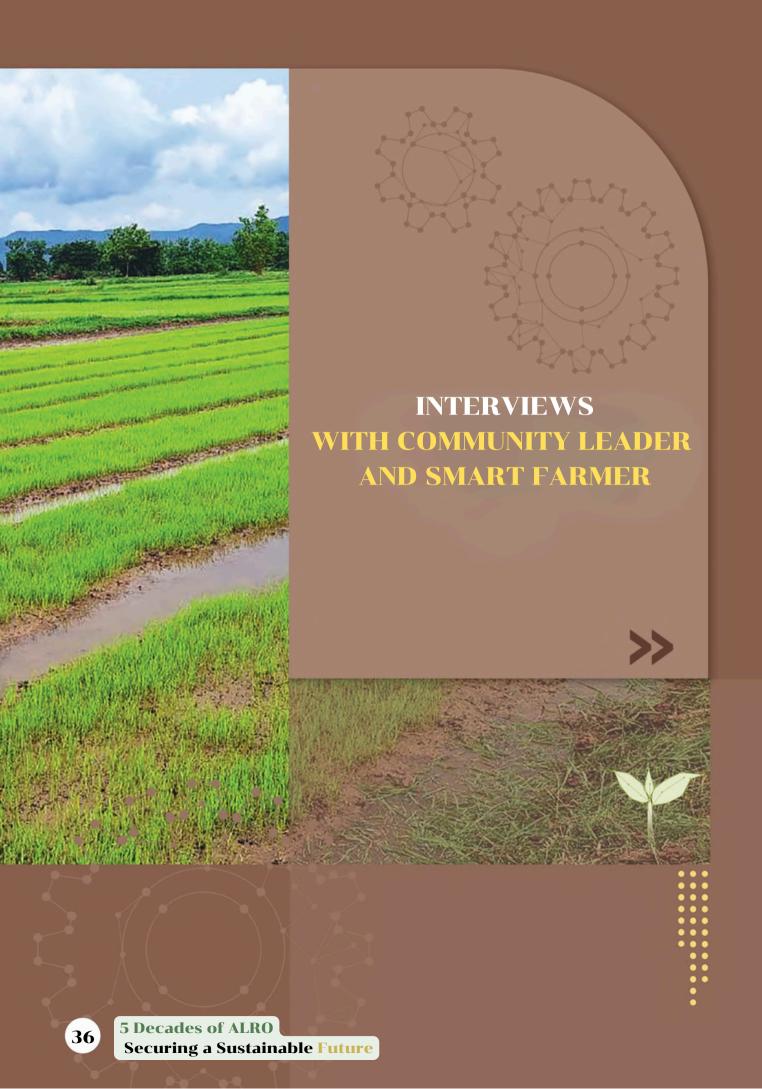
"Land" - ALRO must understand the context of social dynamics affecting land use patterns. ALRO also needs to develop efficient area management mechanisms to allow capable and ready individuals to utilize the land, especially young people interested in farming who have good knowledge and technology skills that will help increase agricultural production potential. The important thing for ALRO is to adjust its role toward being an agricultural land management unit and to drive forward the concept of providing compensation to original landholders who wish to return their land to ALRO for allocation to other capable farmers, turning this concept into reality. This leads to land value assessment studies to determine compensation for original landholders, as well as to assess appropriate land rental rates based on land types and permitted farming activities, for the purpose of collecting revenue for the Agricultural Land Reform Fund and circulating it for further development of land reform and farmers in land reform areas.

In addition, developing infrastructure and area potential is a crucial responsibility that ALRO must implement continuously, especially water sources and water distribution systems which are vital for farming, as most land reform areas are outside irrigation zones. This includes developing other infrastructure such as roads, electricity, and buildings, which are important factors in the production chain that will enhance area potential and make it suitable for agricultural occupations. If an area has high production potential, it affects farmers' incomegenerating capacity and provides incentives for farmers and their heirs to continue using land for agriculture.

"People" - ALRO needs to strengthen the agricultural profession for farmers by promoting production model adjustments according to area potential and market demand, such as switching to high-value crops or crops that use less water, and adjusting production models through intensive farming that focuses on using the land more productively via producing high-quality and high-value products. This helps address climate change and aligns with market demands, improving market competitiveness. Using technology and innovation to increase agricultural production efficiency, such as water management technology or controlled environment greenhouses, not only helps deal with climate volatility but also addresses the demographic shift toward an aging society by replacing agricultural labor with technology. This aligns with the ways of younger generations who emphasize doing less for more gain and reducing the challenges of farming.

Promoting and developing new-generation farmers with potential to manage the entire production chain is also crucial. Most farmers have roles and expertise in the upstream part of the production chain, while value addition typically occurs in the midstream and downstream segments. Therefore, ALRO should focus on improving farmers' skills in supply chain management, including knowledge of adding value to agricultural products at the midstream level, such as processing and packaging, which requires knowledge and technology. This includes developing knowledge in business management, marketing, and entrepreneurship to elevate farmers' roles throughout the chain, allowing farmers to benefit from the added value of goods and products, ensuring that the value remains in their hands as much as possible.

The changing context and economic, social, and environmental challenges determine the future direction of land reform, both in terms of land management and farmer capacity development, to address current challenges and be ready to adapt to the future sustainably. This upholds the original intent of land reform by protecting agricultural land and strengthening farmers.





**Wat Pong Kham** Du Phong subdistrict, Santisuk district, Nan province

# The Agricultural Land Reform Office (ALRO) and the Development of Agricultural Communities on Integrative Buddhist Agriculture: Current Role and Future Prospects

A community is a group of people who live in the same area and share similar ways of life, such as living conditions, jobs, and activities. They also follow the same rules or guidelines. Therefore, community development in agriculture focuses on key areas like improving the land, developing the people, creating places to learn, and building strong networks. Each community has its own development center, depending on the environment and specific factors of the areas. In the case of Pong kham community in Du Phong subdistrict, Santisuk district, Nan province, the temple is the heart of community development—it serves as a learning center, a place for spiritual guidance, and a hub for agricultural progress. **Phrakhru Suchinnanthakit**, a monk and community leader in Pong Kham, plays a key role in guiding both ideas and actions, promoting Integrative Buddhist Agriculture. He works closely with the **Agricultural Land Reform Office (ALRO)** and its partners to drive development, leading to real improvements in social, economic, and environmental aspects. This has become a successful model for community development in land reform areas.

# "Sharing the story of Integrative Buddhist Agriculture development in Duphong Subdistrict, Santisuk District, Nan Province"

Between 2001 and 2006, most farmers in the Pong kham community grew only corn, which depleted the soil and reduced crop yields. At the same time, food prices, especially rice, were high. Some farmers had to buy rice because their income from farming wasn't enough to cover the cost. Villagers described this struggle as "Farming the whole mountain, but still not having as much as one rice field." To address these issues, Phrakhru Suchinnanthakit introduced a plan to restore natural resources and improve community livelihoods. This led to the "wearing hats, putting on shoes on bald mountain project" project, which aimed to restore soil, water, and forests, promote self-sufficiency, improve health, and help people live in harmony with nature.

The development starts by **identifying local problems**. In the Wat Pong Kham community, people struggle with farming challenges, such as growing field corn, practicing shifting cultivation, and using large amounts of chemicals. These issues have damaged the forest ecosystem and caused health problems. To tackle these challenges, specific and concrete **development goals and action plans** have been created. These plans were made through discussions with local residents, community leaders (like monks, local scholars, and village heads), and people from both the public and private sectors. The aim is to make sure the development plans really meet the community's needs and help solve the current problems effectively.

Once the plans have been established, implementation begins by using the land of member as a working area. This land serves as an experimental plot, a space for shared learning, and a showcase for tangible results. The process starts with reshaping the land, creating terraced cultivation, and dividing the area according to the Sufficiency Economy Philosophy. The proportions are then adjusted to suit the local context, following a 50:30:20 ratios. 50% of the land is preserved as natural forest and planted with native plants and medicinal herbs on sloped areas. 30% is allocated for economic crops such as fruit trees and timber. 20% is designated for "Kaset Praneet" or intensive farming, including rice farming, vegetable, livestock, and water resource development.

After developing the land, it's important to help people become knowledgeable and skilled in their work, which they gain through the development process and its results. Another key step is reviewing and analyzing the project's outcomes in terms of the economy, society, and environment. If the results don't meet the goal, the plans will be reviewed and improved. But if the project succeeds, a learning center will be set up where people from the community and nearby villages can learn, share ideas, and expand the project further.

Moreover, if the community becomes self-sufficient, building strong connections is still important. This includes working with government agencies and private organizations to develop agriculture at every stage—starting from production (upstream), adding value to products (midstream), and reaching the market (downstream).

To ensure farming remains a sustainable way of life, it's also important to inspire children and young people in the community to see farming as a valuable career that can provide a stable and sufficient income for their future.

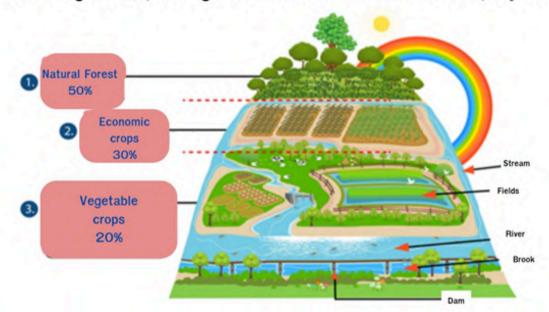
# The achievements at Pong Kham Temple include:

**Social Aspect:** The community has formed groups to engage in joint activities such as making compost and propagating medicinal plants. This has also led to the creation of a community forest network, serving as a source of medicinal herbs and food for the community. Additionally, the forest is used to build homes, promoting local wisdom and community beliefs in forest conservation, exemplified by the placement of a spirit house in the middle of the forest to honor the trees.

**Economic Aspect:** The community has generated income through the cultivation of medicinal plants and organic farming. This initiative also trains community members to become entrepreneurs, guiding them through the entire process—from production, setting product prices, to marketing and selling their products in modern trade outlets such as **MaxValu** and **Tops Supermarket**.

**Environmental Aspect:** The promotion of community forest and the cultivation of medicinal plants has contributed to increasing green spaces. Additionally, the promotion of organic farming, driven by the growing health consciousness among consumers, has had a positive impact. Besides, the conversion of sloped land from monoculture to terraced cultivation has also helped reduce soil erosion.

# Wearing hats, putting on shoes on bald mountain project



Besides the development approaches that resulted in the above outcomes, **principles or beliefs** have been another key factor supporting success and guiding the project towards its goals. These principles or beliefs have encouraged the community to adjust their mindset and access information, using comparisons to highlight differences, such as farming based on capital versus farming based on nature. This has enabled the community to learn and adopt new perspectives, teaching them to focus on self-reliance, avoid superstition, and live mindfully. Moreover, the community's beliefs have been used as a guiding principle to help everyone align their actions and work together toward common goals.

# The Agricultural Land Reform Office (ALRO) and Community Development Initiatives

The Agricultural Land Reform Office has been involved in supporting farmers in the Pong Kham temple community by encouraging and helping which include:

- 1. Good soil means land that's good for farming or raising animals. It includes soil fertility and secure land rights. The Agricultural Land Reform Office helps improve land by turning sloped areas into terraced cultivation, making them better for farming. This allows farmers to work more efficiently in hilly and mountainous areas. Another key role of ALRO is helping farmers who don't own land by issuing ALRO 4-01 certificates. These certificates give them legal access to farmland, ensuring long-term stability for their work.
- 2. Good Water Sources refer to having sufficient water for both consumption and agricultural production. The Agricultural Land Reform Office supports the development of infrastructure, such as water sources in model areas of the temple, digging ponds for water storage, and developing irrigation systems to enable farmers to efficiently use water from these sources for their agricultural land.
- 3. Good People refers to individuals who possess knowledge, have a proper way of thinking, or are able to adapt their mindset. They integrate knowledge, build networks to access information, plan effectively, and practice saving. The Agricultural Land Reform Office (ALRO) plays a key role in promoting and developing occupations by supporting knowledge and production factors through both theoretical and practical training for farmers. Examples include training on bamboo product processing, organic farming, and growing vegetables in netted greenhouses. ALRO also organizes study tours to provide farmers with opportunities to observe different examples and apply the knowledge or ideas they encounter to their own areas.
- **4. Forests**, which include both natural forests and those created by the community, are vital resources for the community. These forests provide food, timber, and medicinal plants. The Agricultural Land Reform Office (ALRO) supports the community by providing plant species, including Economic crops (fruit trees and timber), and medicinal plants. This support is delivered through programs such as the Family Forest Program and the Agroforestry Promotion Project, encouraging the cultivation of these plants in agricultural areas and the development of community forests that residents can use and manage collectively.

In addition, the Agricultural Land Reform Office (ALRO) collaborates with government agencies, private sector, organizations, civil society, and local educational institutions. This collaboration includes providing knowledge, financial support, production factors, and marketing assistance to the community. As a result, the community is able to enhance its economic potential sustainably and improve its quality of life.

# **Development Challenges and ALRO's Evolving Role**

Through working on projects, it has been observed that sometimes the goals are achieved, while other times they are not. This is because community development faces many challenges that can affect progress. The main challenges include:

- 1. Policy Conflict (State Hazard) refer to the mismatch between government policies and the needs of the people (those who think do not act, and those who act do not think). This occurs when policymakers (those who think) do not fully understand the true needs of those affected (those who act). Policy decisions may stem from a perspective that overlooks the realities of people's daily lives or communities, resulting in practical implementation that fails to meet the genuine needs of the population.
- 2. The Capitalism (Capital Hazard) refers to the encouragement of people depending on capital and loans from financial institutions to carry out activities. This emphasizes the importance of guiding the community to move from 'capital-based agriculture' towards 'nature-centered farming practices" meaning "using nature as a foundation, work as capital, and merit as the goal." This reduces reliance on the capitalist system, which may bring risks or long-term unsustainability.
- **3. Ignorance of the People (People's Hazard)** refers to the risks stemming from a lack of knowledge among individuals. Those who are uninformed or lack essential knowledge may not have access to information, such as through social media platforms. To address this issue, it is crucial to provide education and training that equip individuals with the skills necessary to use technology for accessing information that can enhance both their livelihoods and agricultural practices. Furthermore, promoting participatory development within the community will help close the knowledge gap among its members.

First, the role of being a "Strategic Planner" who works together with local organizations to plan the development of the area. This means planning how farmers can use their land effectively and making sure it adds value. For example, the management of a 20-rai of land, the land can be divided into four sections: section 1 is the forest area and native plants (5 rai), section 2 is the residential and recreational area for tourism (5 rai), section 3 is the agricultural area (5 rai), and section 4 is the learning zone for children and youth interested in studying agriculture, motivating them and shaping new ideas about farming.

**Second**, the role of being a "Project Evaluator," responsible for assessing and analyzing the feasibility of investments in each supported project. The task is to determine whether these projects are worthwhile and whether they provide benefits to the targeted farmers. This evaluation will help in forming work plans or setting policies that enhance the effectiveness of future initiatives.

Third, the role of raising awareness and motivation with the aim of preserving and protecting agricultural land. This involves informing farmers with land rights about the value of their land title documents, understanding the importance of land use for agriculture, and finding practical ways to enhance land value, such as planting trees to create assets on the land, improving soil for better farming, and using land efficiently for agriculture. In the future, this will help in sustaining the agriculture sector by developing a new generation of farmers who understand the importance of agriculture as a sustainable livelihood, use technology to increase production efficiency, and mitigate the impacts of environmental changes. This will encourage the younger generation to pursue agriculture in the digital era, thus ensuring the continuity of agriculture within communities.

Lastly, the role of being a "Coordinator," which is crucial for the organization. This role involves acting as an intermediary between farmers, the community, and partner organizations from the government, private sector, and academic institutions. It includes facilitating communication, sharing information, and fostering cooperation for integrated efforts to benefit farmers and communities in land reform areas.



# Phrakhru Suchinnanthakit

Wat Pong Kham
Du Phong subdistrict
Santisuk district Nan province

# **Awards Received:**

- 2024 Aziz-UI Haq Rural Development Medal 2024 From the Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP)
- 2022 Excellence Award for the Year 2022 Category: Public Participation Results and Leadership in Partnerships From the Office of the Public Sector Development Commission (OPDC)
- 2021 Outstanding Religious Leader Award 2021 From Nan Province
- 2018 Honorary Recognition for Buddhist Development Leader from the Chaloem Phra Kiat Agricultural Museum, His Majesty King Bhumibol Adulyadej (Public Organization), 2018
- 2002 Outstanding Buddhist Development Leader Award from the Northern Community Development Monk Network (NCDMN) in 2002



Model Farmer in the Land Reform Area, Hua Khwang Subdistrict, Kosum Phisai District, Maha Sarakham Province

# Driving the Development of Farmers and Networks in Land Reform Areas through Model Farmer Mechanisms

Land reform for agriculture in Thailand was established with the intention of addressing problems and reducing inequality in farmers' access to agricultural land, while developing area potential and promoting agricultural occupations. The Agricultural Land Reform Office (ALRO) emphasizes on creating participation from various sectors, especially the public sector, to ensure that land reform operations are effective and can truly respond to people's needs. One key mechanism for driving agricultural development in land reform areas is the "Model Farmer," a quality network that participates in transferring knowledge and experience, creating awareness and motivation for agricultural career development to improve the quality of life for farmers in the community. This article is compiled from an interview with Mr. Banjong Sanyamoon, a farmer in the land reform area of Hua Khwang Subdistrict, Kosum Phisai District, Maha Sarakham Province, one of the model farmers who helps drive community development with knowledge in sustainable agricultural land management according to the New Theory Agriculture approach of His Majesty King Bhumibol Adulyadej the Great (Rama IX), until he received recognition from farmers, government sectors, and the private sector, receiving many tangible awards of success such as the Outstanding Volunteer Soil Doctor Award at the provincial level in 2021, the National Outstanding Farmer Award in 2022 in the category of land development for agriculture, and in 2024, Mr. Banjong Sanyamoon received a global award, the Aziz-Ul Hag Rural Development Medal from the Center on Integrated Rural Development For Asia and the Pacific (CIRDAP), which is an award given to individuals who have made contributions and dedicated themselves to rural development and poverty solutions in ASEAN.

# The Journey to Becoming Mr. Banjong Sanyamoon of "Saendee New Theory Agriculture Farm"

Mr. Banjong Sanyamoon the owner of "Saendee New Theory Agriculture Farm" in Maha Sarakham Province recounts that he originally came from Roi Et Province. After graduating with a Bachelor of Arts in Political Science from Ramkhamhaeng University, he worked for a foreign private company for over 22 years. Although he received a high salary, he experienced stress and felt it was not his path to happiness. In 2011, when he took his family back to visit his father-in-law who was a farmer in Maha Sarakham Province, he found that his father-in-law's farming faced many problems, including fluctuations in soil and weather conditions, exploitation by middlemen, lack of infrastructure including roads, electricity, and water sources, and unsuitable land for agriculture. Meanwhile, his father-in-law, who was elderly, could not consistently maintain the farm. However, Banjong's wife, who previously had health problems, experienced significant improvement in her condition upon returning to Maha Sarakham.

Banjong therefore thought about moving his family back to Maha Sarakham Province with the intention of returning to develop his native region. He wanted to be a change leader for the community, creating a learning center for community members to learn, change their mindset from monoculture farming to integrated farming by adhering to the principles of the New Theory Agriculture, building groups to expand networks, adopting the philosophy of Sufficiency Economy, and following in the footsteps of King Rama IX to revitalize the land for full potential use.

After returning from Maha Sarakham, Banjong began studying farming by experimenting with planting limes around his home. He produced enough to consume and share with neighbors. Later, in 2012, Banjong resigned from his regular job to pursue his goal of farming on his father-in-law's 12 rai of land. Around the same time, the Agricultural Land Reform Office (ALRO) declared Kosum Phisai District, Maha Sarakham Province, as a land reform area, leading the Maha Sarakham Agricultural Land Reform Office to allocate land to farmers. As a result, Banjong's family received land for agriculture and began their journey as full-time farmers. Banjong recounted a significant event that became a turning point in his decision to pursue the farmer's way of life: "On December 4, 2011, I listened to King Rama IX's royal speech about the Sufficiency Economy Philosophy and New Theory Agriculture. After hearing it, I thought: I am a true Thai, a descendant of farmers, yet why had I never thought about these things? While His Majesty still cared for and taught people to live according to the Sufficiency Economy Philosophy, what was I, as his subject, doing? Why wasn't I following in the Father's footsteps? That day, I made a firm decision: as a Thai citizen, I must contribute to my country, especially our agricultural sector."

# The Arrival of ALRO and the Path to Becoming a Knowledge Transfer Educator

Banjong initially aimed to develop his family's agricultural area as a learning center for the surrounding community and farmers. He started by converting the area into a lime orchard based on what he had learned and experimented with, investing in planting more than 1,000 lime trees and fruit trees, especially famous varieties such as Phet Pakchong Atemoya, Malaysian sapodilla, giant sour tamarind, Indian gooseberry, etc. However, due to not studying the area's context and soil characteristics, which were mostly sandy, and the limited water supply for agriculture, many lime trees were damaged. When farming did not go as planned, Banjong turned to studying the characteristics of the area and switched to planting limes in cement rings to better control water amounts.

He also planted bamboo trees to help hold the topsoil while providing food and creating circulating income for the household. When the lime trees began to produce income, Banjong and his family's farming began to take more shape.

Banjong's journey as a knowledge and concept instructor in farming began in late 2013 when officials from the Maha Sarakham ALRO launched a project to develop a new generation of farmers in the land reform area. They sought experienced farmers with innovative ideas for adapting farming methods to suit the area's potential. During this initiative, officials had the opportunity to meet Banjong and exchange ideas on agricultural development. This encounter became the starting point for his role as a training instructor for farmers. It also aligned with Banjong's original goal of expanding agricultural knowledge and developing his farm into a learning center—serving as both an educational resource and an inspiration for younger generations to embrace farming.

"The officials from Maha Sarakham ALRO visited Saendee Farm and informed us that they were organizing training for 60 farmers. They wanted to bring the farmers to Saendee Farm to learn from our practices. At that time, the farm had lime trees, bamboo lining the fishpond edges, papaya, and a variety of garden vegetables. When they asked me to be an educator, it perfectly aligned with my vision of turning the farm into a learning center. After the officials left, my wife and I sat together, holding hands, filled with joy. She immediately started planning food menus, snacks, and herbal drinks made from our farm's produce, while I eagerly prepared content on limes and bamboo propagation—getting ready to step into the role of an educator for the first time in my life as a farmer."

Currently, Saendee Farm divides its 12 rai area according to the "New Theory Agriculture" principles, with 2 ponds covering about 2 rai, a bamboo planting area of about 3 rai, mixed fruit trees of about 2 rai, Yang Na trees (Dipterocarpus alatus) and others of about 1 rai, rice fields and lime orchards of about half rai each, an area for raising laying hens and ducks of about 1 rai, and residential area of about 2 rai. Various study groups visit the farm to learn about agriculture and area management according to the New Theory Agriculture principles, such as groups from the Highland Research and Development Institute (Public Organization) from Loei Province and farmers from several other provinces.

# ALRO and the Development of Model Farmers Towards Network Expansion

In addition to bringing farmers from the land reform area to learn at Banjong's farm, Maha Sarakham ALRO also played a role in supporting and encouraging Banjong and the local community to form a community enterprise group. This initiative strengthened their agricultural activities by establishing connections with external networks. The effort began with promoting the processing of farm produce and expanding marketing channels. ALRO facilitated Banjong and local farmers' participation in agricultural fairs in Khon Kaen Province, with support from Khon Kaen ALRO. At that time, Banjong's group consisted of only six members. They sold duck eggs, chicken eggs, and other products from community farmers at the fair. Additionally, they introduced steamed black sticky rice with custard, which became a popular item among visitors, generating their first income from outside the area. Apart from selling products, Banjong's group engaged with farmer networks from both within and outside the land reform areas across the Northeast. These interactions led to valuable exchanges of knowledge on native rice cultivation methods. They learned about the unique strengths and characteristics of different rice varieties, as well as techniques for product processing and marketing management. They later applied this knowledge to local farming practices, eventually forming the "Yang Pho Khaen Community Enterprise Group," which united farmers from four villages and three sub-districts in the Kosum Phisai land reform area. The group operated based on the "5 Collaborations" principle, integrating efforts from government agencies, educational institutions, the private sector, agricultural experts, and farmer groups. Maha Sarakham ALRO continued to support their development by helping them access more marketing opportunities, such as participating in a mobile clinic event in Borabue District. Additionally, Maha Sarakham ALRO encouraged them to cultivate native rice varieties (Hom Bai Toei rice), which was later promoted to be an important native rice variety of Maha Sarakham Province. Maha Sarakham ALRO also enhanced the involvement of model farmers in shaping agricultural policies for land reform areas, with Banjong being selected as a farmer representative on the Maha Sarakham Land Reform Committee from 2015 to 2017.

Later, Banjong and the group had opportunities to access information and support from several other government agencies, such as the Land Development Department, the Department of Groundwater Resources, the Cooperative Auditing Department, the Department of Agriculture, the Provincial Agriculture and Cooperatives Office, the Subdistrict Agricultural Office, etc., which participated in developing water sources, providing knowledge in soil management, household accounting, etc. Currently, the Yang Pho Khaen Community Enterprise Group has expanded to a network of more than 8 community enterprises, creating and developing various processed products from produce such as rice seeds, organic brown rice, bamboo water, products and creams from bamboo water, biochar, fertilizer from shells and waste materials in the community. Additionally, they are driving agricultural tourism by elevating areas in the land reform zone as learning sources for organic agriculture and conservation tourism.

### Concepts in Farmer Development and ALRO's Future Role

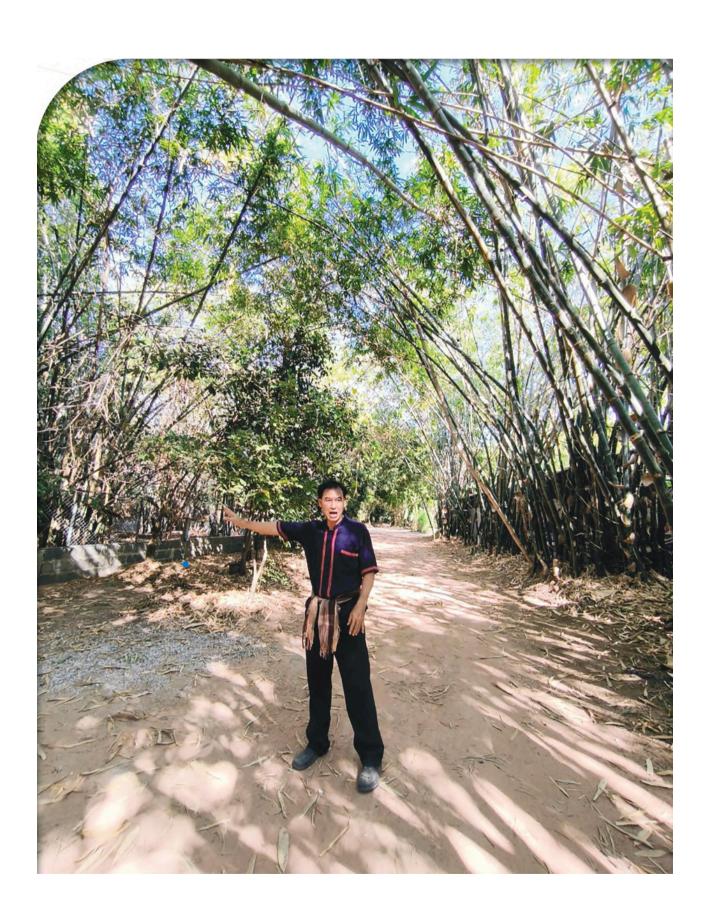
Based on his experience, determination, and the opportunities he received as a model farmer, Banjong shared his ideas for farmer development and ALRO's future role as follows:

From a farmer's perspective, the first step before taking action is learning and understanding the local context, including the area and community, soil characteristics, climate conditions, and water resource readiness. These factors are essential for production planning and selecting the right crops to grow. He recommends studying the area's potential and advises against investing based on trends or beyond one's capacity. Investing in popular crops that aren't suited to the local conditions can lead to losses and debt. Additionally, he emphasizes the importance of safety in production—for both farmers and consumers. For example, adopting organic agricultural systems not only meets the growing demand in the consumer market but also allows farmers to reduce costs associated with fertilizers and chemicals. Farmers should also focus on creating multiple income channels by planting a variety of crops to have revolving income, learning about processing to add value to products and recording income-expense accounts to enable farmers to plan their finances and family matters. Another key factor is the formation of groups and networks, which help farmers exchange knowledge and gain access to government support.

From the agency's perspective, ALRO is an agency that has continuously provided land, opportunities, knowledge, and funding to farmers in land reform areas. From the role of being a giver for more than 50 years, creating and developing model farmers, promoting farmer group formation, and supporting communities to become strong, now it's time for ALRO to expand development results from farmers who have been promoted and supported by organizing forums for farmers to have opportunities to exchange knowledge with each other regularly, allowing farmers to convey stories, backgrounds, principles, concepts, and future development plans to reinforce motivation and encouragement for each other. In this way, ALRO may gain new perspectives or ideas that can solve problems precisely and benefit farmers in land reform areas more. Additionally, there is an opinion that in the past, ALRO's development work has mostly been at the upstream level. Therefore, it is suggested that ALRO should increase intensity in developing farmers or farmer groups with potential at the midstream level to develop them as distribution centers for upstream farmers in the community, so that ALRO's development can be more efficient throughout the supply chain. They might adjust the development model to focus on community needs, such as having a fund for farmer groups or communities to write project plans to request budget use from this part, instead of determining project plans only from the policy level, so that development follows the needs and readiness of the community, including creating farmer participation in driving community development.

On the issue of land rights, changing times and farming models have led to the adoption of technological innovations or farming through agricultural service providers, as well as having multiple sources of income. In the future, if ALRO can **establish guidelines or define frameworks for agricultural career succession for farmer heirs** to cover farmer heirs who may pursue other occupations alongside managing their family's farm plots, it would be one approach to preserve agricultural land that parents have created and developed.

"Having worked together for a long time, I feel a deep bond with ALRO. ALRO provides friendship, warmth, care, and attentiveness to every farmer in the land reform area, treating them like family and prioritizing their well-being. There is no neglect. Even though support from various projects may have ended, ALRO continues to check in, offer guidance, and make regular visits. ALRO's approach to developing farmers into model farmers or community leaders is commendable. Leaders serve as connectors, linking individual farmers with one another and bridging the gap between farmers and government agencies—much like the roots of a great tree. Farmers in land reform areas all have potential; they are like good seeds. ALRO plays a crucial role in laying a strong foundation, ensuring that these seeds can grow and thrive indefinitely," Banjong concluded.



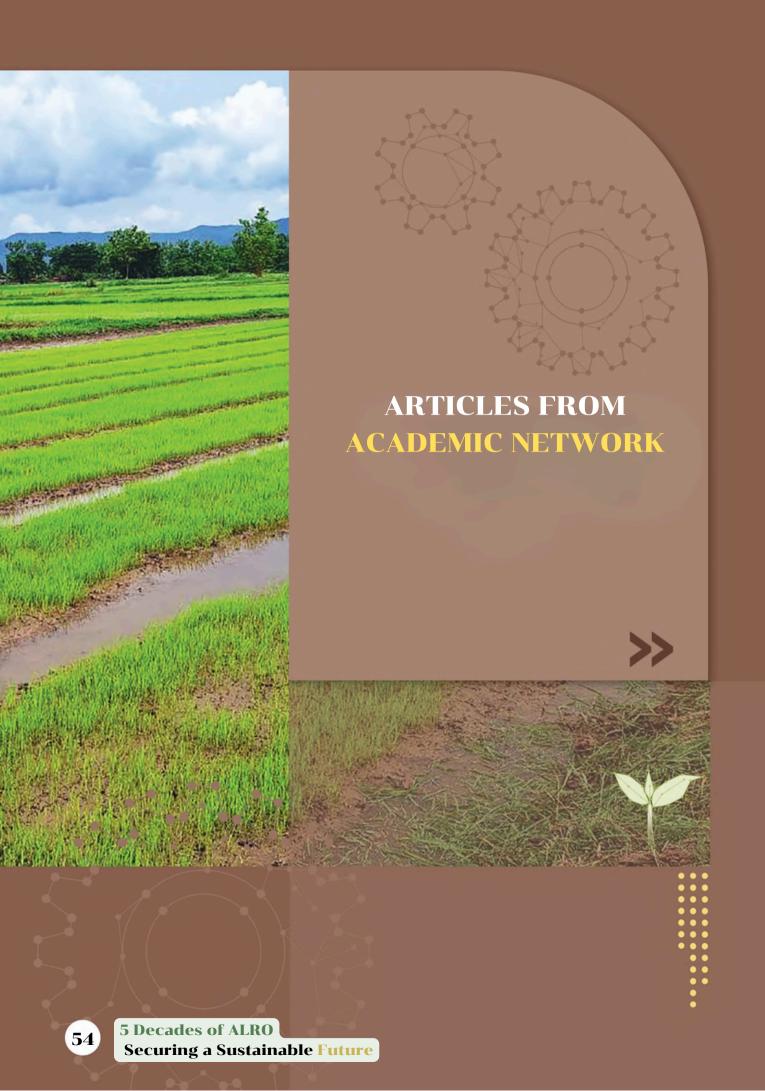


# Mr. Banjong Sanyamoon

Model Farmer in the Land Reform Area. **Hua Khwang Subdistrict, Kosum Phisai** District, Maha Sarakham Province

# **Awards Received:**

- **2024** Aziz-UI Hag Rural Development Medal from the Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP)
- 2023 Received the Outstanding Volunteer Accounting Teacher Award at the national level from the Cooperative Auditing Department
- 2023 Received the National Outstanding Farmer Award in the Farm Accounting category from the Ministry of Agriculture and Cooperatives
- 2022 Received the Outstanding Volunteer Soil Doctor Award at the national level from the Land Development Department
- 2022 Received the National Outstanding Farmer Award in the Land Development for Agriculture category from the Land Development Department
- 2021 Received the Outstanding Volunteer Soil Doctor Award at the provincial level, Maha Sarakham Land Development Station, from the Land Development Department
- Received the Outstanding Volunteer Soil Doctor Award from Maha 2019 Sarakham Land Development Station, Land Development Department
- Received the Honorary Project Award for Driving Sufficiency Economy 2015 in Agriculture as an Outstanding Farmer from the District Chief of Kosum Phisai





ALRO land allocation impact on farmers' assets, strategies, and livelihood outcome

Asst. Prof. Dr. Uchook Duangbootsee

Department of Agricultural and Resource Economics Faculty of Economics Kasetsart University

# ALRO land allocation impact on farmers' assets, strategies, and livelihood outcome

#### Introduction

The allocation of agricultural land to farmers by the Agricultural Land Reform Office (ALRO) has been a key policy in Thailand for decades. Its objectives are to address land tenure inequality, reduce insecurity of land rights—which has historically hindered agricultural and rural economic development—promote rural economic growth, and enhance farmers' livelihood security. To this day, ALRO has allocated agricultural land to 3,018,513 farmers, covering 3,876,546 plots across an area of 36,611,627 rai or about 5.86 million hectares (ALRO, 2024). The land rights granted by ALRO play crucial in increasing investment opportunities, improving quality of life, and supporting agricultural production. However, land designated with a land use certificate ALRO 4-01 represents partial ownership and cannot be bought, sold, rented, or transferred. Still, this contrasts with other title deeds, such as the Nor Sor 3 Kor, which allow for these transactions and as collateral for loans. Since land use certificate ALRO 4-01 provide only partial ownership, farmers' ability to benefit from the land depends on various factors, including access to financial resources, technological support, and sustainable resource management.

There is limited research on the role and economic impact of land reform through ALRO land allocation on farmers' livelihoods. While there are social and economic data available on households farming on ALRO land—sourced from ALRO's database or other agencies, such as the Office of Agricultural Economics (providing data on household socioeconomic status and agricultural labor), the National Statistical Office's census, and the Department of Agricultural Extension's central farmer registration database—the studies conducted have generally been fragmented, lacking continuity, and have not synthesized their findings. As a result, the existing body of knowledge remains limited and unclear, hindering the government's ability to formulate effective policies based on empirical research. In contrast, a significant body of international research examines the impact of land reform on farmers' livelihood patterns and outcomes. These studies cover a wide range of crucial topics, including land reform and land fragmentation (Deininger et al., 2012; Hartvigsen, 2014), farm productivity (Adamopoulos & Restuccia, 2020; Place, 2009), poverty reduction (Deininger et al., 2009; Holden et al., 2013; Lipton, 2009), land rental markets and inequality reduction (Holden & Ghebru, 2016; Jin & Deininger, 2009; Otsuka, 2007), and livelihood resilience and adaptability (Bryan et al., 2009; Thulstrup, 2015), among others.

This article presents the results of a study on the impact of ALRO land allocation on farmers' livelihood strategies and outcomes, using the Sustainable Livelihood Framework (SLF) (Scoones, 1998) as a tool to link the study's findings across various issues. It illustrates the role of ALRO land allocation in shaping different types of livelihood capital or assets within farmer households and determines livelihood strategies. This analysis also considers the influence of government policy, such as the social, economic, and environmental contexts on the financial outcomes related to farmers' well-being. The following sections outline the Sustainable Livelihood Framework, examine the impact of ALRO land allocation on farmers' livelihoods, and conclude with research recommendations.

#### Sustainable Livelihood Framework - SLF

Figure 1 presents the Sustainable Livelihoods Framework, commonly used to analyze and understand the processes and factors that influence household livelihoods, particularly in rural communities that depend on natural resources. This framework highlights the role of five main assets or capitals (Scoones, 1998): Human Capital refers to the knowledge, skills, health, and capabilities of individuals. "For instance, farmers may adopt new cropgrowing techniques, or laborers may acquire specialized skills in specific industries." Natural Capital refers to the natural resources available to individuals and households, such as agricultural land, water sources, forests, or fisheries. Social Capital refers to networks of relationships, cooperation, and trust within the community. Accordingly, this includes groups of villagers forming cooperatives or receiving assistance from relatives. Physical Capital refers to the infrastructure and tools that support livelihoods, such as roads, irrigation systems, agricultural machinery, or stable housing. Financial Capital refers to monetary resources, including savings, access to credit, or income from selling produce. Households rely on these five assets to achieve their livelihood goals. The vulnerability context influenced these assets, which includes the negative impacts of unexpected events, seasonal variability, and other external factors. They are also shaped by transforming structures and processes, such as policies, institutions, and cultural norms, affecting farmers' livelihood strategies. These strategies reflect the range of activities and decisions that households make to sustain their livelihoods, such as farming, wage labor, or diversifying sources of income. Ultimately, these strategies influence livelihood outcomes, including improved well-being, reduced vulnerability, and more sustainable resource use.

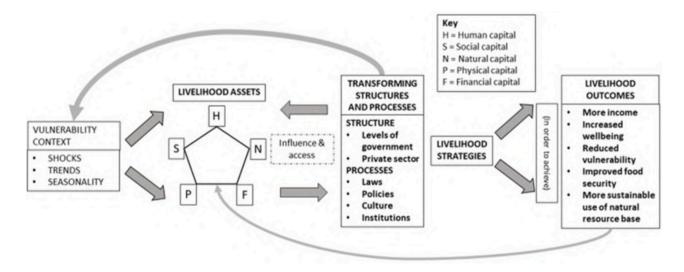


Figure 1 Sustainable Livelihood Framework (Natarajan et al., 2022; Scoones, 1998)

The allocation of ALRO land for farming represents a change in the structure and processes within the sustainable livelihoods framework, which can directly and indirectly impact livelihood outcomes. The direct influence involves changes in livelihood strategies, while the indirect impact arises through changes in asset accumulation. Enhancing natural capital by allocation of ALRO land helps lacked farming land households by providing legal recognition and land rights protection. It creates a sense of ownership and security, enabling farmers to plan and implement their livelihood strategies more confidently. At the same time, physical capital improved through the development of infrastructure, such as roads, irrigation systems, and learning centers in the reform areas. With financial capital, farmers can use land as collateral, increasing access to funding, investment opportunities, and financial management. Additionally, ALRO's initiatives, including training farmers in agricultural techniques and resource management, contribute to improving human capital. Additionally, the promotion of farmer groups helps support social capital.

# The Impact of Land Allocation by the Agricultural Land Reform Office (ALRO) on Farmers' Livelihoods: Empirical Evidence from Research

According to economic theory, land title security encourages investment and land improvement, as farmers are more confident that they will reap the benefits of their investment. Furthermore, farmers with title deeds can use their land as collateral for loans from financial institutions, enabling them to access low-cost credit easily. This effort increased investment and greater use of agricultural inputs (Besley, 1995; Feder & Feeny, 1991). In theory, providing farmers with secure land titles can significantly boost farming productivity and increase land value. However, the policy's success depends on the support of financial institutions in expanding credit. Thailand commenced the initial land rights reform in the 1980s and created a program to issue temporary title deeds, such as land use certificates, to encroaching farmers. However, this did not improve farmers' economic efficiency, as the temporary titles could not be used as collateral for loans and did not affect land values in the reform areas (Feder, 1987).

Increased land rights security provides strong incentives for investment, thereby enhancing agricultural productivity. Feder and Onchan (1987) found that title security significantly raised the capital-to-land ratio in areas with underdeveloped credit markets. Still, they had a lesser effect in regions with well-established credit markets. Investment in land improvements is strongly associated with title security. Chankrajang (2015) discovered that farmers facilitated plant growth and improved the efficiency of soil nutrient uptake by increasing their use of lime to reduce soil acidity. This practice also enhanced the effectiveness of other inputs, such as irrigation, fertilizer, soil bacterial decomposition, and water absorption in acidic soils. Most notably, it increased the likelihood of multiple cropping cycles and boosted yields, particularly during the off-monsoon season when soil acidity is most problematic.

The role of land rights security in increasing agricultural productivity remains unclear. Research by Feder and Onchan (1987) indicated that land rights security significantly increased the use of production factors, investment, and output per unit area. In contrast, Chankrajang's (2015) study, which analyzed the land and labor productivity of farmers growing rice in ALRO areas, found that ALRO land rights security did not affect land productivity but did increase labor productivity. Therefore, it is evident from the yield per rai of both main-season and off-season rice production, which remained unchanged despite farmers being allocated ALRO land. However, labor productivity increased only in off-season rice production. This discrepancy arises because main-season rice production is more susceptible to weather conditions, whereas off-season rice cultivation transpires outside the rainy season. As a result, success in off-season cultivation relies more on effort, investment in production factors, and adopting appropriate technologies to overcome the challenges posed by unfavorable water and weather conditions.

Additionally, land rights help reform land allocation patterns toward more efficient production, such as increasing off-season rice cultivation and reducing areas dedicated to low-value crops. Therefore, this aligns with Boonyanam's (2020), which found that full land rights (e.g., title deeds), partial land rights (e.g., ALRO), and the absence of land rights all influence Thai farmers' land use decisions, particularly within the context of the Agricultural Economic Zones project. Farmers with full land rights are more likely to cultivate highvalue crops, such as rice and sugarcane, as these rights provide security and improve their access to capital and resources. In contrast, partial land rights also influence land use, particularly for sugarcane cultivation, but to a lesser extent than full land rights. Farmers without land rights face limitations in effectively utilizing their land due to the lack of security required to invest or access proper finance. Moreover, when land is near public water sources, land use intensity is higher in areas with secure land rights, indicating more efficient land use in regions with well-established land rights (Chankrajang, 2015).

Partial land rights allocation can lead to inefficient land use in areas with land markets. Giné (2005) suggests that partial land rights restrict land sales and leasing, resulting in unintended negative consequences. For instance, farmers may choose to lease land with title deeds while cultivating land without title deeds, fearing that the state might expropriate land lacking title deeds. This behavior leads to a 4% increase in land rent in the reform area (Giné, 2005). Moreover, land resources allocation efficiency is low, as land without title deeds is often of lower quality and value (Feder, 1987). Therefore, the government should grant farmers full land tenure rights to enhance economic security and potential. Additionally, land rights should be promoted as collateral for financial purposes and allowed for leasing to support investment and encourage efficient land use (Banerjee & Duflo, 2007).

The role of ALRO land rights in improving access to credit remains controversial, as ALRO land is subject to restrictions on trading, leasing, and its use as collateral. Feder and Onchan (1987) found that ownership security enhances capital accumulation by providing better incentives and easier access to credit, with farmers holding title deeds enjoying greater access to credit at lower costs.

However, studies on the impact of different title deeds on credit access yield conflicting results. Chankrajang (2015) found no relationship between the proportion of land under ALRO rights and the number of agricultural loans but a positive correlation between the proportion of land with complete title deeds (e.g., title deeds) and the number of agricultural loans. Accordingly, this is consistent with Routray and Sahoo's (1995), which found that farmers with transferable title deeds received, on average, 60 percent more loans than those without title deeds. However, observing between holders of incomplete title deeds (e.g., ALRO) and those without title deeds found no significant difference. Furthermore, this suggests that the use of ALRO land as collateral is severely limited, as it is restrictive to the Bank for Agriculture and Agricultural Cooperatives. Additionally, provincial bank branches are often located in commercial urban areas, which can reduce access to credit and increase the cost of using land as collateral for farmers in rural areas. In contrast, Sakprachawut and Jourdain (2016) found that while the absence of land title deeds significantly reduced access to formal credit markets and the size of loans, the type of title deed—whether transferable (e.g., title deeds) or nontransferable (e.g., ALRO)—did not affect the success of loan applications.

The impact of land reform on the livelihood of farmers outcomes is a topic of global interest, but studies focusing on Thailand, particularly in the context of ALRO, are limited. Chankrajang's (2012) study is one of the few that found a positive impact of certain land rights (e.g., ALRO) on labor migration to non-agricultural sectors. Approximately 27 percent of this effect could be attributed to increased agricultural productivity and reduced opportunity costs for non-agricultural work. Therefore, this suggests that land rights not only boost agricultural productivity but also drive changes in labor structure, supporting the transition of rural economies toward greater diversification. Additionally, KAEWKALLAYA et al. (2014) found that ALRO land allocation significantly increased the income of farmers and livelihood assets across various dimensions. However, the methodology, which may have overestimated the impact, could challenge this conclusion. The analysis relied on comparisons of households involved in the project before and after its implementation without comparing them to non-participating households in the same or nearby areas. It is possible that households in these areas, whether participating in the ALRO project or not, experienced improvements in their livelihood assets through other processes or factors, leading to better outcomes, including increased income.

Overall, ALRO plays a crucial role in managing and promoting small-scale farmers' land rights to support rural development in Thailand, but it still faces significant challenges in several areas. Rigg et al. (2018) noted that despite policies promoting agricultural modernization, the transformation of agriculture remains incomplete. While some households have shifted to non-agricultural occupations, issues such as unequal land distribution and the vulnerability of small-scale farmers persist. Additionally, weak law enforcement and market pressures have led to land commodification, illegal transfers of ownership, and speculation (Hirsch, 2020), undermining credibility, particularly in highvalue areas. Restrictions on land mortgages also limit access to credit, reducing the economic potential of their land. Although ALRO has achieved some successes, such as issuing land certificates, developing infrastructure, and improving rural quality of life, land reform programs have had limited impacts on agricultural productivity and sustainability. To ensure long-term sustainability and reduce rural inequality effectively, it is essential to improve policies and structures to meet economic and social needs (World Bank, 1998).

# Research conclusion and suggestions

This article presents the findings of research studies examining the economic impact of ALRO land allocation on farmers' livelihoods within the framework of sustainable livelihoods. ALRO land allocation is vital in changing agricultural activities and livelihood strategies by altering land use structures and processes. ALRO land rights security encourages investment in soil improvement, although the impact on access to credit remains unclear. Some studies have found that only complete land title deeds (e.g., title deeds) affect access to credit, while farmers with partial land title deeds (e.g., ALRO) have the same access to credit as those farming on land without title deeds. Conversely, other studies suggest that while the type of title deed may not influence the success of loan applications, the presence of a title deed affects the loan amounts. Additionally, granting partial land rights may lead to more efficient land allocation. For example, some landowners may lease land with title deeds while opting to farm on lower-quality land without title deeds due to concerns about potential government expropriation.

There is a lack of economic studies on the impact of ALRO land allocation on farmers' livelihoods, and further research is needed to generate academically accepted knowledge in this area. Farmers allocated ALRO land face unique limitations in accumulating certain livelihood assets compared to other farmers, which restricts their livelihood strategies. These limitations include the size of farmland, a crucial natural capital for agricultural production; access to infrastructure, an essential physical capital for improving production efficiency; and financial capital, limited by restricted access to credit and land trading or leasing opportunities. Practical research will be vital in enhancing ALRO policymaking to better address the needs of farmers and communities in the future. Potential areas of study include differences in capital accumulation and livelihood strategies between farmers in ALRO areas and those outside; the impact of land title deed types on access to credit; the diversity of agricultural activities and income sources; food security and livelihood sustainability; and the ability to adapt to challenges posed by natural disasters and market fluctuations.



# Agricultural Land Reform: A Winding and Long Road

**Supha Yaimuang** 

**Sustainable Agriculture Foundation** 

# Agricultural Land Reform: A Winding and Long Road

"Agricultural Land Reform" has come to 50 years along the path of establishing the Agricultural Land Reform Office (ALRO). The establishment of the office has an interesting background and intent, as stated in the Agricultural Land Reform Act B.E. 2518, which says, "To distribute state and private lands that exceed the necessary amount to farmers directly, with the state providing compensation for land to the landowners fairly and improving the quality of agricultural land. The office is also responsible for closely monitoring agricultural practices and providing support in modern technology, academics, and management to reduce economic and social inequality. The farmers must be those who do not have enough land to live on or have too little land to make a living." In section 4 of the Act, it defines Agricultural Land Reform as the improvement of rights and ownership of land for agriculture, including the provision of housing for farmers. The state will take lands from the government or land purchased or expropriated from landowners who are not utilizing the land or those who own excess land under the Act to distribute to farmers without land or farmers with insufficient land for living. Additionally, agricultural institutions may lease, buy, or utilize the land, with the state assisting in agricultural career development, resource improvement, production factors, and sales for better outcomes.

After reading the book "Historical Record of the Struggle of the Federation of Thai Farmers and Agricultural Workers" to commemorate 50 years of the Federation of Thai Farmers and Agricultural Workers, which reflects the role of farmers in the struggle for land rights since the past, it further emphasizes the importance of the intent of the law and the establishment of the Agricultural Land Reform Office. The role of the ALRO is not only about land distribution to farmers in need but also aims to strengthen farmers' resilience in their agricultural careers, ensuring they lead a better quality of life. Its mission thus covers many aspects related to the agricultural profession.

The changes in agricultural society on a relatively unchanged structural foundation make farmers' problems more complex and challenging than 50 years ago. However, it cannot be denied that Thai agricultural society has evolved, especially with increasing educational opportunities and advancements in technology that have significantly impacted the way of life in communities and society

# Agriculture Sector: Change and Dynamism

Land use data in the agricultural land reform area of ALRO in 2024 shows an agricultural area of 35.5 million rai or about 5.68 million hectares, approximately 24% of the total agricultural area in the country. There are 2.3 million farming households in the land reform area.[1] The farmers in the land reform area have lower household incomes compared to the national average. This data reflects the situation of farmers in the land reform area and is linked to many issues, including the change of land ownership, which makes the land issue and the intent of land reform more complex. This necessitates an analysis of rural society and the changing agricultural sector, economic inequality, and the challenges that farmers face with environmental conditions, which are becoming more severe due to economic, social, and climate change impacts, making agricultural production riskier and more uncertain.

The changes in Thai agricultural society and rural areas are dynamic, not stagnant, and come from various perspectives. Particularly, the view that the agricultural sector is no longer the same as it once was, but has transformed into an entrepreneurial society. The modes of production and consumption have changed. Communities no longer exist in isolation but interact more with the outside, especially through modern communication tools. On the other hand, there is the perspective that Thai agriculture is hopeless, particularly economically, with incomes insufficient for living, large debts leading to loss of land, and many proposals for the agricultural sector, particularly the call to end agricultural subsidies that do not strengthen farmers. Additionally, the aging of farmers and the fact that younger generations are not following the agricultural profession reduce production efficiency, while agricultural technology plays an increasingly important role in replacing lost labor, but it has not yet increased farmers' incomes. In fact, production costs have risen. Analyzing changes affecting the agricultural sector thus requires a diverse perspective, linking the development of farmers and communities toward better quality of life in agricultural areas.

[1] Five-Year Action Plan (2023–2027) of the Land Reform for Agriculture Office (Revised Edition) Agricultural Land Reform Office, December 2024.

Nevertheless, despite the economic inefficiency of the agricultural sector, the interdependence between agriculture, industry, and services remains the economic foundation for the people and the country. During times of crisis, such as the 1997 economic crisis, the 2011 Bangkok floods, or the COVID-19 health crisis, the agricultural sector has helped mitigate those crises by ensuring food security and preventing a worsening of the food shortage situation in the country.

The dynamic changes in rural society and population mobility present interesting figures from Phongsathorn Tancharoen (2025), who wrote in THE ISAAN RECORD in January 2025, citing data from the National Statistics Office calculated by the Bank of Thailand (BOT), which stated that "During the COVID-19 pandemic, over 400,000 Isaan[2] laborers decided to return to the Isaan region. After the pandemic eased, only 80,000 of them went back to work in central Thailand, while 320,000 or 80% of the total labor force remained in their home areas." However, there remains the question of sustainability: will these workers continue to work in their hometowns sustainably?

This data reflects the changing phenomenon of rural people, particularly young laborers, who are beginning to return home. This aligns with the phenomenon of green market traders selling organic products, where the younger generation is now selling goods on behalf of their parents. In the Khon Kaen Green Market alone, nearly 30 young people joined their parents in selling products, utilizing various marketing channels through communication technology. It was found that farmers engaged in organic agriculture and connecting directly with the market have a regular weekly income. Not only can they increase their own income, but they also provide a good opportunity for their children to return home. This is in contrast to farmers who only engage in production and lack market opportunities. Thus, opening up economic opportunities, such as connecting farmers' products directly to the market or other economic activities, like integrating agriculture with community tourism or product processing, is vital. Most young people who return to live in rural areas or choose to work in rural areas possess marketing or communication skills through social media, which broadens the marketing channels for products in the community.

[2] Isaan is Thai word which refer to the Northeastern part of Thailand. Most of the laborers who come to work in the central especially Bangkok, come from the Northeastern part of Thailand.

This phenomenon reflects that the environment is as important as increasing farmers' production potential. Economic structural changes that provide economic space for farmers and communities to access and create their own economic and learning space, reduce economic inequality, will strengthen the agricultural sector. Particularly, it can create an economy where community members can be the owners or co-owners, amid endless communication technology growth, offering opportunities for the agricultural community to achieve income security and self-development.

### Agriculture Sector and Sustainable Food Systems: Food Security for the Country

The land in the land reform area is crucial to the food security of farming households, communities, and the country. It is an area that can produce food both in normal times and during crises, providing a guarantee of food security. If clear goals are set and farmers in the land reform area are empowered to plan, have access to information, and keep up with economic, social, and climate changes, they can also be involved in resource management to maintain a balance in their economic, social, and ecological lifestyles. They should not just react to policy changes, but be active participants in setting policies together.

Food security is not merely about producing enough food in terms of national quantity. It also encompasses access to production resources such as land, water management, forests, and the genetic resources of plants and animals, which are essential assets. This is particularly important when farmers face the effects of climate change and need access to markets that can generate income for farming households. A fair food chain based on the production of safe food with diversity and nutritional value is critical. According to the Global Food Security Index (GFSI) 2022, Thailand ranked 64th, dropping 13 places from 51st in 2021. Thailand's food security score reflects the country's capability in food production, but it also shows that there is a lack of distribution of quality and nutritious food in an equitable and comprehensive manner. Therefore, food security is not only about production but also closely linked to public health issues.

Food security must be connected to building a sustainable food system, which requires a shift from monoculture farming to diverse agricultural systems involving both plants and animals, avoiding chemical use, and considering ecosystems. This aims to create a food system that is safe, nutritionally complete, and resilient to climate change impacts, which affect farmers' production. Farmers must cope with floods, droughts, rising temperatures, and unpredictable rainfall patterns. Disasters in Thailand have had an impact on food security, making sustainable agriculture systems essential, requiring systemic knowledge and agroecology that aligns with farming fields and community ecosystems. Creating biodiversity to support the ecosystem and reduce food production risks, along with innovations to adapt to changes, is necessary.

A sustainable food system must facilitate the creation of markets for quality, diverse food that farmers or community groups can access to build their own economies. This system should connect consumers with knowledge about food and engage them in adapting to changes. There must also be policies that support innovation in agriculture, research, and development with the involvement of farmers and communities, ensuring the benefits of research are applied to developing agricultural systems and fair food chains. Tax systems and budgets should facilitate these efforts, with changes in policy structure to ensure food security and proactive actions for creating a sustainable food system.

# Land Distribution and the Transition to Sustainable Agriculture: Challenges on a Complex Path

# 1. Land Distribution and Community Participation

Land distribution remains a significant issue in the agricultural sector and has become increasingly complex due to its relationship with changes in land use, the lack of clear policies for land management, and transparency in the land management system. This makes land management not solely the responsibility of one agency but often requires the participation of local people. The changes in land use affect communities and areas where agriculture is practiced. Farmers should not be forced to sell their land. Laws, mechanisms, and budgets are needed to create a system that ensures land transfers continue to lead to land distribution, avoiding land concentration, and preserving agricultural areas for future generations, as intended by the establishment of the Agricultural Land Reform Office.

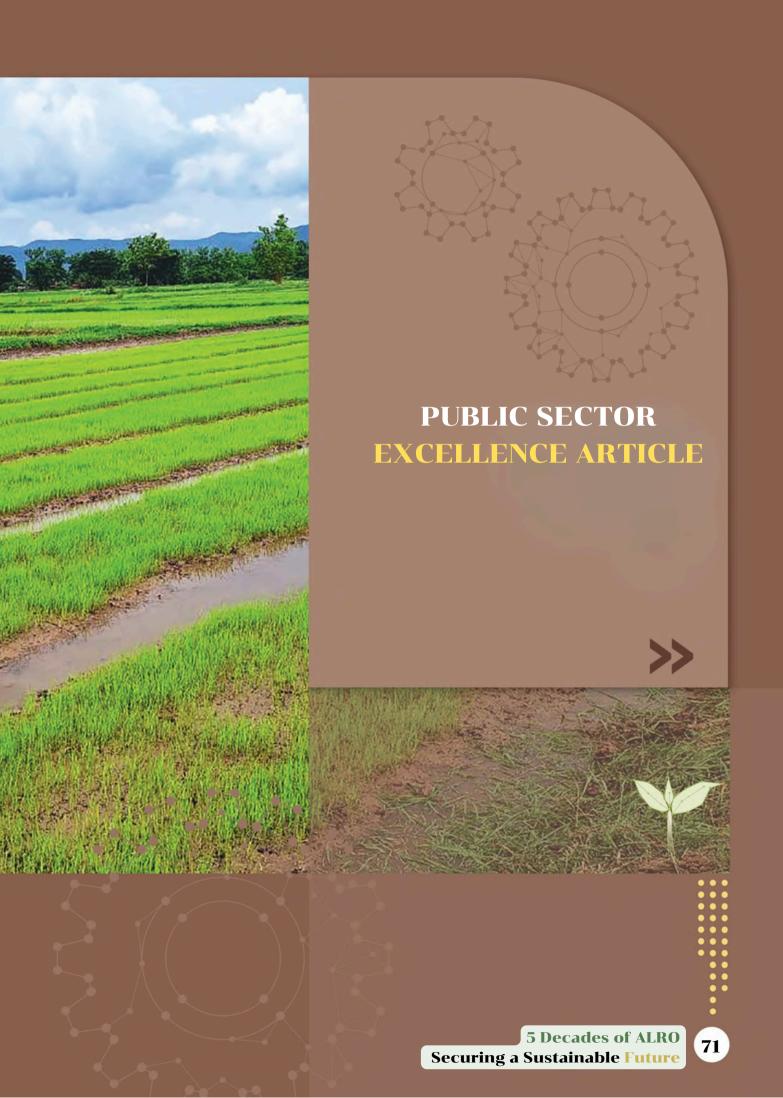
The participation of farmers and communities in land use for agriculture is undeniably linked to their livelihoods. They seek justice in their lives through structural changes to improve their quality of life, allowing them to survive amidst diverse challenges. The economic transformation of communities from single-purpose production to a more diversified economic space, all based on agriculture, requires creating fairness in access to production resources, recognizing farmers' rights, and acknowledging community rights. It also involves accepting the changing rural society, enabling members of the community, especially younger generations, to create their own economic opportunities in a way that aligns with their way of life. Policies should ensure the stability of land areas, preventing them from being repurposed for non-agricultural uses that could negatively affect farming and community settlements. This will help farmers maintain food security and restore ecosystems, creating a healthy environment not only for the community but also for the broader population, who require not only nutritious food but also clean air for living.

### 2. Transition to Sustainable Agriculture (Sustainable Transition)

Sustainable agriculture or agroecology, which is tied to fairness in the economic-social system, ecosystem, and environment, has examples in the ALRO areas where farmers are adapting their agricultural systems from monoculture to sustainable practices. However, these changes remain small-scale within the system. Expanding these practices to impact farming households, communities, and the nation is key to achieving sustainable development goals. Sustainable development requires multiple changes, especially moving away from old paradigms that have led to new crises. This transition requires the creation of new innovations, as existing systems cannot solve these overlapping crises. There is a need for new developments to break free from old structures, advancing from small innovations (niche) to a broader socio-technical regime.

The transition to sustainable agriculture moves beyond the narrow focus on monoculture farming and seeks new innovations in production techniques, system-based innovations, and economic-social innovations such as grouping, networking, and creating economic spaces for smallholder farmers. However, upgrading to a socio-technical regime still faces limitations. Transitions in regimes involve interconnected elements within the system, including knowledge and science, policy processes to ensure fairness, market systems, industries, and consumer culture. These create new ways of life that society can embrace and use widely, which supports expanding economic and social spaces for smallholder farmers and communities.

The transition process is not linear and operates at multiple levels: from household, community, and local to national and global scales. These factors influence the system's transition, including technological development, artificial intelligence applications, environmental issues, and climate change, which are all linked to economic systems, social culture, and agriculture system development. Climate change demands that global and national policies prioritize environmental issues and ecosystem integrity to respond effectively to changes. The continuous development of new technologies to address societal changes, economic life, and living standards is constantly occurring. To cope with these changes, farmers and communities must be well-informed and develop new knowledge, alongside innovations in various dimensions, as well as collaborate with various societal groups to ensure fairness and transform agriculture systems toward sustainability. This is the foundation for food security and the quality of life for farmers, local communities, and society as a whole.





Herbs Transform Lives, People in Harmony with Huai Kha Khaeng Wildlife: Wildlife Friendly Community: Coexistence, Uthai Thani Province

# Miss Phutthida Phimpha

Adapted from the work that received the "Outstanding" Public Sector Excellence Awards 2024 In Participatory Governance category, Effective Change Award By Miss Atchara Kringkasemsri, Agricultural Land Reform Office, Uthai Thani And Miss Supanan Charoenkanatpak, Technology Transfer and Development Bureau Agricultural Land Reform Office

# Herbs Transform Lives, People in Harmony with Huai Kha Khaeng Wildlife: Wildlife Friendly Community: Coexistence, **Uthai Thani Province**

# Huai Kha Khaeng Wildlife Sanctuary: Problems and Importance in Buffer Zone Management

Huai Kha Khaeng Wildlife Sanctuary, one of the largest forests in Thailand, is located in Uthai Thani Province, covering an area of over 4,000 square kilometers or approximately 2.5 million rai. It is home to many wildlife species, especially rare and endangered animals such as wild elephants, tigers, and deer. The western area borders the Thung Yai Naresuan Wildlife Sanctuary. In 1990, Huai Kha Khaeng was designated a Wildlife Sanctuary under the supervision of the Department of National Parks, Wildlife and Plant Conservation (Wildlife Conservation Office, 2022). Due to the area's importance as a natural conservation site and biodiversity of both plant and animal species, in 1991, the Thung Yai Naresuan - Huai Kha Khaeng Wildlife Sanctuary area was registered as Thailand's first natural World Heritage site by the United Nations Educational, Scientific and Cultural Organization (UNESCO) (Office of Natural Resources and Environmental Policy and Planning, 2024).

However, the eastern side of Huai Kha Khaeng Wildlife Sanctuary borders communities in 3 districts: Ban Rai District, Lan Sak District, and Huai Khot District in Uthai Thani Province. These communities mostly practice monoculture farming such as corn, cassava, and sugarcane cultivation. The border areas between the wildlife sanctuary and agricultural areas face problems with wildlife venturing out to feed outside the sanctuary and encroaching upon agricultural areas. In particular, areas bordering Huai Kha Khaeng Wildlife Sanctuary and land reform areas of Ban Khao Khiao, Ban Pong Makha, Ban Bueng Charoen, Ban Khao Mai Nuan, Ban Sap Pa Phlu, and Ban Khlong Chani in Lan Sak District face issues with wildlife such as elephants, Banteng, monkeys, and wild boars frequently destroying agricultural produce. These animals forage at night or during seasons when crops are fully grown, damaging crops planted by villagers. Sometimes large elephants destroy trees or other property such as fences and agricultural tools while searching for food, causing economic losses. Farmers lose agricultural products, income, and property. These issues have expanded into conflicts between humans and wildlife in areas bordering the forest or buffer zones, with several clashes between villagers and wildlife. Such incidents could become threats to villagers' quality of life and wildlife survival if no action is taken.

To address these issues, relevant agencies and local villagers have collaborated to manage the buffer zone and reduce conflicts between humans and wildlife through methods that benefit all parties, allowing community members to make a living securely while wildlife is kept within forest areas. This is achieved by supporting villagers in transitioning agricultural production in buffer zones from monoculture crops to herbal plants in organic farming systems, which are environmentally friendly, reduce crop destruction by wildlife, and generate sustainable income for people and communities.

# Herbs Transform Lives, People in Harmony with Huai Kha Khaeng Wildlife project

The Agricultural Land Reform Office of Uthai Thani Province, in collaboration with the Seub Nakhasathien Foundation, is raising awareness about the project implementation guidelines among farmers around the Huai Kha Khaeng Wildlife Sanctuary area. The main objective is to reduce human-wildlife conflict by promoting herbal plant cultivation instead of field crops to create a buffer zone, while also developing the potential for quality herbal production that meets market standards and processing herbs to add value and generate income for farmers. This included supporting knowledge in sustainable management and conservation of herbal plants, aligned with the goals of the National Herbal Master Plan that aims for Thai herbs to enhance health security and generate income for communities, contributing to the sustainability of the Thai economy.

The above operations resulted in a group of 22 people from 8 communities (Ban Khao Khiao, Ban Phai Ngam, Ban Bueng Charoen, Ban Huai Plao, Ban Khao Wong, Ban Noen Muang Pattana, Ban Sap Pa Phlu Mai, Ban Khlong Chani Bon, and Ban Khlong Chani) becoming the community frontline in transitioning agricultural production to herbal plants to solve community problems under the "Wildlife Friendly Community HKK: Coexistence". These 22 representatives are mainstay of the project as are called "Quick Minds, Determined Hearts" person. Currently, the network has more than 40 members who have turned to growing herbal plants commercially, which not only helps prevent wildlife intrusions but also provide communities with income from producing and selling herbs that offer medical benefits and substantial market demand, eliminating dependence on agriculture that risks wildlife encounters. The production base was later expanded under the Herbal City policy, covering areas around Huai Kha Khaeng Wildlife Sanctuary, comprising 3 main nodes: Lan Sak District Node driven by the Wildlife Friendly Community HKK: Coexistence, Huai Khot District Node driven by Huai Khot Cooperative Limited, and Ban Rai District Node driven by Huai Nam Khe Community Enterprise, to expand the concept of coexistence with the forest and generate income for families through herbal plants. This collaboration gave rise to the "Herbs Transform Lives, People in Harmony with Huai Kha Khaeng Wildlife" project.

# **Project Implementation through Participatory Processes**

ALRO Uthai Thani and network partners such as the Seub Nakhasathien Foundation, Uthai Thani Provincial Public Health Office, Uthai Thani Provincial Agriculture and Cooperatives Office, and Uthai Thani Agricultural Research and Development Center have encouraged farmers interested in transitioning from field crop cultivation to herbal plants with environmentally friendly production systems. This includes production in accordance with Good Agricultural Practices (GAP) standards to elevate the quality of Thai agricultural products ensuring they meet required standards and build confidence and acceptance from both domestic and international consumers, as well as promoting Participatory Guarantee Systems (PGS) for organic certification, which is a community-based organic certification system based on mutual trust, social networking, and knowledge exchange. This strengthens communities in developing production that enhance market access through self-reliance, group formation based on sufficiency, learning, sharing, and participation with integrity, allowing organic farming to expand further (Office of the Permanent Secretary of Agriculture and Cooperatives, 2022). The project implementation and various promotions emphasize community and network partners' participation throughout the process as follows:

Brainstorming to solve problems from all sectors, including government agencies, local communities, and the private sector to set goals and approaches for solving problems and planning long-term project implementation. This creates mutual understanding between communities and partner agencies regarding the best practices in forest restoration and wildlife conservation.

Formation of organic herbal producer groups and community enterprise networks. The group schedules meetings every 2 months to exchange knowledge, discuss problems encountered, and collaboratively find solutions. Government and private sector partners can participate in these meetings as opportunities to raise awareness and publicize related development projects, such as organic farming projects in land reform areas and support for using technology to process herbs through the solar dryer support project of ALRO Uthai Thani, providing knowledge about wildlife encounters and crop destruction around the area from the Wildlife Conservation Area Development Study Center 1 (Central Region), and scheduling GAP certification inspections and supporting the testing for active ingredients and heavy metals in kariyat, turmeric, and veldt grape by the Uthai Thani Agricultural Research and Development Center.

Collaborative work between communities and network partners. Each year, group members jointly plan production based on buyers' orders. The chairperson informs members about the market's volume and herbal standards requirements each season and asks members to indicate which herbs they will grow and in what quantities to ensure the group's total production meets orders. Members must acknowledge conditions for producing each herb and follow the standards of the product buyers. Additionally, group members participate in production and certification under the PGS system, where they set mutual agreements and appoint a field inspection committee to oversee group production. Group members take turns conducting field inspections for certification, while also using the opportunity to visit others' plots. Public health agencies also assist in inspecting the quality of the herbs. Another important aspect of participation is benefit sharing, where group members agree to deduct 5% of herb sales revenue from each person for the group's central fund for management and group activities. Furthermore, the group has expanded its membership network from Lan Sak District to areas bordering Huai Kha Khaeng Wildlife Sanctuary in Huai Khot District and Ban Rai District, attracting those interested in herbal production. The network also includes other community groups, such as the Community Enterprise Group Promoting Wildlife Tourism Ra-bam Subdistrict, to create conservation networks in the area, with support from the Wildlife Conservation Development Study Center.

Promotion of environmentally friendly alternative occupations. ALRO Uthai Thani and community farmers, with support from the Department of Thai Traditional and Alternative Medicine, Ministry of Public Health, jointly developed processed herbal products such as Plao leaf lip balm and Khonthaa mouthwash. Later, the Seub Nakhasathien Foundation helped advocate for Food and Drug Administration (FDA) certification, allowing the community's herbal products to receive certification and be legally sold in the market, generating additional income for community members.

Seeking stable buying markets. Communities and government agencies collaborate with private sector and herbal industry entrepreneurs to expand the herbal market network, enabling farmers to sell their products at fair prices. This also increases distribution channels for herbal products to customer groups seeking natural herbs, such as Chao Phraya Abhaibhubejhr Hospital, Sankhaburi Hospital, and various herbal manufacturing companies like Plearnprai Organic Social Enterprise Co., Ltd., Skywalk Banrai herb garden & Cafe, and Dr. Plants, as well as online markets that allow farmers to sell their products directly to consumers.

# Conclusion and Success Factors of the Project

The Herbs Transform Lives, People in Harmony with Huai Kha Khaeng Wildlife project is considered successful in transforming agricultural patterns toward environmentally friendly production for sustainability, creating tangible success in wildlife conservation, reducing impacts from agriculture, and improving the quality of life for farming communities in the area. Key factors driving project success include cooperation from network partners across government, public, and private sectors, including foundations and organizations related to wildlife and environmental conservation. The government and conservation organizations have supported budgets and policies beneficial to farmer development, while the public has jointly planned approaches and cooperated in changing agricultural methods to suit the area, with healthcare facilities and the private sector participating in expanding stable marketing channels. Promotion of environmentally friendly production, both production in accordance with GAP standards and PGS organic certification, to elevate product quality, build consumer confidence, and expand marketing channels to markets that demand quality products meeting international standards. Creating community cooperation in the form of farmer groups and community enterprise networks helps facilitate the exchange of knowledge and experiences. It also allows farmers to access more resources and government support, especially training in herbal planting techniques and herbal product processing, while promoting sustainable agriculture. Additionally, community cooperation in changing farming methods from monoculture field crops to herbal plants helps create income and stability for communities. Lastly, the use of innovative technology to increase efficiency in the production process, such as solar-powered herb drying houses and herb cutting machines, helps increase production volume, elevate product quality to meet standards, and allows farmers to work more conveniently and quickly.

The "Herbs Transform Lives, People in Harmony with Huai Kha Khaeng Wildlife" project is a good example of the effective development of environmentally friendly agricultural practices alongside nature conservation. It not only helps reduce human-wildlife conflicts but also generates stable income for local farmers while maintaining ecological balance, allowing soil restoration and preserving environmental fertility. It serves as a model for sustainable community development and nature conservation in both economic and environmental aspects, based on Participatory Governance, creating tangible results that earned the "Outstanding" Public Sector Excellence Awards 2024 in the category of Participatory Governance, Effective Change Award from the Office of the Public Sector Development Commission, bringing pride to farmers in Uthai Thani land reform areas, ALRO Uthai Thani, and all network partners from all sectors.

# **Translation Team**

# Advisor

Ms. Surutwadee Pak-uthai

Foreign Relations Officer, Senior Professional Level

#### **Translators**

Mr. Arin Nilprapunt

Ms. Werada Thipcharoon

Ms. Natradee Kerdpan

Mr. Supachai Chanta

Foreign Relations Officer, Practitioner Level Foreign Relations Officer, Practitioner Level Foreign Relations Officer, Practitioner Level Foreign Relations Officer, Practitioner Level

# **Editor**

Mr. Supachai Chanta

Foreign Relations Officer, Practitioner Level

