

Development of a Prototype Area on Land Management using King's Philosophy towards Learning of Kok Nong Na R-Model for Community Self-Reliance following Sufficiency Agriculture

^[1]Lampong Klomkul, ^[2]Phraratsutaporn, ^[3]Phrakhrusophonsarophat

^[1]^[2]^[3]Faculty of Education, Mahachulalongkornrajavidyalaya University, Thailand

^[1]lampong.klom@mcu.ac.th, ^[3]sophon_s@hotmail.com

* sophon_s@hotmail.com

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ABSTRACT

The objectives of this research were 1) to synthesize of Buddhist principles according to the King's Philosophy approach to learning about Sufficiency Agriculture for community self-reliance, 2) to develop the Buddhist learning process according to the King's Philosophy guidelines towards learning about Sufficiency Agriculture for community self-reliance, 3) to study of the guidelines for driving the King's Philosophy according to the government policy to Kok Nong Na and learning about sufficiency agriculture for community self-reliance, 4) to develop the experimental area for the management of the Sufficiency Agriculture way of area with the King's Philosophy integrated into the Kok Nong Na R-Model Learning process using the multiple case study method; and 5) to develop community networks in case studies of area management using the King's Philosophy integrated into learning about self-reliance according to the Sufficiency Agriculture way. Action research according to the PAOR process was used for research design which divided into 4 steps, consisting of the planning stage (Plan: P), developing a land management experiment area with the King's Philosophy integrated into Kok Nong Na R-Model in areas outside the irrigation area, practical steps (Act: A) in developing the experimental area according to the plan and learning lessons from land management with the King's Philosophy integrated into the Kok Nong Na R-Model in community self-reliance according to the Sufficiency Agriculture method, observe stage (Observe: O) by observing the results that arise from following up on practical work, and the reflection stage (Reflect: R) from what happened after the creation of the community network, a case study of land management according to the Royal initiative of the King, integrated towards Kok Nong Na R-Model in community self-reliance according to Sufficiency Agriculture method. The research results are summarized as follows: The results of the synthesis of Buddhist principles according to the King's Philosophy approach to learning about Sufficiency Agriculture for community self-reliance found that the principles that inspired the creation of Kok Nong Na R-Model were the principles of Iddhipāda 4 Principles, Sārāniyadhamma 6, Brahmavihāra 4; Sappāya 7, and Apannakapaṭipadā 3 as the Buddhist proverb says: "A person who is mindful at all times know moderation in eating will have a long life." The results of the development of the Buddhist learning process according to the King's Philosophy guidelines towards learning about Sufficiency Agriculture for community self-reliance. It has been developed by studying and linking a set of knowledge consisting of 4 sciences consisted of the first science is the King's science, the second science is religion on the integration of Dhamma, the third science is the science of management, and the fourth science is science linked to research create the Kok Nong Na R-Model (forest, pond/swamp, and rice field), which means managing land areas, water resources, growing crops, using research as a basis for work. and designed as a set of 6 module activities and is carried out in the form of an Action Research (PAOR cycle). The results of the study of the guidelines for driving King's Science according to the government policy to Kok Nong Na and learning about sufficiency agriculture for community self-reliance. It is driven through the area management of the prototype case study: Satra Pansuk Kok Nong Na R-Model, which can present guidelines on how to be an R-Model under the research framework into action within the framework. Research-based farming can be described as an approach and method. The results of the development of the experimental area for the management of the Sufficiency Agriculture way of area with the King's Philosophy integrated into the Kok Nong Na R-Model Learning process using the multiple case study method. From all 3 case studies, there was the Sufficiency Agriculture way of Area Management with King's Philosophy integrated into the learning process of Kok Nong Na R-Model, case studies with good practices include case studies with good practices using integrated agricultural plots; A case study with good practices in developing community public areas into farmland and a

case study with good practices in designing the Kok Nong Na model area. The first case study discusses inspiration, beginning with the study of King's Philosophy; His Majesty King Rama IX, who made us look like an example applied in life. The next case study involved the operation of a community learning center. From being a deserted place to dumping garbage, the idea was to develop the area to benefit the community, learn at school to solve poverty, go to learn the subject of the wise man. The third case; study involved research-based agricultural design with soil development, develop water sources, design planting areas including allocating space to be a religious place according to the way of the villagers starting with designing the area by digging a pond to make room for storing water sources, then take many plant species, type of planting trial and develop the soil at the same time in order to have enough produce to have enough to eat and use in the household. The results of the development of community networks in case studies of area management using King's Philosophy integrated into learning about self-reliance according to the Sufficiency Agriculture way, consisting of 1) a network from the Sufficiency Agriculture community, Kok, Nong Na, with management and Management is driven by the goal of improving the quality of life of the community; 2) Network from educational institutions in the community doing activities with university students by designing activities by integrating classroom knowledge into educational institutions in the community, by cooperation between the Faculty of Education and the ASEAN Studies Center Mahachulalongkornrajavidyalaya University and Ban Don Mai Fai school; 3) Networks from various communities and educational institutions, and 4) a network of houses, temples, and schools to participate in cultural activities which designed activities for undergraduate students to learn about the Sufficiency Agriculture way of life in the Kok Nong Na R-Model passes this experience on to youth in the community.

Keywords: Prototype Area, Land Management, King's Philosophy, Kok Nong Na R-Model, Community Self-Reliance, Sufficiency Agriculture

Introduction

Traditional agriculture where water is a factor of production and the factor of production is used, it is the same land once a year, waiting for rain or natural water including disasters resulting from changes in climate and nature. As shown in the research report on "Project to analyze precarity and risks from disasters/violent conditions of climate in critical areas" (Atsamon Limsakul et al., 2011) [1] that specifically studied Phang Nga and Buriram provinces. That reflects the results of the study that such changes will affect the geographic system as a whole, including water, soil, weather, and lack of rain, including in the agricultural sector, causing the yield to be produced only once per year. The result is that for more than half the year farmers have to leave their land vacant without any cultivation, happened in that area. It is an empty area that is not useful for cultivation. This can be called a problem of unprofitable use or management of land (Ratthapong Chantakhananurak et al., 2015) [2], although the foundation of agriculture or farming is the main occupation of Thai people, but over time implementing the traditional way of life may not lead to a better life or self-reliance. Therefore, the application of various science approaches is integrated in order to develop the area for continuous development and connection, linked in matters of water management, soil management, cultivation management with the selection of plants that are appropriate for that area in order to achieve maximum benefit in area management including making farmers' lives better than they used to be in the traditional way. The idea of developing areas from old production factors had been developed.

From empirical data on the aforementioned problem conditions integrating modern science with the science of sharing happiness according to the King's Philosophy of the philosophy of Sufficiency Economy is an approach that many people embrace, came to experiment and practice, they were all successful and able to rely on themselves according to a sufficiency way of life, integrating the principles of Buddhism regarding the middle path and moderation in cultivating various plants to be able Having enough food to eat throughout the year is a good thing in order to survive as shown in the results of studies in various areas, providing information on solutions including empirical results as a model that can be used in practice. For example, in the research on "The Role of The Subdistrict Municipality in Promoting Living according to The Philosophy of Sufficiency Economy in The Community of the Subdistrict Municipality in Phlaphlachai District, Buriram Province" (Phra Danaiphob Chutithammo et al., 2020)[3] research on "A Model for Living a Self-Reliance Way of life Based on the Buddhist Principle of Right Livelihood to Develop the Quality life of the Farmers in the Central Northeastern Region" (Jinaporn Phansawang et al., 2020)[4], research on "Ban Phu Community Sufficiency Economy: into Practice" (Taweesak Chaipattha et al., 2009)[5], in the research on "Participatory Farmer Potential Development by Applying the Principles of Sustainable Agriculture to Reduce Production Costs for Farmers Ban Khu Khat Community, Satuek Subdistrict, Satuek District, Buriram Province" (Uthit Khamhom et al., 2019) [6], together with the situation of the spread of the COVID-19 virus, which has currently had a broad impact on people in all walks of life, job insecurity, unemployment, joblessness, income, and food, food production for consumption including the migration of workers back to the agricultural sector or their original hometowns, the factors of production on the same land occurred along with this situation. The way to escape will lead to a self-reliant life using the same factors of production for maximum benefit will be a way for most people today to learn to adapt

by managing the land area and existing factors of production to be an area where production can be created, including careers, income, and food, resulting in a greater variety of benefits. Introduction of King's Philosophy Sufficiency Economy Philosophy concept into action under the Kok Nong Na Operation Group making underground water banks both closed and open systems to create an aquatic ecosystem which is an important production factor. The concept of the existing golden rice field, let them be combined and applied together with the goal of developing land and original factors of production to become an area of great value for farmers who want to live a self-sufficient and self-sufficient life.

In the empirical fact, not all farmers are able to manage their own land as they would like to do due to many conditions such as management experience, budget, funding sources, and knowledge. And most importantly, there is a lack of opportunity to learn how to change the area for maximum benefit, whether it is a matter of managing the area in the form of Kok Nong Na, as many groups of farmers have already begun to do. Some groups are successful because network partners have provided assistance, have sufficient knowledge and some groups were not successful, probably due to lack of experience, lack of practical knowledge and understanding, and lack of network to help drive continuously as shown in the research on "Three-Dimensional Virtual Field Trip Model; Khok Nong Na Model for Lowland Areas" (Rawinan Yimkaew and Kulchai Kultawanit, 2019)[7], research on "Public Relations Strategies to Communicate the Concept of King's Philosophy of the Power of People to Create the World project Join Forces to Follow in the Footsteps of the Father of the Land" (Apisara Kritavanich, 2019)[8], "Disasters and Management of Thai farmers" (Napasorn Soiyodthong, Wanwisa Chaemchoi, Choti Bodirat, 2020) [9], research on "King's Philosophy: New Theory of Agriculture in the Khok Nong Na Model. Journal of Interdisciplinary Management Sciences" (Sakol Phromsathit, Marisa Srisakaew, Sathaporn Wichairam, 2020) [10], etc. For this reason, it is an issue that makes the research team interested in studying and developing it. A model for managing the original production input area to strengthen the community learning process on the Sufficiency Agriculture way by pushing and organizing activities to create shared learning among people in the community. Learning will cause changes in the thinking base and way of doing things of people in the community having a good role model is the starting point in building confidence, inspiration, and knowledge that will create power in that knowledge leading to change in areas that have been traditionally practiced to become a gold area, valuable like gold is a factor of production including being both a career and income in the form of Kok Nong Na or the form of management according to the sufficiency agriculture method according to the aptitude of the farmer. From this concept, the research team became interested in doing research to bring about change, concrete results in the management of existing areas include the synthesis of Buddhist principles and developing the process of learning the Buddhist way according to the King's Philosophy approach to learning about Sufficiency Agriculture studying the guidelines for driving the King's Philosophy according to the government policy to Kok Nong Na and learning about Sufficiency Agriculture; an experiment in area management using the Sufficiency Agriculture method and The King's Philosophy integrated into the learning process and development of the learning network: expand the network to share knowledge and develop it into a network to forward knowledge for further development.

Research Objectives

1. To synthesize the principles of Buddhism according to the King's Philosophy approach to learning about Sufficiency Agriculture for community self-reliance.
2. To develop the process of learning the Buddhist way according to the King's Philosophy guidelines towards learning about Sufficiency Agriculture for community self-reliance.
3. To study the guidelines for driving the King's Philosophy according to the government policy to Kok Nong Na and learning about Sufficiency Agriculture for community self-reliance.
4. To develop an experimental area of Sufficiency Agriculture area management with The King's Philosophy integrated into the learning process of Kok Nong Na R-Model using the multi-case study method.
5. To develop a community network for case studies of area management using The King's Philosophy integrated into learning about self-reliance according to the Sufficiency Agriculture method.

Method

This research designed using action research (Action Research) according to the PAOR process, with the research process divided into 4 steps, consisting of the planning stage (Plan: P) to develop an experimental area for land management with The King's Philosophy integrated into Kok Nong Na R-Model in areas outside the irrigation area, practical steps (Act: A) in developing experimental areas according to the plan and extracting lessons from land management with integrated The King's Philosophy to Kok Nong Na R-Model in community self-reliance according to Sufficiency Agriculture method, Observation Stage (Observe: O) by observing the results that arise from following up on the practical work and the reflection stage (Reflect: R) from what happened after the creation of the community network, a case study of land management according to the Royal initiative of the King, integrated towards Kok Nong Na R-Model in community self-reliance according to Sufficiency Agriculture method.

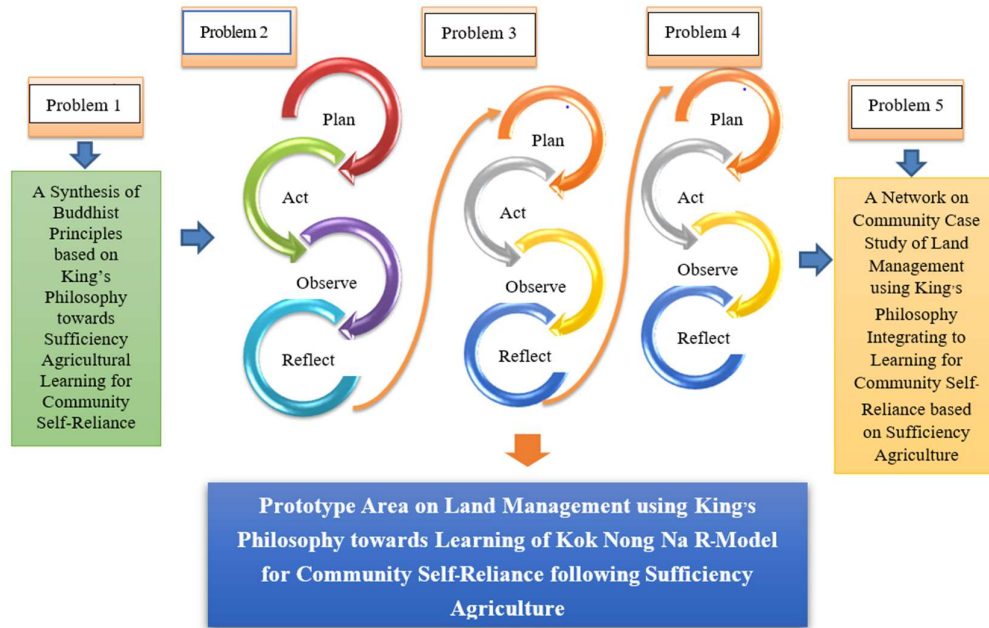


Figure 1 PAOR Action Research Cycle

From Figure 1, the research design steps according to the PAOR action research cycle can be summarized as follows:

1. Planning stage (Plan: P) Developing an experimental area for land management with integrated the King's Philosophy to Kok Nong Na R-Model in areas outside the irrigation area. (1) Action stage (Act: A) in developing an experimental area according to the plan and lessons learned from land management using the King's Philosophy integrated into the Kok Nong Na R-Model in community self-reliance according to the Sufficiency Agriculture method (2) Observe step (Observe: O) by observing the results based on following up on the practical work (3) the reflection stage (Reflect: R) from what happened after the creation of the community network, a case study of land management according to the King's initiative, integrated into Kok Nong Na R-Model for community self-reliance according to the Sufficiency Agriculture method. It is divided into 5 phases of study as follows:

Phase 1: Synthesizing the principles of Buddhism according to the King's Philosophy approach to learning about Sufficiency Agriculture for community self-reliance. The research steps according to the PAOR action research cycle are as follows: 1.1) Planning stage (Plan: P) determines the target group interested in the study; The target group for the study consists of leaders of the Sufficiency Agriculture Learning Center and learning center members from 3 learning centers, totaling 12 people, were obtained from purposive sampling. The target group for the study will have the following qualifications: (1) Researcher participated in learning center activities continuously. (2) had experience in operating the Sufficiency Agriculture Learning Center. (3) had experience in integrating to develop learning with Sufficiency Agriculture practice. The research tool is the question line used in the interview and field notes, field study planning is to coordinate cooperation to exchange knowledge about experiences in managing areas according to the Sufficiency Agriculture method.

1.2 Action step (Act: A); go to the field It is a spatial study that focuses on empirical area management studies using case studies with good practices. The focus is on the study of models of area management according to the Sufficiency Agriculture method. That can be studied from 1) good practices in land management, 2) good practices in water management, 3) good practices in plant variety management, and 4) good practices in yield management. Data collection field trips were designed to interview local leaders with good practices about the path of managing areas according to the Sufficiency Agriculture method until it was successful and became a learning model and studying agricultural activities that are carried out and seeing changes in the area in a concrete and empirical manner.

1.3 Observe step (Observe: O); The researcher took the data from the data collection process to reduce the data. Check information and analyze data. These 3 processes were done in parallel with the data collection process, consisting of 1) Data reduction takes information from the interviews to analyze and organize them into topics, related to the studied issues This is in order to select the interesting points of each variable studied to be consistent with the variables of interest to study and is information that comes from the actual experiences of the informants including the connection with the issue of the variables that the researcher is interested in studying. 2)

Data checking is a process used to check data by considering its accuracy and reliability considering the conversation with supporting evidence during the conversation. sufficiency of information. This can be determined by the questions the researcher has prepared before the interview.

1.4 Reflect step (Reflect: R); Reflection on the learning results of the results of the community network case study of area management using the King's Philosophy integrated into learning about self-reliance according to the Sufficiency Agriculture method link to put research results to use (Research Utilization) in the form of a learning network that is a coordinated effort between Sufficiency Agriculture Community Learning Centers, consisting of the Kok Nong Na Research Agricultural Learning Center (Kok Nong Na Model R-Model Learning Center) and the integrated agricultural community enterprise group.

In addition, the different processes are planning stage (Plan: P), action stage (Act: A), observation stage (Observe: O); 1) data reduction 2) data checking 3) data analysis 4) reflection stage (Reflect: R) is in the process of researching in phases 2-5, namely phase 2, developing the Buddhist learning process according to the King's Philosophy approach to learning sufficiency agriculture for community self-reliance, phase 3 Studying the guidelines for driving the King's Philosophy according to the government policy to Kok Nong Na and learning about Sufficiency Agriculture for community self-reliance, Phase 4, developing an experimental area for managing the area of Sufficiency Agriculture using the King's Philosophy towards the learning process of Kok Nong Na R-Model using the multiple case study method, and phase 5, community network development, case study of area management using King's Philosophy integrated into learning about self-reliance according to the Sufficiency Agricultural way of life.

Research Results

1. Results of the study of Buddhist principles according to the King's Philosophy approach to learning about sufficiency agriculture for community self-reliance. It can be concluded that the 4 Iddhipāda principles are the principles that lead to success. The six principles of Sārāṇiyadhamma are the basis for remembering each other. 4 Brahmavihāra principles, the Dhamma is excellent. The Noble Dhamma of the mind, the principles of Sappāya, 7 things that support the development of quality of life. Principles of Apannakapatipadā: 3 practices that are not wrong which will lead the practitioner to prosperity in the Dhamma "Be a person who walks in the path of safety."

2. Results of the development of the Buddhist learning process according to the King's Philosophy approach to learning about Sufficiency Agriculture for community self-reliance. It has been developed by studying and linking a set of knowledge consisting of 4 sciences of sharing happiness, inspiration for the development of the area, and designed as a set of 6 module activities, where the learning set is the Buddhist way according to the King's Philosophy guidelines to learning about sufficiency agriculture for community self-reliance. It has been developed according to the guidelines of the four sciences of sharing happiness, namely the first science is the King's Philosophy on integrating new agricultural theories. The second science is religion, which is the integration of Buddhist principles to be used in setting the goals of operations. Middle Path pattern according to the Sufficiency Path, the third science is the science of management by dividing the area into hump areas, swamp areas, and rice fields to fit perfectly into the available space. And the fourth science is linked to research, created the Kok Nong Na R-Model; Kok (forest), Nong (pond/swamp) and Na (rice field), which means managing land areas, water resources, growing crops, using research as a basis for work and a set of learning about the Buddhist way of life according to the King's Philosophy approach to learning about sufficiency agriculture for community self-reliance, divided into 6 sets of activities called Modules, consisting of Module 1, visiting Prasat Hin Thin Phanom Rung, Module 2, visiting Prasat Mueang Tam. Module 3 Educational Language Discussion Module 4, from Mahachulalongkornrajavidyalaya University to Don Mai Fai, Module 5, creative activities to the gift of education and Module 6, Mahachulalongkornrajavidyalaya University, planting forests, R-model and the process of learning the Buddhist way according to the King's Philosophy guidelines towards learning Sufficiency Agriculture for community self-reliance. It is carried out in the form of an Action Research (PAOR) cycle.

3. The results of the study of the guidelines for driving King's Philosophy according to the government policy to Kok Nong Na and learning about sufficiency agriculture for community self-reliance. It is driven through the management of the area of the prototype case study: Satra Punsuk Kok Nong Na R-Model, which can present guidelines on how to become an R-Model under the research framework into practice within the framework. Research-Based Farming can be described as an approach and method, namely 1) Adjusting land that was formerly a rice field to be an area to support the Sufficiency Agriculture method as a whole. It will consist of (1) an area for making a pond to store water, which totals 40%. The entire area is level excavation to store water in 3 phases in the rainy, winter and summer seasons, which will be divided into 3 levels to support water evaporation. (2) Area for planting greenhouses approximately 5% (3) Land for planting: approximately 20 percent are planted with perennial hardwood trees to create landscape and shady conditions. Various types of trees, including perennial trees, hardwoods, fruit trees, ornamental trees, and agricultural crops. according to the cycle of life of each type to complete. (4) Area for rice farming, which is the main area, approximately 20 percent, will be planted rice varieties in organic farming that emphasizes testing rice varieties for learning that is consistent with the geography etc. from overall area management. The details can be classified into: (1) converting the original area

into a pond, (2) planting perennials and trees, (3) growing rice, the main agricultural crop in the area, (4) growing short-term crops for subsistence, (5) growing fruit trees for consumption and commerce, (6) making greenhouses for raising livestock, and (7) developing as an agricultural tourism destination and historical archaeological site.

4. The results of the development of the experimental area for the management of the Sufficiency Agriculture Way of Area with the King's Philosophy integrated into the Kok Nong Na R-Model learning process using the multiple case study method. From all 3 case studies, there was the Sufficiency Agriculture way of area management. With King's Philosophy integrated into the learning process of Kok Nong Na R-Model, case studies with good practices include case studies with good practices using integrated agricultural plots. A case study with good practices in developing community public areas into farmland and a case study with good practices in designing the Kok Nong Na R-Model area. The first case study discusses inspiration, beginning with the study of King's Philosophy. His Majesty King Rama IX, who made us look like an example applied in life. The products obtained from agricultural plots are shared with neighbors and sold to create income for the family. The next case study involved the operation of a community learning center. From being a deserted place to dumping garbage, the idea was to develop the area for the benefit of the community. In 2004, there was a crisis of famine. Researchers ourselves have an agricultural background. Therefore, we improved the soil condition, made vegetable plots and brought 10 villagers to start growing vegetables and selling them for income. Therefore, additional community members were recruited to share vegetable plots to be responsible. and was taken to learn at the poverty reduction school go learn the subject of the wise man according to various learning centers and used to develop the area, then there is the problem of water sources. He took the crisis directly to ask the Ministry of Energy to develop water resources. At present, there are 40 member households, which have expanded into empty areas. The community's public areas are farmland, Sufficiency Economy Community Learning Center have a purpose for brothers and sisters (solidarity) in the community who have no place to eat, no knowledge, let's come together to create ideas to develop and be active in growing vegetables, so that brothers and sisters in the community can earn more income. The third case study involved research-based agricultural design with soil development develop water sources, design planting areas including reallocating space to be a religious place according to the way of the villagers, development of the area has started since the outbreak of COVID-19 in the beginning of 2021 and the reason for changing the area from rice farming to mixed farming is because farming alone as is having made the family's living conditions not improve. Therefore, researchers consulted family members and started designing and developing this area. It starts with designing the area by digging a swamp to make room for storing water sources, then take many plant species, type of planting trial and develop the soil at the same time in order to have enough produce to have enough to eat and use in the household.

5. The results of the development of community networks in case studies of area management using the King's Philosophy integrated into learning about self-reliance according to the Sufficiency Agriculture Way, consisting of 1) a network from the Sufficiency Agriculture Community, Kok, Nong Na, with management and Management is driven by the goal of improving the quality of life of the community. Case study of the cow bank project from Luang Phor Daeng Nanthiyo, Intharam temple, Samut Songkhram province. 2) Network from educational institutions in the community doing activities with university students by designing activities by integrating classroom knowledge into educational institutions in the community by cooperation between the Faculty of Education and the ASEAN Studies Center Mahachulalongkornrajavidyalaya university and Ban Don Mai Fai School and there were faculty members from the Faculty of Education, Social Sciences and Humanities, MCU, participating in the activity. The main goal is to strengthen the potential of students in integrating knowledge from the classroom to develop educational institutions in the community. 3) Networks from various communities and educational institutions that participate in religious activities as a mechanism to drive the community way. From the community unity activities of the Kok Nong Na R + Model Agricultural Research Learning Center to the creation of Buddha statues, using religious methods as a mechanism to drive the community way. The goal is to use social belief processes to drive community activities by using agriculture as a research base and as a support for other activities, and 4) a network of houses, temples, and schools to participate in cultural activities, including the Muthita Chit (in Thai) activity; Bai Sri Su Khwan and Final Orientation. The activities are designed to create social interaction between students practicing teaching professional experience. with teachers in the school where they go to train youth or students in school and villagers in the community and the Morality Innovation Vanamrung Camp activity, which designed activities for undergraduate students to learn about the sufficiency agriculture way of life in the Kok Nong Na R- Model area for 4 months and then passed this experience on to youth in the community by organizing Moral camp activities Vanamrung Innovation.

Discussions

1. From the results of research on the synthesis of Buddhist principles according to the King's Philosophy approach to learning about sufficiency agriculture for community self-reliance, it can be concluded that: 1) Dhamma principles that inspired the Khok Nong Na project R-Model is the Iddhipāda 4, which are Dhamma principles that lead to success. 2) Dhamma principles for operating activities in the area Kok Nong Na R-Model project with community learning is Sārāniyadhamma; 6 Dhammas as a place for remembering each other. 3)

Dhamma (Principles) for driving the Cow Bank project. The activity guidelines are to redeem the lives of cows and distribute them to those who have appropriate qualifications in the community based on the principles of Buddhism, namely the Brahmavihāra 4, the Noble Dhamma of the heart. 4) Planting forests and fruit orchards in Kok Nong Na R-Model area. The model has Dhamma (Principles), namely Sappāya 7; 7 things that support the development of quality of life. 5) The organic vegetable project creates awareness of growing chemical-free vegetables. The Dhamma (Principles) are Apannakapaṭipadā, 3 practices that are not wrong, which will lead the practitioner to prosperity in the Dhamma “Be a person who follows safety guidelines” and 6) fish ponds in the Kok Nong Na R-Model area, principles that are consistent with eating food that is easily digested is beneficial to health which is consistent with the research of Jinaporn Pansawang et al. (2020) [11] on “Jiraporn Phansawang et al. (2020). A Model for living a Self-Reliance Way of life Based on the Buddhist Principle of Right Livelihood to Develop the Quality life of the Farmers in the Central Northeastern Region” This research aims to create and develop a self-reliant lifestyle based on right livelihood principles to develop the quality of life of farmers in the central northeastern region and to test the created model with the target group and evaluate the quality of the model by organizing a workshop for farmers with interested groups to join the project, totaling 40 people, classified as representatives of each province in the central northeastern region, namely Roi Et Province 10 people, Mahasarakham province 10 people, Kalasin province 10 people, and Khon Kaen province 10 people. Then, the evaluation results were used to find the efficiency and develop the model for quality and then improve it for further perfection. The research results found that the creation and development of a self-reliant lifestyle based on right livelihood principles to develop the quality of life of farmers consisted of 1) lifestyle, 2) occupation, 3) application and sustainable development of the quality of life of farmers should adopt the sufficiency economy philosophy. And the King’s Philosophy into practice by emphasizing 5 main words: faith, courage, unity, knowledge, and morality. The adaptation of the sufficiency economy philosophy into tangible practice in the form of a 9-step ladder to a sustainable quality of life for farmers in line with the sufficiency economy philosophy includes: Step 1; enough to eat; Step 2-4; enough to use, enough to live, enough to be cool; Step 5-6; merit and charity; Step 7; preservation; Step 8; selling; and Step 9; building a farmer network. The results of the experiment and finding the efficiency of the self-reliant lifestyle found that the self-reliant lifestyle based on the principle of right livelihood to develop the quality of life of farmers was significantly higher at the .05 level.

2. From the results of research on the development of the Buddhist learning process according to the King’s Philosophy approach to learning about Sufficiency Agriculture for community self-reliance, it can be concluded that it has been developed by studying and linking knowledge sets consisting of science pan; happiness 4 sciences, inspiration for area development and designed as a set of 6 module activities, where the Buddhist learning set follows the King’s Science guidelines to learning about sufficiency agriculture for community self-reliance. It has been developed according to the guidelines of the four sciences of sharing happiness, namely the first science is the King’s Philosophy on integrating new agricultural theories. The second science is religion, which is the integration of Buddhist principles to be used in setting the goals of operations, Middle Path pattern according to the sufficiency path, the third science is the science of management by dividing the area into hump areas, swamp areas, and rice fields to fit perfectly into the available space. And the fourth science is linked to research, create the Kok Nong Na R-Model, Kok (forest), Nong (pond/swamp, and Na (field), meaning that it is the management of land areas, water resources, and plant cultivation using research as a basis for work. and a set of learning about the Buddhist way of life according to the King’s Philosophy approach to learning about Sufficiency Agriculture for community self-reliance, divided into 6 sets of activities called Modules, consisting of Module 1, visiting Prasat Hin Thin Phanom Rung, Module 2, visiting Prasat Mueang Tam, Module 3, Educational Language Discussion Module 4, from Mahachulalongkornrajavidyalaya university to Don Mai Fai Module 5, creative activities to the gift of education, and Module 6, Mahachulalongkornrajavidyalaya university, planting forests R-model and the process of learning the Buddhist way according to the King’s Philosophy guidelines towards learning Sufficiency Agriculture for community self-reliance conducted in the form of an action research cycle (Action Research: PAOR). From the results of the said study, learning is consistent with the active learning process. From the results of the study, it is a learning that is consistent with the active learning process and is consistent with the research of Priya Sompit (2016) [12] on “Organized Active Learning by Instructional Model with Case-based”, which mentioned the important characteristics of case study teaching as follows: 1) Case study makes learners enthusiastic, can organize group learning to jointly solve problems from case study, resulting in participation in learning. 2) Case study makes learners learn from facing complicated problems, no fixed format, learners must have skills in seeking new knowledge and consistent with that situation. 3) The teacher must be the one to prepare case study that is consistent with the subject content. Sometimes, he/she may have to be the one to present the case study and facilitate learning, including providing support and reinforcement. 4) Case study helps learners learn and practice analytical and synthetic thinking skills to solve problems that occur in case study. The components of case study teaching are: 1) The teacher is responsible for planning the lesson, preparing case studies that are consistent with the content, and creating an environment conducive to student learning. 2) Students should be divided into small groups according to their abilities, so that the small groups can analyze and consider alternatives better than students alone. 3) Case studies are important

tools for students to think, solve problems, discuss, and express their opinions, which are based on real-world facts and are relevant to daily life. They focus on events or problem situations. 4) The learning atmosphere or environment is conducive to learning exchanges and encourages students to have independent thinking, to be able to create knowledge by themselves. It should be organized for discussion in various forms to provide diverse opinions and approaches to solving problems, rather than just learning about case studies.

3. From the results of research on the guidelines for driving The King's Philosophy according to government policy to Kok Nong Na and learning about Sufficiency Agriculture for community self-reliance. It is driven through the management of the area of the prototype case study: Satra Punsuk Kok Nong Na R-Model, which can present guidelines on how to become an R-Model under the research framework into practice within the framework. Research-based farming can be described as an approach and method, namely 1) Adjusting land that was formerly a rice field to be an area to support the Sufficiency Agriculture method as a whole. It will consist of (1) an area for making a pond to store water, which totals 40%. The entire area is level excavation to store water in 3 phases in the rainy, winter and summer seasons, which will be divided into 3 levels to support water evaporation. (2) Area for planting greenhouses approximately 5% (3) Land for planting: approximately 20 percent are planted with perennial hardwood trees to create landscape and shady conditions. Various types of trees, including perennial trees, hardwoods, fruit trees, ornamental trees, and agricultural crops. according to the cycle of life of each type to complete. (4) Area for rice farming, which is the main area, approximately 20 percent, will be planted rice varieties in organic farming that emphasizes testing rice varieties for learning that is consistent with the geography etc. from overall area management. The details can be classified into: (1) converting the original area into a pond (2) planting perennials and trees (3) growing rice, the main agricultural crop in the area (4) growing short-term crops for subsistence (5) growing fruit trees for consumption and commerce (6) making greenhouses for raising livestock and (7) developing as an agricultural tourism destination and historical archaeological site from the study of the King's Philosophy, it was found that it is a concept that has resulted from experiments and practice until reaching a conclusion that drives farmers to result in the development of quality of life, prototypes as they appear to be the King's Philosophy make it easier to act according to existing prototypes focusing on the benefits of the original area and the results that can be achieved in the agricultural way. Management from previous experiences combined with new knowledge gained from managing the original area, including a sample group of successful people from various types of online media, makes it easier to drive and lead to invitations to take action, similar to the group case study, which is consistent with the research approach of Marisa Srisakaew, Sataporn Wichairam, Sakon Phrommasatit in the study of the "Science of the king: New Theory of Agriculture in the form "Khok Nong Na Model"[13], which reflects the study results supporting the research study on the issue that "...Khok Nong Na Model is a principle for utilizing the area to the greatest benefit, emphasizing sufficient water storage and creating products for personal and household livelihoods... It will be the use of local resources in a self-reliant manner, reducing external dependence, creating stability in households and communities, leading to strength in national development..." or in the work of Natwipa Jampasee and Sukhumvit Saiyasopon on "The Policy Implementation Results of Water Management According to the Khok Nong Na Model in Udon Thani Province" [14], studied along with issues from the study supporting the issues discussed on "...budget, continuity of management, including surveying local people to plan clear operations, integrating operations with relevant agencies Which will solve problems at the local level and lead to farmers' self-reliance in the future..." including the work of Rujikarn Sanont and Nitiphat Kittirakshakula (2021), "Application of Khok Nong Na Model for Sustainable Agriculture Management in the City" [15], which proposes the concept that the application of the Khok Nong Na Model for sustainable urban agriculture management can be applied in various urban areas according to the needs and environmental factors that must be taken into account before considering urban agriculture management, namely physical and environmental factors, social and cultural factors, and economic factors, which result in economic empowerment for families and communities towards a stable economy and strengthening families, communities, and society.

4. From the results of research on the development of an experimental area for the management of Sufficiency Agriculture areas using The King's Philosophy integrated into the learning process of Kok Nong Na R-Model using the multiple case study method. From all 3 case studies, there has been management; the area of sufficiency agriculture with the King's Philosophy integrated into the learning process of Kok Nong Na R-Model; Case studies with good practices include case studies with good practices using integrated agricultural plots; A case study with good practices for developing community public areas into farmland and; a case study with good practices in designing the Kok Nong Na R-model area. The first case; study discusses inspiration, beginning with the study of The King's Philosophy; His Majesty King Rama IX, who made us look like an example applied in life. The products obtained from agricultural plots are shared with neighbors and sold to create income for the family. The next case; study involved the operation of a community learning center. From being a deserted place to dumping garbage, the idea was to develop the area for the benefit of the community. In 2004, there was a crisis of famine. Researchers ourselves have an agricultural background. Therefore, we improved the soil condition, made vegetable brushes and led 10 villagers to start growing vegetables and selling the produce to earn an income. Therefore, additional community members were recruited to share vegetable plots to be responsible and was taken

to learn at the poverty reduction school, go to learn the subject of the wise man according to various learning centers and used to develop the area, then there is the problem of water sources. He took the crisis directly to ask the Ministry of Energy to develop water resources. At present, there are 40 member households, which have expanded into empty areas. The community's public areas are farmland sufficiency economy Community Learning Center have a purpose for brothers and sisters in the community who have no place to eat, no knowledge, let's come together to create ideas to develop and be active in growing vegetables, so that brothers and sisters in the community can earn more income. The third case; study involved a research-based agricultural design with soil development, develop water sources, design planting areas including allocating space to be a religious place according to the way of the villagers. Development of the area has started since the outbreak of COVID-19 in early 2021 and the reason for changing the area from rice farming to mixed farming is because Farming alone as is having made the family's living conditions not improve. Therefore, researchers consulted family members and started designing and developing this area. It starts with designing the area by digging a swamp to make room for storing water sources, then take many plant species. Type of planting trial and develop the soil at the same time in order to produce enough produce to have enough to eat and use in the household.

5. From the results of research on the development of community networks, case studies of area management using The King's Philosophy integrated into learning about self-reliance according to the Sufficiency Agriculture way, consisting of 1) networks from the Sufficiency Agriculture Community, Kok Nong Na with management and management to be driven with the goal of improving the quality of life of the community; Case study of the cow bank project from Luang Phor Daeng Nanthiyo, Intharam temple, Samut Songkhram province. 2) Network from educational institutions in the community doing activities with university students by designing activities by integrating classroom knowledge into educational institutions in the community, by cooperation between the Faculty of Education and the ASEAN Studies Center Mahachulalongkornrajavidyalaya University and Ban Don Mai Fai School and there were faculty members from the Faculty of Education, Social Sciences and Humanities, MCU, participating in the activity. The main goal is to strengthen the potential of students in integrating knowledge from the classroom to develop educational institutions in the community. 3) Networks from various communities and educational institutions that participate in religious activities as a mechanism to drive the community way. From the community unity activities of the Kok Nong Na R + Model Agricultural Research Learning Center to the creation of Buddha statues, using religious methods as a mechanism to drive the community way. The goal is to use social belief processes to drive community activities by using agriculture as a research base and as a support for other activities, and 4) a network of houses, temples, and schools to participate in cultural activities, including the Muthita Chit (in Thai) activity; Bai Sri Su Khwan and Final Orientation. The activities are designed to create social interaction between students practicing teaching professional experience. with teachers in the school where they go to train youth or students in school and villagers in the community and the Morality Innovation Vanamrung Camp activity, which designed activities for undergraduate students to learn about the sufficiency agriculture way of life in the Kok Nong Na R-Model area for 4 months and then passed this experience on to youth in the community by organizing. The activities of the Morality Innovation Vanamrung Camp have become a creative space for development into a community learning resource, which is consistent with the research of Sirina Jitcharoen et al. (2019) [16] on "Promoting Activities to Develop Learning Resources on Sufficient Economy with Creativity and Participation in Ban Yang Community Nakhon Pathom". This research aimed to 1) study the conditions and needs of organizing learning activities to develop creative sufficiency economy learning resources with participation of the community, and 2) study the methods and results of promoting learning activities to develop creative sufficiency economy learning resources with participation of the community. The sample consisted of 15 formal and informal group leaders in Ban Yang community, Nakhon Pathom province, and 50 elementary and higher education students. Selected purposively, data were collected using questionnaires, interviews, group discussions, data analysis with mean, percentage, and content analysis. The research results found that the conditions of organizing learning activities were at a high level and the needs were at a high level. As for the organizing of learning activities, the learning activities used the principle of action learning (learning by doing) consisting of the King's Philosophy. Creativity, which has 7 learning bases: Rice Field, Thai dessert making, Handkerchief Design, learning about the King's Philosophy Learning, 5) wisdom telling stories about the city of Yang (Story line and Wisdom), sufficient exercise (Exercise Activity), and creative activities (D.I.Y). The results of participating in learning activities, the sample group had a higher average satisfaction level than before participating in the activity, with a high level of satisfaction with the overall learning activities.

Knowledge from Research

Development of a prototype area on land management using King's Philosophy towards learning of Kok Nong Na R-Model for community self-reliance following sufficiency agriculture was conducted. Knowledge from research can be shown as below figure.



Figure 2 Knowledge from Research

Recommendations

1. Recommendations for Utilization

1.1 Should design and create learning activities. There are activities to learn about Sufficiency Agriculture for students and youth in the area and organize volunteer student activities, giving students the opportunity to learn and do spatial activities to be a process of creating a learning model that integrates Buddhist principles in every activity.

1.2 A model for community self-reliance should be created by taking the initiative and being a model for area management according to the pattern of Kok Nong Na in the former land area that used to be rice farming and is outside the irrigation area, make it an area that is fertile through water management processes, land management and managing trees in the area over time under operations that must use principles of ethics to govern every process.

2. Recommendations for Further Research

2.1. This research is an action research and spatial study by extracting lessons from spatial activities according to the King's Philosophy guidelines to learning about Sufficiency Agriculture for community self-reliance. For next research and development, should be designed to further develop innovations in order to obtain empirical findings that can create additional value for the community.

2.2 From the findings of this research can be used to design Participatory Action Research (PAR) and by developing research into both quantitative research and qualitative research to obtain both in-depth and extensive findings covering the development of a prototype area for area management using The King's Philosophy integrated into learning about the Kok Nong Na R-Model in community self-reliance according to agricultural methods sufficiency create a collaborative learning process and a network for area development to ensure further sustainability.

Conclusion

Development of a prototype area on land management using King's Philosophy towards learning of Kok Nong Na R-Model for community self-reliance following sufficiency agriculture was conducted. Results found that the results of the synthesis of Buddhist principles according to the King's Philosophy approach to learning about Sufficiency Agriculture for community self-reliance found that the principles that inspired the creation of Kok Nong Na R-Model were the principles of Iddhipāda 4 Principles, Sārāniyadhamma 6, Brahmavihāra 4; Sappāya 7, and Apannakapaṭipadā 3 as the Buddhist proverb says: "A person who is mindful at all times know moderation in eating will have a long life." The Buddhist learning process according to the King's Philosophy guidelines towards learning about sufficiency agriculture for community self-reliance. It has been developed by studying and linking a set of knowledge consisting of 4 sciences consisted of the first science is the King's Philosophy, the second science is religion on the integration of Dhamma, the third science is the science of management, and the fourth science is science linked to research create the Kok Nong Na R-Model (forest, pond/swamp, and rice field), which means managing land areas, water resources, growing crops, using research

as a basis for work. and designed as a set of 6 module activities and is carried out in the form of an Action Research (PAOR cycle). The guidelines for driving King's Philosophy according to the government policy to Kok Nong Na and learning about sufficiency agriculture for community self-reliance. It is driven through the area management of the prototype case study: Satra Pansuk Kok Nong Na R-Model, which can present guidelines on how to be an R-Model under the research framework into action within the framework. Research-based farming can be described as an approach and method. The development of the experimental area for the management of the Sufficiency Agriculture way of area with the King's Philosophy integrated into the Kok Nong Na R-Model Learning process using the multiple case study method. From all 3 case studies, there was the Sufficiency Agriculture way of Area Management with King's Philosophy integrated into the learning process of Kok Nong Na R-Model, case studies with good practices include case studies with good practices using integrated agricultural plots; A case study with good practices in developing community public areas into farmland and a case study with good practices in designing the Kok Nong Na model area. The first case study discusses inspiration, beginning with the study of King's Philosophy; His Majesty King Rama IX, who made us look like an example applied in life. The next case study involved the operation of a community learning center. From being a deserted place to dumping garbage, the idea was to develop the area to benefit the community, learn at school to solve poverty, go to learn the subject of the wise man. The third case; study involved research-based agricultural design with soil development, develop water sources, design planting areas including allocating space to be a religious place according to the way of the villagers starting with designing the area by digging a pond to make room for storing water sources, then take many plant species, type of planting trial and develop the soil at the same time in order to have enough produce to have enough to eat and use in the household. The development of community networks in case studies of area management using King's Philosophy integrated into learning about self-reliance according to the sufficiency agriculture way, consisting of 1) a network from the sufficiency agriculture community, Kok, Nong Na, with management and Management is driven by the goal of improving the quality of life of the community; 2) Network from educational institutions in the community doing activities with university students by designing activities by integrating classroom knowledge into educational institutions in the community, by cooperation between the Faculty of Education and the ASEAN Studies Center Mahachulalongkornrajavidyalaya University and Ban Don Mai Fai school; 3) Networks from various communities and educational institutions, and 4) a network of houses, temples, and schools to participate in cultural activities which designed activities for undergraduate students to learn about the Sufficiency Agriculture way of life in the Kok Nong Na R-Model passes this experience into the community.

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