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Research Article

A Prototype Model Development of Learning Process on Sufficiency Agricultural Community: A Case Study of Agricultural Area Management in Phanom Rung Subdistrict Municipality Buriram Province

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ABSTRACT

The objective of this research is to study a prototype of the learning process for the sufficiency agriculture community from agricultural area management with good practices, to develop a prototype model for the community learning process of sufficiency agriculture through agricultural area management in Phanom Rung Subdistrict Municipality Buriram Province, and to develop an agricultural area management network with a prototype model of the community learning process of sufficiency agriculture. Action research was designed according to the PAOR process by dividing the research process into 4 steps, consisting of the planning stage (Plan: P), developing a land management experiment area, practical steps (Act: A) in developing the experimental area according to the plan and learning lessons from land management, 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. Results indicated that 1) the prototype of the learning process for the sufficiency agriculture community from agricultural area management with good practices. 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 model area. The first case study discusses inspiration, beginning with the study of royal science. 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 according to various learning centers and used to develop the area. 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 starting with designing the area by digging a pond to make the area for a water source, 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. 2. Develop a prototype model of the community learning process of sufficiency agriculture through agricultural area management in Phanom Rung Subdistrict Municipality. Buriram Province found that the area was managed according to the Kok Nong Na pattern through the operational research process according to the PAOR research cycle, where a water management system was created by digging a pond with a reduced depth. An underground well is dug and water is drawn from underground using a solar cell system. Management of plant species in the area various plants are planted. There is a wide variety including fruit trees, perennials, nanny plants, rice, and Azolla microphylla. Management of cultural and religious areas are a design of the area in the Buddhist way by molding the Lord Buddha to be the center of spirit of the people in the

community. Including preparing an area to support the network's project, namely the Cow Bank. Dr. Luang Phor Daeng. This is a project that promotes soil development in the Kok Nong Na R-Model area. 3. Develop an agricultural area management network with a prototype model of the Sufficiency Agriculture community learning process. It was found that area management is feasible and appropriate for the area. As for network development, it is the creation of a network in 1) a common community to share information that is beneficial to mutual learning between members and interested parties, 2) network development between educational institutions; in the research process, there are institutions, study in areas such as Buriram Rajabhat University, Buriram Nursing College, and other educational institutions that become partners in the network and are an important part of joint activities under activities to develop the quality of life of activity participants.

Keywords: Prototype Model Development, Learning Process, Sufficiency Agricultural Community, Phanom Rung Subdistrict Municipality

1. Introduction

In traditional agriculture, water is a factor of production and the factor of production is the same land used once a year. Farmers wait 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) 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 a year, farmers have to leave their land vacant, with no cultivation taking place 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), 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 was grown.

From empirical data on the aforementioned problem conditions, the integration of modern science with the science of sharing happiness according to the royal science of the philosophy of sufficiency economy is a method that has been embraced by those who have tried and put it into practice, all of which have been successful and can be self-reliant according to the method. A life of sufficiency, integrating the principles of Buddhism regarding the middle path, moderation in cultivating various crops to be able to have enough food to eat throughout the year is a good thing in order to able 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 sub-district municipality in promoting living according to the philosophy of sufficiency economy in the community of the sub-district municipality in Phlapphlachai District Buriram Province (Phra Danaiphob Chutithammo et al., 2020), research on "Self-Reliant Lifestyle according to The Principles of Right Livelihood to Improve the Quality of Life of Farmers in The Central Northeastern Region (Jinaporn Phansawang et al., 2020) Research on "Ban Phu Community Sufficiency Economy: Into Practice," (Taweesak Chaipattha et al., 2009) 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) together with the situation of the spread of COVID-19, 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 is, therefore, 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 royal science 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. 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 having sufficient knowledge and some groups were not successful, probably due to lack of experience, lack of practical knowledge and understanding and lack of a network to help create continuous movement as shown in the research on "Three-Dimensional Virtual Field Trip Model, Kok Nong Na Model for Lowland Areas, (Rawinan Yimkaew and Kulchai Kultawanit, 2019), research on "Public Relations Strategies to Communicate the King's Science Concepts of the Power of People to Create the World Project Joining Forces to Follow in the Footsteps of the Father of the Land" (Apisara Kritavanich, 2019), "Disasters and Management of Thai Farmers" (Napasorn Soiyodthong, Wanwisa Chaemchoi and Choti Bodirat, 2020), research on "The King's Science: A New Theory of Agriculture in the Form of the "Kok Nong Na Model" (Sakol Phromsathit, Marisa Srisakaew and Sathaporn Wichairam, 2020), 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 will be 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 farmers. From this concept, the research team became interested in doing research to bring about changes. Concrete results in managing existing areas include (1) extracting knowledge from good practices: Sriburin (in Thai)+2 to create an area along the agricultural way of life so that farmers have the opportunity to learn had the opportunity to practice and space to practice in the framework of developing the original land inputs to practice with knowledge as a model; (2) Learning center: Kok Nong Na R-Model to be a center for learning and practicing to gain expertise and skilled along with having advisors to give advice until readers have the confidence to develop in your own area; and (3) Learning network: expand the network to share knowledge and develop it into a network to pass on knowledge in continue to develop.

2. Research Objectives

1. To study a prototype of the learning process for the sufficiency agriculture community from agricultural area management with good practices.
2. To develop a prototype model for the community learning process of sufficiency agriculture through agricultural area management in Phanom Rung Subdistrict Municipality Buriram Province.
3. To develop an agricultural area management network with a prototype model of the community learning process of sufficiency agriculture.

3. Research Method

In this research, Action Research was designed according to the PAOR process, with research steps divided into the 4 steps include the planning step (Plan: P) to develop a land management trial area with Royal Science integrated into Kok, Nong, and Na R-Model in areas outside the irrigation area. The Action step (Act: A) to develop the trial area according to Plans and lessons learned from land management using Royal Science integrated into the Kok Nong Na R-Model for community self-reliance according to the Sufficiency Agriculture method, observation step (Observe: O) by observing the results arising from monitoring. Practical work and the reflection step (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. Action research cycle can be as following:

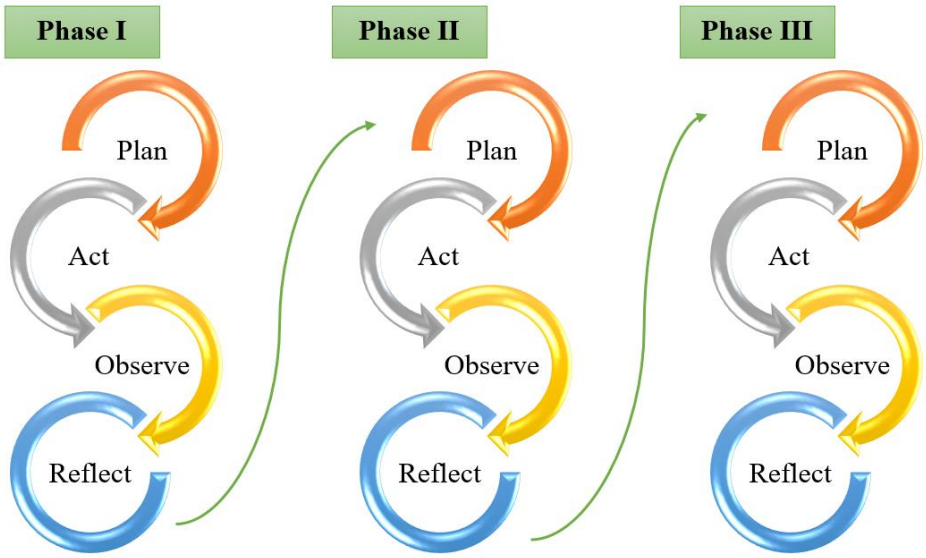

Figure 1 PAOR Action Research Cycle

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

1. Planning step (Plan: P); determine the target group that is interested in studying the target group for the study consists of leaders of the Sufficiency Agriculture Learning Center and members of learning centers from 3 learning centers, totaling 12 people, were obtained from purposive sampling. The target groups in the study will have the following qualifications: 1) continuously participate in learning center activities; 2) have experience in operating the Sufficiency Agriculture Learning Center; and 3) have experience in integration to develop learning with the practice of sufficiency agriculture. The research tool is the question for 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.

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 focusing on studying the model 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 study was 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.

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 It 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 verification is a process used to verify information 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. 3) Data analysis in the first phase of this research, it is qualitative research aimed at synthesizing the principles of Buddhism according to the Royal Science approach to learning about sufficiency agriculture for community self-reliance and analyze the data by creating inductive conclusions (Analytic induction).

4. Reflect step (Reflect: R); the reflection on learning results is linked to the research design in sub-research project in developing the Buddhist learning process according to the King's Science approach to learning about sufficiency agriculture for community self-reliance.

4. Research Results

4.1 Study of the prototype of the community learning process of sufficiency agriculture from agricultural area management with good practices. These are important steps in developing strong, sustainable agricultural communities: 1) Local studies and analysis begin with a study and analysis of the environment and natural resources in the area such as soil, water, weather conditions, and areas suitable for agriculture by using this information in agricultural planning and area management; 2) Creating understanding and cooperation in the community, create understanding and cooperation in the community by organizing activities related to agriculture such as training, seminars, or creating a space for exchanging experiences; 3) Developing a strategic plan for sustainable agriculture developing strategic plans for sustainable agriculture by using methods appropriate to the environment and resources of the area. and support in the use of agricultural technology and innovation; 4) Creating and developing farmers' skills and knowledge Creating and developing skills and knowledge of farmers in the area, such as using new technology, effective management of water and soil resources and using environmentally friendly agricultural methods; 5) Creating a support system structure creating appropriate support system structures for farmers in the area, such as establishing farmer groups, technical services and support in marketing and marketing; and 6) Monitoring and evaluation. Monitoring and evaluation is an important step in developing a sufficiency agriculture community by checking whether the operational plan has worked as specified or not, and further improve the operational plan to be appropriate. Studying a prototype of the learning process for the sufficiency agriculture community from agricultural area management with good practices is an important action.

4.2 To develop a prototype model of the community learning process of sufficiency agriculture through agricultural area management in Phanom Rung subdistrict municipality, Buriram province. There are important steps and activities that should be started: 1) Local survey and analysis begin with a survey and analysis of the local environment and resources, such as existing agricultural land, natural resources such as soil, water and climate, and exploring the culture and farming styles of the community; 2) Understanding community needs conduct a survey of the needs and problems of the farming community in the area by asking questions and creating a space for exchanging ideas and opinions; 3) Planning and goal setting develop plans and set realistic goals appropriate to community needs and resources, such as increasing productivity, reducing the use of chemicals or creating additional income; 4) Project creation and operation from planning and setting goals, develop appropriate projects for the development of sufficiency agriculture communities, such as training projects to learn new skills Support projects in marketing to increase income; 5) Analysis and evaluation present work and evaluate performance to check whether the project has achieved its goals or not, and continue to improve the operational plan; 6) Building cooperation and support, create cooperation and support between farmers in the community and between related agencies so that the project can proceed smoothly and successfully; and 7) Creating and strengthening innovation create and strengthen innovation in agriculture, such as the use of information and communication technology using new agricultural technology to increase efficiency and reduce risks in agriculture.By performing these steps, it will help create a prototype model of the sufficiency agriculture community learning process that is appropriate and effective for communities in those areas.

4.3 To develop an agricultural area management network with a prototype model of the Sufficiency Agriculture community learning process. Following these steps to create a suitable and efficient model which consisted of 1) Creating and promoting community needs; it begins with a survey and assessment of community needs in areas related to agricultural land management by organizing survey activities to receive information and opinions from the community; 2) Creating useful databases and resources, create a useful database of natural resources in the area, such as information about soil, water, weather, and other environmental conditions. This will help in planning and decision-making in agricultural area management; 3) Creating and promoting cooperation in the community and promoting cooperation between community members, such as establishing farmer groups to exchange knowledge and experience supporting activities that promote cooperation and collaboration in the community; 4) Creating and promoting education and learning and promoting education and learning about appropriate technologies and methods for agricultural land management by using useful tools and resources such as organizing training, seminars, or exchanging experiences; 5) Creating and promoting innovation and promoting innovations suitable for agricultural area management, such as the use of information technology using new agricultural technology to increase efficiency and reducing risks in agriculture; 6) Monitoring and evaluation monitoring and evaluating performance to check whether the project has achieved its goals or not, and continue to improve the operational plan; 7) Creating and promoting networks and promoting agricultural land management networks between communities and between related agencies. Therefore, the project can proceed smoothly and successfully. Carrying out these steps will help the agricultural area management network with the sufficiency agriculture community learning process prototype model to build and develop local farming communities to be able to achieve the goals set efficiency and sustainability.

5. Discussions

5.1 A model of the community learning process on sufficiency agriculture from agricultural area management with good practices, 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 model area. The first case study discusses inspiration, beginning with the study of Royal Science, 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 according to various learning centers and used to develop the area. 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 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 produce enough produce to have enough to eat and use in the household. This is in line with the research guidelines of Marisa Srisakaew, Sathaporn Wichairam and Sakol Phromsathit (2020) in "The Study of King's Science: A new Theory of Agriculture in the Form of the "Kok Nong Na Model" that reflects the results of the study supporting research on the issue that "...Kok Nong Na Model is the principle of using the area for maximum benefit. Emphasis is placed on storing enough water and creating products to sustain life at the individual and household level... will be a Self-Reliant use of resources in the area, reduce dependency on outsiders create stability in households and communities leads to strength in the development of the country...." or in the work of Natthavipa Champasi and Sukhumvit Saisophon (2021) on "The Results of Implementing the Kok Nong Na Model Water Management Policy in Udon Thani Province, had studied together with points from the study supporting the points discussed in the matter. ".... Budget continuity of management as well as surveying people in the area to plan clear operations, integrate operations with relevant organizations. This will solve the problem at the local level, and lead to self-reliance of farmers in the future...." including in the work of Ruchikarn Sanon and Nitipat Kittiraksakul (2021), Application of the Kok Nong Na Model for Agricultural Management, in the city for sustainability "What is proposed is the idea that the application of the Kok Nong Na Model for sustainable urban agricultural management can be applied in various urban areas according to needs and environmental factors that must be taken into account before considering urban agricultural management, physical and environmental factors social and cultural factors and economic factors which results in strengthening the economic power of the family and community towards a stable economy and strengthening the family towards the community and society..." in line with the work of Phra Adhikarn Phonnarai Kittikuno (Panbutr) (2022) on topic "Kok Nong Na Model and Sustainable Development According to Buddhist Principles" that was proposed that "....Kok Nong Na Model 'Is it a theory that is truly possible for sustainable development according to international conditions and the Thai context? by applying the principles of human development which are Buddhist guidelines. Then, to analyze and check together and to use it as a guideline for integrating with the sufficiency economy; theory to cover all issues, Kok Nong Na Model, which is a project that was generated from the use of the King's Science. The theory of sufficiency economy was developed to solve the problem of shortage of water for agriculture and limited amount of land to cover all aspects of the problem. It creates a balanced existence, with food to eat, to use, to sell, circulating throughout the year, when analyzed, it was found that it is a theory that can answer the questions of sustainable development in the context of agriculture, and when the principles of human development according to Buddhism are integrated together, the problem can be solved more comprehensively and sustainably, or in the work of Weeranuch Promchak and Pannapong Wongnasri (2020), "King's Science and Local Development" used in the study "...The King's Science in local development in order to solve problems at the root cause and sustainably, readers don't have to rely on the macroeconomic system..." both confirming that "...using Royal Science to help solve such problems, therefore, it is sustainable development of the country..." including in the work of Pannapong Wongnasri and Nanthida Chansiri (2022), bringing the King's Science with the principles of unity to the development of community potential where had a study of community potential leading the framework for development and study the empirical results resulting from the implementation of Royal Science guidelines.

5.2 Developing a prototype model for the community learning process of sufficiency agriculture through agricultural area management in Phanom Rung Subdistrict Municipality, Buriram Province found that the area was managed according to the Kok Nong Na pattern through the operational research process according to the PAOR research cycle, where a water management system was created by digging a pond with a reduced depth. An underground well is dug and water is drawn from underground using a solar cell system including digging to make a chicken filling canal, management of plant species in the area, various plants are planted. There is a wide variety including fruit trees, perennials, nanny plants, rice, and Azolla microphylla. Management of cultural and religious areas; it is a design of the area in the Buddhist way by molding the Buddha to be the center of spirit of the people in the community including preparing an area to support the network's project, namely the Cow Bank. Dr. Luang Phor Daeng. This is a project that jointly promotes soil

development in the Kok Nong Na R-Model area. This issue is in line with the guidelines of Phramaha Hansa Dhammahaso et al. (2022) in the topic "Kok Nong Na Model, Development, Sustainability," that presents the results, drive and lead to the creation of consistent activities, as shown in the research that space design management of dividing land, planting gardens, planting forests, digging ponds, farming, and building shelters, practice combining various types of organic farming in the same area, including: 1) Kok (forest), which is an elevated area where "3 types of forest, 4 benefits" are planted; 2) Nong (swamp), which is the digging of a swamp, canal, or water channel, called Khlong Sai Kai; and 3) Na (rice), which is an area; rice fields for growing organic rice. There is soil restoration management, do organic farming, create a stable livelihood for your family. It is an honest profession, answering the Sustainable Development Goals (SDGs) in a concrete way, consistent with the study of Pattama Komentchamrat (2016), the Relationship between the Level of Knowledge about the Sufficiency Economy Concept and The Level of Practice regarding Living According to the Sufficiency Economy Concept of the Song Khlong Subdistrict Community, Bang Pakong District, Chachoengsao Province, or in the work of Maitri Intreya and others (2021), management according to the Sufficiency Economy approach in the community that reflects the results of the study on activities due to economic, social and environmental conditions. that contributes to sufficiency and balance and the destination is an activity that reflects living happily, sufficiency, not being extreme, not being too greedy, people will live happily, management according to the principles of sufficiency economy in the community as shown.

5.3 Developing an agricultural area management network with a prototype model of the Sufficiency Agriculture community learning process. It is something that happens in the research process that drives the learning center and a network development that creates a network in 1) a community to share information that is beneficial to mutual learning between members and interested parties, and 2) the development of a network between educational institutions, which in the research process has institutions; study in areas such as Buriram Rajabhat University, Buriram Nursing College, and other educational institutions that become partners in the network and are an important part of joint activities under the activities to develop the quality of life of the participants, such as the network of students and faculty of the Faculty of Education, etc., which uses the term researcher network that uses the process of the prototype agricultural area as a base for connecting with each other. This practice appears as a common feature in the work of Phusit Phukachanod and Suwanee Horsaengchai (2020) leading a model village of Sufficiency Economy with the attitude of moving beyond poverty to the level of sufficiency: Sabaidee Isaan, studied through leaders of 54 model villages of sufficiency economy in 5 provinces, namely Udon Thani, Nong Bua Lamphu, Nong Khai, Bueng Kan, and Loei, that used networking activities, learning, and exchanging knowledge Know together It is a tool for expanding results by using the framework of "Good governance" and "Democracy" as a common goal, consistent with the work of Jinaporn Pansawang and others (2020), The role of the Subdistrict Municipality in Promoting Living according to The Philosophy of Sufficiency Economy in The Community of The Subdistrict Municipality in Phlapphlachai District, Buriram Province; a study by Phra Danaipop Jutidhammo Nopparit Jitsaithar and Jirayu Sapsap (2020); The Role of The Subdistrict Municipality in Promoting Living according to the Philosophy of Sufficiency Economy in The Community of The Subdistrict Municipality in Phlapphlachai District Buriram Province, in the work of Sakaowduan Pimpisan (2015); Lifelong Education and Sustainable Community Development according to The Principles of Sufficiency Economy, in the work of Busaba Aree (2012), Household Accounting according to The Sufficiency Economy Approach in The Era of Globalization, Thaweesak Chaipap Tatha et al. (2009) on topic "Ban Phu Community Sufficiency Economy: Into Practice", the work is consistent with many common issues such as promoting collaborative learning, driving knowledge into practice, stimulating systematic practices through agricultural methods, put knowledge into concrete practice in the Sufficiency Economy Philosophy, promote and create additional careers that use local materials appropriate to each community area. Human immunity is built by providing knowledge to leaders of various groups by taking them on study tours or training, living life according to the principles and should reduce household expenses and earn extra income by finding community enterprise sources, knowledge aspect. The King's Science should be embraced as a principle in the daily life of the people in the community, establishment of learning centers which appear in many shared learning centers in a networked manner, developed according to the framework of the King's Science. Not all of these consistent studies focus on self-sufficiency but the overall behavior reflects practical self-reliance or create self-reliance as well according to the framework of this research study as well.

6. Knowledge from Research

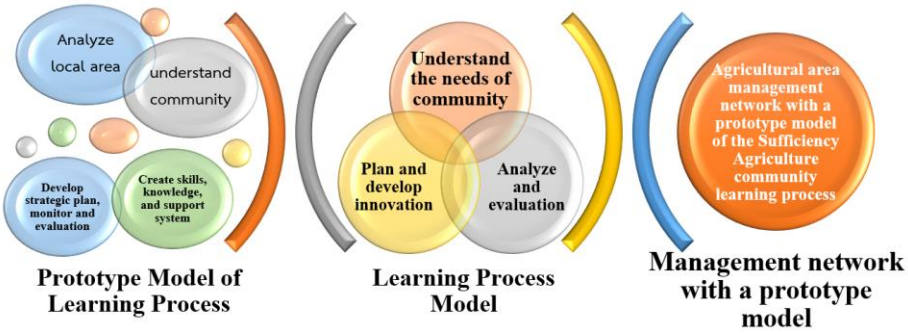

Figure 2 Knowledge from Research

7. Recommendations

A. Recommendations for Policy

1. Provincial level organization in the research area put them into plans and policies at the local organizational level, such as plans and policies for the driving of local government organizations in the provinces where the research was conducted.
2. Organizations at the local level, such as sub-district administrative organizations, municipalities, lead to writing policies and driving plans into practice, with the research unit as a support, jointly driving the development and driving Royal Science.

B. Recommendations for Practice

1. Learning guidelines should be established to model the community learning process of sufficiency agriculture from agricultural area management with good practices by embracing the philosophy of Sufficiency Economy and integrating it with all project activities, including the Kok Nong Na R-Model project with community learning, creating community participation in the whole house, temple, school (Bowon in Thai), Cow Bank project driven by Kok Nong Na R-Model, planting forests and fruit orchards in the Kok Nong Na R-Model area, the organic vegetable project and fish ponds in the area of Kok Nong Na R-Model.

2. Should design and create learning activities developing a prototype model for the community learning process of sufficiency agriculture through agricultural area management in Phanom Rung subdistrict municipality, Buriram province. There are activities to learn about sufficiency agriculture for students and youth in the area. and organize student volunteer 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.

3. Agricultural area management networks should be developed with a prototype model of the Sufficiency Agriculture community learning process by taking the initiative and being a model for area management according to the pattern of Kok (forest), Nong (pond), and Na (rice field) 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.

C. Recommendations for Further Research

1. This research is an action research and field study with lessons learned, ready to create a network of workshops in the next research. Action research should be designed to obtain empirical findings and activities to be designed sequentially.
2. From the findings of this research, it can be used in mixed methods research designs and by developing both quantitative research and qualitative research to obtain both in-depth and extensive findings covering the development of a prototype area for area management with royal science integrated into learning, Kok Nong Na R-Model along with developing a network to cover even more.

8. Conclusion

This research article focuses on a prototype model development of learning process on sufficiency agricultural community in a case study of agricultural area management in Phanom Rung Subdistrict Municipality Buriram

Province. Results of study indicated that there are three case studies with good practices for 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 royal science. 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 according to various learning centers and used to develop the area. 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 starting with designing the area by digging a pond to make area for a water source. The developed area was managed according to the Kok Nong Na pattern through the operational research process according to the PAOR research cycle, where a water management system was created by digging a pond with a reduced depth. An underground well is dug and water is drawn from underground using a solar cell system. Management of plant species in the area various plants are planted. There is a wide variety including fruit trees, perennials, nanny plants, rice, and Azolla microphylla. Management of cultural and religious areas are a design of the area in the Buddhist way by molding the Lord Buddha to be the center of spirit of the people in the community. In addition, preparing an area to support the network's project, namely the Cow Bank. Dr. Luang Phor Daeng is also added. This is a project that promotes soil development in the Kok Nong Na R-Model area. An agricultural area management network with a prototype model of the Sufficiency Agriculture community learning process. It was found that area management is feasible and appropriate for the area. As for network development, it is the creation of a network in a common community to share information that is beneficial to mutual learning between members and interested parties, and network development between educational institutions.

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