PARTICIPATORY MANAGEMENT OF IRRIGATION WATER FOR AGRICULTURE IN SUPHAN BURI PROVINCE

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Introduction

The origin and significance of the problem (Statement and Significant of the Problem)

Suphanburi Province is an agricultural city. Able to produce a variety of agricultural products in terms of plants, livestock and aquatic animals. Due to the favorable area and infrastructure conditions There is an irrigation system that covers up to 70 percent of the agricultural area. Found that some agricultural areas are still in the irrigated area. But there is still a shortage of water for agriculture. which the water delivery system is insufficient and thorough

From the drought-prone areas of Suphan Buri Province by the Department of Land Development 2019 It was found that most of the area 60 % had low-level drought in the area of Muang District two brothers Bangplama Sri Prachan Dan Chang and Doem Bang Nang Buat District There are some parts, especially areas that are far from water sources, are high-risk areas of drought. in Nong Ya Sai District Don Chedi and Doem Bang Nang Buat District Part of the data from the recurring flood risk area of Suphan Buri Province by the Office of Space Technology and Geo-Informatics Development 2018 _ _ found that most areas of Suphan Buri Province There are areas prone to repeated flooding. by risk and severity is located in the lower plains of the province namely Some areas of the municipality Bang Pla Ma District and Song Phi Nong District The main cause of the flooding problem Because the Tha Chin River has low drainage efficiency. In addition, most of the areas are low plains. looks like a basin when the northern water that drains through the Tha Chin River is large causing the water to overflow flooding a wide area Suphan Buri Province has agricultural areas. amount 2,315,004 rai Located in the irrigated area of 1,223,214 rai accounted for 52.82 percent and there are areas outside the irrigation area amount 1,092,564 rai representing 47.18 percent

As for the agricultural areas in the irrigated area, there are water delivery and maintenance projects.13 projects responsible in the area of 10 districts with a useful area Total 1,713,768 rai Representing 70 percent of the agricultural area. But because in some areas there is a shortage of water in some agricultural areas. located in the irrigation area which the water delivery system is insufficient and thorough From the data of the agricultural mapping system for proactive online management (Agri Map Online), Department of Land Development. The Ministry of Agriculture and Cooperatives can classify it as an agricultural area of 2,403,063 rai or about 71 percent of the province. Most of them are paddy fields, about 41.44 percent of the province, or 58.30 percent of the agricultural area.

Demand for agricultural water use of farmers in Suphan Buri Province was assessed from agricultural areas in rainy and dry seasons both in the irrigated and non-irrigated areas. with the rate of water use for cultivation per rai The water demand for agriculture in the irrigated area is estimated from existing irrigated areas and future plans from irrigated area development. in which the rainy season is full of cultivation In the dry season, 50 percent of the irrigated area is cultivated. The water demand for non-irrigated agriculture is estimated from the current non-irrigated farmland. And it is expected that the overall planting area will

not change significantly. The results of the assessment of water demand for agriculture can be concluded that the water demand for agriculture is 3,062.31 million cubic meters/year and the water demand for agriculture will increase to 3, 202.01, 3, 228.83 and 3, 274.06 million cubic meters /year. 5 years, 10 years and 20 years respectively from the Royal Irrigation Department's vision Has specified one of the missions that Enhancing participation in the process of water resource development and water management networking and participation (Networking and Participation) of all sectors in the management of irrigation water at the area level (Networking Collaboration Participation). population Management of irrigation water for agriculture in Suphan Buri Province

Research Question

1. What is the level of participation of the people in the management of participatory agricultural irrigation in Suphan Buri Province?

2. What factors are related to Collaboration with public participation in participatory agricultural irrigation water management in Suphan Buri Province

3. What are the ways to promote participation of the public sector in managing irrigation water for agriculture with participation in Suphan Buri Province?

Research Objectives

1. To study the level Participation of central, provincial, local and people agencies in managing irrigation water for participatory agriculture in Suphan Buri Province.

2. to study factors that are related The relationship with the participation of the public sector in managing irrigation water for participatory agriculture in Suphan Buri Province.

3. To study and find ways to promote participation of the people in the management of irrigation water for participatory agriculture in Suphan Buri Province.

Significant of the Research

1. The results of the study will show the level of Participation of central, provincial, local and people agencies in managing irrigation water for participatory agriculture in Suphan Buri Province.

2. The results of the study will reveal the factors that are related to Corresponds to the participation of both central and provincial agencies. Local and people sectors in managing irrigation water for agriculture with participation in Suphan Buri Province

3. The results of the study will inform Factors affecting the participation of central, provincial, local and people agencies in managing irrigation water for participatory agriculture in Suphanburi Province.

4. The results of the study will lead to guidelines for promoting the participation of central, provincial, local and public sectors in the management of irrigation water for participatory agriculture in Suphan Buri Province. and can continue to expand to other areas

Research Hypothesis

Research on Participatory Agricultural Irrigation Water Management in Suphanburi Province

The researcher has formulated the following assumptions:

1. Personal factors socio-economic factors cultural, organizational or community factors communication factor and supporting factors Affects participation in water management.

2. Personal factors socio-economic factors cultural, organizational or community factors communication factor and supporting factors at different levels affecting participation in water management at different levels

3. Organizational or community cultural factors communication factor and supporting factors have a relationship

Scope of the Research

This research is a mixed method (Mixed Method), which is a quantitative and qualitative study. and the results of the data collection were analyzed according to the hypothesis to get objective answers

population boundary

The population in this quantitative study was 400 farmers in irrigated areas in Suphanburi Province, compared to the table calculated from the Taro Yamane formula. Data were collected by distributing questionnaires.

The population in the qualitative study was divided into 2 parts:

Group 1 The key informants conducted in-depth interviews. using a semi-structured interview form who sets the guidelines for irrigation plans in Suphan Buri Province, including the Governor of Suphan Buri Province Director General of the Royal Irrigation Department President of the Suphan Buri Farmers Network, Water Management Academician and Head of the Water Transmission and Maintenance Project in Suphan Buri Province

a focus group discussion, including the chairman of the network of farmers and water users, 25 members, 5 officers from Suphan Buri Irrigation.

Content Scope

In this participatory research on irrigation water management for agriculture in Suphan Buri Province, the researcher determined to study factors related to participation, including personal factors. socio-economic factors cultural, organizational or community factors communication factor and supporting factors The study was linked to the levels of participation at different levels. including participation in decision-making participation in action Participation in receiving benefits and participation in the evaluation

Place and time boundaries

The study was carried out in the irrigation area of Suphan Buri Province. Between May - December 2023

Definition of Term

Participation in water management means modern water management, civil society leadership. Let's come together to think together in water management. for the persistence of proper and sufficient water

Civil society refers to groups of people at different levels who are strongly organized. In order to participate in the public decision-making process. that affect development in various areas of the locality

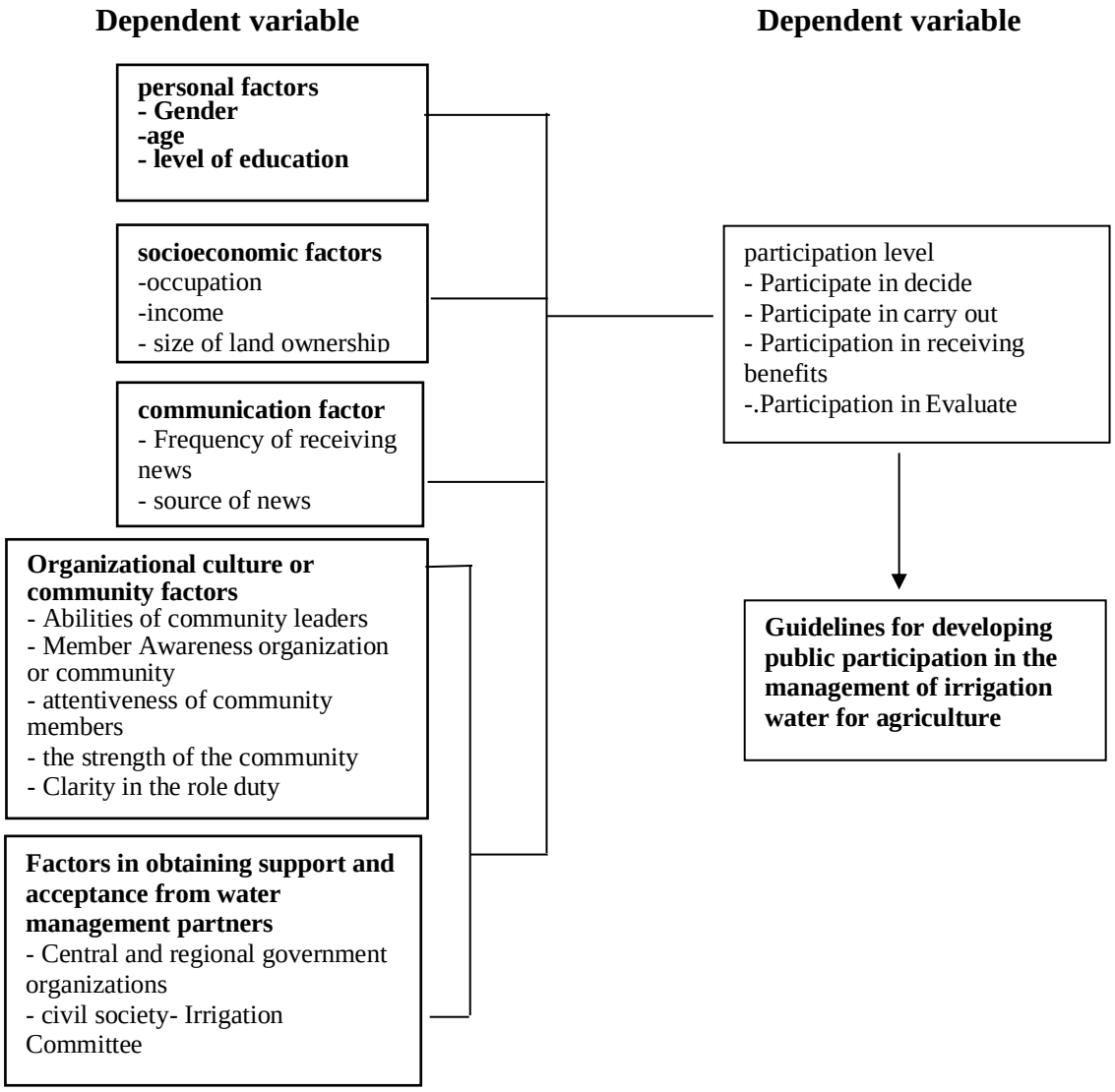
Irrigation Management Committee means the highest organization and network in Manage irrigation projects It consists of representatives from different parts of the irrigated area. such as water user organizations Irrigation Project Officer Subdistrict Administrative Organizations located in Area Public and private agencies The network is a center for integrating work. Together between different parts have the duty to share water. Set measures to control water use and maintenance. think together, act together from the beginning until the end of the process

Theological Concept and Related Literatures

1. Development Model Theory
2. Development Management Theory
3. Participatory Theory
4. Concept of water resource management

5. The concept of behavioral science
6. The concept of communication
7. The concept of creating awareness
8. The concept of the role of community organizations
9. The concept of leadership roles
10. Related Research
11. Conceptual Framework

Conceptual Framework



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