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FACTORS CAUSING THE DECLINE OF IRRIGATED RICE PRODUCTION AREA IN THE MUNICIPALITY OF KIAMBA, SARANGANI PROVINCE, PHILIPPINES

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ABSTRACT

Rice is the most widely used cereal for human consumption, attributing its production as one of the most important activities for the global population. Therefore, given its economic and nutritional value, assessing the sustainability of this production process could be worth noting. Thus, this study focuses on the main reason for the declining irrigated rice production area in Kiamba, Sarangani Province, Philippines. The study also highlights the need to support farmers by providing agricultural inputs, capital, and equipment and training extension agents to disseminate new technologies effectively. Overall, rice farming is crucial for food production, income generation, and sustainable development in the Philippines.

Keywords: Irrigated rice production, rice farming, farmers, food production, income generation, sustainable development

1. INTRODUCTION

Rice (*Oryza sativa L.*) is an important staple in the Philippines and a food constant for millions of Filipinos. Meals in the Philippines would not be complete without some form of rice on the table. Across the Philippines, about one-third of the country's alienable and disposable lands cultivate rice (Navata & Turingan, 2013). Because of its importance, rice has become the most socially, culturally, economically, and politically sensitive commodity in the Philippines, and ensuring an adequate, stable, and affordable supply is critical.

Kiamba is one of the seven municipalities in Sarangani Province that is devoted to rice production. The municipality's economy is primarily based on agriculture, with large rice fields surrounding it.

Unfortunately, the irrigated rice production area in Kiamba, Sarangani Province, has declined by 3.62% from 2012 (1,229 ha) to 2022 (871.43 ha), according to the Office of Municipal Agriculturists (OMAg). Several factors decreased the physical area devoted to rice fields: urbanization, industrial land use, and competing agricultural uses (Bordey, 2010).

2. METHODOLOGY

This explanatory research study employs thematic content analysis as its methodology, which best describes the innovative data collection techniques (Torrentira, 2019). The study generated the qualitative data through desk reviews and key informant interviews (KII) with concerned stakeholders, including the Office of Municipal Agriculturist (OMAg) staff, the Office of the Municipal Planning and Development Coordinator (MPDC) staff, and the Irrigators Association in Kiamba, Sarangani Province.

The researcher believed that the interviewees were sufficient to answer the KII. The survey employed a developed semi-structured questionnaire (Casinillo et al., 2023) with two questions: the reasons for the decline and suggestions for enhancing Kiamba's irrigated rice production area.

3. RESULT AND DISCUSSION

There are numerous threats to our rice lands, both natural and anthropogenic. The concerned stakeholders' common answers to the factors contributing to the declining rice production area in Kiamba are land conversion, cultivation shift, and inadequate irrigation.

Land Conversion

One of the reasons for the loss of agricultural lands, including the rice production area in the Philippines, is land conversion that results from urbanization, industrialization, and population growth (Taer, 2024). Some of the barangays in Kiamba experience this phenomenon. The municipality is experiencing constant population growth, leading to the use of some agricultural lands for informal settlements and infrastructure development, such as the

construction of schools and commercial buildings, to accommodate the growing population. One can observe this in the rice fields adjacent to the municipality's national highway.

There is also a scenario in which the productive rice lands' heirs are subdivided; some of the parcels of the rice land are converted for urban purposes, and others are sold to non-farmers and eventually become idle land.

Shift of Cultivation

Rice farming is labor-intensive and less profitable than high-value cash crops because of low selling prices and high production costs (Lapniten, 2021). Farmers tend to shift crops based on market demand, like banana, coconut, and high-value crop production, allocating their resources and land to the crops. It will significantly affect food security by increasing prices and reducing rice supply.

The current problem facing the municipality regarding this factor is the unregulated expansion of aquaculture, particularly prawn farming. Converting a significant amount of rice land into a prawn farm will require a portion of the irrigation resources intended for rice farming.

Inadequate Irrigation

Rice production is highly dependent on irrigation, requiring continuous water availability to support its growth. Non-functional irrigation leads to soil degradation, reduced yield quality, weed proliferation, and increased susceptibility to pests and diseases. This will contribute to the idling of rice lands (Taer, 2024).

Another problem for the municipality is that irrigation systems need to be rehabilitated to make them functional. This problem persists, resulting in the land being either unutilized or converted to other crops, potentially leading to a permanent loss of rice land (Taer, 2024).

4. CONCLUSION AND RECOMMENDATIONS

This research study determines the factors contributing to the decrease in irrigated rice production area in the municipality of Kiamba. These factors result from lenient enforcement of land use regulations, high production costs, and non-functional or damaged irrigation systems. Eventually, these factors will threaten the long-term food self-sufficiency and agricultural income of farmers, tenants, and laborers who engage in rice farming (Taer, 2024).

We must strengthen agricultural policies and guidelines for land use to regulate land conversion and minimize these problems. The next step is to invest in irrigation infrastructure rehabilitation and expansion, with a focus on existing rice lands. Moreover, the OMAg, with the assistance of MPDC, should assess the municipality's rice land to develop an effective program, projects, and activities favoring rice farming and strictly implement monitoring activities to prevent the permanent conversion of rice land.

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