

CHAPTER I. INTRODUCTION

A. Research Background

Agriculture significantly contributes to the Indonesian economy. According to data from BPS, in 2022, the agricultural industry accounted for 12.40% of the national GDP, equivalent to approximately 2,428 billion Rupiah. This statistic positions the agricultural sector as the third most important contributor sector to the GDP, following the processing/manufacturing industry (18.34%) and the large trade and retail industry (12.96%). Additionally, the agricultural sector plays a pivotal role in employment generation. The workforce in the agricultural sector is estimated to comprise 38.7 million individuals, constituting 28.6% of the total labour force (BPS, 2023). Therefore, the agricultural sector is the primary employment source for millions of people, particularly in rural areas.

The agricultural sector is segmented into five subsectors, namely the food crop subsector, plantation subsector, forestry subsector, livestock subsector, and fisheries subsector. Each of these subsectors plays distinct roles and functions, making vital contributions to the overall development of the agricultural sector (Wijaksana et al., 2017). The progress of each subsector, including the food crop subsector, holds immense importance and strategic significance. This is particularly because the food crop subsector directly sustains the livelihoods of most of the Indonesian (Kementan, 2020).

Rice stands out as a primary commodity in the food subsector of Indonesia. As a staple within the grain group, rice serves as the principal source of calories and protein for the Indonesian population. In 2021, the average calorie consumption per capita in Indonesia was recorded at 2,143.2 kcal, with the grain group contributing the highest proportion at 39.57%. Additionally, the average protein intake for Indonesians in the same year was 62.28 grams, with the grain group accounting for 32.06%. The table above underscores Indonesia's significant reliance on grain groups, particularly rice (Appendix 1).

Rice is the primary food for nearly 96.95% of Indonesians, with an average per capita consumption of 94.9 kg annually. The global average rice consumption is

only 60 kg per year (BPS, 2021). According to the report by Liputan 6 (2023), Indonesia, due to its substantial population, holds the position as the fourth-largest consumer of rice worldwide, trailing behind China, India, and Bangladesh.

West Sumatra stands out as one of Indonesia's central provinces for rice production. According to BPS data (2023), the rice production in West Sumatra in 2022 reached approximately 795,306.36 tons, marking a 4.28% increase compared to 2021, when it was 762,694.10 tons. This positions West Sumatra as the 10th largest rice-producing region nationally and the 4th largest on the Sumatra region (Appendix 2). Consequently, the challenges surrounding rice commodities become critically important to address. One of the current prominent issues concerning this commodity is the surge in rice prices in the market.

According to Ali & Ambya (2017), the increase in rice prices directly affects economic activities, particularly for low-income families. The upturn in rice prices reduces the real income of individuals who heavily rely on rice consumption. This, in turn, can influence the spending patterns of families, especially those with limited income, as rice typically holds a top priority as a staple food before addressing other needs (Rahayu, 2010).

The findings from previous studies have provided valuable insights that serve as a foundation for formulating relevant variables in the current study. Brianto (2015) emphasizes that fluctuating rice prices can be attributed to various factors, including rice production, rice imports, rice consumption, and other influencing elements. Similarly, Widodo (2014) suggests that both world rice prices and harvested dry grain prices influence the rice prices. Additionally, Yanti et al. (2020) highlight that the primary causative factors impacting rice price levels are rice production (60%) and the inflation rate (38%).

These studies highlight the importance of research on rice prices, explaining how different factors influence these prices. In this study, we focus on rice consumption, rice production, and harvested dry grain (GKP) prices because they are thought to affect rice prices in West Sumatra from 2018 to 2022. Besides analyzing the factors that influence rice prices, it is also necessary to have a method to estimate or predict the price of this strategic commodity. This can help stakeholders more effectively manage the complexities of rice pricing, promoting

sustainable agricultural practices, ensuring economic stability, and determining the best decisions related to rice pricing issues.

B. Research Problem

According to Hartono et al. (2018), the provinces with the highest prices for medium-quality rice in Indonesia include West Papua, DKI Jakarta, Riau Islands, Papua, West Sumatra, Central Kalimantan, West Kalimantan, North Kalimantan, East Maluku, and East Kalimantan. West Sumatra Province, one of the major rice producing provinces in Sumatra, exhibits a notable upward trend in rice prices, positioning it among the provinces with the highest rice prices in the Sumatra region. The prices ranged from Rp11,236/kg to Rp12,474/kg in 2020, while rice in West Sumatra was priced between Rp12,000 and Rp13,950/kg (Appendix 3). According to data from BPS covering the period of 2021-2022, the trend of rice prices in West Sumatra consistently demonstrates an increase (Figure 1).

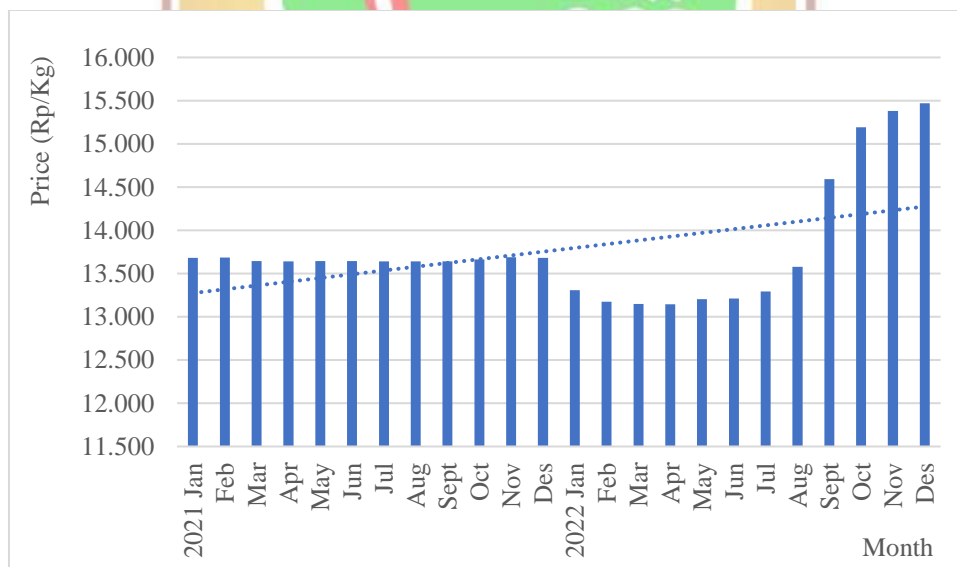


Figure 1. Average of Rice Price in West Sumatra 2021-2022
Source: BPS-Statistics Agency of West Sumatra Province

Based on the analysis of the prices of four types of rice in West Sumatra, namely Cisokan Solok Rice, Anak Daro Rice, IR-42 Padang Rice, and Randah Putih Bukittinggi Rice, Figure 1 illustrates an increasing trend in rice prices in West Sumatra Province. Price fluctuations in 2021 were relatively stable. However, a marked surge was observed during the latter part of 2022. At the beginning of 2022, rice prices steadily decreased, hitting their lowest level by April. However, after

that, prices started to rise quickly and kept increasing for the rest of the year, leading higher prices by December 2022. The most substantial increase occurred in September 2022, reaching 7.5%, with prices rising from Rp13,579 to Rp14,593. The highest average rice price during that period occurred in December 2022, reaching Rp15,469 per kilogram. Meanwhile, the lowest average price was recorded in March and April 2022, at Rp13,147 per kilogram. (Appendix 4).

The supply and demand theory can explain the production's influence on prices. Ibnu Taimiyah in Banun (2021) explained that prices would rise in the event of a decrease in supply and an increase in demand or if demand is constant. Conversely, prices will fall if there is an increase in supply (Banun, 2021). In a market, equilibrium is achieved when the quantity of goods supplied at a given price equals the quantity demanded at that same price. This delicate balance between demand and supply establishes a market condition where neither surplus nor shortage prevails, leading to stability in both price and quantity (Sadono, 2009).

Despite the increase in rice production compared to the previous year, a deeper analysis based on BPS data (2023) reveals that rice production in West Sumatra over the last two years has shown a declining tren (Appendix 6).

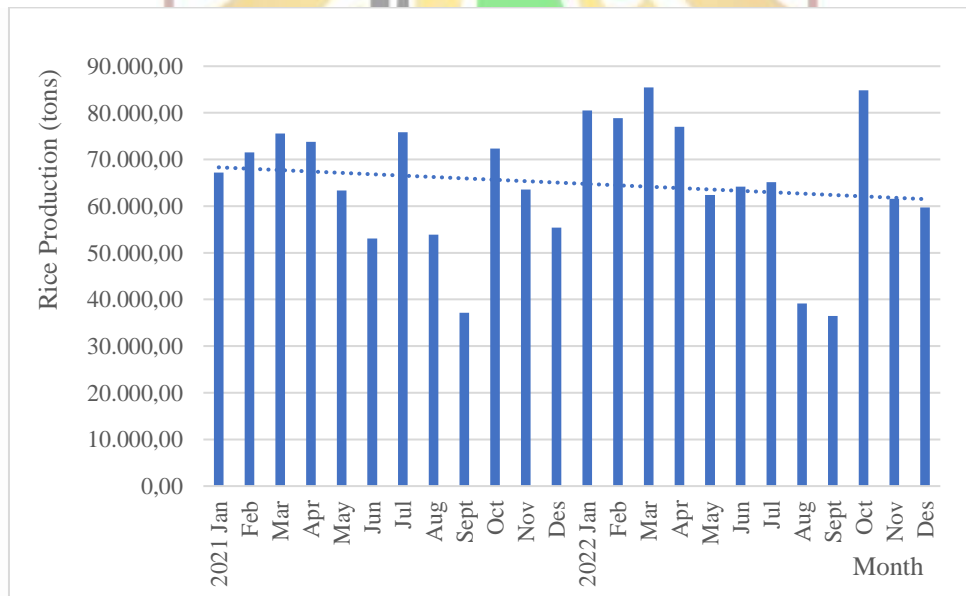


Figure 2. Total Rice Production in West Sumatra 2021-2022
 Source: BPS-Statistics Agency of West Sumatra Province

Figure 2 shows the fluctuation of rice production in West Sumatra has similar pattern for each year. In general, rice production showed a declining trend in 2021-

2022. In 2021, the highest rice production occurred in July, amounting to 75,871 tons, followed by March with 75,547 tons. Meanwhile, the lowest production occurred in September, amounting to 37,132 tons. In 2022, the highest production occurred in March, amounting to 85,427 tons, followed by October with 84,808 tons. Meanwhile, the lowest production occurred in September, amounting to 36,444 tons.

According to Sari (2014), more than the escalating of rice production is needed to ensure the country's adequate fulfilment of rice needs. This is attributed to the population growth outpacing the increase in rice production. With a growing population, there is a corresponding rise in rice consumption. However, per capita consumption levels also play a crucial role. West Sumatra, for instance, exhibits a relatively high per capita rice consumption of 99.7. Kg/year, up from 98.3 kg/year in 2020 and 97.9 kg/year in 2021, after experienced significant decline since 2016 until 2019 (BPS, 2023). Despite the decreasing trend in per capita consumption, the population continues to increase annually. This situation results in fluctuations in the overall consumption rate (Appendix 7).

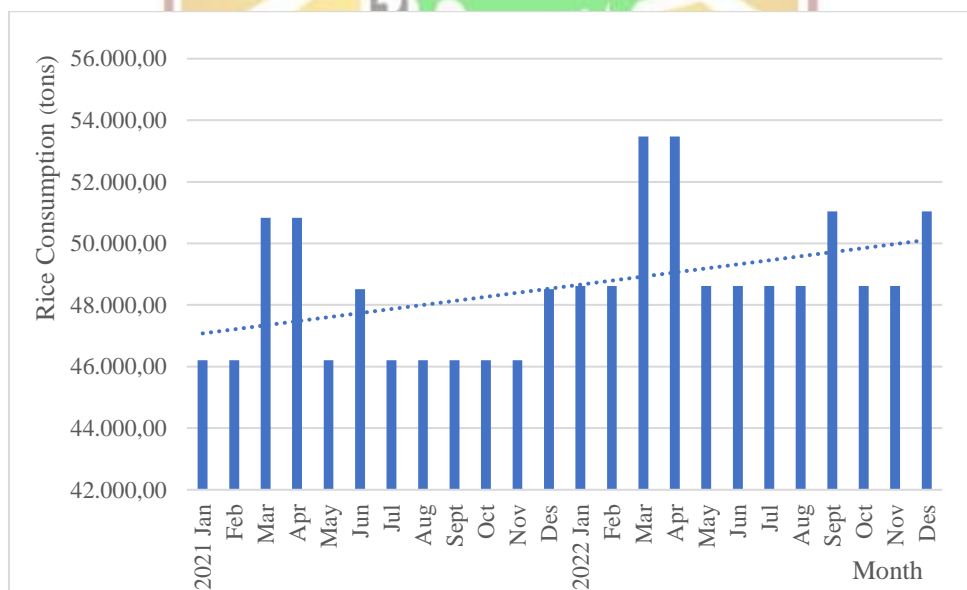


Figure 3. Total Rice Consumption in West Sumatra 2021-2022
Source: Food Agency of West Sumatra

Figure 3 illustrates the fluctuation in rice consumption in West Sumatra, showing an increasing trend. In General, the highest levels of consumption are

observed during months with religious holidays, specifically from March to May and in December. In 2021, the highest consumption levels occurred in March and April, amounting to 50,827 tons, followed by June and December with 48,517 tons. In 2022, the highest consumption levels also occurred in March and April, amounting to 53,475 tons, followed by September and December with 51,044 tons

Another influential factor in determining the price is the price of dry paddy harvest (GKP). As noted by Anggita (2021), the GKP price can significantly impact the selling price of rice, whether in large or small quantities. A high grain price is likely to increase rice production costs, leading to higher rice prices. Conversely, decreasing grain prices can reduce production costs and lower rice prices. According to BPS data, there has been an upward trend in harvested dry grain prices in West Sumatra over the past seven years. Although there was a gradual decline from 2018 to 2021, with recorded prices of Rp5,565, Rp5,531, Rp5,471, and Rp5,381 in 2022, there was a sharp increase to reach Rp5,907.37 (Appendix 5).

Based on the description above, it can be seen that rice is an essential commodity and has a crucial role in and impact on the Indonesian economy. Changes in the level of public consumption, rice production, and other variables will affect changes in rice prices in the market. Therefore, further research is needed to determine the factors that affecting rice prices in West Sumatra.

From the description above, the following research questions are formulated.

1. How are the movement of the rice price, rice production, rice consumption, and harvested dry grain (GKP) price in West Sumatra in 2018-2022?
2. What factors are affecting the rice price in West Sumatra?
3. What is the forecast for rice price in West Sumatra for 2024?

From the description above, the author is interested in studying, researching, and understanding these issues directly academically. The author focuses on the problem in this study with the title "*Factors Affecting the Price of Rice in West Sumatra*".

C. Research Objective

Based on the formulation of the problem above, the objectives of this study are as follows:

1. Describe the movement in rice price, rice production, rice consumption, and harvested dry grain (GKP) price in West Sumatra in 2018 – 2022.
2. Analyze the factors affecting the price of rice in West Sumatra.
3. Conducting a forecast of the price of rice in West Sumatra for 2024.

D. Research Benefit

1. For students, as information to increase knowledge and as a reference for more research on rice prices in West Sumatra.
2. For the government, this is consideration when determining policies related to rice price stability in West Sumatra.

