

# CHAPTER I INTRODUCTION

## A. Background

In Indonesia, shallots are the largest vegetable commodity in terms of production, which has consistently increased every year. However, there was a decrease in production on 2022 (Appendix 1). As a horticultural commodity, shallots have significant benefits, including: (1) being a staple because they are an ingredient in every Indonesian dish; (2) serving as herbal medicine for various diseases; (3) containing energy, carbohydrates, sugars, fats, proteins, vitamins, minerals, acids, and other nutrients needed by humans; (4) reducing unemployment; (5) having a good and guaranteed market opportunity; (6) adding to the country's foreign exchange. The government is considering developing shallots in Indonesia (Putri et al., 2018).

Shallots are a strategic commodity, so it is necessary to conduct a development strategy analysis for this commodity for the following reasons: (1) increased competitiveness, (2) innovation, (3) resource optimization, (4) adaptation to environmental changes, (5) better decision-making, and (6) understanding of the market and consumers. The success of shallot development is influenced by the application of cultivation technology, namely the use of appropriate superior varieties, quality seeds, fertilization, pest and disease control, as well as weed management, and post-harvest technology improvements (Simatupang, 2017). This is reinforced by Nurasa & Darwis (2007) that the success of shallot cultivation is greatly determined by the intensity of plant maintenance carried out by farmers. In addition, it is also influenced by marketing and trade factors, including the development of joint business units (cooperatives or other legal entities) and the development of information systems (product supply and demand prices) to support efforts to capture market opportunities. Therefore, a good strategy is needed to develop the shallot commodity so that it can reach its maximum potential.

Solok Regency is the largest producer of shallots in West Sumatra Province. According to data from the Central Statistics Agency (2023), in 2022, Solok Regency produced 188,515.6 tons of shallots (Appendix 2). The high production is due to the shallot seeds owned by Solok Regency, namely "SS Sakato." Awang Maharijaya, Head of the Tropical Horticulture Study Center at Bogor Agricultural

University, stated in 2021 that the potential of the SS Sakato variety of shallots is extraordinary. This variety has proven to be adaptive and has relatively high productivity. Compared to shallots in other regions, the SS Sakato variety is much better and can also improve the welfare of farmers. Besides superior seeds, the vast land area also contributes to the high production of shallots in Solok Regency. The Regent of Solok, Epyardi, mentioned that his team has conducted a survey of land that can be cultivated and land that has already been utilized by the community. The land available for cultivation by the community is approximately 74,000 hectares, consisting of 39,000 hectares of rice fields and 28,000 hectares of horticultural agriculture. This means there are still about 7,000 hectares of land that can be utilized to increase the production of shallots, aiming to meet the demand for shallots in West Sumatra.

Shallots are a strategic commodity that requires a well-thought-out strategy for their development. Therefore, it is necessary to identify internal and external factors to see which strategic factors are possible in the development of shallots farming and to find the right strategy.

## **B. Research Problem**

Director General of Horticulture, Priharto Setyanto (2023), stated that Solok Regency has been designated by the Ministry of Agriculture as a national center for shallot production outside Java Island to meet national needs. This is because the production of shallots in Solok Regency ranked third nationally in 2022, with a production of 188,563 tons. In addition, as one of shallot production centre in Indonesia, Solok Regency is expected to help fulfill the availability of national shallots. One of the largest contributors to shallot production in Solok Regency is Lembah Gumanti District with production reaching 140.044 tons in 2024 (Appendix 3).

The Lembah Gumanti District contributes 58% of the total production and represents the shallot of Solok Regency. However, until now, the use of synthetic fertilizers and pesticides in Lembah Gumanti District still exceeds normal limits. Farmers believe that to combat pests, pesticides are necessary; the more pesticides used, the better result they will get. From the fertilization aspect, the Ministry of Agriculture's shallot cultivation guidelines (2023) recommend a total of

approximately  $\pm 500$  kg/ha of chemical fertilizers per planting season, consisting of base fertilizers and two subsequent fertilizations. Previous research shows that the use of fertilizers by shallot farmers in Lembah Gumanti District can reach 700 - 1,000 kg/ha per season, which means it exceeds the government's recommended dosage. This has the potential to increase production costs while simultaneously reducing fertilization efficiency. Based on the study by Reflinaldon et al. (2009), residues of active pesticide ingredients such as diazinon, propenofos, dimethoate, and cypermethrin have been detected at levels of 0.067–2.006 mg/kg, although there is no primary data on monthly consumption. Informal observations indicate a spraying frequency of 2–3 times per week, far above the ideal recommendation of once a week. Illahi (2022) in his research found that horticultural farmers in the highlands of Solok Regency have the freedom to use chemical pesticides, so the farmers apply various pesticide brands obtained from the nearest agricultural stores, which are then mixed together depending on the pest or disease complaints affecting their crops. This is certainly not in accordance with the principles of Integrated Pest Management (IPM), according to the Food and Agricultural Organization (2022). Integrated Pest Management (IPM) is an ecosystem-level approach to crop production and protection that combines various management strategies and practices to grow healthy plants and minimize pesticide use. Most farmer in the Lembah Gumanti District consider the application of pesticides in agriculture to be a beneficial action given their current conditions and needs. The activity of applying pesticides is not new, so it has become ingrained in every individual farmer.

Identifying supporting and inhibiting factors from both internal and external sources is the first step in the strategic planning of agricultural area development (Ommani 2010), or it is a subsequent step after determining the organization objectives, which in this case is the shallot farming in Lembah Gumanti District. Based on the existing problems, the research needs to be conducted to identify the appropriate and well-planned factors and development strategies. This is so that the development of shallot agribusiness in Lembah Gumanti District, Solok Regency, can yield optimal results in supporting the development of Solok Regency as a

national shallot production center. In addition, it will also have a positive impact on farmers' income and the welfare of the community in the Lembah Gumanti District.

Based on the problem formulation outlined above, the research questions can be formulated as follows:

1. What are the external and internal factors that influence the development of shallots farming in Lembah Gumanti District?
2. What are the alternative strategies formulated for the development of shallot farming in Lembah Gumanti District?

From the description above, the author is interested in examining, researching, and understanding the issue. The focus of this study is on the problems within the research titled ***“Development Strategy for Shallots Farming in Lembah Gumanti District Solok Regency”***

### **C. Research Objectives**

1. Describing the internal and external factors of shallot farming in Lembah Gumanti District
2. Formulating development strategies for shallot farming in Lembah Gumanti District

### **D. Research Benefit**

1. The government and related institutions are expected to utilize this research as a reference for the planning and development of shallot cultivation in Lembah Gumanti District.
2. As a consideration in decision-making regarding the strategy for developing shallot agriculture in Lembah Gumanti District and Solok Regency.