



Received: February 12, 2021

Revised: April 01, 2021

Accepted: April 20, 2021

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DESCRIPTIVE OF QUANTITATIVE DATA | SUPPLEMENTARY

Analysis of Factors Affecting Seaweed Production in Malangke District in North Luwu Regency

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Abstract: The purpose of this study was 1) to determine the partial effect of working capital factors, labor, infrastructure, and cultivated area on farmers' seaweed production. 2) To determine the simultaneous effect of factors, working capital, labor, infrastructure, and arable land area on farmers' seaweed production in Malangke District, North Luwu Regency. The population in this study were all seaweed farmers in North Luwu District, totaling 324 people. The sampling technique in this study used a simple random sampling method so that the number of samples was 76 people. The analysis model used was Multiple Regression with the help of the SPSS version 17 program. The results showed that there was a partial effect of working capital, infrastructure, and land area on farmers' seaweed production simultaneously. This is indicated by the calculated F value = 3.478 with a significance value of 0.012 less than 0.05. This indicates that if seaweed farmers want to increase seaweed productivity, they should increase the amount of working capital, labor, infrastructure, and land area together.

Keywords: Working Capital, Infrastructure, Cultivated Area.

1. INTRODUCTION

A fishing community is a community living in a coastal area whose main livelihood is utilizing the natural resources found in the ocean, whether in the form of fish, shrimp, seaweed, coral reefs, and other marine resources. Fishing communities have special characteristics that set them apart from other communities. That is a characteristic that is formed from life in the ocean which is very harsh and full of risks, especially risks that come from natural factors. Their main income comes from the sea, in the form of fishing, seaweed, and other marine wealth. One of the leading commodities currently receiving priority in the development of the North Luwu district is the seaweed commodity because this business is very promising considering the potential of this area, most of the beaches are suitable for seaweed cultivation of the type *Eucheuma cottoni* (Balinese jelly the local name) in Malangke District, Malang Regency. North Luwu is quite broad, stretching from east to west for approximately 7 km, with an area of 1000 ha, containing the excellent marine potential for the development of seaweed farming production potential.

Based on existing data, seaweed production averages 300 kg per hectare per harvest season or around 1.2 tons per year of wet seaweed (North Luwu Maritime Affairs and Fisheries Service, 2009). The strategy for implementing agricultural sector development policies, in particular, the fisheries sub-sector, aims to:

- Increase the production and quality of fishery products both to meet food, nutrition, and raw materials for the domestic industry as well as for the export of fishery products.
- Increasing the productivity of fishing businesses and adding value and increasing fishermen's income.
- Expand employment and business opportunities and support regional development.



d) Improving the development of sustainability of fishery resources and the environment.

With this fact, it is only natural that the potential of existing fishery resources is truly developed for the prosperity of the people by continuing to maintain and maintain the sustainability of these fishery resources, besides maintaining the factors that support increased seaweed production. For North Luwu Regency, seaweed cultivation has been carried out since 1998 for the following reasons: (1) The waters of North Luwu Regency have the potential suitable for seaweed cultivation. (2) Seaweed cultivation is not too difficult to maintain so that it can be carried out by every fisher farmer, (3) Seaweed cultivation can open up employment opportunities for fishing communities, (4) Seaweed commodities have good prospects for foreign markets as raw materials processing industry, (5) the contribution of foreign exchange from seaweed exports is quite large to the total regional export value of North Luwu Regency. Based on geographical conditions, the sea area of North Luwu Regency is directly adjacent to the provinces of Central Sulawesi and West Sulawesi or is in the waters of the Gulf of Bone. Natural conditions and marine biodiversity in North Luwu Regency are influenced by the existence of islands, coastal areas, and beaches, thus providing unique conditions for the development of seaweed cultivation. This study wanted to observe and analyze the factors that influence seaweed production, namely working capital, labor, infrastructure, and arable land area.

The working capital factor is included in this study because production is strongly influenced by working capital. As we know that in production theory the amount of output/production is highly dependent on working capital. This means that with working capital, seaweed farmers can do their business well. The greater the working capital issued, the greater the production obtained. The labor factor is included in this study because income is strongly influenced by labor. As we know, in the theory of factors of production, the amount of output/production that will be related to income depends on the number of workers. Infrastructure is very important in carrying out operations because besides affecting quality it will also determine the amount of product to be produced. Likewise, the cultivated area or the area used for seaweed cultivation determines the amount of production. In the theory of production, it is explained that production is determined by factors of production such as arable area and labor. Capital, technology, infrastructure, and so on. For this reason, an analysis of the factors affecting the level of seaweed production must be carried out so that future development of seaweed can be more planned and directed as well as understanding the main problems faced by seaweed farmers, especially in Malangke District, North Luwu Regency. Based on the background above, the problem is formulated as follows:

1. This factor; working capital, labor, infrastructure, and arable land area partially influence seaweed production in Malangke District, North Luwu Regency.
2. weather factor; Working capital, labor, infrastructure, and cultivated area simultaneously influence seaweed production in the Malangke sub-district, North Luwu Regency.

Data Description

Table 1: Number of Fishermen and Seaweed Production in North Luwu Regency, 2010.

No	Subdistrict	Amount Fisherman	Amount Production(tons)
1.	Sabang	-	-
2.	Barbuda	-	-
3.	Alas	324	562,10
4.	West Malang	196	438,08
5.	Sukamaju	-	-
6.	Bone-bone	285	322,00
7.	Page	-	-
8.	Mappedeceng	-	-
	Total	805	1.322,18

Table 2: Individual Characteristics of Respondents by Age

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid <30th	33	33.0	33.0	33.0
30-50	67	67.0	67.0	100.0
Total	100	100.0	100.0	-

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