



INCOME ANALYSIS OF SEAWEED FARMING IN TANJUNG HARAPAN VILLAGE SUB-DISTRICT NUNUKAN SELATAN NUNUKAN DISTRICT

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Abstract. This research aims to recognize the feasibility of seaweed farming in Tanjung Harapan Village, Nunukan Selatan District, Nunukan Regency. The population in this study is all seaweed farmers in the Tanjung Harapan Village. The sample was taken by 15% of the existing population of 20 seaweed farmers. Data collection techniques used are observations and interviews. Data analysis techniques using descriptive analysis and the feasibility of seaweed farming are reviewed from R/C. Based on the analysis, farmers' activities in cultivating seaweed show a continuous routine cycle. Overall, seaweed cultivation in the village of Tanjung Harapan dominates in coastal waters. Seaweed cultivation activities are the main profession that becomes the backbone of the community economy in that village. Seaweed farming in Tanjung Harapan has feasibility in terms of good water conditions and strategies so as to encourage seaweed farming communities to use it as cultivation land. This cultivation also provides opportunities for workers. All the facilities used as support are also good. In addition, this aspect of feasibility is also determined by good production that contributes to the income of seaweed farmers.

Keywords: Seaweed; Cultivation; Tanjung Harapan

1. INTRODUCTION

Seaweed farming is one of the most productive business sectors. In recent years, this business sector has only been seen as an economically profitable business field, thus encouraging public interest in cultivating seaweed. This interest is driven by the increasing demand for fisheries products, including seaweed.

This market demand is an indicator of a change in consumption towards processed fishery based products. This should certainly be captured as an economically

promising business opportunity. Thus, seaweed cultivation in every region in Indonesia must take advantage of this business opportunity by cultivating seaweed professionally following the guidelines that have been provided.

Suparman (2014) argues that seaweed cultivation is very profitable because the cultivation process does not require a high level of skill and large capital, so it can be done by all members of the fishing family including housewives and children. In addition, the harvest and production period is relatively short when compared to other marine aquaculture such as milkfish, shrimp and mussels. The market share of seaweed is very wide both at home and abroad. Even at the local level of consumption (market), cultivators are still exhausted to meet it, not to mention the increasing foreign demand, which can even be said to be unlimited.

Seaweed species are good and important for local aquaculture. This will also support efforts to revitalize marine and fisheries that rely on shrimp and tuna. Seaweed at least has exports that are currently widely open, the price is also relatively stable in the market, the seaweed cultivation cycle is also relatively short so that it can encourage increased production quickly. As a type of seaweed, it does not have synthetic products. In addition, the seaweed cultivation business can also be classified as a labor-intensive business activity so that it can absorb labor.

Head of the Fisheries Service Suhadi (2022) said Nunukan is one of the largest seaweed producers in Indonesia. With the designation of Nunukan as a seaweed cultivation village out of 133 districts in Indonesia, only 13 districts have been designated as seaweed cultivation villages in 20 locations and it just so happens that specifically for the Kalimantan region, from the southern region to the north, only Nunukan has been designated as a seaweed cultivation village.

Suhadi added that the establishment of Nunukan as a Seaweed Aquaculture Village is based on the Decree of the Minister of Maritime Affairs and Fisheries of the Republic of Indonesia number 16 of 2022 concerning Aquaculture Villages (Attachment to KP Decree No.16 of 2022, serial number 97). The purpose of establishing Aquaculture Villages is to develop superior commodities or endemic local commodities to prevent extinction. Then realize aquaculture business activities that are connected starting from post-harvest infrastructure, business scale development of business actors and markets. Thus, the cultivation process is carried out based on feasibility according to the requirements in various seaweed cultivation development mechanisms.

2. RESEARCH METHODOLOGY

2.1 Location of Research

This research was conducted in Tanjung Harapan Village, South Nunukan Sub-district, Nunukan Regency with the consideration that research related to the feasibility analysis of seaweed cultivation is very minimal, this is what encourages this research to be very important. This research was conducted from January to May 2023.

2.2 Data Analysis

The data analysis technique used in this study uses descriptive analysis and the feasibility of seaweed cultivation in terms of R/C, then R/C can be written using the following formula:

R/C = TR : TC (Soekartawi, 1994) Description:

R/C =Return Cost

TR =Total revenue or total revenue (Rp)

TC = Total cost or total cost (Rp)

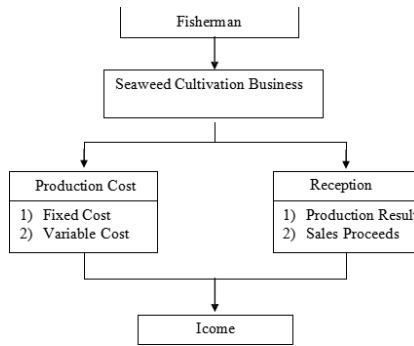
R/C indicates that:

R/C > 1 → Feasible (go)

R/C < 1 → not Feasible (go)

R/C = 1 → in BEP state

2.3 Research Procedure



Flowchart 1. Research Process Flow

3. DISCUSSION OF RESEARCH RESULTS

3.1 Fixed Cost

The average fixed cost of seaweed farming is a cost that is not determined by the size of the cultivation business because it is constant for a certain period of time. Fixed costs can be seen brought this is as follows:

Table 1. Fixed costs of seaweed cultivation in Tanjung Harapan Village

No.	Description	Amount (Rp)
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1	Rope	35.000.000
2	Boats and engines	45.000.000
3	Mineral Bottle	450.000
	Total	80.450.000

3.2 Variable Cost

Variable costs in seaweed farming are costs that can change depending on the size of the cultivation business that is being done, the more land that is being done, the more costs are incurred. Variable costs in seaweed cultivation such as seeds, labor, fuel oil. Variable costs can be seen below.

Table 2. Average Variable Costs of Seaweed Cultivation Fishermen in Tanjung Harapan Village

No.	Description	Total (Unit/MT)	Price.	
			Unit Value (IDR/MT) (Rp)	
1	Seedlings (/bentan gan)	150 Stretch	15.000	2.250.000
2	Wages			
	• Seedling Installation	2	100,000	200,000
	• Seedling Maintenance	1	100,000	100,000
	• Harvest	2	200,000	400,000
3	Gasoline	20	12,500.0 0	250,000
				3.200.000
	TOTAL			3,200,000 x 12/month = 38.400.000

3.3 Total Cost Analysis

Total cost is the sum of fixed costs and variable costs. The fixed costs in this study consist of including ropes, boats, machines, and mineral bottles as buoys amounting to Rp 80,450,000. While variable costs consist of the cost of purchasing seaweed seeds and labor costs so that for one planting season a variable cost of Rp 3,200,000 per season is needed so the costs required for 1 year are Rp 38,400,000.

Table 3. Average Total Cost of Seaweed Cultivation in Tanjung Harapan Village

No.	Description	Number/Year
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1	Fixed Fees	80.450.000
2	Variable Costs	IDR 38,400,000
	Total	118.850.000

3.4 Acceptance Analysis

The revenue of seaweed cultivation is the product of the quantity of seaweed produced in kilograms (Kg) and the selling price of seaweed in rupiah (Rp). The greater the amount of harvest (Kg) produced and the selling price (Rp), the greater the revenue obtained, which determines the selling price of the harvest based on information from other traders.

Table 4. Average Total Production and Total Revenue of Seaweed Cultivation Business in Tanjung Harapan Village

No.	Description	Results/Month	Results/Year
1	Production (Kg)	640	7.680
2	Price/Kg (RP)	16.000	

3.5 Revenue Analysis

Seaweed fishermen earn an average income per month of planting of Rp 10,240,000 / season while per year RP 122,880,000. and reduced fixed costs and variable costs as much as 118,850,000.

Table 5. Average Income of Tanjug Harapan Village Grass Business Fishermen

No.	Description	Yield/Year (RP)
1	Total Revenue	122.880.000
2	Total Cost	118.850.000
	Total	4.030.000

4. CONCLUSION

The research results that can be concluded from the research that has been carried out are as follows. The results of observations in the field show that activities in cultivating seaweed show a continuous routine cycle. The type of seaweed cultivation profession is the main profession which is the backbone of the community's economy in Tanjung Harapan Village, South Nunukan District, Nunukan Regency. The average income of fishermen is IDR 10,240,00

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