

## Potential Analysis of the Seaweed Based Region In Southeast Sulawesi

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**ABSTRACT :** Development of seaweed-based downstream industry in the Southeast based on the results of previous studies, still have a few issues such as: First, seaweed harvested young so its quality is often low. Secondly, drying dried just like that, without any drier. So from farmers, water content of about 30-40. Third, downstream industries both in the Southeast and nationally is very limited. Fourth, government regulation has not been sharp, focused and precise. This study, focused on the aspects of the production potential of the region with respect to the resulting seaweed. Its purpose is to provide information about potential areas seaweed production. The method of analysis is Quotient Location (LQ).

**KEYWORDS:** Seaweed, Potential Areas, Information, Industry Downstream

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### I. INTRODUCTION

Seaweed is one of the mainstays of revitalization of fisheries. With a long coastline of the country, the available potential of about 1.1 million ha of land. 20% explored new lands. Commodity market outlook is bright. Because easily cultivated, the need was great. Global needs Eucheuma seaweed 236,000 dry tons per year, 145,000 tons of new met. For this type of Gracilaria, jelly-making materials, 96,000 tons, 48,500 tons of dry newly produced per year. Currently, the world production of dried seaweed around 1.2 million tonnes. About 50 percent of Indonesia and 35 percent of the Philippines. Among the many commodities fisheries, seaweed is an excellent commodities that have the greatest chance to be able to overcome a number of problems over the nation, and a nation of Indonesia as well as delivering major developed and prosperous. In an effort to increase the value-added seaweed Southeast Sulawesi, Indonesia in particular, the development of downstream industries is the right strategy to be done. However, the development of seaweed-based downstream industry in the Southeast is based upon the results of previous studies, still keep some persmasalahan include: (1) Seaweeds are often harvested young (less than 40 days) so the quality is low, it is triggered by the act of a rogue collectors order to meet quotas; (2) The moisture content of dried seaweed from farmers about 30-40%, whereas the default is 11.80 to 13.90%, this was due to the drying process of dried just like that, without any drier; (3) Downstream industries both in the Southeast and nationally is very limited, so little added value; (4) government regulation both at central and local levels have not been sharp, focused and precise in the development of seaweed farming. Depart the above background, the specific objectives of this study include:

[1] Identify seaweed production in each region in the Southeast.

[2] Analyzing keterkaitan (lengkage backward and forward lengkage) seaweed with other products

### II. STUDY REFERENCES

**Agribusiness, Agro-Industry and Agriculture-Based Industrial Development Strategy :** Agribusiness Etymologically it is a combination of two words meaning farm-based business. Many opinions about the limitations and scope of agribusiness, depending on the unit and the purpose of analysis. Traditionally, by Biere (1988) in Daryanto (1992) interpreted as agribusiness activities outside the farm gate (beyond the farm gate, off-farm) which includes industry and trade of farming inputs, activities agricultural product processing industry into refined products and their primary trade, and activities that provide necessary services such as banking, transportation, insurance and storage.

**Industry Definition :** The word comes from the English industry "Industry" which means the company that makes or produces goods or light weight make it clear it is in the Law No. 5 of 1984 which mentions that the industri is economic activity that processes raw materials, raw materials, semi-finished goods and finished goods into or goods with a higher value for its use, including the design activities and engineering industries.

Meanwhile, according Winardi (1991), the industry is usually defined as a collection of similar companies (eg the textile industry which is a collection of textile firms).

**Small Industries Group Criteria :** According to Law No. 5 In 1984 the industry group is the major parts of industrial activities, the group also called upstream industry or industry group basis, the downstream industry groups, and groups of small industries.

In Indonesia, the industrial sector can be divided into 3 groups in the industry are:

- [1] Industry group consisting of basic industrial machinery and basic metals, basic chemical industry.
- [2] Industry group the value of the various industry
- [3] Industri small group

### Characteristics of Small Industries

Broadly speaking, the characteristics of small industries can be described as follows:

- [1] Small industrial units are mostly industrial units and households with a number of folk handicrafts folk crafts with a limited amount of work tanaga loose and division of labor.
- [2] Most come from families themselves are sometimes not paid a salary, although wage enforced relationship between workers and employers are very informal.
- [3] The technology used is simple and yet dikejutkan mechanical/ automatic.
- [4] Raw materials mostly get from the region itself.
- [5] How to market goods produced by promotion or advertisement is not indispensable in the development effort, but through intermediaries.
- [6] Have a role in providing for and improving family income, mebuka more job opportunities and help businesses income distribution.
- [7] Business management without the knowledge of the origin of good management and a variety of other characteristics which substantially raises the difficulty in promoting their business.

## III. METHODS

### Data Analysis Techniques

Once the data is collected, the next process is to analyze the data to answer the hypothesis. The analysis tools used are as follows:

#### Location Quotient.

This analysis technique is used to determine the category of a sector is included in the base or not base sectors. Formula of engineering analysis are: (Iwan Jaya Azis, 1993)

$$LQ_i^j = \frac{VA_i^j / VA_i^I}{PDRB^j / PDRB^I}$$

Keterangan :

- $LQ_i^j$  = Location Quotient sector i in region j
- $VA_i^j$  = Value-added sector i in region J
- $VA_i^I$  = Value-added sector i at the provincial level
- $PDRB^j$  = Gross Domestic Product in the region J
- $PDRB^I$  = Gross Regional Domestic Product of Province

From the calculation results obtained, it can be interpreted in two categories, namely:

1. When the LQ value less than or equal to 1, indicating that the sector is not a sector basis.
2. When the values to LQ greater than 1, indicating that the sector is a sector basis.

## IV. DATA ANALYSIS RESULTS

### Potential Seaweed Each District/ City

To determine a potential area of commodity grass seed or not seed at the district level in Southeast Sulawesi districts used by analyzer Location Quotient (LQ). Commodity seaweed seed is a commodity that has a strong role in the districts when compared with other marine commodities similar to other districts in the county. From the analysis of LQ can be known a commodity or commodity is said not, is determined by the following criteria; commodities that have a number of  $LQ > 1$  including commodity, whereas when the number of  $LQ < 1$  not including commodity.

**Seaweed potential in North Buton :** Based on the results of Location Quotient (LQ) the fisheries sub-sector in the respective districts in North Buton admistratif region, the obtained results as shown in the following table.

**Table 2**  
**Location Quotient (LQ) Fisheries Subsector in North Buton**

Subdistrict	Cultivation			Other Sea Results	
	Catch (Ton)	Crab (Ton)	Shrimp (Ton)	Seaweed (Ton)	Others (Ton)
Bonegunu	2.76	5.74	48.67	0.75	5.43
Kambowa	10.46	0.00	0.00	0.00	0.00
Wakorumba	10.46	0.00	0.00	0.00	0.00
Kulisusu	8.10	5.91	0.09	0.23	6.81
West Kulisusu	0.00	0.19	0.02	1.11	0.00
North Kulisusu	8.87	54.95	0.00	0.00	80.66

**Seaweed potential in Buton :** Based on the results of Location Quotient (LQ) of the Fisheries sub-sector in the respective districts in the region admistratif Buton, the obtained results as shown in the following table.

**Table 3**  
**Location Quotient (LQ) Fisheries Subsector in Buton**

Subdistrict	Marine Fisheries	Mariculture		
		Grouper	Mabe	Seaweed
1. Lasalimu	0.94	0.00	0.00	1.66
2. South Lasalimu	1.08	0.00	0.00	0.21
3. Siontapina	1.07	0.00	0.00	0.28
4. Pasarwajo	1.08	0.00	0.00	0.19
5. Wabula	1.10	0.00	0.00	0.00
6. Wolowa	1.10	0.00	0.00	0.00
7. Sampolawa	1.08	0.00	0.00	0.24
8. Batu Atas	1.10	0.00	0.00	0.00
9. Lapandewa	1.10	0.00	0.00	0.00
10. Batauga	0.91	0.00	0.00	1.90
11. Siompu	1.10	0.00	0.00	0.00
12. West Siompu	1.08	0.00	0.00	0.20
13. Kadatua	1.08	0.00	0.00	0.23
14. Kapontori	0.98	0.00	11.81	0.93
15. Gu	0.74	0.00	0.00	3.66
16. Sangia Wambulu	0.86	0.00	0.00	2.48
17. Lakudo	0.98	9.20	0.00	1.19
18. Mawasangka	0.95	0.00	0.00	1.54
19. East Mawasangka	0.81	0.00	0.00	3.01
20. Central Mawasangka	0.88	0.00	0.00	2.28
21. Talaga raya	0.97	0.00	0.00	1.35

**Seaweed potential in Kolaka :** Based on the results of Location Quotient (LQ) the fisheries sub-sector in the respective districts in the region admistratif Kolaka, the obtained results as shown in the following table.

**Table 4**  
**Location Quotient (LQ) Fisheries Subsector in Kolaka**

Subdistrict	Seaweed	Grouper	Sea Cucumbers	Pearls
1. Watubangga	1.00	0.00	0.00	7.20
2. tanggetada	1.00	1.37	0.33	0.00
3. Pomalaa	0.98	11.75	12.13	0.00
4. Wundulako	1.00	0.00	0.00	0.00
9. Kolaka	1.00	0.00	0.00	0.00
10. latambaga	1.00	0.00	0.26	0.00
11. Wolo	1.00	0.00	0.06	2.92
12. Samaturu	1.00	0.00	0.06	0.00

**Seaweed potential in Kendari :** Based on the results of Location Quotient (LQ) the fisheries sub-sector in the respective districts in the administrative region of Kendari, the obtained results as shown in the following table.

**Table 5**  
**Location Quotient (LQ) Fisheries Subsector in Kendari**

Types of Fish	2007	2008	2009	2010
1. Grouper Mice	1.32	1.16	0.57	1.01
2. Grouper Lumpur	0.94	0.86	0.82	1.34
3. White Fish	0.70	0.71	1.25	1.25
4. Baronang	1.08	0.94	0.90	1.08
5. Seaweed	1.00	1.00	1.00	1.00

**Seaweed potential in Muna :** Based on the results of Location Quotient (LQ) the fisheries sub-sector in the respective districts in the administrative area Muna, the obtained results as shown in the following table.

**Table 6**  
**Location Quotient (LQ) Fisheries Subsector in Muna**

Subdistrict	Fish Catch	Cultivation			Other Sea Results		
		Embankment	Fish Pond	Crab	Shrimp	Seaweed	Sea Cucumbers
1.Tongkumo	1.31	0.00	0.00	0.00	0.00	0.84	0.00
3.Parigi	0.00	36.51	23.69	0.00	0.00	0.00	0.00
5.Marobo	1.37	0.05	0.00	2.81	0.00	0.71	0.00
6.Kabawo	1.07	6.73	0.00	0.81	0.00	0.67	0.00
7.Kanangka	1.05	15.68	0.41	0.62	0.00	0.23	0.00
8.Kontu Kowuna	0.00	0.00	0.00	0.00	0.00	1.85	0.00
9.Tikep	1.48	0.49	0.00	0.27	0.00	0.67	0.00
10.Maginti	1.36	0.10	0.00	0.16	0.00	0.79	0.00
11.Cenral Tiworo	1.29	0.99	0.00	0.00	0.00	0.78	49.54
12.South Tiworo	2.39	0.00	0.00	0.00	0.00	0.00	0.00
13.North Tiworo	0.30	0.00	0.00	5.24	0.00	1.49	3.25

Subdistrict	Fish Catch	Cultivation			Other Sea Results		
		Embankment	Fish Pond	Crab	Shrimp	Seaweed	Sea Cucumbers
14.Lawa	0.00	0.00	4350.36	0.00	0.00	0.00	0.00
15.Sawerigadi	0.00	0.00	4350.36	0.00	0.00	0.00	0.00
16.Barangka	0.00	0.00	4350.36	0.00	0.00	0.00	0.00
18.Kusambi	0.74	0.81	0.00	0.00	0.00	1.24	0.00
21.Katobu	2.39	0.00	0.00	0.00	0.00	0.00	0.00
22.Lohia	0.76	0.00	0.00	0.00	0.00	1.26	0.00
23.Duruka	1.08	0.00	0.00	0.00	0.00	1.01	0.00
24.Bata Laiworu	1.96	1.47	0.00	0.00	0.00	0.26	2.47
25.Napabalano	1.37	0.23	0.00	0.00	0.00	0.78	0.00
26.Lasalepa	1.21	0.16	0.00	0.00	0.00	0.90	0.00
27.Napon Kusambi	1.47	1.58	0.00	0.00	0.00	0.63	10.43
28.Towea	0.53	0.00	0.00	0.00	0.00	1.44	0.00
29.South Wakarombu	0.67	0.98	0.00	0.00	0.00	1.29	0.00
30.Pasir putih	0.95	0.00	0.00	0.00	0.00	1.11	0.00
31.Pasi Kolaga	0.26	0.00	0.00	0.00	0.00	1.65	0.00
32.Maligano	1.38	5.28	2.61	0.58	75.83	0.49	0.00
33.Batukara	1.68	0.53	0.00	0.00	0.00	0.52	0.00

**Seaweed potential in Wakatobi :** Based on the results of Location Quotient (LQ) the fisheries sub-sector in the respective districts in the administrative area Wakatobi, the obtained results as shown in the following table.

**Table 7**  
**Location Quotient (LQ) Fisheries Subsector in Wakatobi**

Subdistrict	Tuna Fish & Other Marine Fish Species	Seaweed & Other Marine Plant
1.Binongko	1.16	0.00
2.Togo Binongko	1.09	0.43
3.Tomia	1.12	0.23
4. East Tomia	1.12	0.21
5. Kaledupa	0.80	2.26
6. South Kaledupa	0.73	2.75
7. Wangiwangi	1.16	0.00
8. South Wangiwangi	0.98	1.14

## V. CONCLUSIONS AND RECOMMENDATIONS :

Based on the analysis on the potential of seaweed, it can be concluded that the seaweed in the Southeast has the advantage based on the area which includes North Buton, Buton, Kendari, Muna and Wakatobi. While the 7 (seven) districts/ cities less seaweed production potential. Therefore, based on the information potential map is accurate seaweed based in the Southeast Sulawesi region is expected to formulate a policy strategy to attract investors seaweed and other dairy products.

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