



## STUDY OF FISHERIES INDUSTRY POTENTIAL IN BANDUNG CITY

**Murfida Lefizani<sup>1</sup>**, Achmad Rizal<sup>1</sup>, Rosidah<sup>2</sup>, and Asep Agus Handaka<sup>3</sup>

1) Students of Faculty of Marines and Fisheries, University of Padjadjaran

2) Lecturer Staff at Faculty of Marines and Fisheries, University of Padjadjaran

Departement of Fisheries, Faculty of Marines and Fisheries, University of Padjadjaran

Jl. Raya Bandung – Sumedang Km 21, Jatinangor 40600

e-mail: lefizani@gmail.com

### ABSTRACT

This study aims to analyze the potential of the fishing industry that affects people's economic prosperity and development in Bandung City. Analyzing the role of the fisheries industry sector in the development of the area of Bandung City based on the comparison of the production of regional and provincial fisheries products. This research began in March 2019 until October 2019. The research method was carried out with literature survey techniques data collected through survey decisions which were then analyzed quantitatively and presented descriptively. The research data consists of two types, namely primary data and secondary data. Data analysis carried out included Shift Share Analysis and Location Quotient (LQ) Analysis. Based on research conducted on the Potential Study of fisheries industry in Bandung City, it can be concluded that the Potential Fisheries Industry in Bandung, namely dozing / surimi / jelly (LQ 3.68) and fresh handling industry (LQ 3.51) is a superior industry in Bandung City. Shows the net shift in the value of the production of the fishing industry in Bandung with an average of 2013-2017 of -5436.65, the fishing industry shows a PB value > 0, meaning that the fishing industry in the city of Bandung has a slow growth rate due to the amount of industrial production in the city of Bandung relatively small when compared with the amount of West Java production.

Keywords: Bandung City, Fishing industry potensial, Shift Share Analysis and Location Quotient (LQ) Analysis.

## INTRODUCTION

Potential fisheries Bandung City, based on statistical data the Department of Food and Agriculture of Bandung City consists of fisheries processing 276.6 tons (2013), 285.4 tons (2014), 298.9 tons (2015), 308.8 (2016) and 319 tons (2017). This potential is possible if the fisheries processing sub-sector can act as an economic base in regional income. Thus, if the fisheries sub-sector is managed optimally it will be able to make a large contribution to the regional economic development. The fishing industry as a system has an important role in providing food, employment opportunities, trade and welfare and recreation for the community at large. The development of the fishery products industry is one of the priorities in national development in the industrial sector (Rizal, 2013).

Bandung City is the one of the regions where the contribution of the fishing business field to employment is low, namely 0.07% in 2000 and 0.080% in 2010 (Central Statistics Agency, 2010). This is due to high dependence and community economic activities on resources. If the nature of vulnerability and dependency is not considered, conflicts of interest will arise in utilizing human resources and fishery products to meet the needs of life.

According to the Regional Mid-Term Development Plan (RPJMD) of Bandung City, 2018 the amount of fisheries production in Bandung City annually exceeds the target set. In 2009, fishery production reached 208.09% or more than double the target. In 2012 fishery production reached 103.91% of the target set. The level of fish consumption in Bandung City also annually exceeds the target set. In 2019 the level of fish consumption in Bandung City will reach 37.90 kg per capita. This amount is already higher than the West Java fish consumption figure which is at 29.6 kg per capita.

In these conditions indicate that Bandung City can have the potential for the development and development of the fishing industry, if intensively through appropriate steps, such as implementing training in managing the results of fisheries resources for the citizens of the city itself, namely entrepreneurship, as well as other employment in the field of fisheries that can be used for the economic progress of society and the development of Bandung City

## RESEARCH METHODS

The research method was conducted using literature survey data collected through surveys which were then analyzed quantitatively and presented descriptively (Rizal 2013).

Data used consists of primary data and secondary data. Primary data obtained from observations, both in the form of questionnaires, interviews with relevant parties and documentation.

Primary data is more focused on the performance of the industrial sector, social economy, environment and the problems faced. This primary data is needed to determine the conditions and management problems in the fishing industry. Secondary data was obtained through gathering information from previous research and the latest developments from data obtained from the West Java Provincial Fisheries and Maritime Affairs Office and Bandung Food and Agriculture Service. Secondary data used include time series data that includes fisheries production and regional economic growth related to the fishing industry.

Analysis of the data used in this research is descriptive quantitative while the analysis used is the Shift Share analysis and Location Quotient (LQ) analysis.

## RESULT AND DISCUSSION

### Geographical Location and Regional Condition of Bandung City

Bandung City in the southern part of the land surface is relatively flat, while in the northern part of Bandung City the area is hilly, so it is a beautiful panorama. The administrative boundaries of Bandung City, which is the north bordering Lembang District, West Bandung Regency, the east bordering Cileunyi District Bandung Regency. West side is bordered by Terusan Pasteur Street, North Cimahi District, South Cimahi and Cimahi City. And the south is bordered by the District Dayeuh Kolot, Bojongsoang, Bandung Regency.

Geographically, Bandung City is located in the West Java region and is the capital of the Province of West Java. Bandung City is located between  $107^{\circ} - 108^{\circ}$  East Star and  $6^{\circ} 00' - 6^{\circ} 20'$  South Latitude. Bandung city is located at an altitude of 768 meters above sea level, the highest point in the north with an altitude of 1,050 meters and the lowest in the south is 675 meters above sea level.

Bandung City has a climate that is influenced by a humid and cool mountainous climate, with an average temperature of  $23.5^{\circ}\text{C}$ , an average rainfall of 200.4 mm and an average number of rainy days of 21.3 days per month. Bandung City has two main rivers, the Cikapundung River and the Citarum River and their tributaries which generally flow to the south and meet at the Citarum River. With such conditions, south Bandung is very vulnerable to flooding problems, especially in the rainy season. Various kinds of characteristics are formed due to the location of Bandung City itself.

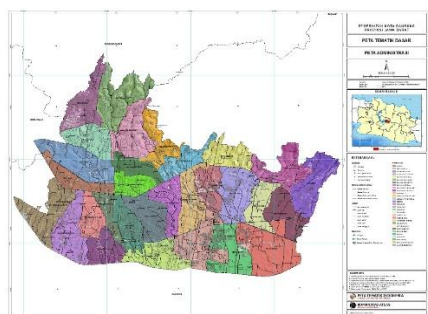


Figure 1. Maps of the administrative area of Bandung City.

### General Economic Condition

The development of economic development in an area, can be seen from the level of economic growth. Gross Regional Domestic Product (GRDP) is a macro indicator that is often used in addition to other micro indicators such as the level of job creation and price stability. Sustainable development is a development strategy that is widely applied by developing countries, including Indonesia. Because government policies in the last few years have prioritized economic growth, thus exploitation of natural resources is very striking without taking into account environmental damage.

Based on the 2010 constant prices, the value of Bandung's GRDP in 2017 increased compared to 2016. The increase was influenced by increased production in all business fields that were free from the influence of inflation. Bandung City's GRDP value in 2017 based on 2010 constant prices reached 172.85 trillion rupiah. This figure increased by 11.62 trillion from 161.23 trillion rupiah in 2016. This shows that during 2017 there was an economic growth of 7.21 percent, slower than the previous year's economic growth which reached 7.79 percent (Central Statistics Agency, 2017).

**Table 1. Results of calculation of fisheries industry LQ 2013-2017.**

Type of Industry	LQ Value					Ave rage	Information
	2013	2014	2015	2016	2017		
Scanning	0,911	0,974	0,976	1,055	0,868	0,96	No Potential
Dozing / Surimi / Jelly	5,710	4,670	3,522	2,690	1,802	3,68	Potentially
Fresh Handling	4,043	1,364	2,053	2,581	7,528	3,51	Potentially
Other Prosscressing	0,014	0,013	0,011	0,010	0,051	0,02	No Potential

Table 1 shows the results of the LQ analysis calculation. The type of industry with a value of  $LQ > 1$  is a type of industry that is superior to other industries to meet demand both from within Bandung City and outside the region, and is the type of industry that is most engaged in by the community.  $LQ < 1$ , meaning that certain commodities in the region cannot meet their own needs must get supplies from outside the region.

Industrial sectors that have an average value of  $LQ > 1$  include dozing / surimi / jelly ( $LQ 3.68$ ) and Fresh Handling ( $LQ 3.51$ ) are superior industrial sectors in Bandung City, where the sector can meet demand both within and outside the area.

This is because one of the examples is the culinary preparations that are much in demand by the community and are also well-known among immigrants and local people, besides that it is also a special food from Bandung City itself because of the taste of its delicious preparations and good government support for small-scale industry. Medium according to the processing industry business people in Bandung City. In addition, this industry meets the needs of its own region and get supplies or enthusiasts from outside the region. Fresh handlers also have the potential in Bandung City and the amount of production is more efficient to meet both local and external demand. In addition, there are indeed many interested people from the community so that demand continues to increase, which is usually demanded by businessmen made from raw fish.

While the branches of the fishing industry that have a LQ value  $< 1$  of them are Scanning ( $LQ 0.96$ ) and other processing ( $LQ 0.02$ ). Shows that the industrial branch is a non-base sector and the amount of production is only sufficient to meet the needs in Bandung City area. Based on interviews with a number of industry managers, Bandung City is still dependent on supplying materials for the processing of the fishing industry, but also when compared to other regions in West Java, the scavenging in Bandung is still relatively low, in addition it is also competitive in sales by other industries in Bandung City.

#### **Growth rates and the role of the fishing industry**

**Table 2. Changes in Production of the Fishery Industry in Bandung City and West Java Province of Constant Price 2013-2017.**

Year	( $\Delta Y_i$ )	Presentage of change (%)	( $\Delta Y_j$ )	Presentage of change (%)
2013/2014	2,2	0,12	-4.818,50	0,48
2014/2015	3,4	0,05	12.590,62	0,45
2015/2016	2,5	0,09	195,26	0,20
2016/2017	2,6	0,10	-28.096,83	-0,69

Description :

$\Delta Y_i$  = Kota Bandung

$\Delta y_j$  = Provinsi Jawa Barat

**Table 3. Ratio of Fisheries Industry Production in Bandung City and West Java Province in 2013-2017.**

Year of Analysis	ri	Ri	Ra
2013/2014	0,12	0,48	0,9
2014/2015	0,05	0,45	1,4
2015/2016	0,09	0,20	1,0
2016/2017	0,10	-0,69	0,4

Information:

ri = Ratio of industrial production in Bandung City

Ri = Ratio of industrial production in West Java Province

Ra = Total ratio of industrial production province

Table 3 shows that the growth rate of the fishing industry sector in Bandung City and West Java Province in the period 2013/2014 to 2016/2017 can be said to have a progressive growth rate, this is indicated by a positive ratio value, while in 2016/2017 Province West Java has a negative value which shows that in that year the growth rate was not progressive. Ra value is the value of production growth obtained based on the count of total provincial production in the final year of analysis (2014) divided by the total provincial production of the base year of analysis (2013) and beyond. Ra value is the value that indicates the growth of the reference.

**Table 4. Share Components of Bandung City Fisheries Industry with West Java Province 2013-2017.**

Years	COPG
2013/2014	133307,56
2014/2015	183650,98
2015/2016	185004,30
2016/2017	72044,71

Keterangan:

COPG = Component of Proporsional Growth

The Growth Proportional Component or Share component is a component of the KPP Value of the fishing industry sector in Bandung City and West Java Province showing a positive value in 2013/2014 with a value of 133307.56, in 2015/2016 worth 185004.30 which shows the greatest value, in 2014 / 2015 with a value of 183650.98, and in 2016/2017 the value of the KPP is the smallest value of 72044.71.

An industry that has a positive KPP value means that the industry's regional economic growth rate has resulted in growth in Bandung City experiencing positive growth. While the sector that has a negative KPP value means that the sector has a regional level of economic growth which has resulted in a negative decline in Bandung City.

**Table 5. Component of Mixture of Fisheries Industry in Bandung City with the Province of West Java in 2013-2017.**

Years	PG
2013/2014	-248,72
2014/2015	-271,47
2015/2016	-302,61
2016/2017	-284,36

Proportional Growth

Table 5. shows the proportional growth (PP) contribution of the fishing industry to the province. Based on the proportional growth (PP) of the fisheries sector in 2013/2014 (PP Value -248.72), 2014/2015 (PP Value -271.47), 2015/2016 (PP Value -302.61) and 2016/2017 (Value PP shows that in that year the rate of growth was slow compared to the province of West Java, so it can be concluded that in that year the growth rate of the fishing industry sector in Bandung was slower than that of the province of West Java.

Information:  
n:  
PG =

**Table 6. Components of Competitive Fisheries Industry in 2013-2017.**

Years	RSG
2013/2014	25949,91
2014/2015	-46330,78
2015/2016	7911,51
2016/2017	-8170,08
Rata-rata	-5159,86

Keterangan:

RSG = Regional Share Growth

Table 6 shows the competitive component has an average of -5159.86 is a value that shows that in general in the last five years development, namely 2013 to 2017 the fishing industry sector in Bandung City does not have a good competitiveness of the fisheries sector compared to the regional fisheries industry in West Java Province, this is due to the growth in the amount of production in Bandung City being less competitive with other regions in the province of West Java. Figure 4 shows the development trend of the competitiveness of the fisheries sector of Bandung City with other regions in West Java Province.



Figure 2. Trend of Share Component Value, Mix Components and Competitive Components.

**Table 7. Net Shift of Bandung City Fisheries Industry**

Years	Net Shift Year
2013/2014	25698,28
2014/2015	-46612,94
2015/2016	7598,81
2016/2017	-8463,98
Averagr	-5444,96

Table 7 shows the net shift value of Bandung fishing industry sector with an average from 2013-2017 of -5444.96. The fishing industry sector shows value

PB <0, meaning that the fishing industry in Bandung has a slow growth rate. Based on interviews the development of the fishing industry tends to increase with results from year to year but with a small amount of production when compared with other regions in West Java. In order to improve the performance of the economic development of Bandung City, the fishing industry can be a priority of the government to get special attention. The fishing industry cannot be used as a potential fishing industry in Bandung City, so fishing industry in Bandung City can be indicated as an area that is still lagging behind.

## CONCLUSION

Based on research conducted in the Study of Potential Fisheries Industry in Bandung City, it can be concluded as follows:

Research conducted on the Study of the Potential of the Fishery Industry in Bandung City, it can be concluded that the Fisheries Industry which has the potential in Bandung City is the dozing industry (LQ 3.68) and Fresh Handling (LQ 3.51) is an industry that if developed can be a potential industry in Bandung City, can affect the economic welfare of society and development in the area of Bandung City. Shows the net shift in the value of the production of the fisheries industry in Bandung City with an average from 2013-2017 of -5444.96. the fishing industry shows a PB value <0, meaning that the fishing industry in Bandung has a slow growth rate.

## REFERENCE

- Central Statistics Agency, 2010. *Indonesian Statistical Data. Bandung*. Statistics Indonesia, 2018. Bandung City in number. Bandung.
- Dahuri, R. 2001. *The Fisheries and Maritime Sector As a Pillar of National Economic Independence*. Ministry of Maritime Affairs and Fisheries. Jakarta.
- Rizal A, Suryana AAH, Herawati H, Lantun PD, Izza MA, *Regional Perspectives Building Competitiveness for the*

*Indonesian Fisheries Sector in  
The Global and Autonomous  
Rezim. Int. J. Agric. Env. Res.  
Vol 3 (6) (2017) 4368-4388.*

Rizal A., Nurruhwati I, *Human and  
Capital Contributions Towards  
the Economic Growth of Garut  
Regency, West Java Province of  
Indonesia.* Global Scientific

Rizal, A. 2013. *Banten Province  
Fisheries Sector Performance.*  
Journal of Aquatics Vol. IV  
No.1 / March 2013 (21-34).

