

Analyzed of Snakehead Fish Demands of Growth In Palembang City

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Abstract--The objectives this research was to identify supply and demand trend of Snakehead fish in Palembang city. Generally, this research give the information for policy makers which showed the important steps to develop the cultivation of snakehead fish in Palembang city, especially to fish cakes and fish crackers industries. The method used in this research was survey to fish cakes and fish crackers industries as samples. The objectives of this research was answered by primary and secondary data which is analyzed by quantitative and qualitative. The result of this research was snakehead fish supply still relying on the catch from the nature whereas snakehead fish supply trend tends to decrease every years. Besides that, the snakehead fish demand tends to increase every years as population increases and national event or international event in Palembang city.

Keywords- Supply, Demand, Snakehead Fish.

I. INTRODUCTION

COmplience the demands of the common fisheries capture and aquaculture. Capture as one important sector of fishery commodities proved to be not a little but based, Food and Agriculture Organization says about 75% of the world's sea fisheries have been fully exploited and the remaining 25% at the catching position or in other words less fishing conditions experiencing over exploitation better known as "overfishing" (FAO, 2002). But in Indonesia tends to increase, according to data from the Ministry of Maritime Affairs and Fisheries said there had been increasing in units of capture was 7,98% of the 1.164.508 to 1.265.440 units in 2006-2008 (CTF, 2009).

Most of Palembang city is in the form of both the river and the swamp waters. With many waters geographical conditions, most of people activity depend on the waters, especially rivers and swamps. River and swamp is a natural resource that contains a variety of fish that can be utilized to meet the food needs of people especially animal protein. Snakehead fish (*Channa striatus* Blkr) is one type of swamp fish which high economic value (Muslim, 2007a). Snakehead fish used as a food and materials for the Palembang food like fish cake and fish crackers.

Many fish cake and fish crackers home industries typical Palembang using snakehead fish as a raw fish preparation. Demand of snakehead fish to compliance demands of the

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community, especially fish cakes and fish crackers industrial in Palembang city is unknown. Though the data is extremely important as a starting point to predict demands of snakehead fish to compliance consumer demand and also to keep the snakehead fish in the waters of preserving fish in Palembang. The supply of snakehead fish have only from catching in nature and can not be cultivated. As for the objectives this research are: to analyze of snakehead fish demands of growth in Palembang city.

II. RESEARCH METHOD

This research was conducted in Palembang city. Location selection was done intentionally by the consideration that Palembang city which is have a typical food like fish cake and fish crackers and where snakehead fish is one of main raw material sources. The method in the study used by survey. The sampling method used in this research is purposively of fish cake and fish crackers entrepreneurs and businessmen who using snakehead fish as a raw material. Samples were taken by 10 businessmen of fish cake and fish crackers.

Collecting data included primary data and secondary data. The data obtained and processed tabulations, and descriptively explained. The data collected are then compiled, analyzed, and explained that provide a picture of the phenomena that occur, explain relationships, test hypotheses and draw conclusions from the results of the analysis are obtained.

III. RESULTS AND DISCUSSION

A. Profile of snakehead fish cakes and fish crackers industries

The samples of this research was three kinds of industries of snakehead fish cakes and fish crackers. The kinds of industries was small, medium and large industries. The differences of kinds industries were long effort industries, demands of minced snakehead fish, the type of food and place of marketing. The small industries which is seen from long effort industries was 1-5 years, medium industries was 6-14 years and large industries was more than 15 years. The average demands of minced snakehead fish meat for small industries was 100 kg/month, medium industries was 300 kg/month and large industries was 600 kg/month. The type of food in small industries was only one type was fish cake, medium industries was two type for fish cakes and fish crackers and large industries have two type of food too, but the main type of food was fish crackers. The place of marketing for fish cakes and fish crackers for small industries sold the food in narrow area, medium industries have sold the food at market in this city and

large industries had customers and sold the food to the market another city.

B. Analysis of snakehead fish supply and demands of growth in Palembang

Palembang is an area known for using snakehead fish as a major commodity in the industry. Snakehead fish is a fish that live in swamps and has a high selling price. The main commodities that many industries use snakehead fish as the main material for manufacturing is fish cake and fish crackers and used as a mascot Palembang city as souvenirs culinary. In addition, there are many more types of food typical of other uses snakehead fish is a favorite food, such as tekwan, model, celimpungan, laksan and lenggang. In addition, according Kordi (2011), the snakehead fish has many processed into medicines and health foods.

Based on the data obtained from the Department of Marine and Fisheries within the last 5 years from 2007-2011, it can be seen the supply and demands for snakehead fish very varied and fluctuating. Variations in snakehead fish supply and demands in the city of Palembang in detail can be seen in Table I.

TABLE I
THE SUPPLY AND DEMAND DEVELOPMENT OF SNAKEHEAD FISH IN PALEMBANG CITY

Year	Supply (tonnes)	Demands (tonnes)	Differences (tonnes)	Explanation
2007	1.245,00	2.050	-805,00	Minus
2008	1.260,00	2.160	-900,00	Minus
2009	2.265,90	12.366	-10.100,11	Minus
2010	1.218,30	12.368	-11.149,70	Minus
2011	17.682,00	14.233	3.459,00	Surplus
Total	23.670,20	43.177	-19.495,80	
Average	4.734,24	8.635,4	-3.899,16	Minus

According to Table 1 it shows that the supply and demand of snakehead fish in 2007-2011, with a maximum supply of 17.682 tons while the needs is high of 14.233 tons in 2011. In general, the supply and the snakehead fish demand in Palembang in to period 2007-2011 tended to increase. The average supply of snakehead fish was 4.734,24 tons, while the average demand of snakehead fish was 8.635,4 tons.

Based on the data obtained from the Department of Marine and Fisheries in the last 5 years, it can be made graphics of growth of snakehead fish supply and demand in Palembang year 2007-2011, can be seen in Figure 1.

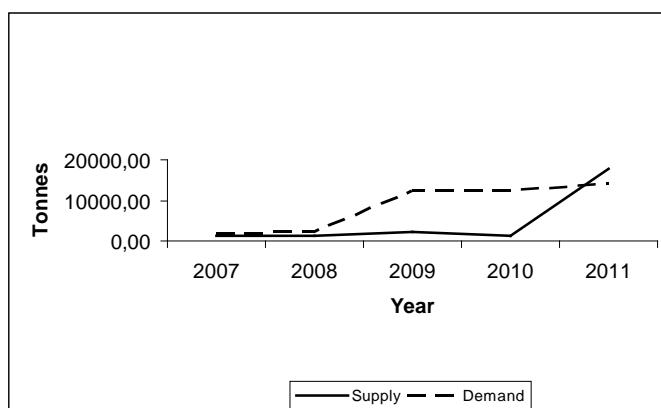


Fig. 1 Trends of Snakehead Fish Supply and Demand of Growth in Palembang City.

Based on Figure 1, it can be seen that the overall of snakehead fish supply and demand in Palembang tended to increase every year. Where a high increasing in supply occurred in 2010-2011 in the amount was 16.463,70 tons, while the increasing demand of snakehead fish was very high occurred in 2008-2009 in the amount was 10.206 tons.

C. Trends Analysis of Snakehead Fish Supply and demands of Growth In Palembang City

Palembang is located on low-lying topography, which has many swamps and rivers. Therefore, people in Palembang city is dependent as fishing. The snakehead fish supply in Palembang each year has increased, this resulted in increasing supply of snakehead fish for consumption demands is increasing as well. Demands of snakehead fishing opportunities in small industrial food business and have a high prospect to be commercialized. The development trend of supply continued to increase from the year 2007-2011 can be seen in Figure 2.

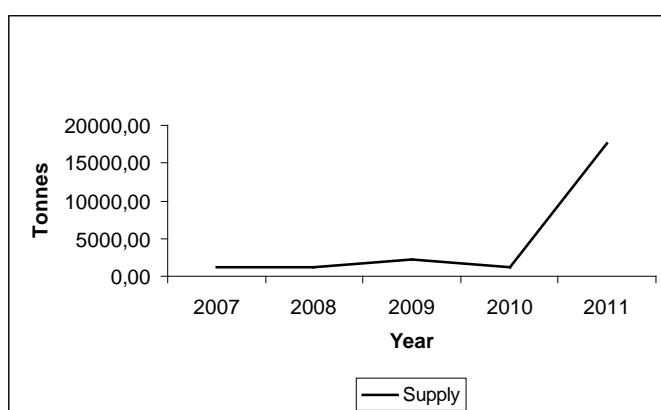


Fig. 2 Trends of Snakehead Fish Supply

Based on Figure 2, it can be seen that the overall of snakehead fish supply in Palembang tended to increase every year. The development of supply continued to increase from year 2007-2011 that we can see the trends of growth supply. The growth of supply continues to increase every year raises the increasing trends and predictable increase in supply for the

next year by regression analysis. From the year 2007-2011 supply data using SPSS regression aided the approaching trend. R-squared value (R²) is an overview that says how well the data fit the regression line. In other words, measuring the proportion a percentage of the total variation in the dependent variable (Y) that is explained in the regression model. The results showed the coefficient of determination (R²) of 0.255 or about 25%, which means that the change of independent variables in the model could explain 25% of the dependent variable, trend output (Y) can be explained by the time series snakehead fish production, while the remaining 75% is influenced by other variables that are outside the model.

D. GAP (differences) between of Snakehead fish Supply Trends dan Demand trends in Palembang city

Gestion Period (GAP) is a known name in economic to inform about supply and demand differences. In order to Table 1, the supply average and the demand of snakehead fish was lack -3.899,16 ton. The Magnitude of snakehead fish the supply and demand of growth can be seen in Table 1.

The Magnitude of snakehead fish the supply and demand of growth was tend decreasing every year. The magnitude of snakehead fish shortage in 2011 caused by there was prepare the international event "SEA GAMES XXVI" in Palembang city and Jakarta city. There were many fish cake industries and fish cracker industries increased their raw materials which is the demand of snakehead fish more increasing.

The differences of snakehead fish supply and demand of growth, many fish cake and fish crackers mix snakehead fish with another fish. Besides that, there are fish cake and fish crackers industries still keep a good quality snakehead fish, they just produce little fish cake and fish crackers. Sometimes, they don't produce fish cake and fish crackers for a while.

IV. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSION

The conclusion that can be taken from the results of this study are :

1. Snakehead fish supply still relies on the catch of natural snakehead fish supply trends which tends to decrease every year.
2. Snakehead fish demand tends increases, as population increases, and the activities of national or international scale in Palembang city.

B. ADVICE

Snakehead fish trends is increasing, while the trend of decreasing supply, there should be efforts to increase supply through aquaculture. If supply is not increased, it can lead to shortages of raw materials, so the fish cakes and fish crackers industries is disturbed.

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REFERENCES

- [1] Anonymous, *Strategic Plan for Development of Marine and Fisheries of South Sumatra 2000-2004*, Marine and Fisheries Agency of South Sumatra Province, Palembang, 2000.
- [2] Kordi, G., *The Complete Guide to Business and Snakehead Fish Farming*. Publisher Andy. Yogyakarta, 2011.
- [3] Muslim., *Analysis of Fish Reproductive Biology Cork (Ophiocephalus striatus, Blkr) in Swamp River flood Kelekar Indralaya* (Research Report Unsri), 2005.
- [4] Muslim.. *The types of fish swamp economically valuable*, No.01/Th.XIV/III/2007 Period Magazine, ISSN 0854-5944: 56-60, 2007a.
- [5] Muslim.. *The potential, opportunities and challenges of raising Snakehead fish (Channa striatus Blkr) in South Sumatra*. Proceedings of the National Seminar on Open Water Forum IV Indonesia, Palembang 30 November 2007, Agency for Marine and Fisheries Research. Department of Marine and Fisheries. ISBN: 978-979-1156-10-3.2007b
- [6] Muslim and M, Syaifudin, *Domestication Prospective Parent Snakehead Fish (Channa striata) in Outdoor Concrete*, Scientific magazine Sriwijaya, 2012
- [7] Muhibin, S.A. and M. Abdurrahman., *Correlation Analysis, Regression and Path in Research*. Faithful Reader Bandung., 2007.
- [8] Oktarina, S., H. Malini and D. Aryani., *The Projection of Snakehead Fish Demand in Palembang City*. Research Report. Agriculture Faculty, Sriwijaya University. 2012.