

# STUDY OF MARKETING GROUPER (*Ephinepellus Sp*) AND ITS CONTRIBUTION TO LOCAL REVENUE IN SOUTH SULAWESI PROVINCE

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**ABSTRACT:** Grouper export commodity which has a market demand is very high and continues to increase from year to year. The high demand because grouper is a special menu at the feast of the Chinese New Year and other festivals, notably red coral trout grouper. The highest demand among others hongkong, Taiwan, Singapore, Japan and Malaysia This study aims to analyze the amount of production for grouper and determine the selling price of grouper, as well as to analyze contribution to local revenue in south sulawesi province and marketing margin grouper in Badi Island. This study carried out in April - May 2014 in the Badi Island, Pangkajene Kepulauan district with the type of survey research. Respondents in this study consisted of around 54 people, 42 fishermen, 6 trade collectors, 5 related Governments and three public figures. Conclusion of this research are The volume of catches of grouper has increased from year to year, this type of coral trout grouper to be the most high, reached 6918.97 tons with a value of US \$ 18.550.707.07. Contribute revenues from exports of grouper to PAD for 4 years (2010-2014) is 0.005% to 0.004% acceptance up to 0.006%. Thus, the contribute there was still room for more on the increase again. The highest margin at the level of collector size > 1 Kg Rp. 140,000, while the value of the lowest margins are in the size of 0.1-0.2 Kg Rp. 33,000. Margin value of exporters is as high as Rp. 860,000.

**Keywords:** Production, Price, Grouper, Marketing, Export.

## 1. INTRODUCTION

Indonesia as the "Maritime Continent" has the ability to utilize the land and marine aquatic resources into real economic activity based on fish resources. The development of marine aquaculture (mariculture) is a strategy that needs to be taken to support the Fisheries Products Export Enhancement Program (PPEHP). Marine aquaculture product marketing involves a lot of marketing agencies that margin, profit, and efficiency of marketing and consumer. Increased productivity leading commodities such as grouper is expected to take over the fisheries production and to improve the competitiveness of fishery products in International market quality and quality (Triyanti R dan Sastrawidjaya, 2012).

The high foreign demand will commodity reef fish, especially groupers, and driven by selling price is very high, making coastal communities, especially fishermen tend to exploit this fishery resources unnecessarily, either using an environmentally friendly way and in a manner damaging to the environment. According to data from the Food and Agriculture Organization (FAO) (2004), there are thirteen commodities marine fish main cultivated in Asia in this regard grouper including, once again due to the global demand for grouper tend to increase both the quantity and price. Total demand for the production of grouper is currently 35,000 tons per year with a price range of US \$ 25 - US \$ 125 per kilogram.

Grouper commodity is a commodity and demand from export markets (Singapore, Malaysia and Hong Kong) continued to increase from year to year. Groupers has become a special menu in the hotel and top-notch restaurants, both in Indonesia, Malaysia, Hongkong, Taiwan, Japan and Singapore. International market demand will groupers tend to

increase, providing a great opportunity for Indonesia to increase their catch (Kordi, 2001). (Sutinah, 1999, Sutinah et al, 2003, Sutinah et al 2014)

The high value of grouper in international trade resulted in an increased demand for this type of fish. Consequently, grouper experiencing heavy pressure and in some areas have experienced overfishing (Sadovy, 2005). The International Union for the Conservation of Nature and Natural Resources (IUCN) Red List of Threatened Species tahun2006 include some groupers such as humpback grouper (*Cromileptes altivelis*), estuary grouper (*Epinephelus lanceolatus* and *Epinephelus coioides*) and groupers (*Plectropomus leopardis*) as a species threatened. In sisiLain, grouper has long been used by coastal communities as a source of food and intensified when the ships collectors of Hongkong began to enter into the territory of Indonesia since the 1990s. Seeing these conditions, grouper fish resources need to be managed well in order to accommodate the economic interests of fishing communities and the conservation of resources is grouper.

Based on data from the Central Statistics Agency (BPS), in 2013 the export of live groupers reach a value of US \$ 19.8 million with a volume of 2,552 tonnes. Export destinations are Hong Kong live groupers which reached almost 90% of total export value. Exports of live groupers to Hong Kong has been done through two models of transport, namely air transportation (air) and marine fish transport vessels. Freighter to Hong Kong, which has been operating in Indonesia 100% are owned by Hong Kong buyers. The ship will have access to take fish directly from the centers of cultivation so that the export process can not be controlled optimally (P2HP CTF, 2014). (Sutinah, 1999, Sutinah et al, 2003).

**2. EXPERIMENTAL DETILES**

This study aims to analyze the amount of production for grouper and determine the selling price of grouper, as well as to analyze contribution to local revenue in south sulawesi province and marketing margin grouper in Badi Island.

This type of research is quantitative and qualitative research conducted by taking a sample survey with appropriate representation of the population and using questionnaires as a data collection tool that principal (Singarimbun, 2004). The population in this study are all fishermen who catch Kerapuh fish on the island of Pulau Selayar Spermonde and arresting the fish life in the coral and fishing equipment normally used is a tool longline, traps, and more. The population of fishermen on the island Spermonde will be taken based on the representation of the population. According Sulisty - Basuki (2006) that the entire population is the object to be examined. The sample is part of a population that is considered to be representative of the population. To determine the size of the sample according to (Arikunto, 2002) when the subject is less than 100, better taken all that research study population. When the subject is greater may be taken between 10-15% or 20-25%. Samples of this research are fisherman, small collector, huge collector, retails, exporters, public figure, and government. Total respondents of this research is 338 respondents from several location in Spermonde islands and Selayar islands.

**3. RESULTS AND DISCUSSION**

**Fihsing Operation Of Grouper**

Coral trout grouper fishing effort in the islands Spermonde generally using gear bubu, often also called a trap "traps" and penghadang "guiding barriers. But there is also using fishing as practiced by fishermen on the island of Badi. Traps that use a basic traps (Ground Fish Pots) in which the operational area is in the bottom waters. The manner of operation after determining the capture site (fishing ground), fishermen prepare trap traps that will be scaled back by tying a rope buoy location markers on both ends of trap fishing gear, where two trap fish traps tied to one location marker buoy. The tools used in fishing operations grouper, among others:

**Table 1. The tools used in fishing operations grouper**

No.	Aid Arrest	Number
1	Boat	1 unit
2	Bubu	8 Pieces
3	Feed	2 basket
4	Signs Buoy	4 pieces
5	Basket	2 pieces
6	Coolbox	2 piece
7	Needles	1 piece
8	Gloves	5 pairs
9	Ballats	2 pieces
10	Fins	2 pieces
11	Mouthfish	2 pieces
12	Snorcle glasses	2 pieces
13	Plastic bag	8 pieces
14	Compressor	1 piece
15	Bak Shelter	1 piece

Source : Primery data, 2016

After all fishing gear is lowered, then the fishing gear left in the bottom waters for ± 2 hours later withdrawal of trap traps and subsequent activity, namely the handling of the catch. Grouper fishermen in the islands Spermonde generally make arrests around the island where they live. Badi islands, such as fishermen, which the operating area around the island Lanjukkang arrest, Jangangjangang Island, and Island Tombakulu. ± catching area is located 60 miles from Badi Island by traveling for about 2 hours.

Fishermen reef fishing using fish traps on the island Barrang Lompo called Pa'bu in general location of reef fishing using fish traps and sniper gear not Barrang Lompo dilaakukan Island itself but rather in the island Langkai, Bone Tambu, jangang-Jangangngang Island, and Tombakulu Island. Distance from the capture site Lompo Barrang Island about 60 miles, with a journey by boat called jolloro 'for approximately 2 hours. Operation reef fishing with bait fish Bubu using sibula, done twice a day the first Installation in the morning at 08.00, then at the lift at 11.00, then the installation of a second at 13.00 and lifted at 15:00. These activities routinely carried out by fishermen every day except Friday holiday.

**Marketing Activity**

After making the trip fish caught by fishermen are directly sold to traders collectors. In the normal handling of the catch things considered, namely the separation of groupers live and fresh. For live fish such as groupers (*Plectropomus leopardus*), estuary grouper (*Epinephelus coloides*) and tiger grouper (*Epinephelus fuscoguttatus*) and lobster bamboo transferred into cages measuring 1x1 meters saved in the bottom waters of fish habitat adjust to reduce the stress on the fish. As for the permanent storage of fresh fish just a basket that the fish will be entered into a coolbox filled with ice and further to the marketing stage.

Marketing groupers in the islands Spermonde differentiated by size and type of fish, the island the one with the other islands in the selling price from the fishermen to the traders and exporters are generally the same. The number of grouper caught by fishermen and traders selling prices for fish by species of fish can be seen in the following table:

**Table 2. Price Of live Grouper On Badi Island**

Species	Price (Rp)		
	0,1-0,2 kg	0,3-0,4 kg	0,5- 1 Kg
( <i>Plectropomus leopardus</i> )	22.000	55.000	360.000
( <i>Epinephelus coloides</i> )	3.000	12.000	100.000
( <i>Epinephelus fuscoguttatus</i> )	3.000	12.000	100.000

Sources: Primery Data, 2016

From the table above it can be seen that the fihermens selling price for traders of live grouper. The highest is coral trout grouper the size of > 1 kg Rp. 360,000, the lowest is the size of 0.1-0.2 kg grouper and tiger mud Rp. 3,000

**Table 3. The selling price of the groupers to exporters**

Species	Price (Rp)		
	0,1-0,2	0,3-0,4	0,5- 1 Kg
<i>(Plectropomus leopardus)</i>	55.000	110.000	500.000
<i>(Epinephelus coloides)</i>	25.000	100.000	400.000
<i>(Epinephelus fuscoguttatus)</i>	25.000	90.000	300.000

Sources: Primary Data, 2016

According to the table above shows that the selling price of live groupers to exporters with size > 1 Kg range between 300,000 - 500,000, the price is certainly higher than the selling price of fishermen to the collector. Meanwhile, fishermen selling prices for consumers tend to be more constant, as shown in the following table:

**Table 4. The selling Price of groupers to consumers**

Species	Price (Rp)		
	0,1-0,2 kg	0,3-0,4 kg	0,5-1 Kg
<i>(Plectropomus leopardus)</i>	20.000	20.000	20.000
<i>(Epinephelus coloides)</i>	15.000	25.000	35.000
<i>(Epinephelus fuscoguttatus)</i>	15.000	25.000	35.000

Sources: Primary Data, 2016

The above table shows that the size and species of fish fresh grouper sold to household consumers no effect on the price offered. For the size of 0.1-0.2 Kg fresh groupers Rp.20,000 it costs the same as the size of > 1 kg, nor for the type of estuary grouper and tiger grouper have the same selling price is 15,000.

The market potential is very large grouper both local (fresh grouper / die) and for export (live groupers), with the main destination countries, namely Hong Kong. But fishermen have not been able to meet the market demand caused capture technology used to be very simple so that the catch is less, in addition there is also the environmental changes that led to the fishing area farther away, so that the effort to attempt grouper.

**Grouper Production Volume**

Production grouper nationally for five years ie 2006 to 2010 was quite good despite a decrease in production in 2008 but in subsequent years continued to rise even in the year 2010 the production was up significantly. The average increase grouper for 4 this year amounted to 18.73% and the highest increase over the four years was there in 2010 with a production increase of 19.28%. The increase in production of grouper last year is quite encouraging achievement for aquaculture berhasil spur increased production of the year 2009 amounted to 8791 tonnes to 10 389 tonnes in 2010. The fall in national production of grouper groupers due to

declining production of most provinces. This production decline also involve the province, which is known as a producer sentranya grouper, among others, Riau Islands kerapunya fish production dropped precipitously. (Triyanti R and Sastrawidjaja, 2012).

The volume of production or the number of catches of grouper is strongly influenced by the seasons, there are three seasons catching the east season or seasons that the number of catches fish very much / overflow usually runs from September to January. Transitional season typically runs from February to April the number of fishermen catch tp not too much nor too little, while the dry season lasts from May to August, in which the number of fish caught is slightly unusual even nonexistent. (Sutinah, Hamzah, Yunus Tamamma, 2003).

Volume production is caught by fishermen based on interviews around mid-June of 2002 (transitional season) on the island of Selayar. (Sutinah, Hamzah, Yunus Tamamma, 2003).

**Table 5; The average number of fish Life Production Catch per Respondents Taka Bonerate.**

No	Lokasi	Kg/week	Kg/month	Kg/year
1	P. Latondu	16,5	66	594
2	P. Rajuni	12,75	51	459
3	P. Tarupa	20,76	83,04	747,4
4	P. Jinato	18,72	74,90	674,1
5	P. Pasitallu	55,2	220,8	1987,2
Total		123,93	495,74	4.461.7

Sources; Sutinah, 2002

**Table 6. Volume Catch of live groupers in Badi Island, 2016**

Species	Volume (kg)		
	Week	Month	Year
<i>(Plectropomus leopardus)</i>	574	2.296	22.960
<i>(Epinephelus coloides)</i>	420	1.680	16.800
<i>(Epinephelus fuscoguttatus)</i>	462	1.848	18.480

Sources; Primery data,2016

From the table above it can be seen that the amount of the catch pertrip the biggest that I kind of *Plectropomusleopardus* (grouper coral trout) and the smallest are *Epinephelus coloides* (grouper mud).

**The contribution of grouper exports to the original income area of South Sulawesi Province**

Fresh grouper fish export volume up to 2014 has increased. Data export of live groupers, fresh, and frozen can be seen in the following table:

**Table7. Actual export of grouper South Sulawesi province in 2011-2014**

Year	Type	Volume (ton)	Value (US \$)
2011	Fresh Grouper	982.20	4,649,600.00
	Frozen grouper	102.14	760,370.00
2012	Fresh grouper	776.20	3,150,510.00
	Frozen grouper	67.60	683,828.64
2013	Fresh grouper	1,804.50	4,639,345.40
	Frozen grouper	76.20	458,324.00
2014	Fresh grouper	3,081.16	8,550,959.47
	Frozen grouper	28.97	302,720.56
<b>Total</b>		6,918,97	18,550,707.07

Source: *Quarantine Fish, Quality Control and Safety of Fishery, 2016*

From the table above shows the volume of exports of grouper from year to year is increasing, as the total exports during the last 4 years amounted to 6918.97 tons, valued at a price of US \$ 18,550,707.07. This does not include the volume of export of live groupers, where groupers that live far higher price especially super size (weighing 0.5-1.2 kg / head) costs up to US \$ 100-125 / kg groupers groupers (red). Groupers are very popular type of community of Hong Kong, especially in the Chinese New Year is very high demand, because the grouper is high-class main menu on the people of Hong Kong.

**Table 8. The total contribution of exports to PAD grouper South Sulawesi province Years 2010 – 2015.**

NO	Reception Year	Grouper Expor Contribution (%)
		PAD Sulawesi Selatan Province
1	2010	18
2	2011	17
3	2012	16
4	2013	15
5	2014	59
6	2015	63
<b>Average</b>		<b>31</b>

Source: *Quarantine Fish, Quality Control and Safety of Fishery, 2016*

The contribution of exports of grouper to PAD South Sulawesi Province was seen in export revenues from 2010 through 2014 have continued to rise, even in 2014 experienced a high increase, though the increase in revenue from the export of grouper is not directly proportional to the increase in the percentage contribution terhadap export revenue. the percentage of contribution years 2010 to 2014 fluctuated in the 2010 to 2012 experienced ups and downs and then in 2013 and 2014 experienced a high increase, persentase lowest contribution occurred in 2011 and 2012 is only 0,004.

From the table above shows that, on average, contributing revenues from exports of grouper to PAD for 4 years (2010-2014) is 0.005% to 0.004% acceptance up to 0.006%. Thus, kontibusinya there was still room for more on the increase again.

Overall the increase and decrease of export carrier dilalulintaskan abroad (exports) is influenced by weather factors (the number of catches), product quality (quality), plague and request from the state to the uncertain climate luar.Dampak (bad) finally this final has led to the reduction in the catch and the weather was also the main cause, as well as planes and ships also tend to reduce the sea freight cargo. Other causes are areas of South Sulawesi supplier of commodities, such as Manado and Gorontalo, Kendari today has exported directly.

As a result of the decline of marine fisheries catches, the activity of export transactions decreased According to the fisheries business in Makassar, the decline in marine fisheries triggered extensive damage to coral reefs in the catchment area, for example in the Makassar Strait and the Strait of Bone, South Sulawesi (Sulawesi). Especially lately seafood production lots that were rejected by the destination country, because it is considered of low quality, it is caused by certain state rules related to the quality of imported products are very strict.

Sutinah said that the normal price of life-size grouper fish super kind valued at US \$ 45 (0,5-1kg / tail), and highest price, especially during the Chinese New Year Reached US \$ 100 (Sutinah, 1999). This super-size grouper fish is a fish being mature gonads that will soon spawn in the country of destination, the which has prepared a hatchery industry was massive (heatchery) such as Reviews those in Malaysia, Singapore and Hong Kong (Sutinah et al, 2003-2014). Therefore, we need government policies to solve this problem. Then, grouper fis is also exported in frozen form, and processed (dry), Only the price is lower if the baby size (<0.5 kg / head) or large size (> 1.2 kg / head), this Also due to this bisexuals grouper fish that will turn into lazy when it spawn 2-3 times. Therefore, the price of super-size grouper fish Become more expensive due to being overcooked gonat that will soon spawn in the State of destination.

**Marketing Margin**

Marketing margin is the difference between the sale price and the purchase price. marketing margins is one indicator of efficiency increase of marketing. the smaller the margin value, the more efficient marketing. conversely, the higher the margin, the more inefficient marketing. The following is the value of marketing margin on collecting

coral trout grouper coral trout grouper (*Plectropomus leopardus*).

Margin value of Ponggawa Rp.33.000-Rp.140.000/fish. Margin value of exporters is as high as Rp. 860,000/fish.

**Table 9. Marketing Margin of coral trout grouper (*Plectropomus leopardus*) in Badi Island**

Agencies	Margin		
	0,1-0,2 kg	0,3-,04 kg	>1 kg
Trade	33.000	55.000	140.000
Exporters	-	-	860.000

Sources; Primary data,2016.

From the table above, it can be seen that the highest margin at the level of collector size > 1 Kg Rp. 140,000, while the value of the lowest margins are in the size of 0.1-0.2 Kg Rp. 33,000. Margin value of exporters is as high as Rp. 860,000. Size 0,1-0,4 kg/fish will be exported when the grouper grow up 0,5-1 kg/fish.

**4. CONCLUSION**

The volume of catches of grouper has increased from year to year. In Badi Island, total catch of grouper 58.240 kg in 2014.Type of coral trout grouper to be the most high, reached 6.918.97 tons (2011-2014) with a value of US \$ 18.550.707.07 in South Sulawesi.

Contribute revenues from exports of grouper to PAD decreasing from 2010-2013, and increasing in 2014-2015 up to 63 %

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