

# The Contribution of the Minapolitan Area to The Family Income of Rice Farmers in OKU Regency South Sumatera Province

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**Abstract.** The goal of this research is to evaluate how much money comes from the Minapolitan region to the rice farmers' earnings in OKU District. The decision to conduct the research in the OKU, a prototype district for the Minapolitan Region in South Sumatera Province, was made on purpose. Utilization of water resources in the form of semi-technical irrigation for fish maintenance is of course expected to increase the income of rice farmers' families. The study was conducted in January 2022 in OKU District. The approach to the study is A sampling technique and a surveying technique used is a simple random method using the Slovin formula to obtain a sample of 51 people from 171 populations. The research data processing uses mathematical analysis by calculating the contribution value of the Minapolitan area's income to the rice farmers' earnings families in OKU. The outcomes revealed that the contribution of income from the Minapolitan area to the rice farmers' earnings in OKU Regency was 29.05%. This shows that although it does not dominate family income, the income from the minapolitan area is sufficient to support the income of rice farming families in OKU Regency. The land's condition, which is increasing narrower but is still able to make good use of the water resources available, demonstrates that this region's business may be maximized to raise the income of rice-farming families in OKU.

**Keywords:** Contribution, Minapolitan Area, Family Income

## 1. Introduction

The minapolitan area began with the agropolitan concept, which refers to the Ministry of Agriculture's general guidelines on the development of agropolitan areas [1]. Minapolitan is a fishery city that grows and develops as a result of the operation of fisheries systems and businesses and is able to serve and support fisheries development activities in the surrounding area, with the main characteristics of these activities[2]. Fisheries and fishery product processing Ogan Komering Ulu (OKU) Regency is one of 233 minapolitan areas in Indonesia, spread across 33 provinces [3]. The Regional Spatial Plan for OKU Regency for 2012 – 2032 states that Fish ponds, ponds, river waters, and other aquaculture products are produced in the Minapolitan region.

Aquaculture space management is a policy direction and space utilization strategy aimed at larger-scale fishery activities and other fisheries-based businesses [4] . The growth of the

Minapolitan region is one of the efforts to develop the fisheries sub-sector [5]. The Minapolitan area development program is a fishery-based economy that was created and put into action by fusing various existing potentials in order to promote the growth of competitive, populist, sustainable, and decentralized systems and businesses that can be led by the community and aided by the government [6]. OKU Regency is one of 233 Minapolitan areas in Indonesia, spread across 33. According to the Regional Spatial Plan for OKU Regency for 2012-2032, The Minapolitan region engages in aquaculture activities that produce rivers, lakes with fish, and other natural features.

Judging from the current conditions, basically fisheries in OKU Regency have great potential to be developed and with the development of the fisheries sub-sector it will increase its contribution to the GRDP of OKU Regency. Fishery management needs to be maximized so that the benefits can be felt by the community. Planning for the development of aquaculture areas is an attempt to use land and potential to solve issues with the control and utilization of fishing space [7].

Pengandanan District serves as the growth of the Minapolitan area in OKU's heart, and Ulu Ogan and Muara Jaya Districts serve as its hinterland districts. Yet, generally speaking, there are allocated sites for aquaculture in every district. Freshwater fisheries have been developed in this Minapolitan region using the Ogan River and its tributaries, additionally to farming areas and pond fisheries. The administrative borders of three subdistricts are included in the Minapolitan area overall in OKU, which is 106,220 hectares. Although centers for farming land or fish ponds are considered to be part of the agriculture area, This additionally incorporates the Ogan River channel that traverses the three wards. Enhancing the usability and efficacy of aquaculture's utilization of land and resources while keeping an eye on environmental sustainability is the goal of the directive for the development of fisheries areas.

Almost all of the sub-districts, with the exception of the Minapolitan region, have aquaculture operations. Aquaculture is appropriate in the OKU Regency area since the 1 Ogan Sub-watershed is bordered by several watersheds (DAS), both large and small rivers, and 61 tributaries that empty into the Ogan River. The agriculture, forestry and fisheries sectors make the largest contribution to the economy of OKU District. From year to year, this sector's contribution has increased. But it had decreased in the period 2016 to 2019. The decline experienced was Rp. 2,478,548.00 in 2016 to Rp. 2,275,936.10 in 2019. In 2020, it again increased to Rp. 2,392,127.1.

Based on their separate components, the agricultural sector is divided into several sub-sectors, including the food plants, the plantations industry, the sector of livestock, the forestry sub-sector as well as the fishing sub-sector [8]. The fisheries sub-sector provides an increasing contribution from year to year. The contribution of the fisheries sub-sector in 2020 occupies the third position. In the first position are annual plantation crops with a contribution to the GRDP of Ogan Komering Ulu Regency of Rp. 1,302,694,900.00. The second order is the livestock sub-sector with a contribution of Rp. 397,485,000.00 and in the third place is the fisheries sub-sector with a contribution of Rp. 366,583,300.00. The fourth order is the food crops sub-sector with a contribution of Rp. 144,669,900,00 and in the last order is the forestry subsector which contributes Rp. 95,127,400.00.

Fishery resources can potentially be utilized to improve the standard of living and welfare of farmers, so this Minapolitan program is a policy taken in the agricultural sector that aims to increase farmer empowerment. [9] in his research related to the Minapolitan area stated that this

program was able to support other agricultural businesses. Likewise with [10] which states that this activity is aimed at developing rural areas that are integrated into the urban system functionally and spatially. The contribution given from the income of the Minapolitan area is of course expected to be able to support the income of farmer families, especially rice farmers in OKU Regency, South Sumatra Province. In connection with the role of the Minapolitan area, More research is required to determine how much the Minapolitan region contributes to the revenue of rice farmer families in OKU Regency, South Sumatra.

## 2. Methodology

The research site was specifically chosen because that OKU Regency serves as a template for the Minapolitan Area in South Sumatra Province. Utilization of water resources in the form of semi-technical irrigation for fish maintenance is of course expected to boost the families' incomes who are rice farmers. The study was conducted in January 2022 in OKU Regency in three location minapolitan area, Pengandonan District, Ulu Ogan and Muara Jaya District.

Surveys are utilized as the research approach, and sampling is used a simple random method using the Slovin formula to obtain a sample of 51 people from 171 populations. The research data processing uses mathematical analysis by calculating the contribution value of the Minapolitan area's income to the income of rice farmers' families in OKU.

According to [11], the total cost uses the following equation:

$$TC = TFC + TVC \quad (1)$$

information:

TC = Total Cost (Total Cost)

TFC = Total Fixed Cost (Total Fixed Cost)

TVC = Total Variable Cost (Total Variable Cost).

According to [12] The following formula is used to determine the amount of revenue:

$$TR = Pq \cdot Q \quad (2)$$

information:

TR = Total Revenue (Total Revenue)

Pq = Product Price (Rp kg-1)

Q = Total Production (kg).

According to [13], Using the following formula, income is calculated by deducting the total cost from the total revenue:

$$I = TR - TC \quad (3)$$

information:

I = Income (Income)

TR = Total Revenue (Total Revenue)

TC = Total Cost (Total Cost).

The following mathematical calculation is used to determine how much of the rice farmer's family's revenue comes from the Minapolitan region [13]:

$$\frac{MIC}{TPK} = KPKM \times 100\% \quad (4)$$

MIC = Minapolitan Income Contribution to family income  
rice farmers (%)

MAIC = Minapolitan Area Income Contribution (Rp/year)

TFI = Total Family Income (Rp/year)

### 3. Result and Discussion

The results of the research's data processing by the MS program. Statistics describing the contribution of the Minapolitan area's business income are shown in Table 1 below.

**Table 1.** The contribution of Minapolitan area business revenue to family income in OKU Regency

Nr.	District	The income of minapolitan area (Rp/thn)	Family income (Rp/thn)	Contribution (%)
1	2	3	4	5=3/4*100
1.	Muara Jaya	71.734.000	279.392.000	25.67
2.	Ulu Ogan	69.574.901	272.390.000	25.54
3.	Pengandonan	73.589.864	277.890.000	26.48
	Amount	214.898.765	829.672.000	77.69
	Mean	71.632.921	276.557.333	25.90

Source: Primary data (2022)

Table 1 shows the income of farmers from Minapolitan area business in 3 sub-districts in Oku district, namely in Muara Jaya sub-district of 71,734,000 rupiahs per year, in Ulu Ogan sub-district of 69,574,901 rupiahs per year and in Pengandonan sub-district of 73,589,864 rupiahs. per year, so that the average income in the 3 sub-districts is 71,632,921 rupiah per year. The result of this research also shows the contribution of the Minapolitan area business to family income in Muara Jaya District is 25.67%. The contribution of the Minapolitan area business to family income in Ulu Ogan District is 25.54% and the contribution of the Minapolitan area business to family income in Pengandonan District is 26.48%.

Hence, the Minapolitan area's businesses make up the largest share of household income in the Pengandonan District, which is 26.48%. From the description above, the contribution of the Minapolitan area business to the income of the family of rice farmers in Ogan Komering Ulu Regency is 25.90%. This shows that more than a quarter of the income of rice farming families comes from minapolitan business income. The families in OKU who harvest rice receive a sizable portion of their income from Minapolitan area businesses. Farmers use this money to support their families by paying for things like daily meals, kids' tuition, and other expenses.

By utilizing the water resources of the Ogan River, which flows through the villages in the three sub-districts, fish ponds that use yard land and many plots on the side of the rice fields predominate in the minapolitan area. The findings demonstrated a significant contribution of the income from the Minapolitan region to the family's income from rice farming.

Similar research results also state that the Minapolitan area provides a large enough income to farmers' income. To generate greater income from this area, of course, more attention is needed from the government, including training in fish cultivation, processing of production and downstream business of Minapolitan, infrastructure improvements and others.

This is stated by [14] Their findings suggest that infrastructure has to be improved, along with ice factories, fish processing plants, and fish drying facilities. In line with this [15] in his

research on the development of the minapolitan area in the city of Bengkulu, further noted that, in addition to enhancing infrastructure, the priority for the Minapolitan area development, facilities and infrastructure in the minapolitan area, also required institutional development and the development of an integrated area in the minapolitan area. [7] also stated in his research that the development of the Minapolitan area can provide a promising income contribution for farmers, but it requires assistance and clear market access as well as capital assistance for fish farmers.

#### 4. Conclusion

According to the study's findings, a family of rice farmers in OKU contributed 25.90% of their family's income, which implies that their income from their business in the Minapolitan region made up a quarter of their total income.

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