

## Analysis of Rice Farmer Problems in Improving Community Welfare in Kelurahan Cengkeh Turi Kota Binjai

Ela Rizky Wardhani<sup>1</sup>, Rahmad Sembiring<sup>2\*</sup>  
Universitas Pembangunan Pancabudi Medan  
**Corresponding Author:** Rahmad Sembiring  
rahmadsembiring@dosen.pancabudi.ac.id

---

### ARTICLE INFO

Keywords: Distribution, Climate, Labor, Land Conversion, Community Welfare

*Received : 05, January*

*Revised : 16, January*

*Accepted: 22, February*

©2024 Wardhani, Sembiring : This is an open-access article distributed under the terms of the [Creative Commons Attribution 4.0 International](#).



### ABSTRACT

Indonesia's rice sector was once self-sufficient due to government support, macroeconomic policies, and technological advancements like the Green Revolution in lowland rice cultivation. However, the Cengkeh Turi sub-district in Binjai City, North Sumatra, faces welfare issues such as lack of capital, polluted soil, uncertain rice prices, limited land area, poor quality seeds, plant pests, lack of human resources, and a lack of government involvement in agriculture. This research aims to analyze factors such as seed type, fertilizer type, labor, land conversion, capital, distribution, and climate to improve the welfare of farmers in Cengkeh Turi Village. Data processing using Confirmatory Factor Analysis (CFA) and Multiple Linear Regression was used. Results showed that distribution, climate, labor, and land use change factors significantly impact the welfare of the community in Cengkeh Turi Village, while the type of seed and fertilizer type had a positive effect on the welfare of the community in Kelurahan Cengkeh Turi. The study highlights the need for improved agricultural practices and government support to improve the welfare of farmers in Cengkeh Turi Village.

---

## **INTRODUCTION**

Indonesia once became self-sufficient in rice, due to, among other things, government support which prioritized agricultural development accompanied by supportive macroeconomic policies, new technological breakthroughs (Green Revolution) in lowland rice cultivation, and agricultural identification policies (BIMAS) which regulated technological development centrally. Until now, rice farming production is still the mainstay of Indonesian society in meeting national food needs. Apart from that, for most farmers in Indonesia, rice is also the staple crop that is most widely cultivated. Binjai has long been nicknamed the City of Rambutan because Binjai Rambutan is very famous. These rambutan seeds from Binjai have been spread and cultivated in various places in Indonesia. Apart from that, Binjai is also a large rice producer, especially in the Cengkeh Turi Village area, whose source of income is from the rice harvest which is sold to middlemen. His family and their daily livelihood depend on the rice harvest they obtain. (Sembiring & Ilmi, 2020)

The area of rice land owned by the community in Cengkeh Turi Village is very large and has potential for the area's environment so that it can meet the needs of every family in Cengkeh Turi Village. Starting from meeting daily needs, children's school fees, capital to buy fertilizer and rice seeds, and some of the rest to be saved for sudden needs. However, there are welfare problems in Cengkeh Turi Subdistrict, starting from farmers' knowledge being a determinant of farmers' success in managing the characteristics of existing resources to improve the welfare of the farming community more evenly. The emergence of other problems in the community, starting from a lack of capital in opening up wider agricultural land, soil fertility which is increasingly polluted which makes it impossible to grow crops, the price of rice being uncertain, narrow land cannot increase the area of land owned, quality bad seeds which cause crop failure or poor results, many plant pests which cause them to die and not produce, lack of human resources in agricultural or plantation management and in addition the lack of government's role in realizing good and correct agriculture so that it can achieve Equal distribution of economic growth can occur through a spatial system that integrates urban and rural development. (Sembiring, 2018a)

## **LITERATURE REVIEW**

Welfare includes various actions carried out by humans to achieve a better level of social life, whereas according to the formulation of Law of the Republic of Indonesia No. 16 of 1974 concerning the basic provisions of social welfare article 2 paragraph 1. Welfare is a material social order of life and livelihood as well as spiritually, which is encompassed by a sense of safety, decency, and inner and outer peace, which makes it possible for every citizen to make efforts to fulfill the physical, spiritual, and social needs as best as possible for themselves, their families and society by upholding human rights and human obligations by Pancasila. (Sembiring & Ilmi, 2020)

Pareto theory (1895), states that the welfare of farmers is Pareto superior. In conditions of increasing one's welfare, it will not reduce the highest welfare of other people. According to Pareto's theory, when society's welfare conditions

have reached optimal welfare conditions, no more government policies can be implemented.

## METHODOLOGY

This research uses the Confirmatory Factor Analysis (CFA) and Multiple Regression methods, this research lasts for 5 months from September 2023 to January 2024 starting from preparation to preparation of the research, the data used uses primary data taken using questionnaires, the research location is Cenhkeh Turi Village, Binjai City, North Sumatra.

## RESULTS

The results of data analysis use the Confirmatory Factor Analysis (CFA) method by analyzing groupings, and then interpreting them so that a true picture of the problem under study is obtained. Next, factor analysis is carried out which aims to find a way to summarize the information contained in the original (initial) variables into a new set of dimensions or variables (factors). The first thing to do is test Barlett's test of Sphericity and Kaiser-Meyer-Olkin (KMO), which can be seen in the following table:

Table 1. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.633
Bartlett's Test of Sphericity	Approx. Chi-Square	49.436
	Df	28
	Sig.	.007

The results obtained from Barlett's test of Sphericity were 48,596 with a significance of 0.000, this means that there is a correlation between variables (significant < 0.050). The results of the Kaiser-Meyer-Olkin (KMO) test obtained a value of 0.509, where this figure is already above 0.5. Thus, the variables in this research can be processed further, by analyzing the factors of experience, education, skills, income, palm oil prices, production, labor, and productivity that are relevant to improving the welfare of farmers in Huristak District, Padang Lawas Regency. Significant results can be seen from the following Rotated Component Matrix table:

Table 2. Rotated Component Matrix

	Component			
	1	2	3	4
Seed Type	.296	.628	-.201	.028
Fertilizer Type	-.083	.635	-.063	.170
Labor	-.340	-.118	.734	-.113
Land Function Transfer	.057	-.026	.128	.835
Capital	.359	.007	.704	.155
Distribution	.836	-.029	-.021	-.059
Climate	-.279	.637	.185	-.274

Public welfare	-.410	.173	-.240	.558
Extraction Method: Principal Component Analysis.				
Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 12 iterations.				

The Component Matrix resulting from the rotation process (Rotated Component Matrix) shows a clearer and more realistic distribution of variables. Determining the variable input to a particular factor is based on the magnitude of the correlation between the variable and the factor, namely to a large correlation.

Based on the results of the component matrix values, it is known that of the 7 factors, the 4 factors that are suitable for influencing community welfare are 4 factors originating from:

- Largest Component 1: Distribution with a value of 0.836
- The second largest component is climate with a value of 0.637
- 3rd largest component: Labor with a value of 0.734
- Component 4 largest: Land conversion with a value of 0.835.

The results of data analysis using the Multiple Linear Regression method show the results of hypothesis testing from this research, to look at hypothesis testing and simultaneous testing of factors that are relevant to the welfare of farmers in Huristak District. The results of the influence of the dependent variable on the independent variable can be seen in the following table.

Table 3. T-test (Hypotess Partial Test) Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	15.801	2.085		7.577	.000		
Distribution	.052	.088	.228	2.864	.005	.962	1.039
Climate	.053	.032	.129	1.745	.002	.982	1.018
Labor	.033	.116	.208	2.613	.001	.961	1.041
Land Function Transfer	.063	.083	.182	2.315	.002	.987	1.014

Based on the table above it can be seen that:

- a) The calculated t-distribution value is  $2.864 > 1.652$  then the sig value is  $0.005 < 0.05$ , so  $H_a$  is accepted and  $H_0$  is rejected, meaning that the distribution is significant for the welfare of the community in Cengkeh Turi Village.
- b) The t-calculated climate value is  $1.745 > 1.652$  then the sig value is  $0.002 < 0.05$  so  $H_a$  is accepted and  $H_0$  is rejected, meaning that climate is significant to the welfare of the community in Cengkeh Turi Village.
- c) The t-calculated value for labor is  $2.613 > 1.652$  then the sig value is  $0.001 < 0.05$ , so that  $H_a$  is accepted and  $H_0$  is rejected, meaning that labor is significant to the welfare of the community in Cengkeh Turi Village.
- d) The t-calculated value of land conversion is  $2.315 > 1.652$  then the sig value is  $0.002 < 0.05$ , so that  $H_a$  is accepted and  $H_0$  is rejected, meaning that land conversion is significant for the welfare of the community in Cengkeh Turi Village.

Table 4. F-test (Hipotesis Simultan Test) ANOVAa

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	135.528	4	18.882	14.924	.001 <sup>b</sup>
Residual	261.545	145	1.804		
Total	297.073	149			

a. Dependent Variable: Public welfare  
 b. Predictors: (Constant), Land Function Transfer, Distribution, Climate, Labor

Based on the table above, it can be seen that the results of the ANOVA test with F (Fisher) analysis show that the calculated F value is  $14.924 > F$  table 2.42 so  $H_a$  is accepted and  $H_0$  is rejected and this means distribution, climate, labor and land conversion together significantly to the welfare of the community in Cengkeh Turi Village.

Table 5. Koefisien Determinasi (R<sup>2</sup>) Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.246 <sup>a</sup>	.320	.395	1.34304	.822

a. Predictors: (Constant), Land Function Transfer, Distribution, Climate, Labor  
 b. Dependent Variable: Public welfare

Based on the table above, it can be seen that the adjusted R Square figure is 0.395 which can be called the coefficient of determination, which in this case means that 39.5% of community welfare in Cengkeh Turi Village can be

obtained and explained by distribution, climate, labor and land, conversion, while the rest explained by other factors or variables outside the model that are not studied.

The reason the adjusted R-squared value is small in this research is that it uses primary data with a lower mass than secondary data. After all, it uses a Likert scale and uses two data processing methods, namely the CFA method and multiple linear regression so that data processing and testing is carried out twice. , then the adjusted R-Square value is lower.

## DISCUSSION

The results of the analysis in Confirmatory Factor Analysis (CFA) show that from the explained variance table it can be seen that there are only 4 factors formed.

### **Distribution Has a Significant Influence on Community Welfare.**

Based on the results of the Confirmatory Factor Analysis (CFA) management of the rotation output (Rotated Component Matrix), it shows that the largest component 1 is a distribution of 0.836, which is worthy of influencing community welfare. So it can be concluded that distribution has a significant influence on the welfare of the community in Cengkeh Turi Village.

Distribution factors are factors that influence farmers' income because the more strategic the distribution channels, the easier it is for farmers to sell their agricultural products. Apart from that, buyers will be happier if they buy close to the agricultural location and are easily accessible to buyers.

Carrying out business activities requires a place of business known as distribution. With the existence of distribution channels, consumers can see directly the goods produced or sold in terms of type, quantity, and price. In this way, consumers can more easily choose and transact or purchase products offered directly. Distribution completely has the power to make (or break) a venture's business strategy. Selecting strategic distribution is one of the factors that influences the success of a business. The more strategic the business distribution chosen, the higher the level of sales and the impact on farmer income.

Choosing a good distribution channel is something that farmers must pay attention to so that their agricultural products can be seen by many people, so several considerations will be taken into account to determine the right distribution. Farmers must pay attention to the distribution determination because they will never be free from responsibility for the surrounding environment, ensuring that it will not harm the surrounding environment and cause damage.

In line with line research (Sembiring & Faried, 2020) states that distribution influences farmers' income. Meanwhile, this research is not in line with research conducted by Irving Clark Kaiya Putri (2013) which states that distribution does not affect farmers' income. One of the factors that is thought to be the cause of this condition is the distribution situation where farmers in the distribution area are very close to each other, causing each trader to have the

same opportunity to get consumers and the distribution they occupy has no effect on income.

### **Climate Has a Significant Influence on Community Welfare.**

Based on the results of the Confirmatory Factor Analysis (CFA) management of the rotation output (Rotated Component Matrix), shows that the second largest component is the climate at 0.637, which is worthy of influencing community welfare. So it can be concluded that climate has a significant influence on the welfare of the community in Cengkeh Turi Village.

Rice farming is the main source of income for the people of Cengkeh Turi Village. Therefore, rice productivity is the basis of the community's economy in meeting needs. However, the rice cultivation process is very dependent on climate to optimize its productivity. If there is a change in climate elements, rice productivity will be affected. Bappenas (2010) revealed that in general food crops are most vulnerable to almost all climate components, so adaptation efforts are very necessary. Therefore, to see the effect of climate change on rice productivity, it is necessary to pay attention to the season in planting and harvesting rice. So that it provides optimal results for rice production.

Temperature plays an important role in plant growth and development. Each type of plant has an optimal temperature required for various growth stages, such as germination, vegetative, flowering, and fruit ripening. Extreme temperature fluctuations or temperatures that are too low or too high can disrupt plant physiological processes and reduce production.

Proper and well-distributed rainfall is essential for plant growth. Lack of rainfall can cause drought, while excess rainfall or irregular rain patterns can cause flooding or soil submergence. This condition can inhibit the absorption of water and nutrients by plants, reduce production, or even cause plant damage. Proper air humidity is necessary for photosynthesis and plant respiration processes. Humidity that is too low can cause stress on plants and reduce production, while humidity that is too high can increase the risk of disease and other disorders.

The length or shortness of the plant growing season also affects production. Some plants require a sufficient period to reach certain developmental phases, such as flowering or fruit ripening. If the growing season is too short, plants may not be able to complete their growth cycle optimally, which can affect production. In line with research results (Iffah Luthfiah 2022) where research results show that agricultural production results are decreasing and unstable as a result of climate change, thus climate change affects agricultural production which has an impact on increasing people's welfare.

### **Labor Has a Significant Influence on Community Welfare.**

Based on the results of the Confirmatory Factor Analysis (CFA) management of rotational output (Rotated Component Matrix), shows that the third largest component is labor at 0.734, which is worthy of influencing the

welfare of society. So it can be concluded that labor has a significant influence on the welfare of the community in Cengkeh Turi Village.

The higher the working hours used by the workforce, the higher the welfare that can be generated by farmers, where welfare itself is measured through the income generated by farmers. Labor, which is a production factor, drives other input factors because, without labor, the production process cannot run. The more workers there are, the more output will be produced so that farmers' income can also increase (Mankiw, 2003). Labor is an important factor in influencing income. In economic theory, it is explained that in analyzing production, it is always assumed that the three factors of production, namely natural resources, capital, and entrepreneurship, are constant, while labor is seen as a factor that can change in quantity. Thus, the use of production factors and the level of production produced by the relationship between the amount of labor used and the production achieved will influence the entrepreneur's income level.

Thus, increasing the labor factor greatly influences income, so rice farmers should optimize the use of working hours. If the working hours are devoted by the farmer's workforce, the farmers will intensively care for and maintain their plants so that the quality of the rice they produce is good so that there is no damage to the agricultural land which will have an impact on reducing production yields and the income generated by the farmers.

In line with research results, the results of this research are also supported by (Lubis et al., 2018) and Prapnuwanti (2019) who state that labor has a positive and significant effect on income. This shows that when the labor used increases, the demand that can be met becomes greater and the income received will also increase.

### **Land Conversion Has a Significant Impact on Community Welfare.**

Based on the results of the Confirmatory Factor Analysis (CFA) management of the rotation output (Rotated Component Matrix), it shows that the 4th largest component is the land conversion of 0.835 which is worthy of affecting community welfare. So it can be concluded that land conversion has a significant effect on the welfare of the community in Cengkeh Turi Village.

The conversion of agricultural land is difficult to overcome, this is because development will continue to occur to fulfill and support the lives of people living in an area, apart from that, the lack of price elasticity of agricultural products on farmers' income makes this worse, and the price of land makes people intend to convert it or selling land becomes a reality, plus population growth accelerates this.

Farmers in Cengkeh Turi Village, on average, are not pure farmers, the farmers have other jobs to help support the family economy. It can be concluded that the welfare of farmers in Cengkeh Turi Village lies in the other types of business they do, while the reason why farmers have other jobs is because the area of cultivated land is small which cannot provide for the family economically, the types of work that are usually other jobs for farmers are construction workers/handyman, and entrepreneurship.



In measuring the level of farmer welfare, can be measured from several indicators. Welfare indicators are a measure of society's achievements, whether society can be said to be prosperous or not. Health indicators that are components of prosperity are adequate shelter, clothing, and daily health. Development in the health sector aims to ensure that all levels of society can obtain health services easily, cheaply, and evenly.

The impact of the conversion of agricultural land on welfare is not always bad. This depends on what form the land is converted into. From the research results it was found that agricultural land converted into shophouses and pools can increase income because the opportunities for land conversion are better than those in the agricultural sector and less elastic to income, on the other hand, this type of conversion is usually carried out to support businesses outside of agriculture that they are involved in, such as traders making shophouses to expand their business networks and fish farmers converting their land into ponds so that fish production can be increased.

Land conversion has a positive and significant influence because changing land functions can increase farmers' income. Land conversion results in increased farmer income. This condition is caused by several farmers deciding to look for replacement arable land by locating in other places where they have wider control of the arable land. Another reason that results in increased income due to land conversion is the change in business activities from agriculture to rented houses (boarding houses) which can only be carried out by farmers who have land owner status. When compared to farming income on agricultural land in general, it is generally only to meet needs. Meanwhile, income from the new business (after conversion in the form of a boarding house) can be received regularly every month with a value many times greater than that from the previous farming business. This is also the driving force for the increasing number of land conversion activities. In line with research conducted by (Lubis et al., 2018) and (Gunawan, 2019). Based on the results of his research, it was stated that the conversion of agricultural land to farmers' income had a positive impact on increasing farmers' welfare.

## **CONCLUSION AND RECOMMENDATION**

From the results of research on factors that improve community welfare in Cengkeh Turi Village, several conclusions can be expressed as follows:

1. The CFA test on the KMO and Bartlett's Test tables shows that the data is valid and can be analyzed further with factor analysis. The Bartlett test value states that the correlation matrix formed is an identity matrix, or in other words the factor model used is good and in the Rotated Matrix table it is known that of the eight factors 4 factors are worthy of influencing the welfare of the community which has a significant influence on the welfare of the people of Cengkeh Village. Turi, namely distribution, climate, labor, and land conversion.
2. The results of multiple linear regression show that if distribution increases, community welfare will increase, if the climate decreases, community welfare will increase, if labor increases, community welfare will increase,

and if land conversion increases, community welfare will increase will increase. The results of the partial hypothesis test show that distribution, climate, labor, and land conversion have a positive and significant effect on the welfare of the community in Cengkeh Turi Village.

At the end of the writing, the author provides suggestions that can later be used to build and become a study for us so that we can improve the factors that influence the welfare of the community in Cengkeh Turi Village. The suggestions given include:

1. It is hoped that local governments will conduct training or field demonstrations on appropriate fertilizer use, effective weed control, or efficient irrigation techniques
2. It is hoped that there will be facilitation of network development and partnerships between farmers, agricultural institutions, and related business actors to assist in expanding farmers' access to resources, technology, financing, and markets that can support increasing farmer production.
3. It is hoped that the government will assist with advanced tools to make it easier for the community to manage agriculture and at the same time provide training in operating or using the tools provided.
4. It is hoped that by evaluating and monitoring farmer production and the practices adopted, an understanding of the successes and challenges faced can be obtained.
5. It is hoped that the government or agricultural empowerment institutions will assist in the form of seeds, sophisticated tools, or capital in managing community agriculture in Cengkeh Turi Village.
6. It is hoped that further research will deepen understanding of the factors that influence farmer production in Cengkeh Turi Village. For example, research could be conducted to evaluate the effects of climate change on farmers' production or identify more specific socioeconomic factors.

#### **FURTHER STUDY**

This research still has limitations so further research on the topic still needs to be done "Analysis of Rice Farmer Problems in Improving Community Welfare in Kelurahan Cengkeh Turi Kota Binjai."

#### **REFERENCES**

- Auliyani, M., & Yafiz, M. (2022). Peran Badan Perencanaan Pembangunan Daerah ( BAPPEDA ) Dalam Perencanaan Pembangunan ( Studi Kasus Pembangunan Di Daerah Kabupaten Mandailing Natal ). *Jurnal Cendekia Llmiah*, 1(2), 94-105.
- Afrizal, R. (2017). Karakteristik Sosial Ekonomi Petani Padi Di Daerah Kantong Perantau Sumatera Barat . *Jurnal Pertanian* , 1-8.
- Ainurrahman, A. (2018). Analisis Kesejahteraan Petani Pola Penguasaan Lahan Di Kabupaten Lamongan. *Jurnal ekonomi Dan Kebijakan Pembangunan*, 1-16.

- Akbar, I. (2018). Analisis Faktor-Faktor Yang Mempengaruhi Produktivitas Padi Di Kecamatan Kesesi, Kabupaten Pekalongan . Jurnal Agribisnis , 1-12.
- Alfrida, A. (2018). Analisis Pendapatan Dan tingkat Kesejahteraan Rumah Tangga Petani Padi Sawah Berdasarkan Luas Lahan . Jurnal Agribisnis, 1-8.
- Ali, A. (2018). Pengaruh Teknologi Pertanian Terhadap Produktivitas Hasil Panen Padi Di Kecamatan Maritengngae. Jurnal Pertanian , 1-12.
- Amanaturrohim, H. (2015). Pengaruh Pendapatan Dan Konsumsi Rumah Tangga Terhadap Kesejahteraan Keluarga Petani Penggarap Kopi Di Kecamatan Candiroto Kabupaten Temanggung. Jurnal Ekonomi, 1-179.
- Aprilia, L. (2018). Pengaruh Pendapatan Jumlah Anggota Keluarga Dan Pendidikan Terhadap Pola Konsumsi Rumah Tangga Miskin Dalam Perspektif Ekonomi Islam (Studi Pada Rumah Tangga Miskin Kecamatan Anak Ratu Aji Kabupaten Lampung Tengah). Lampung: Universitas Islam Negeri Raden Intan.
- Awal, A. (2018). Pegaruh Pendapatan Dan Jumlah Tanggungan Keluarga Petani Padi Terhadap Tingkat Pendidikan anak Di Desa Pattalassang Kecamatan Pattalassang Kabupaten Gowa. Jurnal Ilmu Ekonomi, 1-116.
- Bananiek, S. (2013). Faktor-Faktor Sosial Ekonomi Yang Mempengaruhi Adopsi Teknologi Pengelolaan Tanaman Terpadu Padi Sawah Di Sulawesi Tenggara. Jurnal Teknologi Pertanian , 1-11.
- Bastuti, T. (2017). Analisis Dinamika Konsumsi Pangan Dan Kesejahteraan Rumah Tangga Petani Padi . Jurnal Sosial Ekonomi Dan Pertanian , 1-15.
- Defidelwina. (2017). Stategi Peningkatan Produksi Dan Produktivitas Padi Sawah Di Kabupaten Rokan Hulu. Jurnal Pembangunan Pedesaan , 1-21.
- Destiyanti, R. I. (2014). Pengaruh Status Sosial Ekonomi Keluarga Terhadap Pencapaian Tingkat Pendidikan Anak Di Kelurahan Perbutulan Kecamatan Sumber Kabupaten Cirebon. Bandung: Universitas Pendidikan Indonesia .
- Fada, H. A. (2020). Tingkat Kesejahteraan Petani Tembakau Di Desa Petarangan Kecamatan Kledung Kabupaten Temanggung. Yogyakarta: Universitas Islam Indonesia.

- Fariied, I. A., Hasanah, U., Sembiring, R., & Agustin, R. R. (2021). Pilar Membangun Ekonomi Melalui Umkm Sebagai Peluang Penyerapan Tenaga Kerja Di Indonesia. *Jurnal AKMAMI (Akuntansi, Manajemen, Ekonomi)*, 2(3), 570–579.
- Fariied, A. I., Sembiring, R., & Nasution, L. N. (2019). Enhance Of Halal Rule Development Model In the Fashion Industry Indonesia. *International Halal Conference & Exhibition 2019*, 24(9), 26–32. <https://jurnal.pancabudi.ac.id/index.php/ihce/article/view/630>
- Ferdinand. (2002). *Metode Penelitian Manajemen : Pedoman penelitian untuk Skripsi, Tesis, dan Desertasi Ilmu Manajemen*. Semarang: Universitas Diponegoro.
- Ghozali, I. (2005). *Aplikasi Analisis Multivariate dengan SPSS*. Semarang: Badan Penerbit UNDIP.
- Gunawan, S. (2019). *Dampak Alih Fungsi Lahan Pertanian Terhadap Pendapatan Petani Di Desa Lambara Harapan Kecamatan Burau Kabupaten Luwu Timur*. Makassar: Universitas Muhammadiyah Makassar.
- Hair, e. (1998). *Multivariate Data Analysis*. Upper Saddle River: New Jersey.
- Handayani , R. (2018). *Dampak Sosial Ekonomi Alih Fungsi Lahan Sawah Bagi Buruh Tani Dan Penyakap Di Kota Padang Panjang (Studi Kasus : Kecamatan Padang Panjang Timur)*. Universitas Andalas: Padang.
- Hasibuan, N. Y. (2019). *Pengaruh Harga Sawit Dan Produktivitas Terhadap Kesejahteraan Petani Kelapa Sawit Di Desa Siamporik Kecamatan Kualuh Selatan Kabupaten Labuhanbatu Utara*. Medan: Universitas Islam Negeri Sumatera Utara.
- Hasanah, U., Sembiring, R., & Ilmi, A. (n.d.). *Analysis of Coastal Tourism Development in the East Coast Region of Sumatera Utara Province*. 02(05), 57–70.
- Herminingsih, H. (2017). *Pengaruh Perubahan Iklim Terhadap Perilaku Petani Padi Di Kabupaten Jember* . *Jurnal Agribisnis*, 1-9.
- Kristian, D. (2016). *Hubungan Faktor-Faktor Sosial Ekonomi Petani Dan Tingkat Adopsi Inovasi Budidaya Padi Di Desa Kembang Mertha Kecamatan Dumoga Timur Kabupaten Bolang Mongondow*. *Jurnal Agri-Sosial Ekonomi*, 1-18.

- Lubis, A. I. F., Siahaan, A. P. U., Nasution, D. P., Novalina, A., Rusiadi, Sembiring, R., Efendi, B., & Winaro, F. (2018). Strategy for improving science and welfare through community empowerment technology. *International Journal of Civil Engineering and Technology*, 9(9), 1036-1046.
- Lukmawati, A., Puspaningtyas, A., & Rochim, A. I. (2020). STRATEGI BADAN USAHA MILIK DESA ( BUMDes ) dalam Meningkatkan Pendapatan Asli Desa ( Studi BUMDes Desa Getas dan BUMDes Desa Sumberpitu Kecamatan Cepu , Kabupaten Blora ). *Jurnal Mahasiswa Administrasi Publik UNTAG Surabaya*, 6, 69-72.
- Martina. (2018). Analisis Tingkat Kesejahteraan Petani Padi Sawah Di Kabupaten Aceh Utara. *Jurnal Agrifo*, 1-8.
- Malau, L., Sembiring, R. D., Pinem, D. E., Sains, I., Pardede, T. D., Td, J., No, P., Menteri, P., Umum, P., Perumahan, D., No, R., Tentang, T., Kumuh, P., Permukiman, D., Iv, V., Permukiman, K. K., Sains, J., Malau, L., Dian, R., & Eresina, D. (2023). DI KECAMATAN BINJAI KOTA ( Studi Kasus : Kelurahan Setia ) Abstrak serius maka diperlukan tindakan yang dapat dilakukan untuk mengurangi ataupun mencegah timbulnya kawasan kumuh baru . Adapun kriteria-kriteria yang di analisa adalah kondisi Lingkungan V m. 19(02).
- Mutmainna. (2019). Kondisi Sosial ekonomi Petani Padi di Desa Leppangang Kabupaten Pinrang . *Jurnal Ilmu Sosial* , 1-18.
- Nasir Mohamad. (2017). Forum Ekonomi Dan Sosial Ke-1 2017 Ikatan Sarjana Ekonomi Indonesia Cabang Semarang. *Ketahanan Pangan Dan Pengentasan Kemiskinan*, 1-737.
- Nasution, L. N., Rangkyu, D. M., & Sembiring, R. (2020). Impact of Financial Inclusion and Social Inclusion on Economic Growth in North Sumatera Province: A Panel Data Approach. *Academia.Edu*, February. <https://www.academia.edu/download/63316488/I20449810420200515-120832-l63to1.pdf>
- Nirzalin. (2018). Produktivitas Pertanian Dan Involusi Kesejahteraan Petani (Studi Kasus Di Meunasah Pinto Aceh Utara). *Jurnal Sosiologi* , 1-14.
- Nurhana. (2019). Analisis Aspek Sosial ekonomi Petani Padi Peserta Program Pencetakan sawah Baru . *Jurnal Sosial ekonomi Pertanian* , 1-14.

- Nurul, I. (2015). Pengaruh Perubahan Iklim Terhadap Produksi Pertanian Dan Strategi Adaptasi Pada Lahan Rawan Kekeringan . *Jurnal Ekonomi Pembangunan*, 1-11.
- Pitriyani, R. (2019). Pengaruh Tingkat Pendidikan Dan Tingkat Pendapatan Terhadap Kesejahteraan Petani Padi Di Desa Sungai Jerinjing Kecamatan Selagan Raya Kabupaten Mukomuko Provinsi Bengkulu. Padang: STKIP PGRI Sumarera Barat.
- Pramudiana, I. D. (2017). Dampak Konversi Lahan Pertanian Terhadap Kondisi Sosial Ekonomi Petani Di Kecamatan Tikung Kabupaten Lamongan. *Asketik*, 63-71.
- Prasetya , D. (2015). Dampak Alih Fungsi Lahan Dari Sawah Ke Tambak Terhadap Mata Pencaharian Masyarakat Desa (Studi Kasus Di Desa Cebolek Kidul Kecamatan Margoyoso Kabupaten Pati). Semarang: Universitas Negeri Semarang.
- Pratama, B. C. (2017). Dampak Pengalihan Penggunaan Lahan Pertanian Terhadap Kondisi Sosial Ekonomi Masyarakat Kabupaten Jember. Jember: Universitas Jember.
- Rahmawati, A. F., Amin, Rasminto, & Syamsu, F. D. (2021). Analisis Pengelolaan Sampah Berkelanjutan Pada Wilayah Perkotaan di Indonesia. *Bina Gogik*, Vol.8(1), 1-12.
- Ruminta. (2018). Indikasi Perunbahan Iklim Dan Dampaknya Terhadap Produksi Padi Di Indonesia. *Jurnal Agroteknologi*, 1-11.
- Rusiadi, N. S. (2015). Metode Penelitian-Manajemen, Akuntansi, Dan Ekonomi Pembangunan Konsep, Kasus Dan Aplikasi SPSS, Eview, Amos, Lisrel Edisi Ke-2. Medan: USU Press.
- Sari, V. N. (2018). Pengaruh Produktivitas Terhadap Pendapatan Petani Padi Dalam Perspektif Ekonomi Islam (Studi Di Kecamatan Sukarame Kota Bandar Lampung). Lampung: Universitas Islam Negeri Raden Intan.
- Setiawan, A. (2017). Faktor-Faktor Sosial Ekonomi Yang Memotivasi Petani Melakukan Usaha Tani Padi Sawah (*Oryza Sativa L.*) Di Kelurahan Bukuan Kecamatan Palkaran Kota Samarinda . *Jurnal Ekonomi Pertanian Dan Pembangunan*, 1-13.
- Sembiring, R. (2018a). Dampak Perubahan Budaya Sosial Ekonomi Terhadap Kemiskinan Dan Kesejahteraan Pada Masyarakat Desa Pahlawan. *Jepa*, 3(1), 75-82.

- Sembiring, R. (2018b). Pengaruh Nilai Tukar Nelayan (Pendapatan Nelayan, Pendapatan Non Nelayan, Pengeluaran Nelayan, Pengeluaran Non Nelayan) Terhadap Kesejahteraan Masyarakat (Pendidikan, Kesehatan, Kondisi Fisik Rumah) Di Desa Pahlawan. *Jurnal Abdi Ilmu*, 10(2), 1836–1843. <http://jurnal.pancabudi.ac.id/index.php/abdiilmu/article/view/42>
- Sembiring, R., & Faried, A. (2020). *Productivity Analysis and Welfare of Salt Farmers in Tanah Anoe Village, Bireun-Indonesia*. <https://doi.org/10.4108/eai.4-12-2019.2293880>
- Sembiring, R., & Ilmi, A. (2020). *DETERMINATION OF WELFARE AND INCOME OF THE*. 5, 253–258.
- Sembiring, R., Nasution, L. N., Faried, A. I., & Novalina, A. (n.d.). *Determinant of Human Development Index (HDI) Towards Poverty in the Regency/City of North Sumatera Province (Case Study Medan, Binjai, Deli Serdang, Karo, and Pematang Siantar)*.
- Sembiring, R., Pembangunan, U., Budi, P., Faried, A. I., Pembangunan, U., & Budi, P. (2022). Covid-19: Produktivitas Dan Kesejahteraan Keluarga Nelayan Di Desa Pesisir. January.
- Sembiring, R., Faried, A. I., Hasanah, U., & Pratiwi, I. (2023). Analysis Of The Increase In Msme Income During The Covid-19 Pandemic In Deli Serdang Regency. 249–263.
- Sembiring, R., Nasution, L. N., Faried, A. I., & Novalina, A. (N.D.). *Determinant Of Human Development Index (Hdi) Towards Poverty In The Regency/City Of North Sumatera Province (Case Study Medan, Binjai, Deli Serdang, Karo, And Pematang Siantar)*.
- Sembiring, R., Pembangunan, U., Budi, P., Faried, A. I., Pembangunan, U., & Budi, P. (2022). Covid-19: Produktivitas Dan Kesejahteraan Keluarga Nelayan Di Desa Pesisir. January.
- Siahaan, D. (2019). Pengaruh Pendidikan, Pendapatan, Pekerjaan Dan Jumlah Tanggungan Terhadap Kemiskinan Rumah Tangga Di Desa Aek Bolon Julu Kabupaten Toba Samosir. Medan: Universitas Sumatera Utara.

Wati, F. (2019). Analisis Sosial Ekonomi Dan Tingkat Kesejahteraan Di Kabupaten Lampung Barat Dalam Perspektif Ekonomi Islam (Studi Pada Petani Kopi Di Kecamatan Balik Bukit). Lampung: Universitas Islam Negeri Raden Intan.

Zaenun, S. (2017). Daya Adaptasi Perubahan Iklim Terhadap Pendapatan Petani Padi Di kecamatan Gemuh kabupaten Kendal. *Jurnal Agribisnis*, 1-7.