

**INNOVATION CLITORIA TERNATEA INTO HERBAL TEA TO IMPROVING THE REGIONAL ECONOMY AFTER COVID-19**

**ARYA SAPUTRA<sup>1</sup>, WIWIN ASTUTI<sup>2</sup>, MUHAMAD SUHARDI<sup>3</sup>**  
UIN Raden Mas Said Surakarta<sup>1,2</sup>, Universitas Pendidikan Mandalika<sup>3</sup>  
e-mail: [aryasaputraaams@gmail.com](mailto:aryasaputraaams@gmail.com)

**ABSTRAK**

Clitoria ternatea merupakan tanaman merambat monokotil berwarna biru yang telah lama digunakan sebagai tanaman hias taman dan pagar tanaman. Tanaman polong-polongan ini berasal dari Asia tropis, kemudian menyebar ke negara tropis seperti Indonesia. Pandemi COVID-19 memberikan dampak yang signifikan terhadap perekonomian seluruh dunia, termasuk Indonesia. Tujuan tercapainya usaha sebagai suatu inovasi pemanfaatan bunga telang yang mempunyai banyak manfaat, mampu merencanakan, membangun, melaksanakan dan menyusun laporan keuangan suatu usaha serta mampu meningkatkan perekonomian masyarakat sekitar pada abad ini. Pandemi COVID-19 dengan membeli bunga telang. Data yang diperoleh akan dianalisis secara kualitatif dengan menggunakan metode deskriptif. Metode pengumpulan data yang digunakan adalah dengan menggunakan data primer dan data sekunder. Inovasi pengolahan Clitoria ternatea menjadi teh herbal di Desa Kepayang berpotensi besar meningkatkan perekonomian daerah pasca pandemi COVID-19

**Kata Kunci :** Clitoria Ternatea, Herbal, Peningkatan Pendapatan, COVID

**ABSTRACT**

Clitoria ternatea is a blue monocotyledonous vine that has long been used as a decorative plant for gardens and hedges. This legume plant originates from tropical Asia, which has spread to tropical countries such as Indonesia. The COVID-19 pandemic has had a significant impact on the economy around the world, including Indonesia. The goal of achieving the business as an innovation in the use of butterfly pea flowers which has many benefits, being able to plan, build, implement and prepare financial reports for a business and being able to improve the economy of the surrounding community in this century of the COVID-19 pandemic by buying butterfly pea flowers. The data obtained will be analyzed qualitatively using descriptive methods. The data collection method used is by using primary data and secondary data. The innovation of processing Clitoria ternatea into herbal tea in Kepayang Village has great potential to improve the regional economy after the COVID-19 pandemic

**Keywords:** Clitoria Ternatea, The Herbal, Income Increase, COVID

**INTRODUCTION**

Clitoria ternatea is a blue monocotyledonous vine that has long been used as a decorative plant for gardens and hedges. This legume plant originates from tropical Asia, which has spread to tropical countries such as Indonesia. One of the potential natural pigments that influences the blue color of butterfly pea flowers is the anthocyanin type delphinidin glycoside (Tantituvanont et al., 2008). This pigment is able to produce a deep blue color or does not fade after being frozen in the freezer for 24 hours (Hartono et al., 2013). In several countries, the use of butterfly pea flowers is also used as a food coloring for rice in several countries such as India, China, Central America, and South America (Muhamad, 2011). In addition, the use of butterfly pea flowers in India and the Philippines as raw food ingredients or called lalapan (Lee et al., 2011). So far, the problem with the application of butterfly pea flowers is that their dull color

can cause the flowers to rot (fresh flowers) and become moldy (dry flowers) during storage, as well as pigments that are sensitive to changes in pH and temperature of food ingredients.

In Indonesia itself, there are various names for eggplant flowers. In Sumatra, it is called blue flower, kelentit flower, eggplant flower; while in Java it is called the meliuk or bouncing eggplant flower. In Betawi/Jakarta it is called the meiuk eggplant. While in Sulawesi it is called the distance flower, Kebun Lareng, and in Maluku it is called bis, or seyamagulele.

Butterfly pea is a herbaceous plant that can grow and live for years (perennial), can reach 5 meters in height, has fine hairs, and the base is woody. The leaves are compound trifoliate (for example, legume leaves in general), the flowers are single like those that come out of the leaf axils, the color of the flowers is bright blue with a yellowish white color in the middle, but there are also white flowers. Butterfly pea flowers also have pods with flat seeds like kidneys. The type of butterfly pea flower that is most commonly found in Indonesia is the blue butterfly pea flower. The fruit is in the form of a pod, 7-14cm long, has a short stem, the fruit is green when young and turns black when old. Butterfly pea flower seeds are found in the fruit which is shaped like a kidney, when young it is green, when old the seeds are black. This butterfly pea flower is used by the community as a food and drink coloring.

The COVID-19 pandemic has had a significant impact on the economy around the world, including Indonesia. In rural areas, such as Kepayang Village, Lempuing District, Ogan Komering Ilir Regency, South Sumatra, people are facing a decrease in income due to disruptions to economic and agricultural activities. One effort to improve the economy after the pandemic is through local product innovation, one of which is *Clitoria ternatea* or better known as the butterfly pea flower.

*Clitoria ternatea* is a plant known for its bright flower colors and high antioxidant content. In addition to being used as a natural dye, this flower has great potential to be developed into herbal tea with high economic value. Innovation in processing *Clitoria ternatea* into herbal tea can open up new business opportunities for the people of Kepayang Village and improve the local economy.

Based on this background, we have a goal to achieve business as an innovation in the use of butterfly pea flowers which have many benefits, Able to plan, build, implement and compile financial reports for a business and Able to improve the economy of the surrounding community in this century of the Covid-19 pandemic by buying butterfly pea flowers. Become a delicious edible dish and turn it into a tea drink that is easy to make, rich in benefits and a favorite of the public that is healthy and beneficial

Based on this background, our team was inspired to process *Clitoria ternatea* flowers in Kepayang Village to be developed into herbal tea products and improve the economy of Kepayang Village after the COVID-19 pandemic.

## **METHOD**

The data obtained will be analyzed qualitatively using descriptive methods to identify the potential, challenges, and opportunities in the development of herbal tea products from *Clitoria ternatea*. The data collection method used is by using primary data and secondary data . This research was conducted in Kepayang Village, Lempuing District, Ogan Komering Ilir Regency, South Sumatra Province. The object of the research is the innovation of processing *Clitoria ternatea* into herbal tea as an effort to improve the community's economy after the pandemic.

## **RESULTS AND DISCUSSION**

Observations were made in Kepayang Village, Lempuing District, Ogan Komering Ilir Regency, South Sumatra Province, the majority of Kepayang village residents work as farmers

and laborers. Before this innovation, the community's economy depended on several main commodities that were very vulnerable to price fluctuations and weather conditions. With diversification into herbal products such as tea from butterfly pea flowers, the community's dependence on one type of commodity is reduced, thus creating better economic resilience.

The COVID-19 pandemic has shown how fragile an economy that relies on only one or two sources of income is. Therefore, by diversifying through the processing of *Clitoria ternatea*, Kepayang Village not only increases community income but also increases overall economic resilience. The community has more choices of sources of income and is not entirely dependent on the main agricultural sector.

### **1. Potential of *Clitoria Ternatea* (Blue Pea Flower)**

*Clitoria Ternatea*, or better known as butterfly pea flower, is a tropical plant with blue flowers that are rich in health benefits. In some areas, including Kepayang Village, this plant has long grown naturally. However, before the innovation of processing, the use of butterfly pea flowers in this village was still very limited. In general, butterfly pea flowers are only used as natural food coloring and decorative materials, without further processing that has high economic value.

The innovation of butterfly pea flower processing in Kepayang Village is focused on the process of making herbal tea. The following are the steps taken in processing:

1. **Butterfly Pea Flower Harvest:** Flowers are harvested fresh. Processing is done immediately after harvest to maintain the nutritional content.
2. **Drying Process:** The harvested butterfly pea flowers are then dried. Drying is done in traditional (using sunlight) and modern (using a dryer) ways depending on production capacity.
3. **Fermentation:** The fermentation process is used in some products to produce richer flavor variations and add health benefits.
4. **Packaging:** After drying, the butterfly pea flowers are processed into herbal tea which is then packaged with attractive designs to be sold in local and online markets.

### **2. Added Value from Innovation**

Before the innovation, butterfly pea flowers did not have significant economic value for the local community. However, with the innovation of processing into herbal tea, this product has succeeded in attracting market interest and generating new income for farmers and entrepreneurs in the village.

1. **Increased Selling Value:** Herbal tea products from butterfly pea flowers have a much higher selling value compared to fresh flowers. One 50 gram pack of herbal tea can be sold for around Rp. 50,000, much higher than fresh butterfly pea flowers which are only sold in small quantities at low prices.
2. **Product Diversification:** Herbal tea from butterfly pea flowers can also be developed into various product variants, such as tea bags, instant powder, or even used as an ingredient in other health drinks mixed with honey, ginger, or local spices.
3. **Branding and Marketing:** The product is then marketed as a health drink with various benefits, such as increasing immunity, reducing stress, and aiding digestion. In the post-pandemic context, herbal products that offer additional health benefits are in high demand by consumers.

### **3. Economic Impact on Community Income**

The innovation of processing *Clitoria Ternatea* into herbal tea in Kepayang Village has had a significant positive impact on community income. Before this innovation was introduced, most villagers only relied on traditional agricultural products with relatively low and fluctuating incomes. After the herbal tea innovation was introduced, community income, both households

and local entrepreneurs, increased quite significantly. This shows that product innovation based on local resources can be an effective solution to improve the regional economy, especially after the COVID-19 pandemic.

Community Income Table Before and After Innovation

Category	Before Innovation (Rp)	After Innovation (Rp)
Household Income	1,200,000 - 1,800,000	2,000,000 - 3,500,000
Tea Entrepreneur Income	3,500,000 - 4,200,000	5,000,000 - 6,500,000

**4. Impact Analysis on Revenue**

1. Household Income

Before the innovation of herbal tea processing, the average household income was in the range of IDR 1,200,000 to IDR 1,800,000 per month. Most of this income comes from farming activities, such as planting rice or other horticultural crops. Because farming activities are highly dependent on the season and fluctuating market prices, this income is unstable and often low, so many households have difficulty meeting their basic needs.

After the herbal tea innovation was introduced, household income increased to IDR 2,000,000 to IDR 3,500,000 per month. This increase occurred because several household members were involved in the process of processing butterfly pea flowers into tea, both in the harvesting, drying, packaging, and marketing processes. This innovation provides a more stable and sustainable alternative income, especially since herbal tea products have high market demand, both locally and online.

2. Entrepreneur Income The

Small entrepreneurs in Kepayang Village generally process agricultural products on a limited scale, such as selling the harvest directly or processing it into simple products. Their income is in the range of IDR 3,500,000 to IDR 4,200,000 per month, with a sales volume that is not too large due to limited market access.

After the innovation of herbal tea processing from Clitoria Ternatea, the entrepreneur's income increased significantly to IDR 5,000,000 to IDR 6,500,000 per month. This happened because the innovation of herbal tea products offered higher added value compared to just selling raw materials (fresh flowers). Herbal tea products have a higher selling price and also attract wider consumer interest, especially because of the health benefits offered by this product. In addition, with better marketing, herbal tea products have succeeded in penetrating markets outside the village, even to big cities.

**5. Factors Driving Increased Income**

Some of the major factors that contributed to the increase in people's income after the herbal tea innovation was introduced include:

1. Added Value of Processed Products: This innovation transforms butterfly pea flowers from raw products into herbal tea that has a higher selling value. Processed products, such as herbal tea, always have a higher price on the market compared to raw materials, because the processing process adds value and extends the shelf life of the product.
2. High Market Demand for Health Products: Butterfly pea herbal tea is marketed as a natural health product that has benefits for boosting immunity, reducing stress, and aiding digestion. Following the COVID-19 pandemic, demand for natural health products has increased drastically, and this herbal tea has managed to attract a wider

consumer base. The increasing public awareness of the importance of health is driving demand for this product, both locally and online.

3. **Diversification of Income Sources:** This innovation allows for diversification of income sources for households. Apart from traditional farming, communities also earn income from processing, packaging, and marketing herbal tea. With multiple stages in the production chain, more family members can be involved, thus increasing income contribution.
4. **Marketing and Access to a Wider Market:** Before the innovation, most of the products produced by the Kepayang Village community were only marketed locally with limited reach. However, after the innovation of herbal tea processing, this product began to be marketed more widely, both through local distribution networks and online platforms. This increase in market access allows Clitoria Ternatea herbal tea products to be sold at more competitive prices and reach consumers outside the village, even to the national level.

### **6. Impact on Village Economy**

The increase in income from this herbal tea innovation is not only felt by individual households and tea entrepreneurs, but also has an impact on the village economy as a whole:

1. **Increased Purchasing Power:** With higher incomes, the people of Kepayang Village now have better purchasing power, so that the village economy moves faster. The community is better able to afford basic necessities, improve their quality of life, and access health and education services.
2. **Unemployment Reduction:** This innovation also contributes to the reduction of unemployment in the village, with many new jobs created in the herbal tea production process. This helps reduce labor migration from the village to the city and improves local welfare.
3. **Increasing Local Investment:** The success of this herbal tea innovation has also encouraged local investment, both in the form of increasing production capacity, purchasing more modern processing equipment, and improving workforce skills through training.

### **7. Impact on Labor Absorption**

One of the important impacts of the innovation of processing Clitoria Ternatea (blue pea flower) into herbal tea in Kepayang Village is the increase in labor absorption. This innovation has succeeded in creating new jobs in various sectors in the herbal tea production chain, from the harvesting process to marketing. Before the innovation, employment opportunities in the village were limited to traditional agricultural activities, which were unable to absorb much labor. With this innovation, the village experienced a significant increase in the number of workers, which in turn helped reduce unemployment and improve community welfare.

Labor Absorption Table Before and After Innovation

<b>ASPECT</b>	<b>BEFORE INNOVATION</b>	<b>AFTER INNOVATION</b>
Number of Workers	10-15 people	35-40 rank

### **8. Impact Analysis on Labor Absorption**

Before the innovation of herbal tea processing was introduced, employment opportunities in Kepayang Village were very limited. Most of the population only worked as small farmers who worked on traditional agricultural land, such as rice or other horticultural crops. This activity is not very labor-intensive, so it only absorbs around 10-15 people per work group. In these conditions, employment opportunities for villagers, especially for young people and

women, are very limited. Seasonal unemployment is a common problem, because jobs in agriculture depend on the planting and harvesting seasons.

After the innovation of herbal tea processing from *Clitoria Ternatea* was introduced, the absorption of labor increased drastically. The number of workers involved in the entire herbal tea production process reaches 35-40 people, covering various roles in the production chain. This increase was due to the presence of various new stages in the herbal tea production process that required additional labor, such as harvesting, drying, fermentation, packaging, distribution, and marketing. This innovation provides wider employment opportunities, especially for groups that were previously less involved in economic activities, such as young people and women.

### **9. Factors that Drive Increased Labor Absorption**

1. **Labor-Intensive Production Process** The innovation of processing *Clitoria Ternatea* into herbal tea involves various stages in the production chain that require a large amount of labor. The process includes:

- a. **Butterfly Pea Flower Harvest:** Because butterfly pea flowers must be harvested manually to maintain their quality, a lot of labor is needed to pick the flowers at the right time.
- b. **Drying and Fermentation:** After harvest, the butterfly pea flowers are dried and partially fermented. This process requires additional labor to ensure that the drying is done properly and according to product quality standards.
- c. **Packaging:** Once the product is ready, labor is needed to pack the herbal tea in attractive packaging that meets market standards. Proper packaging is essential to maintain quality and enhance the appeal of the product.
- d. **Marketing and Distribution:** In addition to being involved in production, some workers are also involved in marketing and distributing products, both locally and online. An effective marketing strategy requires expertise in sales, social media management, and product delivery.

2. **Employment Opportunities for Women and Young People**

This herbal tea innovation creates more inclusive employment opportunities, by providing opportunities for groups that were previously less involved in the village economy, such as women and youth. In the processing process, women are often involved in packaging and marketing, while young people are involved in distribution and online promotion. This not only increases employment, but also empowers groups that were previously less involved in local economic activities.

3. **Production Scalability**

The innovation of herbal tea from butterfly pea flowers allows for rapid scale-up of production, as demand for the product increases. As production increases, more labor is needed to meet higher production targets. This means that this innovation has the potential to continue to absorb more labor over time, if production capacity continues to be increased.

4. **Post-Pandemic Demand Increase**

The trend of consuming health and herbal products has increased significantly after the COVID-19 pandemic. The increasing demand for herbal products, such as butterfly pea flower tea, has allowed the industry to grow rapidly, which in turn has created more job opportunities. Consumers who are increasingly aware of the importance of maintaining health choose natural products such as herbal tea, thus encouraging increased production and employment in the village.

## **10. Social Impact of Labor Absorption**

### **1. Reducing Unemployment and Labor Migration**

One of the direct impacts of increasing labor absorption is the reduction of unemployment in Kepayang Village. Before the innovation, many residents, especially young people, were forced to migrate to big cities to find work. With the presence of new jobs in the herbal tea processing sector, the village is able to retain local workers and reduce the flow of migration out of the village. This also helps improve the welfare of the village community as a whole, because more income circulates locally.

### **2. Skills Enhancement and Community Empowerment**

In addition to creating jobs, this herbal tea innovation also improves the skills of the community. Many workers are trained in various aspects of production and processing, such as drying, fermentation, and packaging. Knowledge of marketing and distribution techniques is also introduced, especially in the use of online platforms. This skill improvement not only increases productivity but also empowers the community to take a more active role in village economic activities.

### **3. Improvement of Quality of Life**

With increased employment and better income, the quality of life of rural communities has improved. Many families who previously had difficulty meeting their daily needs now have better access to health services, education, and other consumer goods. This positive impact is also felt by the wider community, because the village economy as a whole is growing faster than before the innovation.

## **CONCLUSION**

Innovation in processing *Clitoria ternatea* into herbal tea in Kepayang Village has great potential to improve the regional economy after the COVID-19 pandemic. Local people can utilize butterfly pea flowers as a new source of income, but support from various parties is needed to face the existing challenges.

## **ACKNOWLEDGEMENTS**

Thank you to parents and all parties who have always provided support to researchers until the completion of this research entitled Innovation of *Clitoria Ternatea* Into Herbal Tea To Improve The Regional Economy After Covid-19.

## **REFERENCES**

- Arifin, Z. (2020). *Utilization of Herbal Plants as Superior Products in Efforts to Improve Public Health*. Indonesian Herbal Journal, 5(2), 45-56.
- Central Statistics Agency (BPS) of Ogan Komering Ilir Regency. (2021). *Statistics of Ogan Komering Ilir Regency in 2020*. Palembang: BPS Ogan Komering Ilir.
- Dewi, LA, & Nugroho, AS (2021). *Herbal Tea Development Strategy Based on Local Wisdom: Case Study on Butterfly Pea Flower Herbal Tea Innovation*. Indonesian Agribusiness Journal, 9(3), 89-105.
- Gunawan, A. (2020). *The Impact of Creative Economy on Increasing Village Community Income*. Journal of Economics and Regional Development, 11(1), 33-47.
- Handayani, S., & Prasetyo, D. (2022). *Agricultural Product Innovation as an Effort for Economic Recovery Post COVID-19 Pandemic*. Journal of Economic Innovation, 7(1), 58-72.
- Ministry of Health of the Republic of Indonesia. (2021). *Benefits of Herbal Tea in Increasing Body Immunity*. Jakarta: Ministry of Health of the Republic of Indonesia.

- Kusuma, F.N. (2020). *Potential of Butterfly Pea Flowers (Clitoria ternatea) as a Source of Natural Antioxidants in Health Drink Products* . Journal of Food Technology, 14(2), 112-120.
- Lestari, R., & Santoso, H. (2021). *The Role of Herbal Products in Supporting Economic Recovery during the COVID-19 Pandemic* . Journal of Health Economics, 5(4), 122-135.
- Mardiana, S., & Wahyuni, R. (2021). *Development of Herbal Products Based on Butterfly Pea Flowers to Improve the Economy of Village Communities* . Proceedings of the National Seminar on Innovation and Technology, 8(2), 22-29.
- Mulyadi, A. (2020). *Processing of Butterfly Pea Flowers into Herbal Tea: Technology and Health Benefits* . Journal of Agriculture and Technology, 12(3), 77-90.
- Kepayang Village Government. (2021). *Kepayang Village Annual Report: Economic Potential and Product Innovation Post-Pandemic* . Ogan Komering Ilir: Kepayang Village Government.
- Rahayu, TM, & Setiawan, B. (2021). *Herbal Economy in the Pandemic Era: A Case Study of Herbal Tea in South Sumatra* . Journal of Microeconomics, 13(1), 67-84.
- Sari, WP, & Fitriani, DA (2022). *Strategy for Developing Butterfly Pea Flower Herbal Tea Products in Local and International Markets* . Journal of Business Development, 10(2), 15-28.
- Supriyadi, I. (2020). *Potential of Herbal Products in Supporting Regional Economic Recovery Post-Pandemic* . Journal of Development Economics, 14(2), 101-118.
- Wardhani, N., & Fitriana, S. (2022). *Herbal Tea: Innovation of Local Plant-Based Products as a New Source of Income for Village Communities* . Journal of Social and Economic Innovation, 3(1), 99-115.