



---

## COMMUNITY EMPOWERMENT WITH SUSTAINABLE DEVELOPMENT GOALS PROGRAM THROUGH BLUE PEA FLOWER PROCESSING IN WONOSARI VILLAGE, GONDANGREJO, KARANGANYAR REGENCY

---

Novia Wahyu Ningsih<sup>1</sup>, Nur Hasanah Al Imama<sup>1</sup>, Nur Ikhlasul Amal<sup>1</sup>, Putri Lestari<sup>1</sup>, Qonita Binti Zuraida<sup>1</sup>, Rachma Regita Sukamto<sup>1</sup>, Rehan Husina Novizina<sup>1</sup>, Rinda Ristiyani<sup>1</sup>, Risa Atitka Nugraheni<sup>1</sup>, Rudfiando Ikhsana Putra<sup>1</sup>, Gatot Jariono<sup>1,\*</sup>

Universitas Muhammadiyah Surakarta

Corresponding Author: [lpmpp@ums.ac.id](mailto:lpmpp@ums.ac.id)

---

---

### Article Info:

Submitted:  
Revised:  
Accepted:  
Publisher:

**Keywords:** Village community empowerment, thematic KKN, SDGs, Blue Pea Flower.

### Abstract

Wonosari Village is a village located in Gondangrejo, Karanganyar Regency, Central Java. This village has several potentials that can be utilized and developed. Community Service Institute and Organizational Development Universitas Muhammadiyah Surakarta (LPMPP UMS) through Thematic Real Work Lectures (Thematic KKN) has tried to reduce and provide solutions to the problems faced by villages and their communities in this village. This Thematic KKN is carried out over a period of three months, and it is part of the 2022 Independent Campus Competition Program (PKKM). One of the programs that has been carried out in this village is Blue Pea Flower Processing. This program was well implemented and involved various partners, such as village officials, youth organizations and village communities.

---

## 1. INTRODUCTION

University Muhammadiyah Surakarta (UMS) is a private tertiary institution that implements the pillars of community service not only to lecturers, but also to students which are packaged in a Community Service Lecture (KKN) program carried out by Community Service Institute and Organizational Development (LMPPP) of UMS. KKN is an intra-curricular activity that implements all *Tridharma* Higher Education activities by providing students with learning experiences and social sensitivity development via scientific service, teaching and social interaction carried out outside the campus with certain work mechanisms and requirements. The Thematic KKN implemented by LPMPP UMS in this period is the 2022 Independent Campus Competition Program (PKKM). One

of the aims of performing this Thematic KKN is to help villages in achieving Sustainable Development Goals (SDGs) which are villages without poverty and hunger, equal village's economical growth, villages awareness of health, environment, and education, women-friendly villages, villages with networks, and villages that are culturally responsive to accelerate the achievement of the SDGs (Ministry of Villages, Disadvantaged Regions and Transmigration of Indonesia, 2020).

Wonosari Village is a village located in Gondangrejo, Karanganyar Regency, Central Java. The area of Wonosari Village is around 465.34 hectares. There are approximately 4000 residents in Wonosari Village (Badan Pusat Statistik Karanganyar, 2021). As stated by the village secretary Mr. Bagus, about 30% of the population migrated. It was also observed that in Wonosari Village there are many empty houses. The main occupation of the people in this village is farmer. Most of the farmers grow rice, while others grow other plants such as corn, peanuts, and avocados. In this village, the farmers usually only plant one type of plants. For example, once a farmer plants rice then this farmer will always plant rice. Noting that, there are also several livestock farm in this village, such as goats, rabbits, sheep, and chickens. Due to the dry land, the residents using rain levels for their water systems in this village. Therefore, it is actually very challenging for the farmers to grow their plants especially in dry season. Hence, additional income is needed by the villagers to help their economics during the dry season.

Blue pea flower is one of endemic flower in Indonesia which has a lot of benefit for people health such as help ensure skin and hair health, promote weight loss, and reduce blood sugar levels (Madukokila, *et al*, 2021). In Indonesia, this flower is often consumed by adding it in herbal tea and has increased in popularity. This flower is relatively easy to find and to grow in any land condition. It is also very simple to process as herbal tea with only a few processing procedures (Hapinat, 2020).

Realizing the potential of blue pea flower as a commodity that can be utilized for Wonosari's villagers to improve their economics especially during non-planting season, the team of Thematic KKN LPMPP UMS offers an assist to help the villagers in Wonosari Village to learn about how to process blue pea flower into commercial product. After this program is implemented, it is expected that the villagers can utilized blue pea flower as alternative income especially during non-planting period.

## 2. METHODS OF IMPLEMENTATION

In this study the authors used a sociological and phenomenological approach because this method can observe phenomena that occur in society directly. There are two types of data collected in this study, namely primary and secondary data:

### 1. Primary data collection techniques

Primary data is obtained or collected directly from the field by researchers. The ways to obtain primary data are:

#### a. Observation

Observation is the systematic observation and recording of the phenomena that are studied. The observation was carried out in the community of Wonosari Village, the TPA in Wonosari Village, and other activities, one of which was the toddler Posyandu.

### b. Interview

The data collection method is by asking the informants directly to get information. The type of interview used in this study is a guided free interview. This is a type of interview when the researcher visits directly to the house or residence of the character or person to be interviewed (Kvale, 1996).

## 2. Secondary data collection techniques

Secondary data is obtained indirectly from the research object. Secondary data collection in this study was carried out by means of library research and document recording, by collecting data, journals, and taking material from internet sites or library books that were considered relevant to the problem under study. For example, in making materials for the socialization of the processing of blue pea flowers, students search for them through the internet and journals (Madden, 2021; Madukokila, *et al.*, 2021; Sofiah, *et al.*, 2021; Afrianto, *et al.*, 2020; Hapinat, 2020; Campbell, *et al.*, 2019; Lakshan, *et al.*, 2019).

During the observation period, observations were made in the surrounding community and the problems that occurred. At the interview stage, a series of questions and answers were conducted with the surrounding community. In this Thematic KKN, village communities are partners in this program. In the technical collection stage which ends with the activity action stage. And in the last stage of the Thematic KKN is an evaluation carried out by students.

Thematic KKN in Wonosari Village, Gondangrejo, Karanganyar Regency was carried out for three months, starting from October 3, 2022 to December 19, 2022. The people of Wonosari Village were targeted for the empowerment program in this thematic KKN, namely 1). Wonosari Village Government Officials, 2). Elementary school students at SD 1 and 2 Wonosari, 3). Wonosari village youth and youth, 4). TPA Wonosari Village.

## 3. RESULTS AND DISCUSSION

Community empowerment through the management of blue pea flower flowers by utilizing vacant land located in the islamic boarding school area by cultivating blue pea flower plants. In order to realize this program, the first step taken was deliberations with youth group of Wonosari Village. This initial step is an act of caution in moving and implementing an idea that will be implemented. In addition, the deliberation aims to discuss sustainable programs, according to "village deliberation is a deliberative forum which is attended by the Village Deliberative Council, Village Government and Elements of the Village Community to deliberate on strategic matters in the administration of Village Government" (Ministry of Villages, Disadvantaged Regions and Transmigration of Indonesia, 2014).



**Figure 1. Socialization to Karang Taruna in Wonosari Village.**

The initial stage of this program was socialization to the village community and the Youth Organization of Wonosari Village (Karang Taruna), to increase literacy related to the blue pea flower and protect the environment by planting it in the location of the village community. Socialization was carried out regarding blue pea flower, how to care for blue pea flower seeds and the benefits of blue pea flower by providing an overview of the implemented programs (see Figure 1).



**Figure 2. Planting blue pea flower.**

After the socialization, the next program is conducted by the planting action involving members of the Wonosari Village Karang Taruna who were the targets of this program. The aims of this program are to make the youth group of Wonosari Village aware of protecting the environment and also this activity could be sustainable or truly real. The members of the Karang Taruna in Wonosari Village were very enthusiastic about this empowerment program as seen in the practice of planting seeds. They had the idea of planting using easy-to-obtain media such as scrap wood so that the roots of the seeds planted were stronger (see Figure 2).



**Figure 3. Socialization with the residents of Wonosari Village.**

To get satisfactory results, planted seeds require regular watering and fertilization. For watering the plants can be taken from one of the residents' houses. So this can be overcome by getting the permission of the residents in Wonosari Village. For fertilizers, it can be used the organic fertilizers which are ready-made processed fertilizers. Harvest time is the most awaited time. For blue pea flower plants can be harvested once a month. The harvest is distributed to the residents of Wonosari Village and the surrounding community. The next stage is socialization with the people of Wonosari Village, especially young and elderly mothers. The point is to provide knowledge regarding the benefits of blue pea flower, management of blue pea flower and maintenance of blue pea flower (see Figure 3).



**Figure 4. Improving Digital Marketing Literacy and Socialization.**

To increase the sustainability of this program, socialization regarding product marketing was held (see Figure 4). The targeted level of participation is the resident of Wonosari Village and The Micro, small, and medium enterprises (MSMEs) around Wonosari Village. This socialization was held to provide several information on product

marketing including the notion of product marketing, how to manage product marketing, product marketing on various platforms and others. This can help a successful transfer of knowledge and technology provided. Mastery of knowledge and skills are very beneficial to the community so that this program can be implemented independently in the future. In this case, community empowerment can be interpreted as a process to gain power, strength, or ability.

The impact of the activity on the community is the empowerment of Wonosari Village residents. With the independence and awareness that has been realized, it is expected that it will be able to deliver the desired results after a sustainable empowerment program. Another impact is that people know more about the blue pea flower itself. This shows that there is a successful transfer of knowledge and technology that has been given.

#### 4. CONCLUSION

The empowerment carried out for Wonosari Village residents can increase the use of vacant land and the cultivation of blue pea flower plants. The unused land of the Wonosari Village residents has now received a good response by reviewing the results that have been realized and the knowledge related to product marketing to MSMEs. Wonosari Village residents really participate in this empowerment. Through this activity, it is expected that it will foster enthusiasm, independence and motivate Wonosari Village residents to improve the welfare of Wonosari Village residents and MSMEs.

#### 5. ACKNOWLEDGEMENTS

The authors thanks to all the people of Wonosari Village, Gondangrejo, Karanganyar Regency who are able to participate and actively support our activities and UMS that has given the opportunity to be able to take part in the 2022 Thematic KKN program.

#### 6. REFERENCES

- Afrianto, W. F., Tamnge, F., & Hasanah, L. N. (2020). Review: A relation between ethnobotany and bioprospecting of edible flower Butterfly Pea (*Clitoria ternatea*) in Indonesia. *Asian Journal of Ethnobiology*, 3 (2), 51-61. <https://doi.org/10.13057/asianjethnobiol/y030202>.
- Badan Pusat Statistik Karanganyar. (2021). Penduduk, Laju Pertumbuhan Penduduk, Distribusi Persentase Penduduk, Kepadatan Penduduk, Rasio Jenis Kelamin Menurut Desa/Kelurahan di Kecamatan Gondangrejo, 2020. [Online] Available at: <https://karanganyarkab.bps.go.id/statictable/2021/10/05/342/penduduk-laju-pertumbuhan-penduduk-distribusi-persentase-penduduk-kepadatan-penduduk-rasio-jenis-kelamin-menurut-desa-kelurahan-di-kecamatan-gondangrejo-2020.html>. [Accessed: 02 January 2022].

- Campbell, S. M., Pearson, B., & Marble, C. (2019). Butterfly Pea (*Clitoria ternatea*) Flower Extract (BPFE) and Its Use as a pH-Dependent Natural Colorant. Environmental Horticulture Department, UF/IFAS Extension, University of Florida. [Online] Available at: <https://edis.ifas.ufl.edu/publication/EP573> [Accessed: 02 January 2022]. <http://doi.org/10.32473/edis-ep573-2019>.
- Hapinat, H. L. (2020). Production of Tea from the Flower of Blue Ternate (*Clitoria ternatea* Linn.): A New Social Enterprise for Blue Tea Growers in the Municipality of Batad, Iloilo, Philippines. *FFTC Agricultural Policy Platform (FFTC-AP)*. Food and Fertilizer Technology Center for the Asian and Pacific Region. [Online] Available at: <https://ap.ffc.org.tw/article/2654> [Accessed: 02 January 2022].
- Kvale, S. Interviews An Introduction to Qualitative Research Interviewing. Sage Publications, 1996.
- Lakshan, S. A. T., Jayanath, N. Y., Abeysekera, W. P. K. M., & Abeysekera, W. K. S. M. (2019). A Commercial Potential Blue Pea (*Clitoria ternatea* L.) Flower Extract Incorporated Beverage Having Functional Properties. *Evid-based Complement Alternative Medicine*, 2019, Paper ID 2916914. <https://doi.org/10.1155%2F2019%2F2916914>.
- Madden, H. (2021). How to Plant and Care for Butterfly Pea Flowers. [Online] Available at: <https://www.wikihow.com/Plant-Butterfly-Pea-Flower> [Accessed: 02 January 2022].
- Madukokila, Jemziya, M. B. F., Wijewardhane, R. M. N. A., & Rifath, M. R. A. (2021). Development and Quality Evaluation of Blue Butterfly Pea Flower (*Clitoria ternatea* L.) Extract Incorporated Jelly. 1<sup>st</sup> International Conference on Science and Technology-2021, University of Sri Lanka.
- Ministry of Villages, Disadvantaged Regions and Transmigration of Indonesia. (2014). Law No. 6 of 2014 concerning Villages.
- Ministry of Villages, Disadvantaged Regions and Transmigration of Indonesia. (2020). The Ministerial Regulations Number 21 of 2020 about General Guidelines for Village Development and Village Community Empowerment.
- Sofiah, Aswan, A., Yunanto, I., Ramayanti, C., Amelia, P.D., Utami, A. N. (2021). Making Herbal Tea from a Mixture of Butterfly Pea Flower (*Clitoria Ternatea*) and Ginger Powder (*Zingiber Officinale*) by using Drying Method According to Indonesian National Standards (SNI). *Atlantis Highlight in Engineering: Proceedings of the 5<sup>th</sup> FIRST T1 T2 2021 International Conference (FIRST-T1-T2 2021)*. <https://dx.doi.org/10.2991/ahe.k.220205.019>.