

# AGRICULTURAL POTENTIAL DEVELOPMENT IN TRITIS VILLAGE, GUNUNG KIDUL REGENCY THROUGH SOURSOP AND DURIAN SEEDLING FARMING WORKSHOP

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**Abstract** - *This research aims to develop the potential of the environment and human resources in Tritis Village which is expected to be sustainable so that the results of this agriculture can not only be consumed as personal consumption, but also can be marketed so they can advance the economy of the people in Tritis Village. This research uses the ABCD (Asset Based Community Development) method with an asset approach that focuses on the success achieved and appreciates the potential that links existing strengths and assets. The results of this study found that the Tritis Village community has the potential for environmental assets and human resources that are suitable and can be developed, so that the soursop and durian seedling planting program using grafting techniques is well-targeted.*

**Keywords:** *Agricultural Development, Grafting Techniques, Planting Seedling*

## 1. INTRODUCTION

Agriculture is the activity of utilizing biological resources to produce food, raw materials, and to manage the environment. Agriculture is highly related to the economic aspect which includes production, distribution, and consumption activities with the results of biological resources as products. Agriculture has an important role in the economy of a country or region. Moreover, Indonesia is an agrarian country whose population depends on the primary sector, especially the agricultural sector (Yuliana Dewi et al., 2022). These roles include supplying food for community sustainability, providing industry raw materials and energy sources, as well as improving the economic growth of a region by increasing the productivity and efficiency of the agricultural sector.

The increase in productivity in agriculture has to be in line with the principles of sustainable agriculture. With this, sustainable agriculture involves the use of resources wisely, the preservation of the environment, as well as the socio-economic empowerment of rural communities (*The Role of Agriculture in the Indonesian Economy: Its Potential and Impact*, 2023). Agricultural activities also generate a unique socio-cultural system, which is generally formed in rural areas where the majority of the population are farmers (Arief, 2020).

As can be seen in the socio-cultural system in Tritis Village, Gunung Kidul Regency, where the majority of the population there work as farmers. In addition, the Gunung Kidul Regency area also has a tropical climate and an area dominated by karst hills, and certainly has limestone soil. Thus, many agricultural cultivations in this area are less fertile and less optimal. However, there are some crops that are suitable for planting on limestone soils such as teak, mahogany, and tobacco. This problem can be overcome by improving soil quality using lime, which can help increase soil pH so that it is more fertile and nutritious in order to produce quality agricultural production (Wilson, 2022). According to interviews by residents of Tritis Hamlet who do have jobs in agriculture, it is said that the area is suitable for planting soursop and durian plants, but many residents still do not know how or the correct techniques in planting soursop and durian plants.

Observing the community's potential for asset development in the Tritis Village area, it can be seen that they are focusing on something that is owned in their area, not something that is lacking, which is aligned with the ABCD (Asset Based Community Development) principle. ABCD is a sustainable empowerment that is focused on the assets, strengths, and skills of the community, which can lead to positive changes that are focused on the needs and problems of the community (Herry Setyawan et al., 2022).

From the background of the problems explained, researchers want to develop village assets by conducting workshops on planting soursop and durian seedlings using grafting techniques, which are assisted by the Department of Agriculture and Food of Gunung Kidul Regency. Then, researchers also provide free seeds to the community so that they can immediately practice the knowledge that has been provided.

There are previous studies that have discussed using the same method, which were conducted by Saputri Laswi et al, with the title *“Upaya Peningkatan Taraf Hidup Petani di Desa Seba-Seba Kecamatan Walenrang Timur Kabupaten Luwu melalui Pembagian Bibit Sayuran”*. They concluded that the distribution of appropriate vegetable seeds can motivate the community to maximize the use of land and can be used as a fulfillment of food supply and help improve the standard of living of the community in Seba-Seba Village (Saputri Laswi et al., 2023).

Then, research conducted by Rahmat et al, with the title *“Pengolahan Hasil Pertanian dalam Upaya Peningkatan Perekonomian Petani di Kabupaten Bintan”*. They concluded that developing agricultural land by processing farm products into food products is an effort made by the community to improve the economy of the local community because the selling value of processed products has a high selling value compared to selling them raw (Rahmat et al., 2021).

Then, research conducted by Nur Kharisma et al, with the title *“Asset-Based Community Development: Pengembangan Produk Pertanian Sari Jeruk Khas Dusun Pacet”*. They concluded that the asset development method can empower the assets owned by the community to advance the wellbeing of the surrounding environment, which with this empowerment can explore the potential of the community to process the farming products of the Pacet Village community (Nur Kharisma et al., 2022).

This research aims to increase the potential and knowledge of the community through the development of agricultural assets with workshops on planting soursop and durian seeds using grafting techniques. Then, the purpose of this article is to present the results of the service of KKN Collaboration PTKIN 2023 students in Tritis Village, Gunung Kidul Regency.

## **2. METHOD**

This research uses the ABCD (Asset Based Community Development) method, with an asset approach (Herry Setyawan et al., 2022). The data collection techniques through observation and interviews were used to find out the situation and conditions as well as the things needed by the community. Then, the interview technique is carried out to obtain information and activities that are suitable and also in demand by the people of Tritis Village.

After going through these stages, researchers held a work program in the form of a "Workshop on Planting Soursop and Durian Seedlings using the Grafting Technique", which contained interactive dialogue and training aimed at the farming community of Tritis Village. The activity was held at the Tritis Village Hall. In this activity, researchers invited competent speakers in their fields, Mrs. Sriyatun, S.Tp and Mr. Suronto from the Agriculture and Food Service of Gunung Kidul Regency. They explained the proper planting, care, and prevention of pests & diseases for soursop and durian seedlings, followed by the practice of grafting techniques.

### **3. RESULTS AND DISCUSSION**

The ABCD methodology is built on the idea of focusing on people's assets and potential rather than cases and needs. It also identifies individual assets, as well as individual or community interests. The further principle of the methodology is to make the community an active participator in developing their community. Then, the ABCD method also encourages citizens to build interactions, where communication and social networks are assets and rights as citizens (Herry Setyawan et al., 2022). The asset-based approach is a combination of a method of action and a way of thinking about development, which also focuses on the traces of success that have been achieved by appreciating the potential to mobilize and link existing strengths and assets.

#### **A. An Overview of Fruit Farming Potential in Tritis Village**

Tritis is a village located in Saptosari Subdistrict, Planjan Administrative Village, Gunung Kidul Regency. Tritis Village is known for its residents, who are mostly farmers as their first source of economy. The soil in Tritis Hamlet is limestone which makes it difficult to grow fruit plants if you do not have the perseverance and ability to maintain it. According to local residents who work as farmers, the most commonly developed crops in the village are corn and cassava. This is because they can not only be sold, but can also be the daily source of food for the people in the village. In addition, plants such as teak trees are also suitable for planting in this village because there are several teak tree fields that grow lush, high, and towering.

In the past years, there were residents who tried to grow fruits such as soursop and longan, but always ended up with failed harvests because they did not know the proper techniques and care. Usually, people use the common technique of cuttings or grafts, it is known that people do not know other techniques for planting fruit plants. In addition, the large number of ktek animals or monkeys makes farmers experience many losses in planting fruit trees. Then, it is not only the problem of the ability of the residents of Tritis Village who lack the knowledge of techniques or how to take care of them, but also the limestone soil factor that is owned in the village makes it difficult for plants to grow.

Limestone soil is an infertile soil because it has no nutrients or humus. However, this limestone soil is also important because it is used to reduce the acidity of the soil which makes the soil neutral (Default, 2016). The highest content in this soil is calcium and magnesium which can inhibit development in young plant tissues. However, other factors also influence plant growth such as climate, topography, and plant species.

Starting from the residents' concerns about planting fruit plants in Tritis Village, the researchers had the idea to create a work program on agricultural development, which is "Grafting Techniques for Planting Soursop and Durian Seedlings". The selection of soursop and durian fruit plants is also a suggestion from the Environmental Department of Gunung Kidul Regency. They suggested planting

soursop and durian fruit plants because these plants are quite suitable for growing in limestone soil during the rainy season. According to Mr. Sukino, one of the residents of Tritis Village, he said that planting fruit plants during the rainy season is very potential because the community does not have to worry about watering their plants every two days, which is usually quite far from their home.

## **B. Socialization of Soursop and Durian Seedling Planting Through Grafting Technique**

After completing the observation process, we found that a suitable program to be held in Tritis Village is the socialization of soursop and durian seedling planting through grafting techniques. This program was created in accordance with the potential of the Tritis Village community, where all community members are involved in this activity, both those who have agricultural and non-agricultural jobs. In choosing this program, we discussed with the community, where the community also described the environmental conditions so that this program was right on target.

This activity not only aims to develop the potential of the environment in Tritis Village, but also to develop the ability of the community in planting plant seeds that are expected to be sustainable so that later the harvest produced can not only be consumed as their own consumption, but also can be marketed.



**Figure 1.** Presentation of the Planting of Soursop and Durian Seedlings

This socialization activity went well with enthusiasm from the community. The participants who attended this socialization program were +/- 70 people. We also invited speakers who are experienced in their fields, Mr. Suronto and Mrs. Srihayatun, S.Tp from the Agriculture and Food Service Office of Gunung Kidul Regency. According to Mr. Suronto and Ms. Srihayatun, in planting fruit plant seedlings, it is necessary to be patient and tenacious because fruit plants are usually more susceptible to diseases/pests. Therefore, in the socialization process, the community was not only given knowledge about planting seedlings with grafting techniques, but also taught how to make traps so that plants are free from pests, and how to properly care for plants. The enthusiasm of the community was also evident as they listened to the discussions given by the speakers, and there were active

discussions or questions and answers between the speakers and community members.



**Figure 2.** Practicing Grafting Technique on Soursop Seedlings

After conducting a socialization program for planting seeds through grafting techniques, it was continued with the distribution of soursop seeds for free, which with the distribution of these seeds is expected that the community can immediately practice the knowledge that has been given by the speakers. As explained, the scope of ABCD in community empowerment consists of 4 things, which include (1) Politics, (2) Economy, (3) Socio-Culture, (4) Environment (Herry Setyawan et al., 2022).

Community empowerment in the economic sector is oriented towards ensuring that the community has high bargaining power, which is intended to be the main axis of the life process of the nation and state. With this program, the community is also open to career development in agriculture, which is in accordance with the purpose of this socialization program so that the community can not only develop fruit plants for personal consumption, but it is also expected that marketing of the results of these fruit plants will be carried out. As Setyawan said, the goal of community empowerment is to achieve social justice by helping each other and learning through the development of small steps to achieve big goals (Herry Setyawan et al., 2022).

In the economic field, the people of Tritis Village are encouraged, motivated, and made aware of the potential of the environment and human resources to be developed so that they can be utilized to earn income or as a source of income. In the socio-cultural field, it is focused on strengthening the solidarity of the people of Tritis Village, where the community is made aware of the condition of the community without regard to belief or social status. It is hoped that in the development of the community in the field of agriculture, they can support each other so that the development of agriculture in Tritis Village can be carried out which is not only an object but also a subject, and get equal treatment for fellow human beings.

Then, in the field of environment, the Tritis Village community is focused on environmental management so that it is maintained, where the community is required to understand and care about environmental conditions and their sustainability. This community concern is what is obtained through empowerment efforts such as our program, socialization of agricultural development through planting soursop and durian seeds using grafting techniques.



**Figure 3.** Distribution of Free Soursop Seedlings to the People of Tritis Village

This political, economic, socio-cultural, and environmental empowerment also aims to help people improve their abilities and confidence in their potential and capabilities.

#### **4. CONCLUSION**

Tritis Village is a village in Saptosari District that has agricultural potential by developing existing assets such as land assets and human resource assets. Therefore, the Collaborative KKN Group of PTKIN 60 2023 held an agricultural empowerment program, which is the Planting of Soursop and Durian Seedlings through the Grafting Technique. As a result of this development program, the community can be more enlightened about their potential, where later the agricultural crops can not only be used as a source of personal food, but also marketing can be made to improve the economy of the people in Tritis Village, Gunung Kidul Regency. Moreover, the community is also aware of what potentials they have, so that sustainable development can occur.

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