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Flower Garden as a Short-Term Greening Effort for Embung Area in Srimulyo Village, Gondang District, Sragen Regency, Central Java

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Abstract: A flower garden was created to green the embung area considering the dry season in August. The master plan used as a reference is a master plan made by the previous KKN period. In the execution process, the making of the flower garden has yet to be realized. Therefore, in this period of KKN, a flower garden was made west of the village pond. The flower garden created has a size of 8 x 2 meters with a distance of 30 cm between plants. There are 89 plants in this flower garden, namely 50 red purslane plants, 30 sabrina plants, and nine panca air plants. Making the garden begins with clearing the land and cleaning up the existing weeds. Then, the land measurement is carried out according to the desired garden size. After that, the process of tillage so that the soil can be planted with flower plants that have been prepared. The process of tillage is a process that takes much time. More than three days of new soil can be planted with flower plants. The obstacle faced in making this garden is the dry soil conditions, resulting in soil management that must be done with a long process.

Keywords: embung, revitalization, greening, flower garden

Introduction

Sragen Regency is a regency located in the eastern part of Central Java Province that covers an area of 941.55 km² and has a population of around 858,266 people calculated in the 2010 census and 976,951 in the 2020 census. Sragen Regency is located about 30 km to the east of Surakarta City. The geographical condition of Sragen Regency has a diverse relief, and there are areas of limestone mountains stretching from east to west located north of

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Bengawan Solo and lowlands scattered throughout Sragen Regency. With such geographical conditions, Srimulyo Village has the potential to develop village tourism objects. A map of Srimulyo Village can be seen in Figure 1.

Figure 1. Map of Srimulyo.

One of the tourism potentials in Srimulyo Village is the village pond. The current condition of the reservoir in Srimulyo Village is still under construction. Where the realization of the master plan has only been carried out around 40%, objects that have been built are the reservoir and swimming pool. Meanwhile, the café and volleyball court are still under construction. Greenery planting has not been done at all, as evidenced by the aridness of the reservoir area in Srimulyo Village. Therefore, efforts must be made to make the Srimulyo Village reservoir fresh and cool. So that later, it will attract more people to visit the Srimulyo Village reservoir tourism area. One of the efforts made to overcome this is greening (Sari et al. 2021). Based on the explanation above, this article aims to explain the process of short-term greening by planting flowers at the Srimulyo Village reservoir carried out by UNS Group 101 Students. Flower planting is intended for greening and to add beauty to the Srimulyo Village reservoir.

Literature Review

According to (Fahmi and Abtokhi 2020), greening is one of the efforts made by planting trees and plants which are considered to be able to grow and develop these plants. Land reforestation is also intended to restore and increase productivity to restore conditions due to damage so that it can function optimally through reforestation activities (Rohman et al. 2022).Other benefits of reforestation can also be used to maintain the balance of the water system in the soil, prevent erosion, keep the environment cool, beautiful, comfortable and beautiful, and reduce pollution (Jusi et al. 2022). Greening can be divided into long-term and short-term greening (TODINGRARA 2013). Long-term greening is realized by planting, which will be lush and have strong and sturdy roots. Long-term greening requires a long time so that the output of greening is maximized (Imamah 2021). Meanwhile, short-term greening is greening, whose output does not require a long time to be maximized. For example, planting flowers and other plants that can grow quickly.

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Method

The method of this activity is carried out by (1) analyzing problem-solving and preparing plans and (2) evaluating the implementation of activities. The flow of realization of this activity can be seen in the flow chart in Figure 2. In Figure 2, making a flower garden begins with conducting a direct location survey in the Srimulyo Village reservoir. The survey was based on the bung master plan that KKN had made in the previous period. In the bung masterplan that has been made, several points of the flower garden will be made. We conducted the survey to ensure that the selected land was the best land for planting flower plants. Site selection includes access to water sources, soil conditions, and visual effects. Then, after the location is analyzed and selected, the flower garden design is made according to the availability of the existing land.

The land is cleared after the flower garden design is created and weeds are removed. This is done to make it easier for us to manage the soil so it can be planted with flower plants. Soil management is carried out every afternoon by members of our KKN group. The soil management process is carried out so that the soil is ready for planting so that the plants will not die and can grow according to the plans that have been made. After the land is completely ready for planting, enter the purchasing stage of flower plants. Flower plants were purchased in the Tawangmangu area, Karanganyar, Central Java. The flower plants purchased included 50 red purslane plants, 30 Sabrina flower plants, and 9 panca air flower plants. Planting was carried out for 1 day with all KKN UNS Group 101 members participating in the work.

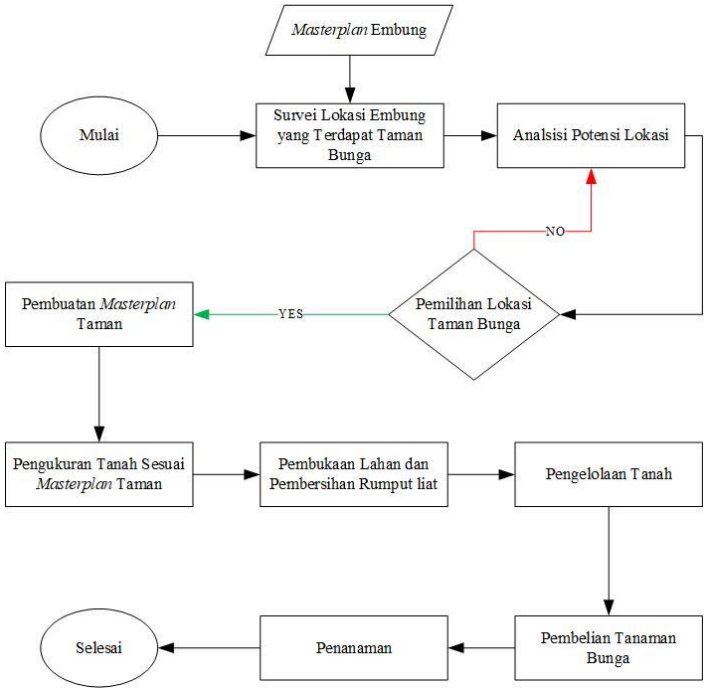

Figure 2. Flowchart methodology.

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Result and Disscusion

The embung masterplan that has been made can be seen in Figure 3. In Figure 3, the embung area of Srimulyo Village consists of an embung, fishing, swimming pool, and restaurant. In addition, there is also a volleyball court, an orchard, and an open hall. Around the embung, there is a flower garden which is the target of the realization of the work program that has been designed, namely short-term testing in the form of a flower garden.

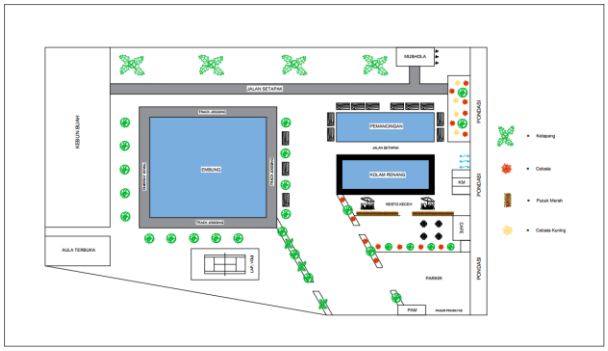

Figure 3. Embung masterplan.

The garden masterplan can be seen in Figure 4. In Figure 4, the garden masterplan is made with a size of 8 x 2 meters (adjusting the width of the reservoir). With a planting distance of 30 cm, the selected flower plants are expected to grow optimally. The configuration of the arrangement is that panca air flowers are placed in the middle, followed by Sabrina flowers, and then red purslane flowers, which will fill the flower garden area.

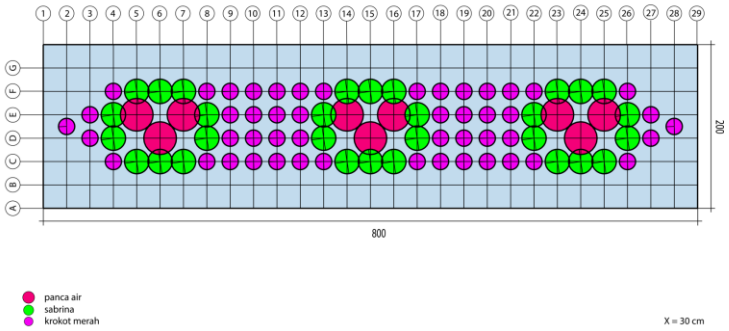

Figure 4. Garden masterplan.

The first process to realize the embung garden is cutting the grass according to the required size. Grass cutting was carried out by KKN UNS Group 101 students. Documentation of grass cutting using a grass cutter can be seen in Figure 5. Then, after the grass is photographed as needed, the soil begins to be tidied up and hoeing according to the size that has been made. After that, watering and mixing the soil is carried out so the land is ready for use. Documentation of soil preparation can be seen in Figure 6.

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Figure 5. Cutting Wild Grass for Garden Creation.

Figure 6. Soil Preparation Process.

The next process after the soil is ready to be planted is to install the grid using a rope following the design that has been made. The grid is installed using a rope where both ends are given a hook. The tangent between the ropes will be the planting point. After the grid process, the flowers are planted one by one manually. The process of planting plants can be seen in Figure 7. To ensure that the plants can grow well, fertilizing with NPK Mutiara 16-16-16 fertilizer and watering the process can be seen in Figure 8. In Figure 9, you can see the finished result of the flower garden at the Srimulyo Village reservoir. In addition, this flower garden is equipped with 2 watering points with springer installations to water evenly.

Figure 7. Planting Process

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Figure 8. Fertilizer Application.

Figure 9. Flower plants at Srimulyo Village Embung.

In addition, because the planting was done during the dry season, it was not easy to source water. The water source had to be supplied from the main pipeline. The process of installing the pipe installation takes a long time. In addition, the condition of the soil around the reservoir, which is of the solid soil type with hard soil characteristics, makes land processing take quite a long time as well.

Conclusion

KKN UNS Group 101, Srimulyo Village, Sragen Regency, initiated community service by making a flower garden following the master plan of the reservoir area. The creation of this flower garden was also carried out as an effort to green the embung area. The flower garden is placed to the west of the village reservoir. The flower garden is 8 x 2 meters in size, with a distance of 30 cm between plants. The flower plants realized in the Sragen Regency village pond consisted of 89 plants, including 50 red purslane flower plants, 30 Sabrina flower plants, and 9 panca air plants. Making the garden starts with clearing the land and cleaning the existing weeds. Then, the land measurement is carried out according to the desired garden size. After that, the process of processing the soil so that the soil can be planted with flower plants that have been prepared. More than 3 days of new soil can be planted with flower plants. The obstacle faced in making this garden is that the dry soil conditions resulting in soil

management must be done with a long process.

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References

Fahmi, Hisyam, and Ahmad Abtokhi. 2020. "Penanaman Pohon Pada Daerah Aliran Sungai Di Desa Torongrejo Kota Batu Dalam Mendukung Program Brantas Tuntas." *Journal of Research on Community Engagement* 2, no. 1: 01–06. https://doi.org/10.18860/jrce.v2i1.9708.

Imamah, Nurul. 2021. "Gerakan Penghijauan Sebagai Rintisan Desa Wisata Untuk Meningkatkan Income Masyarakat Di Desa Sumokali, Candi, Sidoarjo." *DINAMIS: Jurnal Pengabdian Kepada Masyarakat* 1, no. 1: 26–33. https://doi.org/10.33752/dinamis.v1i1.361.

Jusi, U, R Saily, E Ermawati, and ... 2022. "Pendampingan Penanaman Pohon Dalam Rangka Penghijauan Kawasan Wisata Pulau Cinta Kabupaten Kampar." *Diklat Review …*. https://ejournal.kompetif.com/index.php/diklatreview/article/view/1144.

Rohman, Mojibur, Mochamad Sulaiman, Alfi Fadliana, Bella Cornelia Tjiptady, and Priska Choirina. 2022. "Upaya Pelestarian Lingkungan Melalui Penanaman Bibit Pohon Di Desa Palaan, Kabupaten Malang." *Jurnal Andalas: Rekayasa Dan Penerapan Teknologi* 1, no. 2: 57–60. https://doi.org/10.25077/jarpet.v1i2.12.

Sari, Ayu Purnama, I Putu Agus, Alit Mahendra, Yohanes Rikardus Wade, and Universitas Pendidikan Nasional. 2021. "PARTA : Jurnal Pengabdian Kepada Masyarakat STRATEGI PENGHIJAUAN DESA SESANDAN MENUJU DESA EKOWISATA Pendahuluan Metode Hasil Dan Pembahasan" 2: 110–13.

TODINGRARA, Y. 2013. "Pengembangan Penghijauan Pada Kawasan Permukiman Di Bumi Tamalanrea Permai, Kelurahan Tamalanrea Makassar" 2, no. 2. http://repository.unhas.ac.id/id/eprint/10907/1/yohanatodi-3010-1-13-yohan-2 1-2.pdf.