

Conference Paper

Training for the Conservation and Planting of Aren Trees in the Dayeuhkolot Village, Sagalaherang Sub- District

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Abstract.

Dayeuhkolot Village, in the Sagalaherang Sub-district, Subang District, West Java Province, is striving to become an ecotourism area. One of the products that was intended to be preserved was palm sugar. However, palm trees (*Arenga Pinnata*) are no longer available in the village. Apart from having economic value, palm trees are important as they are a buffer for the soil since their roots can prevent landslides, which frequently occur at the village during the rainy season. The training program that we implemented to overcome these problems was the preservation and planting of palm trees. In addition to the training, we also provided 150 palm seeds. To determine the success of tree planting, the team measured the height of the palm trees every month. The results showed that the average growth is 10%.

Keywords: conservation, planting, aren trees

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1. INTRODUCTION

The current paradigm of regional development in Indonesia uses the bottom-up approach as seen from the government's efforts to encourage development from the village level. The successfulness of the implementation of village development should refer to the achievement of the objectives of village development contained in the Law of the Republic of Indonesia number 6/2014 article 78 paragraph 1.

Unisba has collaborated with and counseled several villages or partners, and one of the villages is Dayeuhkolot Village located at Sagalaherang sub-district. The counselled village is a manifestation of Unisba's concern for the welfare of the community.

In the rainy season, landslides and floods often occur in Dayeuhkolot village. To overcome these problems, the counselling team conducts community service by advising the community members the preservation and planting of palm trees (*Arenga pinnata*).

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This activity is carried out because the community does not understand the cultivation technique of palm trees, and the shortage of capital for the preservation of palm trees.

Palm tree is one of the ecosystems-balancing trees. The special function of palm trees ecologically is as a preservative of natural resources, especially soil. The root of palm tree is very sturdy, deep, and scattered so that it has an important function for soil erosion containment. Moreover, the root of palm tree, which is shallow and wide, is very useful to prevent the occurrence of landslide. Palm trees can hold landslides because they have strong fibrous roots [1].

From this community service, the counselling team intends to improve public knowledge related to the usefulness and benefits of palm trees. Usually, the main source of the palm-tree related product is the palm-trees growing at lawns/close to home. However, currently the palm trees grown in those locations are exhausted, making it harder for palm-sugar farmers to produce. The problem becomes a burden on the village because of increasing unemployment and decreasing of the village's flagship produce. In addition, the ground buffer is also decreasing, increasing the risk of the occurrence of silenced floods and landslides. To overcome these problems, our team conducts counseling on the preservation and planting of palm trees (*Arenga Pinnata*).

2. METHODS

The counseling team is very concerned about the preservation of palm trees. Therefore, in the framework of community service activities we propose solution in trying to solve the problems in Dayeuhkolot Village through activities of the use of palm trees and planting of palm trees. The solutions offered are as follows:

2.1. Counselling/Education

Counselling is the process of behavior change among the community to improve their knowledge, willing and be able to make changes, to achieve increased production, income or profit and improvement in their well-being [2]. This method is used to improve people's understanding of the cultivation of palm trees, and the utilization of the tree. It is expected that the community understands and conducts the preservation of palm trees.

2.2. Provide Palm Tree Seedlings and Mentoring Process

This is an effort to provide capital assistance so that the sustainability of community businesses that utilize palm trees and maintain the sustainability of the tree. A sustainable natural environment is realized, water sources are met and the potential for landslides or floods can be minimized.

In the implementation of the counselling, the method which we carry out is demonstrative method, video presentation, discussions, and question/answer sessions. Demonstration is the teaching method by demonstrate things, events, rules, and order in doing an activity, whether live or using teaching mediums that relevant with the topic or materials presented [3]. According to Syaiful [4] this method of demonstration is more suitable to teach where the subject involves movement, process or things that are routine. With the demonstration method learners will have the opportunity to develop the ability to observe all objects that are involved in the process and can draw the expected conclusions.

Each stage of implementation will be carried out monitoring process, which is useful to find out whether the implementation of the program in accordance with the program plan that has been made. Monitoring the program is carried out from the beginning of the start of this activity from the preparation stage, the implementation process, until the final stage of the activity.

The success rate of the activities of counseling and planting of palm tree seedlings is seen from the ability of participants to plant these seeds and grow well. Periodically the team will conduct assistance, until the community service activities are completed. In the process of monitoring the planting of palm seedlings, the team will provide a form that must be filled out by the farmer. Furthermore, it is evaluated periodically so that the program runs as expected.

3. RESULTS AND DISCUSSIONS

The community service activity that we do is counselling in the issue of preservation and planting of palm trees.

To maintain the environmental sustainability, we conduct the green movement, including by planting palm trees.

The preparatory phase for COMMUNITY SERVICE activities was held in March 2021, starting with the preparation of materials for counseling. The preservation and benefits of palm trees are presented in the form of videos so that participants do not get bored.

The video link for the extension activities is: <https://drive.google.com/drive/folders/1Q06NzMcBGXfqS4gOINtVGKL6slLvPw0X?usp=sharing>.

3.1. Counselling Activities

The counselling activity was conducted on April 10, 2021. The event began at 09.00 at the multipurpose building of Dayeuhkolot Village of Sagala Herang Subang District. The activity was opened by the Vice Dean 3, who represented the Dean of the Faculty of Mathematics and Natural Sciences, who was unable to attend. The counselling activity was attended by the village head (Kades) and the sub-district head (Camat). Mr. Budiman as the village head highly appreciated this activity, in addition to Camat who also expressed his gratitude and hoped that the collaboration could continue and extended for other villages. The counselling was also attended by the heads of community leaders, PKK cadres and the public from local communities (RW) in Dayeuhkolot Village. Representative participants from RW are limited to only 20 people, considering that the implementation of activities must still maintain the health protocol of the covid 19 pandemic. Of the 20 representatives representing the citizens to attend the event only 19 people, and 7 people from other invitations, namely Camat Sagala Herang and his wife, Kades of Dayeuhkolot Village, and other community leaders.

After the counselling activity is completed, the occasion continued with the planting of palm tree seedlings in the area that has been provided. For palm tree seedlings obtained as many as 150 pieces with an average height of 75 cm obtained from Rancasalak Kadungora Village Garut Regency (Figure 1).

3.2. Palm Tree Planting Activities

At the field survey stage, the team obtained information that the contours of the land in Dayeuhkolot Village were hilly. For the community to plant the palm tree regularly and can grow properly, it is necessary to arrange the planting system. To do that, the team established a planting model for palm seedlings. There are mangosteen tree seedlings in the planting area, and the planting distance between the trees is quite far. Based on the masterplan of Dayeuhkolot Village to be used as a tourist village, the seedlings of 150 palm trees are planted intermittently with mangosteen trees that have been planted previously by the village.

The implementation of the community service in the form of nature conservation activities and the cultivation of palm tree seedlings has planted as many as 150 seedlings.



Figure 1: Enau tree seedlings.

Furthermore, the monitoring process of activities that will be carried out through overseeing of planted palm tree seeds. We assigned partners once a month to take 16 seedlings that were arranged to measure the height of the tree and the qualitative appearance of the tree. The determination of the 16 selected seedlings is done randomly, and officers from partners must keep an eye on the 16 trees for the monitoring process. From the monitoring results it was reported that palm tree seedlings thrived, with an average growth of 10% each month.

The target of the expected achievements of this Community Service activity is to increase the community's understanding of the cultivation of palm trees, and the utilization of the tree. Furthermore, this activity will help create a beautiful environment through the expansion of palm plants from current conditions as well as an understanding of palm tree cultivation in preserving the environment and the cultivation of other benefits of the tree.

Community service activities that have been carried out are published by Metro Buana co.id on the Unisba, titled: Community service link in Dayeuhkolot Kec Sagalaherang Village <https://www.metrobuana.co.id/2021/04/10/unisba-gelar-Community-Service-di-desa-dayeuhkolot-kec-sagalaherang/>.

4. CONCLUSION AND ADVICE

4.1. Conclusion

The method used in the community service was the counselling activity and the plantation of Palm Tree seed by using demonstrative method through presenting video/film, lectures, question/answer session, discussion, and action in planting 150 seed palm sugar seed/trees. This method is used to explain the importance of the preservation of nature, the danger from damage environment, and the uses and benefits of Palm trees.

4.2. Advice

The monitoring process by the community service team and partners must always be carried out through regular overseeing of environmental sustainability and planted palm tree seeds.

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