

COUNSELING ON MAINTENANCE OF IRRIGATION CANALS IN TRUCUK VILLAGE KLATEN REGENCY CENTRAL JAVA

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ABSTRACT

The study aims to find out maintenance of irrigation Trucuk Village. Trucuk, is an area in Klaten Regency, which mostly consists of rice fields. The rice fields have been around for a long time and still exist today. The cause of existence of these rice fields can still survive because the Trucuk area and its surroundings still get rice field irrigation from banners or rivers. Water to irrigate the rice fields is channeled through permanent and semi-permanent ditches. Care and maintenance are needed to maintain the function of the ditch as a means to drain water. Some of the factors that can reduce the performance of the ditch include damage to the body of the ditch, illegal water taking, waste disposal, and lack of infrastructure to control the flow of water. After carrying out counseling to parties related to the existence of waterways in the village of Trucuk Klaten, it is hoped that the continuity of the water flow and the sustainability of agriculture in the rice fields can run normally. So that socio-economic life in the Trucuk Klaten area and its surroundings can run normally.

INTRODUCTION

Trucuk Village has an area of 2.20 km² or about 6.49% of the total area of Trucuk District (Statistics Indonesia, 2022). The soil in Trucuk Village is included in the classification of gray regosol soil. Gray regosol soil is a type of soil that is a coarse grain derived from volcanic eruption material (Van de Wauw et al., 2008). Types of plants suitable for planting on this land are rice, coconut, tobacco, sugar cane, and vegetables (Galo, 2022).

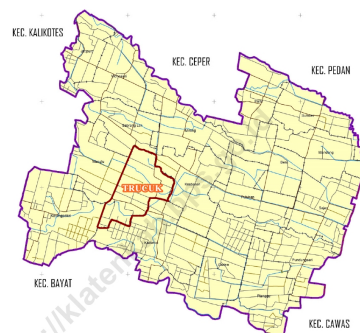


Figure 1. Location of Trucuk Village, Trucuk District, Klaten Regency

The rice field area of Trucuk Village is a basin area so that it has the potential to become a pool of water if there is rain with a fairly high intensity. The imperfect drainage system makes controlling the flow of water in the village a separate problem (Chang et al., 2014). Farmers who own rice fields whose fields are threatened with flooding will make emergency efforts to save their fields from standing water. For example, farmers will build emergency weirs to hold back the flow of water (Rosadi, 2015).

The opposite condition will occur in the dry season. Farmers will try to get water from the canal in various ways. For example, farmers will use water pumps to force water out of the canals to flow to their rice fields (Angin & Manggala, 2022; Azkia, 2016). This condition will cause the water distribution system to the rice fields to be chaotic.

Conditions in the housing area of Trucuk village also contributed to the method of treating the waterways (Sukri, 2022). The ease of transportation and advances in communication technology has caused the number and types of goods used and consumed in the Trucuk area to become more diverse (Mulyandari et al., 2022). This causes the problem to increase due to an increase in the amount of waste and the diversity of types of waste. A separate method is needed so that the existence of waste does not enter the waterways.

Based on interviews with farmers who use rice fields in Trucuk Klaten village, they can find out some of the problems in the rice fields. Broadly speaking, this is the problem. During the dry season, some farmers lack water because water distribution is plowed with water pumps. In the rainy season, some farmers' rice fields are at high risk of experiencing waterlogging. And for cross-season problems, what occurs in the dry season and the rainy season is waste that enters or is discharged into irrigation canals. The study aims to find out maintenance of irrigation Trucuk Village

METHODS

The implementation of community service is carried out in 2 stages, namely the preparation stage and then the implementation stage (Sugiyono, 2015). The preparatory phase includes discussions with Trucuk village officials, Klaten Regency, regarding plans to implement community service by a team of lecturers. From these discussions, it is hoped that correct and accurate information will be obtained. The discussion is also useful for determining the next steps for the realization of the expected conditions. Next, the steps for the application of data collection in the field are planned, along with coordination with village officials regarding the regional authority in the Trucuk village apparatus, Klaten district. The position of the Lecturer's community service team is only as a consultant who does not have decision authority. The authority of the Lecturer's community service team only gives suggestions and suggestions that are constructive in a rational and measurable corridor. The implementation phase includes; (1) compile measurement data, photo documentation, and others as material for the analysis process, (2) conducting a site analysis of the site conditions of the Trucuk village location, (3) preparation of counseling materials, (4) arrangement of counseling schedule to location, and (5) conduct counseling and discussions with local farmers

RESULTS

Before starting counseling in Trucuk Village, the Community Service Team conducted a preliminary survey. A preliminary survey is an activity to obtain initial information and data needed at the service location which will later be useful for further analysis. The preliminary survey for this service must go through several stages such as the licensing stage, site survey, and initial discussion.

Before conducting a preliminary survey, the team will provide an assignment letter to the relevant village apparatus. The assignment letter can be seen in the attachment. After submitting the assignment letter, the team plans to conduct a site survey. Based on the survey, it can be seen that the warning boards that should have been guarded instead were scrawled by irresponsible parties (Figure 2.a) and irrigation canals that did not yet have water gates (Figure 2.b). Initial discussions were carried out by the Team with one of the village officials during a field visit. Based on the data from the initial discussion, it can be seen that there are many problems in the field, starting from irrigation canals that do not have doors, and the presence of garbage in irrigation canals.



Figure 2. Trucuk Village Irrigation Channel

DISCUSSION

Based on the problems found by the Team, one work item can be drawn which is the subject of this activity, namely compiling extension materials in the context of maintaining irrigation canals.

The preparation of the counseling material is based on (Statistics Indonesia, 2022), Module 07 of the Water Resources and Construction Education and Training Center regarding Maintenance of Irrigation Networks, and several other important sources (Peraturan Kementrian Pekerjaan Umum, 2013).

Based on the material prepared by the Community Service Team, One lecturer was appointed to make the presentation. The appointed lecturer is Ms. Erni Mulyandari, S.T., M.Eng. as a lecturer in the Irrigation course and considered appropriate to deliver the counseling material. Documentation related to the implementation of counseling can be seen in Figure 3– Figure 5.



Figure 3. Trucuk Village Apparatus



Figure 4. Submission of Material by Resource Persons



Figure 5. Counseling Participants

The Trucuk village apparatus was represented by the Head of Trucuk Village, namely Mr. Sagiyo S.I.P, the agriculture service was represented by Mr. Sudarno, S.P., and the extension participants were represented by local farmers.

When the resource person delivered material related to the maintenance of irrigation canals, the local farmers who took part in the counseling were very enthusiastic about listening to the presentation (Putrawan et al., 2021; Putriani et al., 2018). At the end of the session, questions were opened by the resource person. The most interesting question was from Mr. Slamet. He asked if the building was given a sluice gate carelessly and whether there would be no impact on the downstream farmers when the rainy season arrived. Then the source explained clearly that in fact the installation of a sluice gate should not be carried out haphazardly. There had to be coordination between the Department of Public Works and the Department of Agriculture so that if the sluice gate was installed it would not harm farmers downstream of the canal (Attamimi et al., 2021; Lubisg, 1990).

CONCLUSION

After counseling, the service team can conclude from the statements of the Agriculture Service and local farmers, including: (1) the irrigation system in Trucuk Village is a semi-technical irrigation system where there are no weirs, only DAMs and taluts, (2) the closest weir to Trucuk village is the Kali Kebo weir which is used to irrigate 6 villages, (3) the Kali Kebo weir itself is a weir from the broken water of the Grompol weir, (4) the Department of Agriculture is only in charge of the tertiary plots while the Office of Public Works is in charge of water distribution, (5) P3A in Trucuk village is not healthy because the organizational system and activeness in participating in activities are very lacking, and (6) after pump assistance has been provided by the Agriculture Service so that farmers can still plant rice in the dry season.

The community service team has carried out counseling on the maintenance of the irrigation network in Trucuk Village, Klaten Regency, Central Java. At the time of counseling, it was known that there was communication between the Department of Agriculture, the Office of Public Works, Trucuk Village officials, and local farmers.

This counseling activity will be perfect if the presentation delivered is carried out by all related parties. Apart from that, there is a need for supervision in the implementation of the maintenance and care of the irrigation canals so that the distribution of water is not hampered

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