Efforts to Improve Plant Reboization in Pucangrejo Village, Kendal District

by Arinta Berlianti

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Efforts to Improve Plant Reboization in Pucangrejo Village, Kendal District

Arinta Berlianti[1], Muhammad Faqih[2*], Muhammad Zakarya Cakampai[3], Syifa Mardhiyah[4], Hilmi Mardinda Putri[5], Muhammad Habib Al Hadi[6], Moch. Maola Nasty Gansehawa[7]
[1-7] Universitas Islam Negeri Walisongo Semarang, Indonesia
faqihmuhammad038@gmail.com [1*]
Address: Jalan Prof. Hamka, Ngaliyan, Semarang City 50185, Central Java, Indonesia
Author correspondence: mfaqihmuhammad038@gmail.com

Abstract. *Reforestation is reforestation so that nature becomes green and is usually carried out in forests that have become deforested so that they can function as they should. Not only that, there are still many benefits from this reforestation activity. Knowing the many benefits of reforestation activities, the KKN MIT 18 Posko 71 UIN Walisongo group conducted research regarding increasing reforestation in Pucangrejo village. This research used a descriptive qualitative research method for students and students to describe the environmental conditions observed in a specific, transparent and in-depth manner. The location of this research field has determined the scope of the research object.*

Keywords: *Effort, Improve, Reboization.*

1. BACKGROUND

Reforestation is replanting plant seeds in deforested or barren areas. Implementing reforestation is a form of human concern for nature, which needs to be done so that nature is not damaged. The 18th MIT KKN Student at Post 71 of UIN Walisongo Semarang in Pucangrejo Village is one of the young generation who must set an example to the community about the importance of reforestation for preserving nature. Reforestation is not only done in forests, but can also be done in surrounding environments that are still arid or barren, in this way the surrounding environment will become more beautiful.

Reforestation makes a double contribution in dealing with the environmental crisis. Through photosynthesis, reforestation reduces carbon dioxide (CO2) by converting it into solid carbon which is stored in trees, branches, roots and soil. One of the protective benefits of trees is as protection, especially for humans. The protection here is that it can withstand strong winds, direct sunlight, soundproofing and dust protection. Another benefit is that it can protect humans from floods, erosion and landslides (Harryanto et al., 2017).

One of the plant seeds used for reforestation around the Pucangrejoi Village environment is mango tree seeds. Because many mango trees are planted as protective trees. Mango trees are one of the fruit plants that are in demand by people, especially people in the Kendal area. The type of plant most widely cultivated in Pucangrejo village is the mango tree. Types of mango can be distinguished in various ways, one of which is by looking at the shape

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and texture of the leaves on the mango tree. This is because each type of mango has a different leaf shape if you look closely. Identification through leaves is easier because leaves are always there, while flowers and fruit are only there at certain times. The mango trees planted in Pucangrejo village are useful for reforestation, and mango fruit has high nutritional value for human needs. Mango trees, which are now the pride of many people, are planted in their yards. Apart from the sweet tasting fruit, the tree itself is also a natural source of green plants. Often people are disappointed when their mango tree bears fruit, even though they know that the mango tree they planted did not meet expectations when it was planted.

This is understandable considering that grafted mango trees grow long before they bear fruit. So, it is best to know the type of mango tree from the start based on the wood component that is easily distinguishable, namely the texture of the leaves. It turns out that this approach provides a prediction accuracy of up to 65.19%. The features extracted for processing are: average intensity, smoothness, entropy, 5-moment invariance, energy and contrast. In this study, the Support Vector Machine (SVM) approach was used with Radial Basis Function (RBF) and Fuzzy K parameters. The prediction accuracy for each nearest neighbor kernel class (FK-NNC) was 86.67% for SVM and 88.89% for FK- NNC It is hoped that with a higher level of accuracy, the system can estimate the type of mango accurately.

2. RESEARCH METHODS

The research method used by the 18th MIT KKN Post 71 UIN Walisongo Semarang in Pucangrejo Village is qualitative. The qualitative descriptive research method for students and students describes the environmental conditions observed in a specific, transparent and in-depth manner. The location of this research field has been determined by the scope of the research object, namely in Pucangrejo Village, Gemuh District, Kendal Regency. The scope observed by KKN students and female students is limited to the lack of greening land. Delimiting the problem in research is very important to avoid misunderstandings and different interpretations of the title formulation. It is necessary to limit the scope of the problem to be researched, and at the same time the problem to be researched becomes clear. This section contains general (big) problems that are the target of research. Qualitative descriptive research is descriptive and qualitative. This research will later display the data results as they are or without any manipulation process.

3. RESULTS AND DISCUSSION

Reforestation

In the dry season, Indonesia experiences quite hot weather, up to 33 degrees Celsius. As a result of the hot weather, many areas are experiencing drought problems, clean water crises, forest fires, and rising sea water temperatures. With efforts to increase afforestation, it helps to reduce hot weather, the presence of shady trees makes the air cooler and increases high water absorption. The definition of reforestation is replanting a denuded or barren environment. Reforestation involves planting trees in degraded or deforested areas, helping to restore the forest canopy and maintaining biodiversity. Apart from that, reforestation makes a double contribution in dealing with the environmental crisis. Through photosynthesis, reforestation reduces carbon dioxide (CO2) by converting it into solid carbon which is stored in trees, branches, roots and soil.

Reforestation comes from the words "re" which means "back" and "bois" which means "tree" in French. Literally, reforestation can be interpreted as an effort to replant trees in forest areas that have experienced damage or destruction. Reforestation is a forest restoration method that aims to restore forest functions and maintain environmental sustainability (Uyuni, 2022). Reforestation activities are not only carried out in forests, but are usually carried out on land previously used for agricultural, plantation or mining activities that damage the environment. By planting trees in the Pucangrejoi Village environment which is not green or bare or barren, it is hoped that the environment can be restored to have high water absorption, a beautiful environment, improve air quality, improve soil conditions, increase water availability, and improve community welfare. Apart from the benefits of reforestation, KKN Posko 71 students carry out reforestation to balance the ecosystem in Pucangrejoi Village. To prevent floods and landslides and maintain soil stability.

Stages of Reforestation

The first thing to do is determine the location. Proper location is critical to successful reforestation. Choose a location that meets requirements such as sufficient water, adequate humidity, and fertile soil. Apart from that, it is also necessary to pay attention to topographic and climatic conditions in order to determine the right type of plant to plant. Once the location is selected, carry out land preparation such as cleaning the area from rubbish and debris, loosening the soil, and improving soil quality with organic and inorganic fertilizers. If necessary, dig terraces or create drainage channels to regulate water flow and ensure ideal environmental conditions for plant growth.

Third, choose plant types that suit environmental conditions and the needs of local communities. Apart from that, it is also necessary to pay attention to the function of plants, whether for conservation, ecosystem development, or to meet community needs. After determining the type of plant to be planted. The fourth stage, planting seeds or seeds in prepared land with appropriate planting distances. Make sure the seeds are planted at the right depth and soil moisture level. Provide sufficient care and fertilization so that the plants can grow well. Watering, pruning and applying fertilizer to ensure successful plant growth. Next, check plant growth, the presence of pests and diseases, and the impact on the environment and local communities.

Efforts to Increase Reforestation

Seeing that the people in Pucangrejoi Village actually earn a living by working as farmers. Of course, the stability of soil water levels is very important, if the soil is unstable. So it is very likely that crop failure will occur. The hope is that planting tree seedlings around Pucangrejo Village can maintain soil stability. The fruit from the mangoes can also be sold by the community, providing additional income for the community. KKN Posko 71 students and students do not want the people there to lack money for their livelihood due to crop failure. Because a lot of land is used for farming and gardening. There is a lack of greenery along the Pucangrejo Village road. And seeing the proximity of the river between residential areas made Posko 71 students anxious. If one day the river overflows and there are no trees around the river to absorb the water. The Pucangrejo Village settlement will be affected by flooding.

The reforestation activities carried out in Pucangrejo village are carried out on the side of the road. The benefits of planting trees on the edge are that they provide shade which makes people passing by more relaxed and the trees there also help absorb carbon dioxide and become a water catchment area when it rains. (Perdana et al., 2020). Mango tree seeds were also given by the hamlet head to be distributed to each RT. So that residents plant mango trees in the environment around their homes. 18th KKN MIT Post 71 made a proposal to request plant seeds from Perhutani, to be planted in Pucangrejo Village, amounting to 100 mango tree seeds. Then the KKN students took the mango trees to be planted in Pucangrejo Village. The following is documentation when planting mango tree seeds and when receiving mango tree seeds from Perhutani to the KKN Post 71 Coordinator. This effort was enthusiastically welcomed by the people of Pucangrejoi Village. The community would like to express their thanks to the students of KKN Posko 71, because they care about water absorption and soil

stability in this village. Apart from that, it is to reduce hot air, which is caused by high air temperatures in Kendal Regency.

4. CONCLUSION

The reforestation activities carried out by the KKN MIT 18 UIN Walisongo group are an effort to maintain the stability of water sources which are very necessary in the agricultural sector and to protect the land so that it does not easily landslide. With this reforestation activity it is hoped that residents will be more sensitive to the environment because apart from that, with reforestation able to make the surrounding air cooler and reduce the air temperature in the area.

REFERENCES

Harryanto, R., Sudirja, R., Saribun, D. S., & Herdiansyah, G. (2017). Gerakan Penghijauan DAS Citarum Hulu Di Desa Cikoneng Kecamatan Cileunyi Kapupaten Bandung. *Jurnal Aplikasi Ipteks Untuk Masyarakat*, *5*(1), 34–37. Journdharmakarya/Article/Viewfile/11437/5233al.Unpad.Ac.Id/

Perdana, W., Sururi, M., Erdayanti, F., Brilian, V., Ristanti, A., Listiani, D., Yuliani, G. A., & Retnowati, W. (2020). Reboisasi Jalur Lingkar Wilis: Sebuah Usaha Mempertahankan Daerah Resapan Air Di Kabupaten Tulungagung Jawa Timur. *Jurnal Layanan Masyarakat (Journal Of Public Services)*, *4*(2), 385. Https://Doi.Org/10.20473/Jlm.V4i2.2020.385-389

Uyuni, Y. R. (2022). Peningkatan Kualitas Lingkungan Hidup Melalui Gerakan Reboisasi Dan Pemberdayaan Masyarakat Dibidang Pendidikan Di Desa Tambakbaya. *Minda Baharu*, *6*(2), 205–214. Https://Doi.Org/10.33373/Jmb.V6i2.4581

Tim Justice Ekonomi Ekologis (2019), “Jasa Ekosistem Dan Penanaman Pohon Di Nikaragua: Pemeriksaan Faktor Sosio-Ekonomi Dan Ekologi”

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PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5