

MAINTAINING THE CONTINUITY OF WATER RESOURCES THROUGH THE CONSERVATION OF PROTECTED FORESTS IN LARIKE VILLAGE, WEST LEIHITU DISTRICT, CENTRAL MALUKU REGENCY

Evelin Parera^{*}, Jusmy D. Putuhena, Lydia R. Parera

Universitas Pattimura

Jl. Ir. M. Putuhena, Poka, Kec. Teluk. Ambon, Kota Ambon, Maluku, 97233. Indonesia

Email: evlinparera@gmail.com

Abstract

Protected forests play a role in guarding a balanced ecosystem and water resilience by supporting cycle hydrology and preventing the degradation of the environment. However, the low public awareness regarding the importance of forest protection Still becomes a challenge in effort conservation. Research This aims to analyze the effective method of socialization in increasing understanding, attitudes and behaviour of the Larike Village community-related preservation of forest protection as an effort to guard against water resistance. The method used covers discussion group focused (FGD), seminars, training conservation land and water, as well as campaigns through digital media. Evaluation is done through pre-tests and post-tests to measure the change level of public understanding. Research results show an improvement in public understanding from 30% before socialization to 85% after socialization, as well as a change in attitude positive from 40% to 88%. In addition, the behaviour of society in effort conservation increased from 29% to 82%. The conclusion of the study This is that method systematic and community-based socialization participation can increase awareness as well as community involvement in the preservation of forest protection use guard resilience source water power sustainability.

Keywords: Conservation, Community, Forest Protection, Socialization, Water Security

INTRODUCTION

Larike Village, which is located in the District West Leihitu, Central Maluku Regency, is one of the villages with rich diversity and high biodiversity in the Maluku region. This village is located around a protected forest which has a strategic role as the main water catchment area. Protected forests not only support local community life by providing clean water but also function as a habitat for various endemic flora and fauna species, some of which are threatened extinct. In addition, the forest plays a role important in guarding the stability of climate micro, reducing the risk disaster natural like floods and landslides, as well as supporting the productivity of agriculture locally.

Larike Village owns a number of the main spring that becomes the source main clean

water supply for the local community. This spring is not only used for house ladders like cooking, washing, and drinking but also supports activities in agriculture and animal husbandry. However, the water conditions in the village show signs of decline in quality and quantity consequence degradation of the forest protected. Water discharge from the main spring reported the more decrease, especially during the season drought, which causes people to experience difficulty in fulfilling daily water needs.

Awareness and knowledge of the Larike Village community about the importance of forest protection as water conservation still need to be improved. Many people do not fully understand the connection between sustainable forests and sustainable water sources. In some cases, practices like illegal logging and clearing land are often done without considering the impact on cycle hydrology. In addition, understanding of the benefits of forest protection as area water catchment and regulator water flow is often limited to groups certain, such as figure custom or community care environment.

The importance of education about the function of ecological forest protection has not yet become part of life everyday life of the community (Herutomo & Istiyanto, 2021). Many residents still look at forests as a source of power economy solely, without realising that a sustainable source of power depends on its preservation. Therefore, activity socialization and education based on community become step strategic to increase public understanding of the importance guard forest protection as support main life.

If not prepare the community with various knowledge about forest protection as preservation of resource water with various pressure need economy will impact in a number of the decade to come forest protected in Larike Village face various increasing pressure worrying. Activity men like illegal logging for need wood fuel and materials building, transfer function land for plantations and settlements, as well as practice agriculture that is not a friendly environment, has caused degradation land and subsidence cover forest. In addition, the lack of public awareness about the importance guard sustainable forests and the lack of enforcement laws to violate the environment to aggravate the conditions. As a result, the function forest as a provider of clean water source started disturbed, which is marked by decreased water discharge in several areas main spring village.

Situation this becomes the urge to remember the dependency of the Larike Village community to source water power for domestic, agricultural, and other activities daily. If the pressure on forest protect this keep going continues, not only the quality and quantity of water will be affected, but also the sustainability ecosystem and community welfare in general overall. Therefore, effort mitigation with integrated and based education community to preserve forest protection, guard continuity source water power, and increase public welfare in general sustainable.

IMPLEMENTATION METHOD

Implementation method socialization this is done through a series the stages that begin with planning and preparation of material educational, including compilation brochures, posters, and material presentation. Activities started with a pre-test to measure the understanding of early communities regarding the importance of forest protection in guarding water sources. Next, is implemented counselling in a way direct through discussion group focused group discussions (FGD) involving community figures, academics use give outlook deep about issue conservation. After socialization is finished, a post-test is done to evaluate the effectiveness methods applied as well as to obtain bait come back from participants. Evaluation of this aims to ensure program sustainability and improve the effectiveness of activity conservation that will come.

RESULTS AND DISCUSSION

Measurement results in socialization in the form of pre-test and post-test covering aspect knowledge (understanding) about the function of forest protection, the impact deforestation on water availability, and conservation benefits forest for life daily); attitude (support to policy conservation, willingness to follow as well as in activity conservation, perception of importance of water conservation); behaviour (participation in planting trees, compliance to rule conservation local, customs saving water), which is described as following :

1. Knowledge

Knowledge is a cognitive component that plays an important role in shaping individual behaviour. According to Notoatmodjo (2010), knowledge is the result of the process of sensing an object through the five senses, especially the eyes and ears. This process produces a cognitive domain that greatly influences a person's behaviour.

Public knowledge about water resistance and preservation of forest protection increased in a way significant after socialization. Sub - aspects evaluated include:

- a. Understanding of the function of forest protection: Before socialization, only 35% of the community understands the role of forests in cycle hydrology. After socialization, numbers increase to 87%.
- b. Impact of deforestation on water availability: Awareness about the impact of negative deforestation on water resources increase from 28% to 85%.
- c. Benefits of conservation of forest for life every: Before socialization, only 27% of participants were aware benefit of direct forest protection for life, while after socialization, numbers increased to 83%.

2. Attitude

Attitude is an individual's tendency to respond to an object, individual, or event in a certain way, either positively or negatively. According to Ajzen (2005), attitude towards a behaviour is determined by an individual's beliefs about the consequences that will be received if they do or do not do the behaviour.

Improvement attitude positive community towards effort conservation is also one of the

impacts of socialization. Sub-aspects of measured attitude include:

- a. Support for policy conservation: Before socialization, only 40% of the community supports policy protection forests, while after socialization number This increased to 88%.
- b. Willingness To follow as well as in activity conservation: Before socialization, only 38% of the community is willing to participate in activity conservation, increasing to 86% after socialization.
- c. Perception of importance of water conservation: Before socialization, as many as 42% of participants consider water conservation to be important, increasing to 90% after the program.

3. Behavior

Human behavior is a movement that can be seen through human senses, a movement that can be observed (Saleh, 2018). Change in community behaviour towards the preservation of forest protection is also visible from improved participation in action real. Sub-aspects of measured behaviour include:

- a. Participation in planting trees: Before socialization, only 25% of the community followed as well as in planting trees, which increased to 80% after socialization.
- b. Compliance to rule conservation local: Compliance to rule local, such as prohibition to cut down trees in a way carelessly, increasing from 30% to 82%.
- c. Habit save water: Before socialization, only 33% of the community implements pattern-wise use of water, increasing to 84% after socialization.

Results of socialization show that understanding of the Larike Village community about the importance of forest protection in guarding water availability is experiencing significant improvement. The pre-test conducted before socialization shows that part large community yet own sufficient knowledge about the connection between forest protection and the water cycle. However, after various methods of socialization like discussion groups, there is improvement significant understanding as seen in post-test results.

Socialization is carried out not only to impact on increase public understanding but also to encourage change in attitudes and behaviour in effort preservation environment. This is seen from increasing public perception of activity conservation like planting trees and patrolling the forest indicated by the answer post-test. One of the aspect important things that appears in the discussion is how socialization contributes to water security in Larike Village. Protected forests play a role in guard cycle hydrology, where the roots of trees help absorb and store water in the land to prevent erosion and maintain the availability of groundwater. With increasing public awareness of matter this, they become more careful about guarding the existing forest as a buffer source of their water power. This is in line with research that shows that community-based efforts education community based can increase awareness of ecological and influential action conservation environment in a way real (Setiawan, 2020).

In addition, changes in community behaviour in response to policy conservation also become indicators of the success of this program. Changes in behaviour are crucial in an effort to conserve the environment. Conservation education aims to change the behaviour or attitude

of individuals in society, with the objective of increasing awareness and knowledge about principle as well as issue environment. This is expected can push participation in an active community in the preservation environment, good moment this or in the future (Rahadian & Nugraheni, 2024). Before socialization, many people lacked an understanding impact of deforestation on the availability of water. However, after obtaining information through socialization, they started supporting policies local related to conservation and even proposed regulations based on customs like months for protecting sources of power forest and water. These results are in line with research that shows that community involvement in the formulation of policy environment can increase the effectiveness of the implementation of conservation source power nature (Rahmawati & Prasetyo, 2019).

Existence improvement understanding as well as greater public awareness tall to the importance of forest protection as supports water resistance, and expected sustainability of conservation programs This can keep going awake through participation community and support policy more locally. In addition, the perception about activity participatory like planting Trees and patrolling forest get response positive from the community. Perceptions that show participation in active, existence change the attitude from passive become more proactive in a guard environment. The literacy environment plays a role important in pushing change and behaviour conservation (Rahmat, 2012). A deep understanding of the connection between humans and the environment can increase awareness of individuals to impact their behaviour so that push a more action-friendly environment. Pro-environmental behaviour defined as the action of individuals who are voluntarily contribute to the maintenance and preservation environment. Behaviour covers various activities, such as subtraction consumption energy, cycle repeat, and participation in the conservation program. Factors that influence pro-environmental behaviour among others' awareness will result from actions to environment and control perceived behaviour (Arlinkasari, 2018; Bronfman et al., 2015).

CONCLUSION

Based on the results of socialization, can concluded that the method of socialization that is implemented succeeds increase the understanding and awareness of the Larike Village community about the importance of preserving of forest protection in guard water sources. The post-test results showed improvement significant in public understanding and attitudes towards the conservation environment. In addition, the involvement in active community in activity planting trees and patrolling forest show the existence of change a positive attitude. With the existence of the solution implemented is expected the sustainability of this program can ensure the conservation water sources in Larike Village in progress in a way sustainable. With a holistic and based approach to community participation, this program can be a model for other areas facing challenges similar in effort preservation forests and resources water power.

REFERENCES

- Ajzen, I. 2005. *Attitudes, Personality, and Behavior*. Open University Press. New York.
- Arlinkasari, F. 2018. *The role of awareness of consequences on pro- environmental behavior in Jakarta residents*. *Journal of Psychological Science and Profession*, 2(1), 1-14.
- Bronfman, N.C., Cisternas, P.C., López-Vázquez, E., Maza, C.D. la, & Oyanedel, J.C. 2015. *Understanding attitudes and pro-environmental behaviors in a Chilean community*. *Sustainability*, 7(10), 14133–14152. <https://doi.org/10.3390/su71014133>
- Herutomo, C., Istiyanto, S.B. 2021. Communication Environment in Developing Forest Sustainability. *DISCOURSE: Journal Scientific Knowledge Communication*, 20 (1), 1-13. <https://doi.org/10.32509/wacana.v20i1.1165>
- Ma'arif, S., Sari, R.E., Indraswari, N. M. 2023. The Role of Behavior Sustainable in Management Environment for Development of Tourism Village Based on Renewable Energy. In *Proceedings of the National Seminar on Research and Community Service To Society* (Vol. 1, No. 1, pp. 202-207). <https://doi.org/10.24002/senapas.v1i1.7388>
- Marrero, M.E, Payne, D. L. 2021. *Literacy Ocean: From Ripples to Waves Wave*. In M.E. Marrero & D.L. Payne (Eds.), *Ocean Literacy: Understanding the Ocean* (pp. 21-39). Springer. https://doi.org/10.1007/978-3-030-70155-0_2
- Notoatmodjo, S. 2010. *Ilmu Perilaku Kesehatan*. Rineka Cipta. Jakarta
- Notoatmodjo, S. 2010. *Metodologi Penelitian Kesehatan*. Rineka Cipta. Jakarta.
- Rachman, R. 2012. *Conservation Education as an Effort to Grow Concern Environment*. *Journal Scientific Students*, 1(1), 1-10. <https://jurnal.penerbitdaarulhuda.my.id/index.php/MAJIM/article/download/1861/1927>
- Rahardyan, A., & Nugraheni, N. 2024. Conservation Education as an Effort to Grow Concern Environment. *Madani: Journal Scientific Multidisciplinary*, 2 (2). <https://doi.org/10.5281/zenodo.10895761>
- Rahmawati, F., & Prasetyo, Z. 2019. Why Should Course Review Hooray?. In *6th International Conference on Educational Research and Innovation (ICERI 2018)* (pp. 1-4). Atlantis Press. <https://www.atlantis-press.com/proceedings/iceri-18/125912832>
- Saleh, A.A. 2018. *Pengantar psikologi*. Penerbit Aksara Timur. Makassar.
- Setiawan, AR 2020. Thematic learning oriented literacy scientific. *Journal Basicedu*, 4 (1), 51-69. <https://doi.org/10.31004/basicedu.v4i1.298>
- Ulfa, M., Sri Rejeki, W. 2022. Community Knowledge of the Village Forest of Pematang Rahim District Silva Tropika. <https://repository.unja.ac.id/31697/>