



ENVIRONMENTALLY FRIENDLY BASED SMART VILLAGE PLANNING IN PERABAGA VILLAGE, PYRAMID DISTRICT, JAYAWIJAYA REGENCY, PAPUA MOUNTAIN PROVINCE, INDONESIA

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Abstract

Natural damage creates an imbalance in the balance of the environment, many phenomena of environmental damage occur such as environmental damage such as environmental pollution, ecosystem damage and drought. This phenomenon still cannot be resolved and its impact affects human life. There is a need to create a sustainable environment in all levels of society, especially in rural areas. In the rural world, it appears that people lack awareness and environmentally friendly behavior. Therefore, the aim of this research is to describe the level of awareness and behavior of the community in the village. This research uses descriptive quantitative methods using interview techniques and data collection. The research results show that the level of public awareness is in the high category, but the level of environmentally friendly behavior of the public is in the medium category. These results show that society is already at the awareness stage where environmentally friendly behavior is important but its implementation is moderate, so that the awareness reflected in society is only theoretical and not in practice.

Keywords: Mountains, Environment, Smart Village, Jayawijaya, Jayawijaya

A. Introduction

The destruction of the natural environment causes the environmental balance to become unbalanced. There are many negative impacts from the destruction of the natural environment, a series of disasters such as floods, landslides, fires, deforestation, pollution and so on, adding to the list of worsening conditions on the earth according to the 2017 Environmental Quality Index (IKLH) report and the Status of the Indonesian Environment (SHLI) in 2017 issued by the Indonesian Ministry of Environment. In this index, it is reported that the total water in Indonesia that has been polluted has reached approximately 30%, especially in big cities.

Likewise, conditions in the air have decreased due to shrinking green land, polluted air due to vehicle fumes and industrial factory fumes. From the phenomenon of environmental damage that occurs, efforts are needed to minimize environmental damage. One of the efforts that society can make to reduce environmental damage is the environmentally friendly concept or what is often called "*go green*". To develop environmentally friendly behavior, it is necessary to be aware of the environment. Conscious actions taken by humans towards the environment aim to minimize the negative impact of several human activities on the environment. Another main goal is to improve the environment both directly and indirectly. Currently, there are many environmental issues that still cannot be resolved, even though the environment is very influential in all aspects of life and has quite a significant impact on human life (Kollmuss & Agyeman, 2002). The basic concept of a smart village is to gathering people from all aspects in order integration of information technology for benefit the entire village community (Anisa Martadala et al., 2021). This is in line with opinion (Jacob et al., 2023) Currently, all aspects of life are experiencing rapid development towards automation and digitalization, which is marked by the importance of technological development. Nowadays the development of technology is very important, but the existence of the environment as a place for living creatures to live must be balanced with the needs of living creatures now and in the future.

Sustainable development has three main pillars that are mutually sustainable, Economic growth, namely maintaining stable economic growth by restructuring productive systems to save resources and energy. Social sustainability, namely ensuring social justice in the distribution of wealth and social services. Environmental sustainability, namely by maintaining a comfortable and safe living environment through zero emissions. This digital transformation will quickly improve tourism services and their potential, change culture in society, and promote the environment so that it remains sustainable, so that villages can achieve sustainable development (Jaelani & Hanim, 2021).

SDGs contain 17 goals and 169 targets this is expected to be achieved by 2030. Village SDGs can be interpreted as an integrated effort to create villages without poverty and hunger, villages with equitable economic growth, villages that care about health, villages that care about health, and villages that care about health. environment, villages that care about education, women-friendly villages, networked villages, and culturally responsive villages to accelerate the achievement of the Sustainable Development Goals. In cool language, Sustainable Development Goals are abbreviated as SDGs. Efforts to achieve village SDGs in the situation and conditions of the COVID-19 pandemic are not easy, therefore the use of village funds in 2021 is prioritized to finance activities that support the achievement of 10 (ten) village SDGs related to national economic recovery activities, national priority programs, and adaptation of habits. new village. Quoting the 2020 Village Ministerial Decree, there are at least 18 development goals and targets through the Village SDGs.

Another goal to be achieved from this research activity is that Perabaga Village can become an environmentally friendly model village for 10 other villages in the Pyramid District and even in other districts.

B. Methodology

1. Research Design

The method that will be used in this research activity is a qualitative method with descriptive results. The location of this research is Perabaga Village, Pyramid District, Jayawijaya Regency, Papua Mountains Province, Indonesia. This research uses qualitative

research. Qualitative research is a research procedure that produces descriptive data in the form of written or spoken words from people and observable behavior. Qualitative research is a type of research that emphasizes processes and meanings that are not tested or measured quickly with descriptive data. According to (Sugiyono, 2016) the meaning here is actual data, which is data that has a definite value behind the visible data.

2. Instruments

In qualitative research, the instrument is the person or human instrument, namely the researcher himself. In this research, interview and documentation methods were used.

3. Technique of Data Analysis

The first stage in analyzing qualitative data according to Miles and Huberman is data reduction (Annisa & Mailani, 2023). The data reduction stage is the stage of reducing or simplifying the data so that it suits your needs and of course it is easy to obtain information. Data from interviews, customer satisfaction surveys, direct observations in the field, and so on certainly have various forms. All data obtained is then grouped into very important, less important and unimportant data. Important and less important data, which then leaves only important data. This data then becomes simpler, in accordance with research needs and is considered capable of representing all the data that has been obtained. So it is easier to process to the next stage so that it becomes information that is complete, clear, and answers a problem.

C. Findings and Discussion

1. Findings

Perabaga is a village in the Pyramid district, Jayawijaya Regency, Mountain Province, Indonesia. The majority of people in Perabaga Village make their living in agriculture and plantations, one of the superior agricultural commodities in this area is coffee. Seeing the knowledge of the community which is able to mobilize potential resources in the agricultural sector is proof of the community's consistency in maintaining a good natural environment. The level of environmentally friendly awareness of the Perabaga village community is awareness which is understood as the state of a person who has in-depth knowledge and can be seen from his behavior and attitude. Awareness possessed by society is a relationship between individuals and their environment insofar as that environment has an existence for the individual. The relationship between the self that observes, knows and reflects and the social world around it, human understanding of its experience.

This awareness is what causes people to make changes or self-transformation. Environmental awareness embedded in society plays an important role in forming a positive attitude towards the environment. A person who has environmental awareness will behave and act in the direction of wise and wise environmental management. According to (Paramita & Yasa, 2015) environmental awareness can be defined as the state of a person who has in-depth knowledge about things that affect humans or animals and can be seen from their behavior and attitudes. In line with the opinion of (Sugiarto & Gabriella, 2020) someone who has environmental awareness will be seen from the knowledge he has, the way he responds to the environment, and his behavior towards the environment.

The results of the research activities are that the community has clear knowledge starting from knowledge about best practices in environmental protection and management in rural areas in mountainous areas, as well as the community has knowledge about managing green open spaces for water catchment areas, knowledge about rehabilitation strategies environment through reforestation to prevent landslides as one of the disaster mitigation activities and knowledge about strategies for preventing forest and land fires, knowledge and skills to utilize surrounding natural resources wisely and environmentally friendly, knowledge about the protection and management of biodiversity as one carrying capacity to maintain the existence of flora and fauna, knowledge about best practices in 3R (reuse, reduce and recycle) in handling and managing waste and knowledge about ways to develop creativity and innovation to manage and recycle waste, and the community has provided availability of plant seeds suitable for planting in mountainous areas to support forest and land rehabilitation programs.

Seeing the actions and knowledge of the community, they are active in loving the environment so that natural conditions maintain natural quality. According to the head of Perabaga Village, the community has been protecting the environment for generations, where the community considers that land is the mother of the community which must be protected and preserved.

The strategies and concepts owned by the community have been reflected in environmental preservation based on Law no. 32 of 2009, integrated environmental conservation efforts related to environmental management which includes: utilization planning, control, maintenance, supervision and law enforcement. In environmental management, environmental management principles must be taken into account, including integrated, sustainable, participatory and institutionalized. Environmental management in Perabaga Village must have the right targets, including achieving harmony and balance between humans and the environment, as well as controlling the use of resources wisely and judiciously. The goals and objectives of environmental management are important things that must be studied by rural or village communities.

The implementation of village development with the green smart village concept is realized through providing free internet access for the community in Perabaga Village, building digital library facilities, IT-based village government services, as well as developing integrated animal husbandry and agriculture sectors. In implementing the green smart village concept to be able to change village communities to become better and more prosperous and to raise community awareness to always innovate in developing entrepreneurship through village potential in order to improve the quality of services in villages so that they can provide community comfort and satisfaction (Elida Suci Hermayanti, Teguh Yuwono Darmawan, 2020). In line with the opinion of (Nursetiawan, 2020) that the community's increasingly critical power and diverse desires, as well as demands for sustainable development must be realized, are a challenge for the village government to be able to meet the needs of its community.

Through the green smart village concept, village development has improved in several aspects, such as infrastructure development, namely village roads, free WiFi for village communities, and facilities for carrying out business unit activities. In terms of economic development, although not all village communities have increased their income, the green smart village program is able to encourage an increase in the income of members of farmer and livestock groups through coffee processing and livestock production activities. Overall, the implementation of the green smart village in an effort to improve the development of Perabaga Village is quite good and provides benefits for the village community. The benefits felt by the community include improved village roads, free internet access for 24 hours so that people can get the same information and not be left behind from other areas, and making it easier for children to learn computers, one of the supports for a smart and literate village. information Technology.

2. Discussion

Creating a sustainable environment needs to be a movement from all levels of society. The government, business world and society must work together to save the earth. Rural or village communities need to be encouraged to save energy, maintain cleanliness and have a clean lifestyle. This all requires government policies and regulations. Many actions have been taken by the community related to environmental preservation in both the business and non-business worlds, as well as in non-business institutions, namely educational institutions or organizations, namely schools. Environmental awareness is an action or attitude directed at understanding the importance of a healthy, clean environment, and so on. Awareness in the living environment can be seen from a person's behavior and actions in a situation where a person feels free from pressure.

Creating a sustainable environment needs to be a movement from all levels of society. The government, business world and society must work together to save the earth. Consumers need to be encouraged to save energy, maintain cleanliness and have a clean lifestyle. This all requires government policies and regulations. Many actions have been

taken by the community related to environmental preservation in both the business and non-business worlds, as well as in non-business institutions, namely educational institutions or organizations, namely schools and universities. Environmental Awareness is an action or attitude directed at understanding the importance of a healthy, clean environment, and so on. Awareness in the living environment can be seen from a person's behavior and actions in a situation where a person feels free from pressure (Alfan Nugroho, 2022). The higher the knowledge about environmental preservation and attitudes towards environmental preservation, the higher the behavior in maintaining environmental cleanliness (Darmawan & Fadjarajani, 2016).

Efforts to take conscious action are needed as a way of managing the environment by maintaining or improving environmental quality so that human needs are met properly. When someone is said to be unconscious, that person does not have knowledge about the environment, so it can be concluded that a person's ignorance can affect their environmental awareness. Second, the poverty factor is a situation where a person cannot fulfill his needs. Population growth that is not balanced with growth will cause pressure on the population. Poverty is a source of social problems because they are more focused on meeting their needs rather than responding to environmental issues. The concept of sustainable development comes from the Triple Bottom Line concept, which states a balance between three pillars, namely profit generation, social care and environmental preservation (Solechah & Sugito, 2023). Sustainable development carries out development to meet current needs without sacrificing the needs of future generations by focusing on environmental carrying capacity, achieving social justice, economic and environmental sustainability.

This was triggered by a massive increase in activities in social and economic aspects as well as increased production, consumption and human lifestyle. The environmental aspect is a vital issue because it is closely related to economic activities which drive the rate of economic growth (Kartika Sari, Setyo Tri Wahyudi, 2023). This increase causes negative effects on environmental sustainability such as pollution and a drastic reduction in the number of non-renewable resources.

Therefore, an ecological approach is very necessary in an effort to improve the quality of the rural environment. The main goals in sustainable development are firstly dynamic economic development, secondly development that is socially and politically acceptable and sensitive to cultural aspects, thirdly environmentally friendly. The concept of sustainable development was formulated to prevent or reduce the impact of unstructured city expansion or what we know as urban sprawl so that cities become inefficient and effective in serving life within them. The success of sustainable development does not only depend on the economic sector but requires intervention from those in power, in this case the government, in order to implement sustainable development so as to achieve equal distribution of prosperity. Therefore, sustainable development is oriented towards developing green cities that have good quality of life and conducive environmental conditions.

D. Conclusion

Based on the objectives and research results that have been described, the following conclusions can be conveyed:

1. In planning a smart village, it is necessary to develop information technology to support the creation of a society that has knowledge of technology. However, the role of the environment also plays a role that really needs to be paid attention to and its quality maintained so that the community can contribute to the potential of a village or region to a wider audience and provide an example to other villages.
2. Perabaga Village as a living entity is in the process of governance to become a role model to make it a public entity.

3. Smart village planning in Perabaga village is also expected to be efficient in efforts to shape village competitiveness in aspects of life in the social, economic and environmental fields.

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