

The Baladang System Is Environmental Education Based on Local Wisdom

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Abstract. It is undeniable that the challenges of the development of science and technology in agriculture also have a negative effect on humans. Agricultural problems in farming systems instead of increasing agricultural production, people tend to use chemical pesticides, which affect environmental damage and decrease soil quality and even disrupt human health. This study uses a descriptive qualitative approach to answer the research objectives; The problem of environmental damage due to the community's farming system, and the value of baladang local wisdom in maintaining soil fertility in agricultural patterns. Description of research results; 1). Problems in the pattern and system of rice farming in the Kuantan Singingi community, the majority of people use pesticides, so that the level of soil fertility is maintained, it is necessary to have rules approved by members of the national adat community. The effects of the use of pesticides disrupt soil fertility, the environment is polluted when pesticides are used in large quantities even for a long period of time, and the level of human health, especially farmers, when spraying rice plants is even harmful to the health of all living things. 2). *Baladang's* local artistic value is a pattern of community agriculture that seeks to balance the natural environment with humans by stopping for a moment in cultivating rice with interludes of buffalo grazing in the fields when the rice harvest is finished. This tradition has long been agreed upon in the agricultural system of the national society. The process of raising buffalo is also in groups so that when the buffalo are released together there are indeed a lot of buffalo so that the buffalo dung and urine are also one of the media to enrich the soil again after the harvest season is over. The traditions of this community are also maintained and preserved in the midst of today's developments. This is in line with the fact that the environmental problems faced by humans are actually human life itself, namely a life that is full of simplicity and actions that do not prioritize greed, so that nature will be protected by humans. The real behavior carried out by the community is local wisdom as a view of life in protecting the environment. The view of life that has been carried out by the community if carried out widely will become environmental education for the entire wider community.

Keywords: Baladang; Environmental Education; Local wisdom.

INTRODUCTION

We cannot deny that the development of science and technology in the current era has penetrated various fields of human life. This can be seen in the development of agriculture. The agricultural sector has implemented high technology in an effort to increase agricultural output. Many farmers use various types of chemical pesticides, the use of pesticides is very diverse, from the need for soil fertility which is used as a planting medium, pesticides to protect plants in the process of growing plants so that they are not attacked by pests, to pesticides used to maximize the amount and quality of agricultural fruit. So the dependence on agricultural medicinal chemicals actually leaves a lot of environmental problems, the occurrence of contamination of groundwater and surface water, decreased quality of soil fertility and even farmers are also facing health hazards during the process of spraying pesticides and the use of pesticides in plants also leaves fruit residues produced

According to what was stated by the Directorate General of Food Crops of the

Ministry of Agriculture, (2021) other negative impacts of conventional farming systems are contamination of groundwater and surface water, endangering human and animal health from the use of pesticides and feed additives, and a decrease in biodiversity. In addition, there is also an increase in the resistance of pest organisms to pesticides, a decline in land productivity due to erosion, land compaction and reduced organic matter, a stronger dependence on non-renewable natural resources, as well as risks to human health and safety as a farm work.

Seeing the various risks that exist, many farmers are currently starting to initiate the use of various harmless plant medicines such as organic fertilizers and natural agricultural drugs (vegetable pesticides). This is also in line with the movements of environmental activists that their concern is the dangers of pesticides for all life, so farmers are directed to use plant-based pesticides that are more environmentally friendly. The need for public awareness of the importance of consuming healthy and safe food. One of the principles of organic farming is recycling the remains of existing agricultural products to be used as a source of fertilizers and as pesticides

(Hersanti, H., Santosa, E., & Dono, 2013) According to Tuhuteru, et al. (2019), organic pesticides or vegetable pesticides are pesticides derived from organic materials, which function as plant medicines in protecting plants from pest attacks as a result of their aroma and natural ingredients that are disliked by plant pests. A case was shown that the use of pesticides in rice plants when eradicating pests used excessive chemical pesticides, the impact later appeared in the number of explosions that very many of these pests.

The statement above is also in accordance with the opinion of Siregar S. et al, (2021). "Farmers often use chemicals as the first step to eradicate pests and diseases on rice planting land. However, the impact of the use of these chemicals has just emerged which has resulted in the explosion of Plant Pest Organisms (OPT) on rice planting land. Supported by the opinion of Wiyono et al (2014), rice pests will increase in population if the use of pesticides is not as recommended. Therefore it is necessary to apply the Principles of Integrated Pest Management (IPM) by utilizing natural enemies, cultivating healthy plants, and conducting periodic observations by farmers and IPM experts in the field.

Based on the various descriptions of the results above, then mobilize people who wish to balance all human life with nature in a pattern of fulfilling life's needs in a way that is friendly to the environment. Real movements are starting to be seen in the practice of life, namely living wisely in the behavior that is practiced in traditional life that is local in nature. The real life practice of loving the environment with patterns and systems carried out by the community in agricultural patterns in order to meet traditional needs, this is the answer to environmental problems. This traditional life practice is then widely known by local wisdom (Pamenang, 2021). The types of local wisdom of the people in the archipelago are very diverse. This diversity is a reflection that traditional life practices have long been carried out by the community. This traditional life is not the assumption that the people of this community are considered left behind, but in fact this society really loves balance in life (McKinley et al., 2017). This love for life is reflected in their prudent behavior, so they agree on a value that can be used as a fortress against environmental damage which will later hinder the lives of the surrounding community. The agreed value, called

the local wisdom of the community, which continues to be embedded in efforts to protect the environment, is a real form of behavior that is friendly to nature. So actually the value of this local wisdom has strength in facing future challenges to environmental damage (Mensah et al., 2021).

The value of local wisdom embedded in society to face the challenge of environmental damage is also the responsibility of all of us, not only the indigenous peoples of the country who believe in the value of local wisdom (Lubis et al., 2022). In the course of adat, those who play an important role in the effort to instill values in the younger generation are the adat elders/traditional leaders. The role of traditional elders in society is a figure who becomes a role model for all members of the community, including in the social order of society. This fact is in line with what was revealed by Agustina (2016), that local wisdom is based on principles, norms and rules that materialize into a social system, namely trying to be a person who always works, and utilizes the environment in his work for the benefit of human life. It can be understood that in the social order of the community the role of traditional elders is very important, so that adat can take various concrete actions in the form of rules in its environment either in writing or not so that the community carries out and obeys them in the form of customary rules and sanctions. Moreover, regarding the results of deliberations for a consensus that has been obtained regarding the pattern of rice cultivation in the provisions of the customary national elders with the community, that the community's farming system must be interspersed/given time intervals for the process of enriching the soil by herding buffalo in the fields after they have been harvested. When the time comes for replanting rice in the fields, the community members are required to pen the buffalo in each farmer group. The values of the local wisdom of the community, which later became known as baladang, are traditional values that need to be maintained and preserved and even must be passed on to the younger generation in the future, so that these values continue to be inherited properly. The value of this baladang wisdom also fosters a sense of togetherness for all members of society according to a shared philosophy, that togetherness is a strengthening sense of belonging. This is in accordance with Mardawani Suparno's statement (2022), that baladang is traditionally a requirement for philosophical values besides meeting food needs

(rice) as well as being used as a place to build togetherness to help each other among people in farming patterns, so it can be understood that the traditional values of baladang are very useful for the sustainability and activities of the community.

The belief that has long been applied in the pattern of protecting the environment carried out by the people of the Kuantan Singingi country through the baladang tradition is very good if it can be applied and emulated by many regions and the wider community so that they also play a role in protecting the environment so that the scope of positive traditional influence on environmental damage is wider. will not happen. From the value of this belief in the form of local wisdom, this baladang can also be material for studying seminar themes and even learning material at school, so it will be more widely useful for a tradition that is traditional but its value is able to ward off environmental damage and even become our perspective on managing nature for the needs of human life but still applying hospitality. towards the environment, this is environmental education for all citizens. The times are growing but followed by consumptive behavior that is not accompanied by good environmental awareness will leave a lot of problems. So the role of environmental education through local community wisdom traditions such as baladang, can be the answer and solution to environmental problems that society and even the country are currently facing.

METHODS

The method in the analysis here uses a descriptive qualitative method approach with data sources through observation, interviews, and studies of reference sources related to local wisdom of community farming systems. Based on the initial analysis, an overview is obtained in responding to challenges to environmental problems, so the solution to environmental education through local wisdom behavior habits in society is the answer and solution. The role of adat, such as traditional elders/stakeholders, village government, members of indigenous peoples in carrying out environmental education is very important, because the results of the deliberation agreement are jointly decided so that all members of the national community must obey the baladang traditional rules.

RESULTS AND DISCUSSION

1. Environmental Damage from Community Planting Patterns and Systems

The modernization of the era is getting more advanced, high activity is also displayed by humans in meeting the needs of life. If human activity in this modern era focuses more on the economy, then future ecological sustainability will not be considered in development (Setyowati, 2012). People who play an important role in fulfilling their needs must have self-knowledge and skills so that a wise attitude in acting will reflect harmonious human and environmental relations so that natural disasters will be far from people's lives. Real natural disaster events have occurred in Indonesia so far. So that unwanted events do not occur, self-skills are needed in utilizing the natural surroundings. Many disasters that occur in the Riau area such as floods, landslides, and haze greatly disrupt people's lives.

According to Setyowati (2019), human behavior is an important factor in increasing vulnerability, and as a trigger for disasters. Too much exploitation of natural resources can damage the environment and lead to disasters. In fact, if we look deeply at everything that takes the form of a disaster that occurs in society, it is all the effects of human behavior. The magnitude of the community's needs every day, the community's needs are always increasing, resulting in the addition of new problems. Increasing human needs in meeting economic needs which have the effect of environmental damage are also happening a lot. In fulfilling needs in the economic sector, especially basic needs (food, clothing, and shelter) the community activities also leave negative effects if it is not carried out with wise and prudent behavior in managing them. Ecological value which states that living things and other abiotic objects are interrelated with each other (Setyowati, 2019). Put forward in the pattern and system of rice cultivation which is also a staple and important consumption for the community but also leaves environmental problems.

In cultivating rice, the community to increase the amount of rice harvest, the community also uses chemical pesticides (fertilizers and drugs), both in the planting process, raising plants, protecting against pests, and raising agricultural fruit, all of which are carried out by farmers. According to Prameswari (2007), Pesticides are drugs or chemical

compounds which are generally toxic, used to eradicate the bodies of plant disturbances, both pests, diseases and weeds. Giving additional pesticides to a field is the application of a technology that is expected to help increase productivity, make agriculture more efficient and economical. (<http://cybex.pertanian.go.id>). This also occurs in some communities in Kuantan Singingi, although some people have confidence through the inheritance of local wisdom values in maintaining the influence of community agricultural patterns. Community farming patterns and systems in the agricultural sector are generally found to have problems with environmental pollution due to the use of chemical pesticides such as the possibility of air pollution if a large number of people use chemical pesticides, contamination of groundwater, decreased quality of soil fertility and the danger of fruit residues.

2. Value of Baladang Local Wisdom

The value of local wisdom is the conception of views and the application of values that have been living in the minds of most citizens regarding things that are considered very noble. The value system that exists in a society is used as an orientation and reference in acting. Therefore, the value of local wisdom owned by a person/community influences it in determining alternatives, methods, tools, and purposes for making available in view of the role in his life (Koentjaraningrat, 1987).

Based on this expression, behavior is conceptualized as a value that shapes human culture by looking at the natural environment as very important for humans, which is known as the value of local wisdom (Suprpto et al., 2021). Furthermore, that every individual in carrying out his social activities is always based on and guided by the values or value systems that exist and live in society itself. This means that these values greatly influence human actions and behavior, both individually and in groups as well as society as a whole regarding good and bad, right and wrong, proper or inappropriate. This is in line with the local wisdom value of baladang, which is the moral intelligence of the community through an attitude of self-control towards the environment in fulfilling the necessities of life by considering good and bad attitudes in acting. According to Mardawani (2016), moral intelligence is how a person has knowledge of right and bad morals, then he is able to internalize correct morals into real life and avoid bad morals.

The value of people's intelligence of self-control in the form of awareness that utilizes the environment for their needs is reflected in the form of behavioral values such as values of honesty, responsibility, and community care.

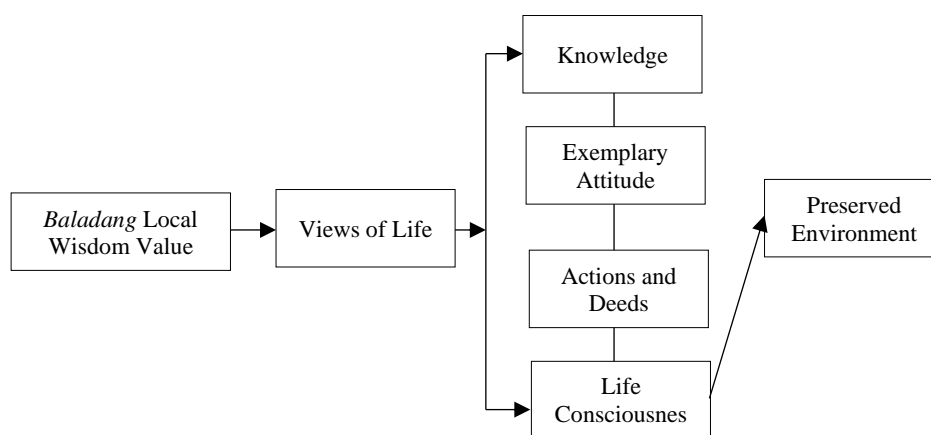
Behavior in the form of values that Baladang does are: 1). The value of honesty is an exemplary attitude, the indigenous peoples of the country from the results of a deliberation agreement in the rice farming pattern agree that the agricultural system is prioritized on the use of organic pesticides, so this value of honesty must be maintained in the midst of human activity in society. With the reason that the use of organic pesticides has a better impact on humans and the environment, this value is a consideration so that this value needs to be maintained. So efforts to protect this are not only carried out by traditional members but the elders/traditional stakeholders also play a role in transmitting/instilling the value of honesty for all community members in the baladang tradition. 2). The value of responsibility in actions and deeds. Through the rice cultivation system, the community considers good and bad actions and deeds in an effort to balance the environment with humans. The concept of considering this value, they are responsible for the sustainability of humans and natural ecosystems from their actions. In fact, this concept of value is based on the intelligence of thinking of community members, so they care about their actions and deeds through the baladang tradition. 3). The value of Caring as an awareness of life. Based on the perspective of human knowledge, this value in social interaction has long been ingrained in society. This value needs to be transmitted in the system and pattern of community rice farming which reflects good actions towards the environment. Real concern is an attitude of respect for all ecosystems and nature with consideration of the goodness that exists. With the three values of the baladang tradition still carried out by members of the indigenous community in the pattern and system of cultivating rice in the fields, this is illustrated in the following events in practice.

The pattern of this community's agricultural system, is an effort and effort to balance the natural environment with humans by stopping for a moment in rice farming with interludes / pauses in grazing buffalo livestock in the fields when the rice harvest is finished. This tradition has long been agreed upon in the agricultural system of the national society. The process of raising buffalo is also in groups so that when the buffalo are

released together there are indeed a large number of buffalo so that the faeces and urine of buffalo are also a means of enriching the soil again after the harvest season is over. The traditions of this community are also maintained and preserved in the midst of the times through the values that have long been inherent in the community. This is in line with what was revealed by Mardawani et al, (2022) about the ecological knowledge they have,

they rotate paddy fields for a certain period of time so that the vegetation on the abandoned land can grow again. With this period of time, the farming system gives time for the ecosystem to recover naturally.

3. Baladang Local Wisdom as a Way of Life Protecting the Environment



Based on the chart above, it can be explained that the local wisdom values of baladang in the form of honesty, responsibility, and caring are the perspective of the indigenous people in trying to make ends meet while still having faith in these three values. The three values are used as the basis for acting in the rice farming system in the fields. So this system of rice farming which is based on the intelligence of the people provides knowledge that is very beneficial to nature. In fact, these patterns and systems can be shared in wider life examples by members of other communities in other places, this is an exemplary community in the baladang tradition. Furthermore, the actions and deeds that have become the awareness of people's lives in efforts to maintain a sustainable natural environment have long been practiced through the baladang tradition by the indigenous people of the Kuantan Singingi country.

CONCLUSION

The answer to the environmental problems that humans are currently facing is human life itself, namely a life that is full of simplicity and actions that do not prioritize greed, so nature will be protected by humans. The real behavior carried out by the community is local wisdom as a view of life in protecting the environment. The view of life that has been carried out by the community if

it is carried out widely it will become environmental education for the entire wider community. The baladang tradition is the perspective of the indigenous people in trying to make ends meet but still has faith in honesty, responsibility and caring as the most important values in human life so that it continues to be carried out. The three values are used as the basis for acting in the rice farming system in the fields. So this system of rice farming which is based on the intelligence of the people provides knowledge that is very beneficial to nature. In fact, these patterns and systems can be shared in wider life examples by members of other communities in other places, this is an exemplary community in the baladang tradition. Furthermore, the actions and deeds that have become the awareness of people's lives in efforts to maintain a sustainable natural environment have long been practiced through the baladang tradition by the indigenous people of the Kuantan Singingi country.

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