

Short Communication

Community based conservation to create SDGs in Soeharto Hill Forest Areas, East Kalimantan

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ABSTRACT

The study aims to find out how the application of Community Based Conservation to create Sustainable Development Goals (SDGs) in Soeharto Hill Forest Area Samarinda in East Kalimantan. The method used is qualitative with a phenomenological approach. The results of the study showed that there were five obstacles in the implementation of Community Based Conservation to realize Sustainable Development Goals in Soeharto Hill Forest Area Samarinda in East Kalimantan. First, the lack of coordination between the East Kalimantan Provincial Forestry Service and the UPTD Management of Soeharto Hill Forest Area, Second, many mining companies that violated the mining area boundaries at the forest location, Third, founding semi-permanent residents' houses, Fourth, founding Tower Base Transceiver Station (BTS) owned by cellular operators, and the Fifth, was the commercial development of the Balikpapan - Samarinda toll road in the Soeharto hill forest area. The challenges to tackle poverty, fight climate change, and achieve truly sustainable development in the coming decades force us to work together. With partnerships, leadership, and wise investments in education, we can change the lives of individuals, our national economy, and our world. Therefore, environmental education that has been designed comprehensively and sustainably can create the objectives of the SDGs, especially in the management of sustainable forest areas, especially in the Soeharto hill forest area.

Key words: Community Based Conservation, SDGs, Soeharto Hill Forest Area.

INTRODUCTION

The use of natural resources in Indonesia was increasing from year to year, where this is seen by the increase in the number of industries from small to large scale. The industrial process also includes waste products that cause damage to the surrounding environment, then ultimately causes the ecological balance to be increasingly threatened. Therefore the Indonesian Government seeks to overcome these environmental problems so that justice can be created for the surrounding environment. For example, natural resources that will be exhausted over time because of very high exploitation activities are forest areas. The lack of wood in the world has been felt since the 14th century. Because wood itself is a very dominant industrial raw material, clearing forest land for agricultural land greatly reduced the wood supply (early 17th century in England, early 19th century in the United States, and since the 1980s in Indonesia) (Suparmoko, 2008). So that preservation of the forest area should be properly maintained so that there is no deterioration in the quality of the forest resources. Therefore it is important to maintain biodiversity conservation associated with socio-economic welfare for local communities, especially in community-based conservation programs (Riehl *et al.*, 2015). Community-based conservation itself aims to benefit local communities and also achieve conservation goals. Unfortunately, it has been criticized for taking a simple view of "society" and failing to recognize differences in the preferences and motivations of these community members (Brooks, 2016). Sampson *et al.* (2019) states that the main challenge faced by people in the conservation

community itself is how they continue to behave fairly and in harmony with nature. For example, the problem of poverty that occurs in Myanmar is not a major cause in efforts to improve the quality of life of citizens. However, the opposite is caused by the conflict that occurs with the community in the elephant conservation area itself which causes many farmers to lose half or more of their crops. Mutanga *et al.* (2015) also explained that as many as 938 people in Gonarezhou (Zimbabwe) who responded to surveys on wildlife conservation had the answer to the perception of neutrality, where the community had not been fully involved in sustainable use of natural resources, so that citizens did not play a full role in conservation management activities. Because residents still consider the occurrence of injustice in the utilization of these natural resources. Ahebwa *et al.* (2016) also stated that the importance of community based conservation and tourism culture to improve people's livelihoods. Especially in this study carried out on people in Uganda. So that, if culture-based tourism was enhanced and promoted, it will potentially affect people's livelihoods through income generated from tourism activities and jobs around the area. And in the end it will contribute to the preservation of cultural heritage sites in a sustainable manner. So, based on the findings of the research above, Therefore, it is very important to implement the community based conservation program to maintain a balance between social, economic and environmental dimensions sustainably. For example, one of the conservation forest areas in Indonesia, namely in the Province of East Kalimantan on the border of Samarinda City and Balikpapan, namely Soeharto Hill Forest Area. The Soeharto Hill Great Forest Park alone

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covers approximately 61,850 ha, of which around 30,000 ha are designated as protected forest areas. This type of forest in the Soeharto Hill Forest Area. is included in the lowland forest type which is secondary forest, while primary forest is not found anymore, because this area is logged-over forest from several HPHs in East Kalimantan Province which subsequently in 1982/1983 and on the month March-April 1998 got a fire accident which eliminated many forests. Forest damage in Soeharto Hill caused by forest fires resulted in damage to forest floor vegetation, and damage to tree trunks so that it often resulted in the death of trees and their regeneration.

Based on these various environmental problems, a Community Based Conservation program was established in the forest park area to minimize the impact of the decline in the quality of the forest. So, a new approach is needed to protect the environment that is better at handling social and economic problems. As in the concept of sustainable development goals (SDGs) that seeks to balance social, economic and environment for a better generation. Especially, SDGs 15th to protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. Seeing the many challenges that occur in implementing this program so, the importance of increasing participation from all parties involved. Where the role of the Government, Local Communities, Companies and other Stakeholders is needed (Pavlich, 2010). Based on the above considerations, the author raised the issue with the title Community Based Conservation to create SDGs in Soeharto Hill Forest Area.



Figure 1. Soeharto Hill Forest Area.



Figure 2. Forest Area fires.

Literature review

Riehl, Hisham, and Robin, (2015) stated that community-based conservation (CBC) is an activity that seeks to harmonize long-term plans with the local community, and also the community. Therefore, the local community is the main subject in the development of this program. Brooks (2016), states that community-based conservation is a conservation program or project with community involvement based on social, economic and community aspects, so as to alleviate poverty, improve the social environment, increase support for conservation, and reduce threats to biodiversity. Kothari, Philip, and Jessica (2017) also explained that community-based conservation (CBC) is a nature conservation program that is carried out effectively based on local communities in order to preserve biodiversity and wildlife around conservation areas. Calfucura (2018) states that community-based conservation is a bridge between the application of regulations in biodiversity conservation activities and local benefits in rural communities to be managed sustainably. Golden *et al.* (2014) explained that community-based conservation is a collective strategy in community-based management such as activities to limit wildlife hunting, protection of endangered plants, and rotation of natural resources. Hallam *et al.* (2017) states that community-based conservation must be carried out fairly and transparently. A social assessment is needed in community activities. This is because the main benefit of social assessment is a better understanding of social impacts, conservation, and environmental management so that it can provide insights for planners and leaders on how to do it to reduce negative consequences and improve positive outcomes for the community. Lee *et al.* (2018) states that in order to create ecological success in community-based conservation, it is necessary to promote the right target in educating the community so that the program can have a positive impact on improving the living standards of the community. Leisher *et al.* (2012) state that the key factor underlying the achievement of quality conservation projects is the exchange of knowledge inside and outside among local communities. So it is very important for the exchange of information to be able to increase the environmental awareness of these local residents. That is why it should be able to form win-win outcomes in the Community Based Conservation. For example, it provides economic benefits such as the need to incentivize the protection or use of species, resources, or sustainable habitats such as the possibility of indirect use (eg ecotourism), compared to direct use in communities that are highly integrated with economic markets incentives for over-harvesting.

MATERIALS AND METHODS

The method used in this study was qualitative with a phenomenological approach because researchers want to know specifically by identifying phenomena that occur and feel the situation which is then translated into gathering information and perceptions in depth through interviews, discussion and direct observation (Lester, 1999). The steps taken by researchers are first to formulate the research problem to be studied, second to find sources of theory and policies relevant to the problem, third to conduct field observations with data triangulation techniques, then fourth to analyze field data

that is reviewed with relevant theories and policies, and fifth draw conclusions from research and recommendations.

RESULTS AND DISCUSSION

The UPTD Management of Soeharto Hill Forest Area has socialized Community Based Conservation to the local community through extension activities in the forest area. But the number of obstacles that occur in the socialization activities. Where there is still a lack of awareness from residents themselves to follow these rules. Besides the education factor which is still low, and economic factors that make citizens easily change. Then it was added by the presence of migrants who joined to settle around the forest area (UPTD Management of the Soeharto Hill, 2018). Lack of participation of local communities in empowering conservation areas as ecotourism. Many residents make the area around the forest as a land for selling food and drinks alone without regard to aspects of the environment. So that local wisdom is not properly implemented. The obstacles in the management of the forest area were the first lack of coordination between the East Kalimantan Provincial Forest Service and the UPTD Management of Soeharto Grand Forest Park which caused land tenure conflicts in the forest area, both mining companies violated the mining area boundaries at the forest location. Thirdly the establishment of semi-permanent residents' houses located in the forest area and conducting trade activities such as selling food and beverages. Fourth, the cellular operator's Tower Base Transceiver Station (BTS), also seen standing at several points in the forest area, and the fifth there was the construction of the Samarinda Balikpapan toll road which also damaged the area around the forest. And in the end the conservation activities did not work as they should (East Kalimantan Provincial Forest Service, 2018). Feilen (2017) states that the success of conservation programs in Colombia depends heavily on the role of conservation education. Where the adoption of conservation education programs that involve children in developing countries to treat and protect wild animals has a positive impact on the conservation program. This is inversely proportional to Soeharto Hill Forest Area, where conservation education has not been implemented early. Where when the lecture just applied, so there are still many people who do not understand it. Then also there is still a lot of injustice going on, which is in line with Martin *et al.*, (2016) which explained that the importance of creating recognition of environmental justice in the conservation sector to develop conservation areas is better by not ignoring local communities around conservation areas. This is done so as not to create conflict in the conservation area. In the Soeharto hill area itself there are still conflicts over the company's coal mining land with forestry land where overlapping land cases have not been completed properly. Local people themselves are also often not involved in discussions or forums that discuss recognition of environmental justice in the conservation sector to develop conservation areas is better by not ignoring local communities around conservation areas. This is done so as not to create conflict in the conservation area. In the Soeharto hill area itself there are still conflicts over the company's coal mining land with forestry land where overlapping land cases have not been completed properly. Local people themselves are also often not involved in discussions or forums that discuss the land conflict so that this is following the

statement from Silva *et al.* (2017) which explains because the discussion process that does not involve the community causes the community to be indifferent to damaged environmental conditions. As in the example of the condition of the Soeharto forest park, the size of its hectares has decreased from year to year. If related to the goal of the 15th SDGs with a target in 2020 that seeks to promote the adoption of sustainable management of all types of forests, stop deforestation, restore degraded forests and increase greening globally, it should be achieved if all related components including government, communities, the private sector, non-governmental organizations and other parties work together to implement these goals. This is following the opinion of Sterling (2016) finding that the role of a deep and comprehensive environmental education in disseminating sustainable development goals (SDGs) becomes very crucial in overcoming various challenges for the progress of the transformative that will be made. The role of environmental education must be fully supported by all relevant stakeholder components in its implementation if you want success in a program that will be carried out. Then also the same thing was stated by Morad, *et. al.*, (2015) which states that education is a fundamental right and basis for progress in each country. The challenges to tackle poverty, fight climate change and achieve truly sustainable development in the coming decades force us to work together. With partnerships, leadership and wise investments in education, we can change the lives of individuals, our national economy, and our world. Therefore, environmental education that has been designed comprehensively and sustainably can create the objectives of the SDGs, especially in the management of sustainable forest areas, especially in the Soeharto hill forest area. If this program is continuously developed it will be able to create a balance in the three main aspects of sustainable development namely social, economic and environmental. The importance of the efforts made in implementing the community-based conservation program to maintain a balance between social, economic, and environmental dimensions in a sustainable manner. The community development program must be in accordance with the conditions of the community itself so that the objectives to be achieved in the program can be implemented on target. One of the environmental management programs carried out by the Government of Indonesia in particular is a forestry-based program. Forests are an important asset that must be protected. One example of forest areas in Indonesia is in the Province of East Kalimantan, Samarinda City. The forestry conservation program cannot run completely due to the lack of environmental education from local residents themselves, this is caused by forestry extension workers who are still very few members in managing the area around the forest. The reason for the few forestry extension officers is due to the view of people especially in Indonesia that this work is not profitable and needs to work hard in managing the forest area. As a result, many parents feel that it is better for their children to work not as a forestry extension agent, because they are considered to be an unpromising future. However, if examined in-depth this is actually a noble work because it is not only responsible for protecting the forest, but also for maintaining a balance between nature, society and economy for a better future. Then, if the forestry instructor can collaborate with other scientific disciplines, it will further enrich his insight and experience to create innovative innovations in

the forestry sector that are useful for the long term of the forestry area. This is actually an opportunity that should be understood and utilized by the community itself, but indeed due to the very low understanding of environmental education, the community is still concerned with economic matters for their own welfare, compared to thinking about other matters. This phenomenon is happening at this time, especially if there is a very long dry season that cannot be predicted to be finished. As a result, it causes losses to the forest area which is sacrificed for the benefit of the community and irresponsible persons.

As an example of the implementation of landscape planning in the area of Pu-Luong Cuc Phuong (Vietnam) which failed due to mismatches in environmental management that led to the absence of environmental justice in the region. As a result, an environmental management system is created with weak integration, coupled with a lack of support from all relevant actors and ultimately leads to failure in managing the landscape (Do *et al.*, 2019). Chaudhary *et al.* (2018) also added that the ecosystem services approach needs to make environmental justice a central position in order to avoid further marginalization, such as in ecosystem service facilities that are only accepted by established groups. Access to ecosystem services should be carried out fairly and openly without differences in race, income, and gender. The existence of environmental justice is expected to be able to bridge these disadvantaged groups in order to receive the ecosystem services and the policies and practices of ecosystem services will provide tangible benefits for the creation of equality for all components of society. Nopper *et al.* (2017) also states that community-based conservation is an important component to fight ecosystem degradation and achieve sustainable use of resources while ensuring human well-being. The implementation of community-based conservation must be carried out fairly and responsibly so that the objectives to be achieved will be implemented. Williams *et al.* (2017) argue that community-based conservation by utilizing tourism products is far more effective in improving people's welfare. The existence of educational tourism can also change little by little by the behavior of people who are not aware of the condition of the ecological decline around. However, the project must be carried out fairly so that residents receive assistance in return for commitments to dedicate a portion of their land to conservation management activities. Qiu *et al.* (2018) states that community-based conservation must be considered and integrated perspective that is very important, not only to promote joint action to advance sustainable development but also to strengthen the environmental policy dialogue to make a paradigm shift from "nature to itself" and "nature next to humans" to "humans and nature". That philosophy should continue to be applied for the progress of community-based conservation activities.

Murray (2018) explains that community-based conservation as a perception of local actors in adapting to protected areas to maintain social, economic, and ecological balance. Therefore, the knowledge and experience of these local actors are needed for sustainable conservation development. Local actors both as residents around the forest area and the local government must be able to continue to manage their behavior so that they become role models that can provide examples for all parties involved. The behavior is not only done at certain times but every time. The importance of developing attitudes to the community in promoting environmentally friendly behavior. The definition of environmentally friendly behavior is the behavior or actions of people who are aware of the environment responsibly. Environmental-oriented behavior is essentially an expression of

one's positive feelings and thoughts that are manifested in the form of actions in the context of fostering and creating a balance between humans and other organisms. Behavior with environmental insight is very closely related to trust and values towards several aspects including (1) Use of the natural environment, (2) Concern for the environment, (3) Conservation of the environment and natural resources, (4) Trust in science and technology and (5) Concern for economic growth (Wiersma *et al.*, 1986).

Chiras, (1991) states that environmentally friendly behavior is (1) acts that use resources economically and carry out conservation, (2) reuse and recycle used materials (3) manage the natural environment, and (4) controlling population growth. The human responsibility is in the use of natural resources which are always oriented towards ecological protection, socio-cultural, economic values from the sustainability of human life and other creatures in sustainable development. In the implementation of sustainable development, the emphasis is placed on environmentally friendly behavior including (1) attention to water, soil and air pollution problems (2) supporting environmental regulations such as limiting the use of pesticides, indiscriminate waste disposal, and (3) ecological behavior, for example, avoid wasteful use of water and use of tools that are not environmentally friendly and save electricity (Baron and Byrne, 1991). The basis of all these environmental management actions is the organization's commitment to environmental care, as well as environmental attitudes. Attitude is a condition in humans with certain feelings in response to various objects, concepts, and situations. Actual readiness is influenced by emotional, motivational, and intellectual aspects (Hilgard, 1962).

Another problem that occurred why the conservation-based community in Soeharto Hill Forest Areas did not work as it should is because the environmental policies undertaken were still command and control. So it is considered not to spur the world of investment and not pro-poor. For this reason, improvements need to be directed towards a good forestry government that has a pro-investment and pro-poor spirit. The formulation of policies with the command and control approach is not effective due to nine weaknesses, namely:

- (1) the command and control instrument requires policymaking to have a comprehensive and accurate policy on how to work and the capacity of an activity.
- (2) the command and control instrument does not provide incentives for companies to exceed established minimum standards, especially companies that have invested in environmental control/forest management technology.
- (3) the command and control instrument enforcement is expensive and difficult. This is very important because this has a negative impact on its reliability. Although while agencies are bound to enforce, most regulatory regimes do not have adequate resources.
- (4) command and control instruments are vulnerable to political manipulation.
- (5) command and control instruments can cause administrative complexity and legal restrictions.
- (6) command and control instruments are not efficient because of the costs for large arrangements. This inefficiency can be reviewed both in terms of the government as a policymaker and supervisor and economic agent.
- (7) command and control instruments are less accommodating (rigid) inflexible.

- (8) the command and control instrument load is too dense so that there is a saturation point between the people who are governed by the rules themselves.
- (9) command and control instruments do not encourage creativity.

One other factor that causes the failure of the role of the local government itself is because the policies that are carried out often do not remain targeted and their implementation is not in accordance with what is stated. According to Morah (1990), there are several factors that cause the failure of the application of policies, including (1) administrative control, (2) inadequate financial and human resources, (3) Relationships between each institution that is bad, (4) Policies that are bad difficult and sensitive, (5) Lack of pressure from other groups, (6) Conflicts regarding the objectives of the policy, (7) lack of support from implementers, (8) The complexity of joint actions, (9) ambiguous goals and communication, (10) Mistakes in interpreting relationships, (11) designs that are wrong, (12) Processes that are not participatory, (13) Uncertainty. If we understand it based on responses according to Morah (1990) if it is related to field findings namely firstly the lack of support from all related aspects, both from internal and external parties themselves, the second is the inadequacy of resources both material and non-material, mismanagement of resources causes losses in the implementation of the policy and the third is an error in interpreting a causal relationship that continues which causes new problems that are prolonged, as in the case previously explained about the establishment of the Soeharto Area in Samarinda city. The success of conservation itself is often based on the lack of local support for conservation which is strongly influenced by the perception of the impacts experienced by local communities and the opinions of management and sustainable governance. CBC governance perceptions and management processes that are generally negative will cause a crisis of trust in the public institution. These results point to some of the improved policies and actions needed to improve the relationship between the CBC and the community, the CBC management and governance process, and the socio-economic results and conservation of forest areas. The role of local wisdom carried out by the local community itself is also a major added value for the improvement of social and cultural aspects that are intertwined with one another. If this continues to be applied and developed community-based conservation will be a distinct advantage for the progress of the region. Community-based conservation (CBC) should be able to improve the welfare of local communities through the generation of economic, social and environmental benefits, but it is unfortunate that it is inversely proportional to the results to be obtained. Lack of trust shown by the community not to be involved in the management of the forest area. It does not seem to be a matter of empowerment in the traditional sense of the community is not given the opportunity to run a business. This is more a problem where people are not confident in their own ability to exercise financial control and become involved in managerial decisions that are needed in external operations of businesses such as marketing and pricing. It is also clear that local communities have a preference to remain passive participants rather than active and as a result have almost no control over business management for their own welfare.

Dodds *et al.* (2016) states that there are three main types of objectives of the CBC namely: (1) A project in which community members are employed using a rotation system and benefits are allocated to community projects or dividends to residents. (2) Projects that involve families or groups with the community, based on community assets. (3) Joint ventures between communities or families and outside business partners. The key elements that can support the success of the CBC itself are: (1) Participatory planning and capacity building to strengthen management skills in the community, (2) Collaboration and partnerships that facilitate relations with the business industry to ensure financial viability for the community, (3) Management/empowerment of local community members around the area, (4) Establishment of environmental/community-based environmental goals to ensure results are in line with community values, (5) Assistance from relevant stakeholders (government, funding agencies, and the private sector) in facilitating access to the formal economy, (6) Focus on generating additional income for long-term community sustainability. Based on the field findings, it can be understood that the implementation of community-based conservation in Soeharto's forest area is not optimal and there are still many obstacles that occur in it. Various issues that occur both environmental issues, social-cultural issues, political issues, economic issues, and other issues also cause a variety of existing conflicts. The conflict itself is the result of irresponsible people who make use of the situation to benefit individuals and groups. If related to the opinion of the theory of Thomas Hobbes in 1588-1679 (Nicolic, 2017) about the principle "Man is a wolf to man" (*Homo homini lupus*) which explains that human behavior is even more brutal and cruel than the behavior of wild animals This British philosopher considered that a country should be able to manage the negative behavior of its citizens. The theory itself was obtained due to the conflict between the weak or poor with the rich. The failure of the state in managing this behavior itself causes citizens not to feel safe and secure life because of the behavior that preys on each other and harm each other. This phenomenon actually does occur in the Soeharto Region where residents conduct each other negative ultimatums both to other residents and to the Government itself. The rise of environmental, economic, and social issues at this time should provide input and a more structured and systematic direction for the management of institutions in the Government in balancing the interests of the institution in developing the organization by paying attention to environmental management. The management of the environment covers all functional aspects of management to develop, maintain policies and organizational goals in environmental issues that continue to roll in accordance with the development of society and technology. Each organization can make environmental issues as a strategic choice, which can then be used as the value of the excellence of the organization or institution to be proactive in shaping its future plans. Therefore the importance of developing attitude changes in the community in improving environmentally-friendly behavior to protect the forest area.

CONCLUSION

Therefore it is very important for all of us to be able to

sustain and manage the Soeharto area in a sustainable manner, the importance of the responsibilities of all relevant stakeholders, especially the local people who are in the forest area. Several factors that hinder the creation of community-based conservation to support SDGs in forest areas include:

- (1) The socialization that was carried out did not take place periodically because the human resources of field technical personnel as forestry instructors were still very small, especially in managing forest resources in the Soeharto forest area, so that there were still many residents and companies who did not understand the conservation program.
- (2) Participation from the community is still low due to the lack of environmental knowledge so that the residents seem indifferent and feel normal when they see the condition of environmental damage.
- (3) The strategy in forest area management that is not yet integrated into one related system, this is because the strategy used is still fixated with one institution that has full authority and responsibility in the East Kalimantan Provincial Forestry Service and UPTD Soeharto Area Management so that the institution others feel they do not have the full obligation to help and solve various problems that occur in the forest area.
- (4) The existence of abuse of legality authority by irresponsible persons causes land ownership claims unilaterally which leads to conflict.
- (5) Management of the distribution of budget allocations that are still far from the target agencies, where there is an imbalance between the allocation of funds from the center and the regions, causing the office operations to be not in line with agency expectations.

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