

Edutourism Initiative in Pulau Santen Beach, Banyuwangi Through Local Community Empowerment by Sea Turtle Conservation Program

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ABSTRACT

The potential of Santen Island beach, which has been known as a tourist beach, is increasingly visible with the amount of infrastructure and tourism built by the local government. This is done as an effort to promote Santen Island, as one of the best natural tourism centers in Banyuwangi. The people of Santen Island must be prepared as a group that is aware of the potential of their village and the sustainability of its natural tourism. Santen Island is also a tourist location that is annually used as a nesting site for sea turtles that land on the coast of Banyuwangi. This is actually very contrary to the natural habits of sea turtles which prefer to make nests in quiet places without the disturbance of sound, light, and humans. Because this natural nesting site is a tourist attraction, the local residents should also be given insights related to the protection of sea turtles that land on the coast of Santen Island as wildlife protected by the Conservation Law in Indonesia. This community service aims to strengthen the awareness and knowledge of the Santen Island tourism awareness group related to the importance of the role of the community around the beach to participate in preserving wildlife and their ecosystems. The methods used to carry out community service are lectures, discussions, and brainstorming. The location of the implementation is on the beach of Pulau Santen with the target group of people in the Pulau Santen beach area. The locality development model is applied in community service activities. The understanding, awareness, and participation of the target group increased. Through the community service activities that have been carried out, the sustainability of the program is needed until a conservation education tourism model is formed that has the potential to improve the economy of the surrounding community and the preservation of biodiversity in the region. This activity provides an increase in knowledge, awareness, and participation of the target group in managing the conservation of wildlife and their ecosystems, especially sea turtles.

Keywords: health care, beaches, Sea Turtles, Santen Island

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INTRODUCTION

Banyuwangi Regency has a variety of natural tourism potential, one of the favorite tours in Banyuwangi is Santen Island Beach. The development of Banyuwangi's tourism industry is

currently very rapid, this is evidenced by the increasing number of tourists traveling to Banyuwangi every year. The increasing number of tourists and activities carried out to increase

economic growth will affect the increasing amount of waste in Banyuwangi Regency (Ermawati et al., 2019). The distribution of waste consists of a lot of plastic waste, while at the edge of the beach the waste consists of santen tree leaves and some tree trunks carried by the current. Poor and improper waste management will cause damage to the coastal ecosystem and inconvenience to tourists visiting these tourist sites. The discomfort created will certainly affect the interest of tourists to return to visit. So that this can affect the decline in community visits which can be seen from the lack of visitors, this decline will affect the income of the coastal community of Santen Island Banyuwangi.

The potential of Santen Island, which has been known as a tourist beach, is increasingly visible with the amount of infrastructure and tourism built by the local government. This is done as an effort to promote Santen Island, as one of the best natural tourism centers in Banyuwangi. The people of Santen Island must be prepared as a group that is aware of the potential of their village and the sustainability of its natural tourism. Santen Island is also a tourist location that is annually used as a nesting site for sea turtles that land on the coast of Banyuwangi. This is actually very contrary to the natural habits of sea turtles which prefer to make nests in quiet places without noise, light and human disturbances (Umama et al., 2020). As a result of the place used as a natural nest by sea turtles is a tourist spot that is visited by many people, local residents must also be given insight related to efforts to conserve sea turtles that land on the coast of Santen Island as wildlife protected by the Conservation Law in Indonesia.

These conservation efforts are carried out on the principle that sea

turtles and protected marine biota have conservation value for ecosystems in coastal areas so that their existence must be protected. One of the ways that can be done is by relocating turtle eggs from natural nests to semi-natural nests to avoid direct contact with tourists and increase the percentage of hatching success. Egg relocation activities by conservationists can be done as a last resort, if the protection of turtle natural nests is not possible. In some cases recorded in the field, relocation of turtle eggs can bring positive results if the mother turtle lays her eggs in risky places, such as nests too close to the sea line, too close to artificial light (lights) around the beach, nests behind the line of wave-retaining foundations that will make it difficult for turtle hatchlings to get to the sea, nests within reach of abrasion points, and nests close to roads or sidewalks (which allows hatchlings to be trampled and die). In addition to the problem of non-ideal natural nest locations, nest sand that is too often used as a place for hatching eggs is very vulnerable to microorganism contamination, especially bacteria and fungi (Praja et al., 2018; Haprabu et al., 2019, Muhammad et al., 2020). Collaborative programs between educational institutions, private conservation agencies and the surrounding community are needed so that sea turtle conservation efforts in Banyuwangi Regency, especially on Santen Island, can be sustainable, thus not only increasing the population of protected wildlife in the country but also improving the community's economy through the initiation of sea turtle conservation educational tourist attractions.

From the problems that occur on Santen Island Beach regarding the number of turtle conservation, alternative solutions can be presented that have been realized in previous

community service with the title turtle conservation movement through beach health, and preservation of marine ecosystems, so as not to stop there, it will be continued with further community service activities with the title initiation of santen island beach education through empowering community groups in the aspect of turtle conservation to support the achievement of SDGs 2030. Therefore, the community is expected to support strategies in sea turtle conservation so that the community can find out education on sea turtles based independently and empower the community in sea turtle conservation which has more value for the marine ecosystem. With the assistance related to the local community, this is a positive side of the importance of maintaining marine ecosystems, especially in turtle conservation activities.

METHODS

This community service program is a follow-up program from community service in 2022 with the title "Optimizing Sea Turtle and Beach Vegetation Conservation through Empowerment of the Santen Island Tourism Awareness Group, Banyuwangi Regency, East Java", this follow-up program is designed with the hope that the community can support strategies in preserving the life of sea turtles so that people can know the importance of preserving the life of marine ecosystems, especially sea turtles. The priority target is the community in the Santen Island Banyuwangi Beach area. This activity also supports sustainable programs (SDGs), one of which is to maintain and preserve oceans, seas and marine resources in a sustainable manner. In overcoming the problems that occur in the partner community as previously described, this Community Service Program offers several approach

methods that can help in solving existing problems, namely by providing assistance related to the development / revitalization of local community MSMEs. The methods used in implementing this program are lectures, discussions and brainstorming through FGDs.

The stages in this community service activity are as follows:

Preparation Stage

At this stage, it is necessary to arrange for a land use loan permit. The stage of obtaining a land use loan permit needs to be done considering that Santen Island beach is state-owned land whose management is carried out by the Army. The licensing process begins with initial coordination with Den Zibang Banyuwangi, which is then followed by the administrative process and coordination with Kodam V/Brawijaya, to obtain approval from the Pangdam V/Brawijaya.



Figure 1. Coordination of Den Zibang Banyuwangi.



Figure 2. Permission Approval of Pangdam V/Brawijaya.

Conduct a survey of the condition of Santen Island beach and the surrounding environment. Observation of problems/ constraints owned by target partners. The observation stage regarding obstacles is carried out to capture things that are still a barrier for the community to act. Given that the approach taken in this activity is an empowerment activity in the community, whose long-term output is that the local community can be empowered, strengthening knowledge in community groups needs to be done, one way is to overcome existing obstacles or problems. It is hoped that this will increase community participation in the program which in the future will make the target community more independent and empowered.

Determining a weekly schedule for community engagement. After identifying the issues that hindered community participation, the team then analyzed these issues and developed several alternative solutions that could be applied to the target communities. One of the solutions implemented included intense weekly mentoring to community groups. This assistance is aimed at persuading the target community, increasing community participation, convincing the community that their participation is very meaningful and needed, and teaching cadres how to properly manage sea turtle conservation.

Determining the schedule for the FGD (Focus Group Discussion) with POKDARWIS Santen Island. Determining the right resource person to provide material for community service. Planning for the implementation of community service.

Implementation Stage

This community service program was carried out from January to

December 2023 which began with the preparation stage, intervention implementation, monitoring and evaluation, and the resulting output. This community service was attended by 40 target participants, consisting of tourism managers, MSME players, fishermen, and youth organizations.



Figure 3. Community mentoring visits in activity programs.



Figure 4. Community Education.

The appropriate model for empowering community groups in waste management is the locality development model. The application of this model is by making visits twice a week. This assistance is carried out with the aim of increasing community capacity through increasing awareness and community participation in this activity. Participation is measured through the presence of community groups and their participation in the activities. This enthusiasm indicates that the community participating in empowerment activities is interested in sanitizing the beach. The kinds of activities carried out during the mentoring took place include direct visits to residents' homes by discussing turtles on Santen Island as a form of

mentoring, besides that there is also a gathering through routine recitation every 1 week 1 time in one of the residents' homes as a forum for discussion and mentoring on achievements for 1 week. This mentoring activity aims to communicate with local residents how if fishermen or the community find turtles on Santen Island. Through routine recitation every Thursday for the male community group and every Saturday for the female community group, it can be clearly monitored the community's knowledge about sea turtle conservation on Santen Island. For 2 months to provide assistance regarding activities that will be carried out in the future. In the fourth month, a promotional plan on sea turtle conservation was developed.

Implementation of FGD (Focus Group Discussion) activities

In terms of conducting interventions, we also involve the active role of figures or experts to increase knowledge, awareness and community participation. The expert involved is Banyuwangi Sea Turtle Foundation (BSTF). The Focus Group Discussion (FGD) carried out, aims to dig deeper into what the community wants and expects from the formation of this edu-tourism, while also trying to increase their understanding of the importance of the role and commitment of the target community in this activity. Based on the final results of the FGD, currently a cadre of edu-tourism for waste management and turtle conservation on Santen Island has been formed and formalized through a declaration and signing of a joint commitment.

Prior to the FGD, there were several materials provided in this activity, including Sea Turtle Population and Problems in the Bali Strait. This material was given by BSTF (Banyuwangi Sea Turtle Foundation).

Implementation of FGD (Focus Group Discussion)

The FGD was facilitated by a moderator from Public Health students of SIKIA Universitas Airlangga and attended by 20 target group fishermen and partners.



Figure 5. Implementation of FGDs.

FGD by asking questions to the target group and agreed upon by all and justified by the partners. Formation and declaration as a form of cadre commitment. In this process, cadres who have been formed sign a commitment sheet and declare as a symbolic statement of willingness to become cadres.

Implementation of Community Service Highlight

The final series of this community service program is the culmination of community service. This series of activities ended with conservation activities in the form of hatchling release. In the release activities carried out by community groups, the recommended method is to create a distance of about 1-2 meters between one hatchling and another. The main purpose of this distance is to ensure that the hatchlings travel in a dispersed manner to the sea, because if the distance is too close, the hatchlings will

be clumped together and become easy targets for animals that act as natural predators around the sea such as birds, monitor lizards, and even fish in the sea that are larger than the hatchlings. The next process in the release activity is when the hatchlings have been placed on the beach sand, all participants who are around are prohibited from intervening in the form of touching or triggering disturbances such as noise.



Figure 6. Cadre commitment signing.



Figure 7. Hatchling Release Activity.



Figure 8. Hatchling release follow-up activities.

Follow-Up Stage

After a series of community service programs are implemented, an in-depth evaluation covering the evaluation of inputs, processes and outputs is achieved.

RESULT AND DISCUSSION

The community service program with the theme "Edutourism initiative in Pulau Santen Beach, Banyuwangi Through Local Community Empowerment by Sea Turtle Conservation Program" was carried out with the main objective of strengthening the awareness and knowledge of the Santen Island tourism awareness group related to the importance of the role of the community around the beach to participate in preserving wildlife and its ecosystem. The first stage in this community service program is the preparation stage. This preparation stage consists of three steps, namely environmental surveys, determining the approach schedule, planning community service programs. The first step of this stage is a survey of the condition of the coastal environment, especially the condition of coastal cleanliness. The distribution of waste in the mangrove tree area consists of plastic waste, while on the beach the waste consists of santen tree leaves and some tree trunks carried by the current. Poor and improper waste management will cause various losses including causing foul odors, disturbing beauty, causing flooding, increasing climate warming, worsening environmental sanitation and the threat of increasing various kinds of diseases. This can also cause inconvenience to tourists visiting the tourist site. The discomfort created will certainly affect the interest of tourists to return to visit. The second step is determining the schedule of approaches with the community every week, in this case this approach is carried out to discuss the design of activities and monitoring the implementation of strengthening regarding the importance of maintaining the coastal ecosystem. The third step is planning the community service

program, this planning includes scheduling FGD activities as an open discussion with the community and partners. Mentoring activities are carried out intensely every week. The activities are carried out in the recitation groups of men and women in separate locations and times. This mentoring activity is very effective in increasing understanding, awareness and community participation. Where it is the initial basis that must be owned by the community before empowered and independent. Until now, mentoring continues to be carried out, even in the future we plan to continue to do so until the community is able to be empowered and independent.

The second stage of this community service program is the implementation stage. This community service program does not only teach how important it is to preserve wildlife and their ecosystems from the beginning because this activity has been carried out in community service in 2022. In a sense, the community service program in 2023 is a continuation of the community service program that took place in 2022. The community service program begins with the preparation stage, intervention implementation, monitoring evaluation, and the resulting output. This community service was attended by target participants, consisting of tourism managers, MSME players, fishermen, and youth organizations. The right community group empowerment model in waste management is the locality development model. The local development model is a process-oriented activity with the aim of providing active learning experiences to the community, emphasizing the importance of consensus (agreement) and cooperation among community members, as well as concern as part of the community. This model seeks to foster motivation, planning, and

appropriate action from the participation of local residents in achieving empowerment goals.

In addition, there was the implementation of FGD (Focus Group Discussion) activities. This activity took place on Sunday, August 12, 2023 at the Santen Island Beach pavilion which was attended by men and partners. The activity began with the presentation of material by the BSTF which explained about the turtle population and its problems in the Bali Strait. Several things were explored during the FGD, namely the condition of the surrounding turtle habitat by presenting a community group of men (fishermen) residents of Santen Island and presenting speakers from our cooperation partner, the Banyuwangi Sea Turtle Foundation (BSTF). The FGD was guided by the facilitator by starting with asking questions about the expectations of sea turtle conservation activities and the provision of education at Santen Island Beach. Various positive responses from the audience with a variety of diverse answers. Not only from the audience, partners such as BSTF responded as justification for the audience's answers based on knowledge. From the questions asked by the moderator, a conclusion was drawn that the hope for turtle conservation and eco-tourism is to increase awareness and self-will from the Santen Island Community and the obstacles and challenges are awareness, willingness, and community time.

The final process of this FGD activity is the formation of a Turtle Conservation and Edu-tourism cadre committee on Santen Island consisting of the Chairperson, Vice Chairperson, Secretary. The whole committee discussed the follow-up plan of this activity, which the result of the discussion was the follow-up plan in turtle conservation activities. There is a

sharing session activity as a conclusion to the FGD activity, namely from the organizer, SIKIA Airlangga University, which hopes that the team formed can be sustainable to build Santen Island even better. Creating educational tours that do not yet exist on Banyuwangi Beach. Suggestions for follow-up plans, to form sections in the formed cadres. For example, the collection section, processing section and others. In addition to FGD activities, the formation of a cadre committee and sharing sessions, there is a declaration and signing of commitment by the cadres who have been formed as a symbolic that the cadre is willing to participate in community service activities.

Another important activity that we have done is to prepare the design and raw materials for the construction of NyuBrick (Penyu Ecobrick) edu-tourism. As for what has been ready, namely the design of the edu-tourism building, gazebo for display, NyuBrick tower, NyuBrick gate, and guardrail from used tires. Furthermore, this service activity will continue at the Greenhouse Development stage as a new icon of the Santen Island tourist beach which will be managed directly by the eduwisata cadres that have been formed. The greenhouse will later contain educational media about plastic waste processing, displaying items made from plastic waste.

The third stage of this community service program is the implementation of the peak event. The culmination of the event is the final series of community service activities. The peak of the event was held in the form of hatchling release, where hatchlings with normal and healthy conditions after hatching will walk actively and be able to swim back into the sea as their natural habitat. Naturally, the hatchlings will move randomly and alternately because one nest can contain hundreds of

hatchlings ready to return to the sea. Hatchlings with the closest position to the sand surface of the nest will first move out in groups and then be followed by other groups of hatchlings whose positions are below (Sari et al., 2018).

The fourth stage of the community service program is evaluation. Evaluation is used to assess the implementation of the plan that has been set to assist implementers in carrying out activities and will then be able to help other user groups to find out the performance of the program and estimate the results (Andriani & Afidah, 2020).

This community service program is a form of advanced program. The application of science and technology to create innovations in the natural environment in society, so that in carrying out innovations there needs to be attention to the environment and development, not only economic aspects (Qadri et al., 2020). The importance of paying attention to environmental aspects in order to maintain a sustainable society, namely maintaining the survival of future generations (Padil & Antin, 2018). The implementation of the community service program shows that there is attention to health in the Santen Island Beach area. This program is in line with the program (Aksi et al., n.d.) which states that in its activities there are several efforts that can be made to change this situation, including providing knowledge to the community about how to make houses and settlements on the coast healthy, even though the condition of the house is simple, if hygiene and a healthy lifestyle are guaranteed. One of the community services carried out is through activities in the field of education (Aliyyah et al., 2021). If implemented, public health will be guaranteed. Conversely, if the condition of the house is good but hygiene and a healthy lifestyle are not

applied, the health guarantee for the residents will be very low. The way forward is to seek support from the government coupled with regular awareness-raising activities so that the level of awareness about healthy living increases and knowledge about healthy homes increases (Mardiah, 2021).

This community empowerment model takes a direct approach to the target group. This model seeks to foster motivation, planning, and appropriate action from the participation of local residents in achieving empowerment goals. This community service program is in accordance with the model that has been applied by the program (Widjajanti, 2011) participatory community empowerment process through evaluation. The first step taken is to involve the community in identifying the current waste conditions and the potential that exists in the research location, observing areas that successfully manage waste, which are then used as a driving force for waste management in Krajan Karang Sari. Together with the community, we raise awareness. Strengthening awareness of wildlife and ecosystem conservation continues to be provided so that the people of Santen Island are not only environmentally aware but also able to manage the coastal ecosystem independently. Plastic utensils or furniture, although easily obtained, are not immediately discarded because they will be used first for a certain period of time and only after they are damaged are they discarded (Septiani et al., 2019). This community service program must be guaranteed to continue in a sustainable manner (sustainability). Sustainability must have a driving force and those willing to become a cadre of conservation program volunteers (Aminah et al., 2021).

In supporting sea turtle conservation efforts through

conservation education programs, it is hoped that the role of the Santen Island tourism awareness group in collaboration with related agencies, namely the Banyuwangi Turtle Foundation, the Natural Resources Conservation Center and the Coastal and Marine Resources Management Center to continue the empowerment program of tourism awareness groups as sea turtle conservation education volunteers. The formation of volunteer cadres will receive assistance and evaluation from Lembaga Pengabdian dan Pengembangan Masyarakat (LPPM) Universitas Airlangga.

The conservation volunteer cadre initiation program is carried out to maintain the sustainability of the community service program that has been carried out. The cadres selected and inaugurated are members of tourism awareness groups and youth groups in the Santen Island area. Volunteer cadres will be equipped with topics in the form of educational techniques and sea turtle conservation more intensively with the aim of developing the potential of natural tourism and motivating the general public to participate directly in supporting the preservation of sea turtle animals whose population is decreasing and threatened with extinction. Volunteer cadres are also expected to participate in maintaining and safeguarding locations that are used as natural or semi-natural nests for hatching sea turtle eggs. The empowerment of tourism awareness groups as cadres of conservation volunteers will be a pilot project so that it can be adopted by other community groups around the coast of Banyuwangi. The cadre of conservation volunteers that have been formed will continue to be monitored and guided by the proposing team incidentally and

periodically according to conditions detected in the field.

CONCLUSION

The community service program with the theme "Edutourism initiative in Pulau Santen Beach, Banyuwangi Through Local Community Empowerment by Sea Turtle Conservation Program" is carried out with the main objective of increasing understanding, awareness, participation with Santen Island beach eduwisata through empowering community groups in turtle conservation around the beach into a greenhouse that contains mini education about turtle conservation. This activity is a continuation of community service activities in 2022 which realizes community independence in realizing eduwisata which is the attraction and characteristic of tourist destinations on Santen Island beach. The concept of this activity is expected to be able to create a new image of beach tourism that can be enjoyed for its natural beauty (providing a sense of security and comfort) and can provide new knowledge related to efforts to clean the beach environment through beach vegetation and the use of strengthening awareness about wildlife conservation and its ecosystem. This activity is later expected to be a provision for the community to revive the tourism potential on Santen Island, namely edutourism which contains aspects of coastal ecosystem health through strengthening public awareness about sea turtle conservation and community economic independence through increasing the ability to maintain a clean and healthy coastal ecosystem as a new edu-tourism tour on Santen Island.

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