

Play Based Learning in Telaga Madiredo Ecotourism: Process and Challenges of Agricultural Learning for Children

Muhammad Miftahul A¹, Yayuk Windarti²

Universitas Brawijaya¹⁻²

miftahularifin@student.ub.ac.id¹, yayuk.windarti@ub.ac.id²

Abstract

Agriculture became one of the primary economic modes of Madiredo Village. However, enthusiasm in farming among young generations and children has decreased dramatically. This is because children are unprepared to deal with agricultural failures. Furthermore, farming knowledge is not institutionalised in formal schools, but rather transmitted down orally. This concern also encourages the Madiredo Village society to build agricultural education at an early age through ecotourism in Telaga Madiredo. In this paper, we investigate how the agricultural-based learning process for children in ecotourism in Telaga Madiredo? Furthermore, what are the challenges of developing agricultural-based tourism education in Telaga Madiredo? The study's findings reveal that as tourism develops, the community changes its fields into a learning spaces for children. Through ethnographic study, I investigate the concept of play-based learning, in which children learn not just about nature but also "with nature". Children in Madiredo Village participate directly in farming practices, from planting to harvesting crops. They learn about diverse plant species and the significance of regular plant care. In other words, learning on this educational tour focuses on the process and continuity. The challenge that then arises is the involvement of children in a series of farming processes that are still inconsistent. The community also has difficulty in expanding the reach of child tourists, especially in urban areas. Apart from that, adults in Madiredo Village continue to strive to provide play space for children while developing farming skills through educational tourism.

Keywords: educational tourism, children, agriculture

A. INTRODUCTION

The 'crisis of young farmers' also casts a shadow over the future of agriculture in Indonesia. As shown in the 2023 Agricultural Census (ST) phase 1 data, in the last 10 years the majority of agricultural land has been managed by the older generation. Sadly, agriculture is now considered a less promising sector when compared to the variety of job offers in urban areas. The younger generation is reluctant to face unpredictable weather, skyrocketing fertiliser prices, and the risk of crop failure. This condition can have an impact on the instability of food security. On a micro scale, agricultural land has the potential to become inherited land that is only traded and not cultivated. The poor condition of agriculture is certainly a concern for farmers, one of whom is a farmer in Madiredo Village.

Madiredo is one of the villages in Pujon Sub-district, Malang Regency, East Java. Its location in the highlands makes the village cold throughout the day. Based on monographic data, Madiredo Village has an area of 1567 hectares with 113 hectares of paddy fields and 365 hectares of fields. This geographical landscape makes the majority of Madiredo villagers' livelihoods as farmers. In fact, almost 34% of Madiredo's population are farmers and 1134 people are farm labourers. However, the composition of farmers in Madiredo Village is also dominated by the older generation. The difficulty of passing on farming skills to the younger generation is a serious problem faced by Madiredo farmers.

In an effort to foster interest in farming in the younger generation, several community groups transformed the lake and several plots of agricultural land into tourism destinations. 'Telaga Madiredo' tourism is then packaged into educational tourism that specifically targets children. This is because the formation of a sense of profound continuity with natural processes should ideally be internalised from the age of five to twelve (Russell, 1994). Unlike other nature tourism, they build ecotourism that emphasises the importance of transmitting knowledge and experience of farming

from an early age. The objectives of ecotourism are to provide a nature-based, environmental education experience for visitors and to manage this in a sustainable fashion (Urias & Russo, 2009).

In general, the Madiredo community seeks to provide a learning and playing arena for children. King et al. (2020) also emphasised ecotourism as a learning space. Learning space in nature directly is the best option considering that farming knowledge and skills are not learnt in school. Russell (1994) describes the hidden curriculum in environmental education in ecotourism. Russell further explains that experiences of connection to nature can be nurtured and can evoke feelings of empathy, compassion, and respect for all life. The educational value in ecotourism certainly does not only target children but also the entire community involved in it. However, it should be underlined that in the process they faced several challenges when building Telaga Madiredo ecotourism.

Therefore, this paper will answer two important questions, namely how the agricultural-based learning process for children in ecotourism in Telaga Madiredo? Furthermore, what are the challenges of developing agricultural-based tourism education in Telaga Madiredo? This paper begins with an explanation of the ecotourism development of Telaga Madiredo. We also point out the challenges in transforming the lake and farmland into an educational ecosystem for children, which are related to the management system, funding, and human resources.

B. RESEARCH METHOD

We conducted ethnographic research in Madiredo Village, Pujon Sub-district, Batu City, Malang Regency. Madiredo Village itself has five hamlets, including Delik Hamlet, Sumbermulyo Hamlet, Lebo Hamlet, Sobo Hamlet, and Bengkaras Hamlet. The main commodities of the Madiredo community are agricultural products and dairy products. Specifically, we focused on the *ecotourism* of Telaga Madiredo in Lebo Hamlet, which is one of the icons of Madiredo Village today. In digging up data about the *ecotourism* programme involving children there, we used ethnographic methods. As tools of the ethnographic method, we also used the techniques of participant observation, in-depth interviews, and documentation. To collect *field* data, we used the technique of *jotting notes* in *field notes*. On several occasions, we also used the voice recording feature on our *smartphones*.

This research is a development of previous research that we conducted in 2022. In developing this research, we refer to *patchwork ethnography* in which the research does not refer to one-time trips and consultant-style relationships, but rather there is an effort to maintain long-term commitment, language skills, and contextual knowledge (Gökçe Günel et al., 2020). In other words, we emphasised sustainability in the data collection process.

We had some difficulty in collecting data on children's involvement in one of the *ecotourism* programmes at Telaga Madiredo. This was because at the time of the first visit, the tour was not yet fully operational. The designs of the children-based *ecotourism* programme only came from the explanation of Pak Fauzan as the director. To get more data, we interviewed several managers of Telaga Madiredo by phone.

C. FINDINGS AND DISCUSSION

Exploring Myths in the Midst of Telaga Madiredo Tourism Development

The image of Telaga Madiredo as ecotourism is formed in the unity of land and water ecosystems that are rich in local knowledge. It cannot be denied that, besides being surrounded by rice fields, the attraction of Madiredo Lake Tourism is also displayed through lake water tourism. The condition of the lake is described by the community as a naturally formed place. The lake is also surrounded by several large trees. Initially, the main function of Telaga Madiredo was as a water source that irrigated the residents' rice fields until it emptied into the Brantas river. Before becoming a lake tour like today, Madiredo Lake became a place to bathe, wash clothes, and bathe livestock. More than that, Telaga Madiredo has a story or myth that is believed by most of the people of Lebo Hamlet and almost the entire Madiredo Village community.



(Side view of Telaga Madiredo with the newly built bridge)

Pak Asmadi as the elder of Lebo Hamlet told various stories about the myth of Telaga Madiredo. In the myth that developed in the community, the construction of these rivers was made by one person in a day. That person is named Mbah Trowongso. The myth is that the lake water cannot be flowed for consumption by residents because it is believed to be a form of respect for Mbah Trowongso who built a river to flow into the rice fields. At first, the community tried to collect and drain the lake water to their homes, but there were some irregularities that often occurred. The new pipe that was used was suddenly clogged because there was a lot of rubbish in it. Even though the lake water is very clean, the water machine is suddenly damaged even though it is still new. Since the strange incident, the community then discouraged their intention and took water from the direction of the Madiredo forest. In addition to the myth of the lake water, there are other myths such as the fish in the lake. According to Pak Asmadi, the fish were not allowed to be consumed by anyone. If they violated this, it was believed that their sons would die. In addition, there is also a large stone that is believed to be a barrier between male and female bathers. Finally, the community also gave a warning to anyone who threw rubbish in the lake, then he would be possessed. In other words, mythical narratives become the Madiredo community's mechanism in organising and maintaining resources.

The myths attached around the lake are not just stories without meaning. Malinowski in Cohen, P. S. (1969) explains that myths become the way collectives define their universe. Through myths, they build a system of morality, value standards, and boundaries within the community and in relation to other communities. Myths about restrictions on the use of lake water can represent a form of water management as a common pool resource in the Madiredo community. On the other hand, the boundaries between male and female bathers also indicate behavioural arrangements based on local gender norms. These values are also important to be transmitted to future generations. The inheritance of local knowledge is then possible through the establishment of the lake as an educational tourism area.

In addition to water resources, the educational tourism area at Telaga Madiredo also includes some agricultural land. The tour manager rents several plots of agricultural land from farmers to be used as a space for learning and playing in nature. The Lebo Hamlet community seeks to provide a learning ecosystem for children in nature directly. Both knowledge about the myth of water sources and the introduction of farming skills become a unity in the formation of children's attachment to their living environment. So how is this children's educational tourism raised by the people of Lebo Hamlet?

Telaga Madiredo as Children Playground

*One of the implicit messages of ecotourism may be that ...
the whole world is our playground. But how big needs our playground to be?*
(Russell, 1994)

On an afternoon in early October 2024, we returned to Telaga Madiredo. The sight of children playing in the water and relaxing in the gazebo in the middle of the rice fields, away from the screen of their mobile phones, immediately caught our attention. The development of Telaga Madiredo looks quite significant compared to the first inauguration on 17 October 2022. In addition to enjoying the clear water of the lake, the beauty of a school of fish, and the shade of the gazebo, tourists are also presented with an expanse of carrot and celery farm fields. According to Mr Fauzan, the director of Telaga Madiredo, the development of this tour has been focused since 2018. They are working with the local community and starting to attract partners and sponsors from outside.



(Gazebo and storage area for swimming tires)

The manager's policy to utilise investors is one of the right steps for lake promotion media. This is because many investors who come from outside Madiredo will indirectly introduce the lake and Madiredo Village to outsiders. Shareholder promotion is also a promotional medium that brings in visitors. This is because shareholders will compete to introduce the lake so that there are many visitors and in the end the value of their shares will continue to grow. In addition to promotion from shareholders, the manager also utilises social media and human resources who are qualified in this field to introduce Madiredo Lake. To this day, Telaga Madiredo's tourism promotion is consistently updated through social media such as Instagram and Tik Tok. Some posts show the excitement of children doing activities in the lake and agricultural fields according to the ecotourism design.

In Mr Fauzan's perspective, *ecotourism* is described as tourism that uses nature as a destination object. He specifically targets structured educational tourism targeting children. Conceptually, *ecotourism* is different from *mass tourism*, such as nature tourism at beaches, waterfalls, or artificial tourism, such as playgrounds that tend to target as many tourists as possible. Pak Fauzan focuses on the segment of children tourists who are accompanied by parents. This actually answers the needs of the Lebo Hamlet community in passing on local agricultural knowledge to the younger generation. In other words, the measurement of tourism success is not about the high number of tourists. Pak Fauzan said that:

"I want people who return from the lake to have an impression of our agricultural culture, maybe we will make it different from other region."

(Interview Pak Fauzan, 10 November 2024)

This is in line with Bhuiyana, M. A. H., Islam, R., Siwar, C., & Ismail, S. M. (2010)'s idea of ecotourism which is conceptualised as a form of development that respects tradition and culture, protects and preserves the environment, educates and welcomes visitors and is economically sustainable over the long-term. Although not yet applied to the fullest, he is slowly trying to foster an interest in farming in children through their involvement in a series of activities at Telaga Madiredo.

Pak Fauzan designs educational tours that emphasise the process. This is represented through the tour packages offered to child travellers. They are trained to be directly involved in farming practices, from planting seeds, plant care, to harvesting. Of course, this does not happen in a short

time. It takes about one to three months to fully participate in the farming process. In other words, children are challenged to consistently make periodic visits to the plants that have been planted in the Madiredo tourist farm. This is part of the process of building children's connection with their surrounding environment. As stated by Pak Fauzan as follows:

'We touch on the side of how to awaken children from an early age to care about other things besides their own world...how they care about nature.'

(Interview Pak Fauzan, 10 November 2024)

King et al. (2020) assert that interaction and play in nature help children develop an understanding, respect and appreciation for the natural world and all its creatures, big and small.

However, ecotourism schemes cannot be completely separated from economic rational. Russel (1994) also said that ecotourism is drawn to its financial promise. Apart from the *ecotourism* programmes carried out by the management, these programmes are also a means of promotion and profit for the development of tourism. The programmes are designed so that tourists can come in a sustainable manner. The manager sees the potential of children as agents who can attract parents and friends to return to Telaga Madiredo. The hope is that each tourist can pocket a memorable memory, especially about the local wisdom of agriculture in Madiredo. However, in practice, it is not that simple. In the next section, we will present some of the challenges faced by the management of Telaga Madiredo in developing agricultural education tourism.

Implementation and Challenges of Madiredo Tourism Development

The flashback of tourism development in Madiredo Village is quite dynamic. Before developing Telaga Madiredo, Pokdarwis and the Madiredo village government had also developed Supiturang Waterfall as a tourist attraction. The tour was officially opened in 2015. A land dispute eventually made the tourism closed and abandoned until now. The two-year pandemic was also a factor in the closure of Coban Supiturang. Currently, only the counter and bathroom buildings that are still sturdy but abandoned are witnesses. This eventually made tourism development only focused on Telaga Madiredo, which was an initiative of the surrounding community, especially the people of Lebo Hamlet.

It has been eight years since the community built this tourism with makeshift potential, the dynamics of changing management to unexpected problems have been experienced several times. The first problem is the inexperienced management of Telaga Madiredo. 2016 was the first year this tour went viral and then visitors from surrounding areas began to increase. The tourism management at that time was not yet structured because initially they only wanted to beautify the lake which became one of the village icons. Slowly POKDARWIS under the leadership of Mr. Mahfud began to manage the lake starting from management to adding existing facilities. After running for almost three years, Telaga Madiredo tourism activities had to be completely closed due to the Covid-19 outbreak. For two years there was no tourist activity in this area. Telaga returned to its original function, namely to drain water to the fields of the Madiredo community and become a place for local children to play.

The year 2022 was the first milestone in the rise of Telaga Madiredo tourism. This began with the appointment of Mr. Fauzan as director, replacing Mr. Mahfud who shifted to BUMDES. Under Mr. Fauzan's leadership, Telaga Madiredo Tourism was designed to stand independently without having to rely on the village government. However, this did not mean that BUMDES was reluctant to finance this tour. It's just that the funds are not enough and eventually make the main source of development financing on the pile of investors. However, this does not mean that the challenges in developing this tourism are getting easier. One of the challenges that arose after the new management was land acquisition. The land around the lake is projected to become several facilities such as a cafe, fish pond, camping ground, and several other supporting buildings. The rental price, which can reach 12 million per year with an area of 500m², makes Telaga Madiredo tourism managers have to work hard to

gather investors. In addition, the resources of the management and also employees who learn from scratch make tourism activities not easy.

In practice, realizing a children-based ecotourism program is not easy for Telaga Madiredo tourism managers. There are at least two interrelated aspects. The first is the issue of human resources. Mr. Fauzan as the main director of Madiredo lake tourism said that the issue of human resources is a difficult aspect, but it will continue to be attempted. According to him, educating children about farming not only requires knowledge of agricultural science, but also patience and painstakingness. In addition, although most of Madiredo's youth are skilled in agriculture, not many of them are able to educate children and be communicative. If done in a hurry, it is feared that the program will not run well. The second aspect is the issue of operational costs, which are predicted to increase. The increase in human resources will certainly increase expenses and this is also a big consideration for the realization of this program. Moreover, this program is predicted to require a wider land allocation and will certainly require more budget and negotiation process. As for now, the allocation of funding obtained from investors is still focused on some physical development of Telaga Madiredo tourism.

Nevertheless, the reality in the field is that there is a program for children that is already running and at least provides experience playing in nature directly. The program is outbound. Outbound is usually carried out in the water flow of the lake and also in the camping ground area. The activities vary according to the educational group of the participants. For children who are still in kindergarten - elementary school, usually given activities that are not too risky such as balloon moving competitions, small ball relay. Their parents are also involved in these games. In addition to outbound, according to Mr. Yusuf, one of the tour managers, they usually provide drawing sessions directly in the lake tourism area. Meanwhile, junior high school and high school children do more activities in the lake water flow. Games that are often played are pillow wars, water relay, and ball relay in water. Junior high school children usually do outbound activities after school exams. This is different from kindergarten - elementary school children who do this activity as part of learning practices outside the classroom.

Conclusion

Farmers' anxiety in regenerating farming skills is a serious problem faced by the Madiredo community. Today's young generation does not see farming as a promising business opportunity. Farming is then used as the last option in making a living. Geographically, the Madiredo community has very rich natural potential. To overcome this problem, several tourism awareness groups in Lebo Hamlet, Madiredo, transformed the lake and several plots of agricultural land into ecotourism destinations. This farm-based educational tourism is specifically aimed at children. They believe that agricultural inheritance is not just about transferring land ownership, but also passing on local knowledge about agriculture. Through this Telaga Madiredo tour, children are trained to practice the farming process in a sustainable manner. The introduction of agriculture from an early age is considered to be able to foster children's connection and concern for their environment. Although it needs to be underlined if in the process they face several challenges in developing ecotourism tourism. These challenges relate to overlapping management systems, limited partners and funding, and low human resources. However, despite various limitations, the people of Lebo Hamlet collectively participated to build agricultural educational tourism for the future of Madiredo's sustainable agriculture and full of local wisdom.

References

Bhuiyana, M. A. H., Islam, R., Siwar, C., & Ismail, S. M. (2010). Educational tourism and forest conservation: Diversification for child education. *Procedia - Social and Behavioral Sciences*, 7, 19–23. <https://doi.org/10.1016/j.sbspro.2010.10.003>

- Cohen, P. S. (1969). Theories of Myth. *Man*, 4(3), 337–353. <https://doi.org/10.2307/2798111>
- Gökçe Günel, Saiba Varma, & Chika Watanabe. (2020). A Manifesto for Patchwork Ethnography. Society for Cultural Anthropology.
- King, H., García-Rosell, J. C., & Noakes, S. (2020). Promoting children-nature relations through play-based learning in ecotourism sites. *Journal of Teaching in Travel and Tourism*, 20(3), 190–201. <https://doi.org/10.1080/15313220.2020.1797612>
- Russell, C. L. (1994). Ecotourism as experiential environmental education? *The Journal of Experiential Education*, 1.
- Urias, D., & Russo, A. (2009). Ecotourism as an Educational Experience. *AIEA Annual Meeting Presentation*.