

Optimizing The Potential of Mina Padi as An Edu-Ecotourism Destination Through A Digital-Based Sustainable Tourism Program in Margoluwih Village

Ghulam Ali MASYHARI¹, Nur ESTIKAH², Aziz RIZKI³, Ghiyats Amri WIBOWO⁴, Shafira Bulan PANGESTI⁵, Muhammad QUDWA⁶, Divania NURTOPO⁷, Oktrin Yudha PRATAMA⁸, SU'ADAH⁹, Monika Ayu Nelly KUSUMAWATI¹⁰, Chintya MAHARANI¹¹, Filosa Gita SUKMONO^{12*}

^{1,2,3,4,5,6,7,8,9,10,11,12} Muhammadiyah University of Yogyakarta, Indonesia

Abstract

Margoluwih Village is a village located in Seyegan District, Sleman Regency, Yogyakarta which has 14 hamlets and has potential in the form of agriculture, culture, culinary, and tourism potential. This village is known for its agricultural tourism with a method of combining rice and fish cultivation called Mina Padi, which has been recognized by the Food and Agriculture Organization (FAO) since 2015 and has been used as a model for agricultural management in the Asia Pacific. However, since 2019, the intensity and appeal of mina padi tourism have decreased. This is due to the lack of knowledge and skills of the community in Margoluwih Village in managing the potential of mina padi tourism, as well as the lack of regeneration of mina padi tourism village managers, then the minimal use of digital technology for branding and marketing of tourist villages through social media, the absence of expansion of partnerships with other parties for the development and sustainability of tourism programs, and the absence of regeneration of mina padi tourism managers in Margoluwih Village. Based on the results of environmental observations and interviews, therefore UKM KPM UMY, the Margoluwih Village Government, and the local community collaborated to optimize the potential of rice-fish cultivation in order to strengthen the branding of rice-fish tourism by using the Sustainable Tourism method, namely developing a tourism concept that can provide long-term impacts, both on the environment, social, culture, and economy for the present and future for all local communities and tourists who visit.

Keywords:

Mina Padi, Margoluwih Village, Sustainable Tourism

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Corresponding Author*

filosa@umy.ac.id



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INTRODUCTION

Margoluwih Village covers an area of 500 ha and is inhabited by 11,830 people, with 4,279 heads of families (KK) in Seyegan District, Sleman Regency, Yogyakarta, with 14 hamlets. Margoluwih Village is very strategic economically because it has much potential in agriculture, culture, culinary, and tourism. Margoluwih Village, or Mina Padi Tourism Village, is an agricultural tourism spot combining rice and fish planting. This tourism village is managed by 58 members of the Tourism Awareness Group (POKDARWIS), who work together with 30-40 members of Karang Taruna, 35 members of the Women Farmers Group (KWT), and 35 members of the Climate Village Program (PROKLIM).

The Food and Agriculture Organization (FAO) has recognized Mina Padi as a model for Asia Pacific agricultural management since 2015. However, mina padi tourism has declined since 2019. This is due to the need for more knowledge and skills of the Margoluwih Village community about the potential of mina padi tourism and the lack of regeneration of mina padi tourism village managers. Then, in 2022, the Mina Padi tourism village tried to make a mini train known as Mina Spur, but this innovation caused the existence of Mina Padi to decline because tourism managers focused more on building new tourist attractions.

Based on the results of the discussion and survey conducted, it was found that there is still a need to improve or optimize rice fish tourism. Rice fish tourism is known to have many problems, including a lack of optimization and branding of rice fish tourism, Not yet digitized and integrated tourist villages because the 2 management carried out are still conventional; there has been no expansion of partnerships with other parties that are sustainable for tourism development, There has been no

regeneration of rice fish tourism managers in Margoluwih Village, Limited innovation of the local community in managing tourism potential in Margoluwih Village. For these problems, a village fish management, digitalizing tourist villages, networking, regenerating tourism managers, and conducting outreach to manage tourism potential in Margoluwih Village. Through surveys and discussions between the implementing team and the village, an agreement was reached to implement the community empowerment program Optimizing Rice Fish Potential as an Edu-Ecotourism Destination Through a Digital-Based Sustainable Tourism Program in Margoluwih Village. This empowerment program supports three points of the 17 Sustainable Development Goals (SDGs). This includes point 8 of the SDGs on decent work and economic growth by maximizing the management of rice-fish tourism villages to grow the community economy, point 12 of the SDGs on sustainable consumption and production by sustainable tourism, and point 17 of the SDGs on partnerships to achieve sustainable economic growth through the development of rice-fish tourism villages. The empowerment program will be implemented through the use of a sustainable tourism strategy, the concept of which can be found in Appendix number five. The goal is to create tourism that has sustainable environmental, social, cultural, and economic impacts for local communities and tourists, both now and in the future. This tourism concept includes visits to rice-fish from nurseries to processed products and digital integration.

METHODS

The implementing team members and the village officials discussed the problems and obstacles in the field and then decided to start a community empowerment program known as Optimizing the Potential of Mina Padi as an Edu-Ecotourism Destination through the Digital-Based Sustainable Tourism Program in Margoluwih Village. This empowerment program supports three points of the 17 Sustainable Development Goals (SDGs). This includes point 8 of the SDGs regarding decent work and economic growth by maximizing the management of mina padi tourism villages to grow the community's economy, point 12 of the SDGs regarding sustainable consumption and production by sustainable tourism, and point 17 of the SDGs regarding partnerships to achieve sustainable economic growth through the development of mina padi tourism villages. The empowerment program will be implemented through a sustainable tourism strategy, the concept of which can be found in Appendix number five. The goal is to create tourism that has sustainable environmental, social, cultural, and economic impacts for local communities and tourists, both now and in the future. This tourism concept includes visits to mina padi from the nursery stage to processed products, and digital integration.

RESULT AND DISCUSSION

Based on the identified problems, the Mina Padi Tourism Village Program is designed as a digital-based educational and ecotourism destination that adopts the concept of sustainable tourism. This program will increase the capacity of Margoluwih Village and maximize its potential. Solutions to overcome existing problems, such as training to manage mina padi, mina padi tour guides, and making souvenirs in the mina padi tourism village of Margoluwih Village, will help realize the concept of sustainable travel. Digitizing tourism villages through website optimization is an effort to combine village potential through training for content creation on village websites. This training includes creating advertisements and information for villages and creating a QR-Code with complete information about tourism villages. This solution comes from the potential problems of village tourism that still need to be digitized and integrated.

Members of the implementing team have accompanied the implementation of village institutions, namely POKDARWIS (Tourism Awareness Group), in collaboration with the village government, Tourism Office, and authorities to expand sustainability partners who work with MSMEs and educational institutions (schools and universities) in the DIY area. This effort was made because there has yet to be any expansion of partnerships for program sustainability. Institutional assistance through Forum Group Discussion (FGD) discussions between POKDARWIS, KWT (Women Farmers Group), Karang Taruna, and PROKLIM (Climate Community Program), as well as local communities that work

with institutions or the DIY Tourism Office. These stages apply to the Implementation Team and the targets of several village institutions to socialize future work programs.



Figure 1. Socialization of Work Program with Village Residents

The development of stages to advance synergy between fellow village institutions internally has also been implemented, which was held by the Implementation Team Members accompanying the mentoring of the HR (Natural Resources) management workshop. The implementation was carried out with the hope that all village community institutions within the internal scope would strengthen each other's relationships, form a comfortable and productive work environment, and improve the performance of the village communities involved in each village institution, such as POKDARWIS, KWT, Karang Taruna, and PROKLIM. Several conveyed matters can create open communication skills, analytical skills of each person, understanding of law and ethics, and time management.



Figure 2. Human Resource Management Workshop

One of the obstacles to the development of tourist villages in Margoluwih is the need for more website digitalization to facilitate the provision of interactive information for tourists and village managers to manage the dynamics of information about sustainable tourist villages. Assistance in website management can also optimize the website effectively by securing and maintaining marketing strategies for tourist villages to the general public.



Figure 3. Website Management Assistance Workshop

The use of social media platforms in today's era, directly and indirectly, impacts several global community groups, such as individuals in personal branding and several places or institutions that have trusted credibility for other individual targets in seeking accurate and interactive information. Members of the Implementation Team conduct mentoring training by involving someone proficient in website management to use more effective and efficient information in social media. The mentoring training event invites the target group of Karang Taruna or local teenagers who are believed to be quite active and have the potential to play the world of social media in any way daily. In the implementation after this event, Karang Taruna can be relied on to create a more attractive tourist village branding in promoting tourist villages well and interactively to attract the attention of tourists who will visit.



Figure 4. Tourism Village Branding Training Workshop

In developing innovations in the use of natural resources to be processed products in the Margoluwih tourist village, there are obstacles felt by the target groups of village institutions, namely the mothers of the Women Farmers Group (KWT) who are trying to make breakthroughs that have never been made before and have not existed during the tourism village running and operating with new things. Members of the Implementation Team also attended and helped the KWT mothers create interesting innovations that have never existed in the village. Breakthroughs with innovations will be presented to the KWT mothers with the use of natural resources suitable for consumption, namely Aloe vera or Aloe vera plants and decorations from unused organic materials into valuable and quality goods that sell on the market. The complaints of the KWT mothers have been heard by members of the implementing team with limited human resources that advance processed products to be used as souvenirs typical of the Cibuk Kidul tourist village, Margoluwih, Seyegan, Sleman, Yogyakarta. The mothers' aspirations explain that village-processed products are monotonous and there is no need to be more or breakthrough, making the attention of tourist attractions rise again. The members of the Implementation Team made the latest innovation that has never existed before for the Margoluwih Cibuk Kidul tourist village, namely the diversification of Aloe vera products or aloe vera plants to be

made into aloe vera crackers and the creation of biodegradable pots made with the basic composition of unused and discarded straw and wood husks or sawdust.

Reviews that can be the reason for choosing aloe vera to be processed into crackers are its delicious taste, aloe vera has benefits that are rich in fibre, vitamins, and minerals, can support healthy skin digestion, and is easy to enjoy anytime and anywhere. In making it, several tools and materials are needed. Tools include steamer, baking sheet, cloth, ladle, knife, cutting board, blender, cracker slice container, and ziplock plastic. While the ingredients can be aloe vera, tapioca flour, salt, pepper powder, coriander powder, flavouring, margarine, oil, and eggs. The steps for making aloe vera crackers are as follows:

1. Peel and clean the aloe vera using salt water.
2. Puree the aloe vera using a copper/Blender.
3. Add 1 egg and 1 tbsp margarine.
4. Add the starch and stir all the dough until smooth.
5. After that, puree the garlic and galangal.
6. Then, add pepper powder, coriander powder, salt, and flavourings to the dough.
7. Stir until all the dough is smooth with a slightly melted texture.
8. Put in a baking pan, then steam until cooked
9. After the dough has cooled, let it sit in the refrigerator overnight.
10. Slice the dough thinly and dry in the hot sun.
11. Once dry, fry using hot oil.
12. Aloe Vera Crackers are ready to eat.



Figure 5. Diversification of Mina Padi Aloe Vera Crackers

The implementing team members have also provided innovation to the KWT mothers as the target group in the development of typical souvenirs from mina padi in the form of decorations, namely biodegradable pots. The pots are made from several tools and materials in the form of soft wood husks, straw and starch, scissors, small buckets, medium pans, pots and iron as molds, and ladles. The stages of the pot making process can be done by:

1. Chop the straw waste into small pieces using scissors
2. Cook the starch until it clumps (functions as adhesive glue)
3. Wash the straw using clean water, then squeeze it
4. Mix the glue with the straw waste
5. Stir the straw waste and glue then mix the sawdust into the mixture until evenly mixed
6. Put the mixture into the mold (the mold must be solid, not hollow)
7. Then dry for at least 30 minutes (under the sun).



Figure 6. Diversification of Biodegradable Pot Rice Fields

Table 1. Success Indicators

No	Indicator	Success Indicators		Measurement Method
		Before	After	
1	The discovery of potential natural resources, arts and culture, human resources, and economic activities that can be collaborated to support the development of tourist villages/sub-districts.	The potential of Mina padi in Margoluwih Village has not been optimized by local managers and farmers.	The tourism village managers and local farmers work together to maximize the tourism potential of Mina Padi.	Farmers and tourism village managers partner through an MoU to maximize the potential of Mina Padi.
2	A joint agreement was reached with community leaders to develop tourist villages/sub-districts based on superior potential.	There has been no collaboration between POKDARWIS and the village government, and the Sleman and DIY Tourism Offices.	There is collaboration and integration between POKDARWIS and the village government and the Sleman tourism office.	Observations and interviews with POKDARWIS, village government, and the Sleman and DIY Tourism Office.
3	Increasing the number of visitors and community income.	The number of visitors to the rice field tourism village reaches 1000 per week, but the income of the local community is still stagnant.	There has been an increase in the number of visitors to 3000 per week and the opening of the economic locomotive in Mina Padi Tourism Village.	Through interviews with POKDARWIS and UMKM Margoluwih Village by conducting pretests and posttests.

Source: research data

CONCLUSION

Margoluwih Village is located in Seyegan District, Sleman Regency, Yogyakarta. This village has 14 hamlets and has much potential for agriculture, culinary, and tourism. This village is famous for its agricultural tourism. The combination method of rice and fish cultivation called Mina Padi has been recognized by the Food and Agriculture Organization (FAO) since 2015 and is considered a model for agricultural management in the Asia Pacific. However, mina padi tourism has declined since 2019. This is due to the lack of knowledge and skills of the Margoluwih Village community about the potential of mina padi tourism, the lack of manager regeneration, the lack of use of digital technology for branding and marketing of tourist villages through social media, the lack of collaboration with other parties for the development and sustainability of tourism programs, and the lack of regeneration of mina padi tourism village managers in Margoluwih Village.

According to environmental analysis and interviews, UKM KPM UMY, the Margoluwih Village

government, and the local community are working together to maximize the potential of mina padi cultivation. They will work together to strengthen the branding of mina padi tourism by implementing sustainable tourism methods, which means developing tourism concepts that will have a long-term impact on the community as a whole, both in terms of environment, social, culture, and economy, both now and in the future. In addition, expanding cooperation partners to support the sustainability and development of tourist villages and the development of website-based digital technology for the needs of tourist village databases and branding and marketing of tourist villages. This is achieved through training the surrounding community on mina padi management, tour guides, digital media training, and digitalising tourist village information using QR codes.

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