Local wisdom and social entrepreneurship as the foundation for the development of organic tourism villages in Karanganyar Regency, Indonesia

Agung Wibowo*, Suwarto, Joko Winarno and Putri Permatasari

Department of Agriculture Extension and Communication, Sebelas Maret University, Jl. Ir. Sutami 36 A, Kentingan, Surakarta, 57126, Indonesia

Abstract. Cultural heritage is passed down from generation to generation, continually being re-created by various groups in response to their environment. People's interactions with their natural surroundings give meaning to identity and sustainability. The role of culture (local wisdom) is very important in establishing social entrepreneurial relations. Several activities have been implemented to improve the local economy of the Gentungan Village community through the development of an organic tourism village by synergizing the creative economy with tourism. This study aims to determine local wisdom and social entrepreneurship as the basis for the development of organic tourism villages in Karanganyar district. The research method is qualitative with a phenomenological approach. The research location is Gentungan Village, Mojogedang District, Karanganyar Regency, Central Java. The results of the study show that the development of organic tourism villages based on local wisdom and social entrepreneurship is proven to have the ability to empower local communities. The management of the organic tourism village "Embung Setumpeng", with the concept of a sustainable organic tourism village, is proven to be capable of optimizing local potential. This is due to the synergy between the local institutions that are present in the management of the tourism village.

1 Introduction

Organic tourism villages are becoming increasingly popular in Indonesia, and are proven to be tourism destinations that are environmentally friendly and sustainable [1–3]. One of the more notable organic tourism villages in Karanganyar Regency, Central Java, has combined local wisdom and social entrepreneurship as the foundation for developing an organic tourism village. local wisdom and social entrepreneurship as the foundation for the development of sustainable organic tourism villages in Karanganyar Regency.

Local wisdom is the knowledge, habits, and values that are learned and passed down from generation to generation in a society [4,5]. In Karanganyar Regency, much of the local

^{*} Corresponding author: <u>agungwibowo@staff.uns.ac.id</u>

[©] The Authors, published by EDP Sciences. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (https://creativecommons.org/licenses/by/4.0/).

wisdom is related to organic farming and the utilization of traditional medicinal plants, but to date this local wisdom has not yet been managed optimally. One of the problems faced is to find a development model for sustainable organic tourism villages based on local wisdom and social entrepreneurship. Local wisdom is important in the development of organic tourism villages because it enables the sustainable management of natural resources and the development of unique tourism products [6,7].

A number of existing studies show that local wisdom in tourism development has been proven to improve the welfare of local communities and to promote environmental sustainability [8,9]. Organic farming in the organic tourism village "Embung Setumpeng", in Karanganyar, adopts a method of traditional farming that is more environmentally friendly by using organic fertilizer and growing plants that are more suited to the local soil conditions. This system enables the local community to manage its local resources sustainably and to obtain high quality crop yields. In addition, the community also utilizes traditional medicinal plants as a source of alternative medicine which is both cheaper and safer.

Furthermore, social entrepreneurship is also an important foundation in the development of the organic tourism village "Embung Setumpeng". Social entrepreneurship is a business concept which prioritizes social and environmental impact, as well as financial profit [10– 13]. In this research, social entrepreneurship is implemented by developing tourism products that are generated by the local community. The local people are assisted by both local government and private entities to develop tourism products based on local wisdom. This is in line with the research of [14] which shows that the development of social entrepreneurship can promote sustainable tourism development [15–17]. The results of these studies served as the basis for the researcher to conduct a study with a participative approach, to show that tourism development which involves the local community in decision making and tourism management can increase the welfare of the local community and promote environmental sustainability.

The research of [18] shows that the development of local wisdom and social entrepreneurship has been able to increase sustainable tourism development in Lembah Baliem, Papua. This study shows that a participative approach in tourism development which involves the local community can increase community participation in tourism management and development. This is also in line with research conducted on the Islands of Lombok and Karimunjawa, where the development of local wisdom and social entrepreneurship has proven to have the ability to promote sustainable tourism development on both Lombok Island and Karimunjawa Island. In addition, the use of local wisdom in tourism development has enhanced the quality of experience of tourists as well as increasing community participation in tourism management [19,20]. Based on the background, problems, and results of previous research, this study aims to find a development model for sustainable organic tourism villages based on local wisdom and social entrepreneurship in Karanganyar Regency.

2 Research Methods

The research methods that were used for studying local wisdom and social entrepreneurship as the foundation for the development of organic tourism villages are qualitative and descriptive methods[21,22]. The research was carried out in the Organic Tourism Village of Embung Setumpeng in Gentungan Village, Mojogedang District, Karanganyar Regency, in Central Java, Indonesia. The techniques used for data collection were in-depth interviews, participant observation, and Focus Group Discussions. The in-depth interviews were conducted with members of the local community who were involved in the management of the organic tourism village, as well as other related parties, including members of local government, private entrepreneurs, and community figures. The key informant in this research is the head of the mainstay farmer group in Karanganyar district who is also the initiator of the Embung Setumpeng. The participant observation was carried out by taking part in the activities of the local community[23], in particular the activities that were related to the management of the organic tourism village. The data analysis used a qualitative descriptive analysis technique, which involved examining and comparing the data obtained from the interviews and from the participant observation [24–26]. The collected data were then organized and interpreted to produce findings that were relevant to the goals of the research. The verification of data used a triangulation technique, involving the triangulation of theory, triangulation of method, triangulation of sources, and triangulation of the researcher. This was done to ensure that the data obtained was factual and could be trusted. In a qualitative study such as this, the data analysis involves the understanding of the social, cultural, and historical contexts where the data were collected [27]. The researcher tried to look at the relationships between the various factors and to understand the complexities and dynamics that existed in the phenomena studied.

3 Results and Discussion

The results of the research show that local wisdom and social entrepreneurship play an important role in the development of organic tourism villages. Local wisdom can be defined as the knowledge and expertise possessed by a local community in their utilization of natural and environmental resources to support their daily lives. In organic tourism village development, local wisdom and social entrepreneurship can be used to build sustainable organic farming systems, to promote biodiversity, and to strengthen local cultures and traditions, as shown in Table 1-4.

Local wisdom	Impact of local wisdom in Sustainable Organic Farming Systems
Utilization of organic fertilizer and compost	People are starting to make use of organic materials that are easily obtainable (leaves, straw, kitchen waste, and so on) for making compost. The organic fertilizer and compost produced has a good nutritional content which can increase soil fertility in a natural way.
Integrated planting	People are starting to plant various types of plants on a single area of land, thereby increasing land productivity and minimizing the risk of pest attacks and disease. People are starting to use their knowledge about plants that can grow well alongside each other and implementing integrated planting.
Use of natural pesticide	People are making use of natural materials (garlic, chilies, and neem leaves) to control pests and plant disease. The use of natural pesticide is beginning to become more widespread because it is not only safer for the environment and for people's health but
Use of traditional irrigation technology	is also cheaper than chemical pesticide. The use of j <i>ajar legowo</i> or drip irrigation is starting to be implemented as a form of local wisdom that is often utilized in developing sustainable organic farming systems. Traditional irrigation technology has the ability to use water more efficiently and can increase plant productivity.

 Table 1. Implementation of local wisdom in sustainable organic farming systems

Local wisdom	Impact of local wisdom in sustainable organic farming systems
Traditional farming	People are beginning to develop local plant varieties and rotation planting systems to preserve the genetic diversity of plants.
practices	People are implementing farming techniques such as agroforestry, and the use of organic fertilizer and compost is also proven to have the ability to sustain biodiversity.
Use of traditional	People are starting to return to the use of traditional medicinal plants to help strengthen biodiversity.
medicinal plants	By utilizing traditional medicinal plants, local people are able to reduce their dependency on expensive modern medicines.
Utilization of marginal land	People are starting to make use of marginal land (land that is infertile, mountain areas, or land that is affected by natural disasters) to strengthen biodiversity.
	Marginal land frequently contains unique species of flora and fauna, thereby providing a habitat for endangered species.

Table 2. Implementation	of local	l wisdom	in stre	ngthening	biodiversity

Table 3. Implementation of local wisdom in preserving local cultures and traditions

Local wisdom	Impact of local wisdom in preserving local cultures and traditions
Art and culture	People perform the arts and cultures that they have inherited from their ancestors, such as traditional dances, traditional music, wood carving, batik art, and weaving.
	People can revitalize their cultural identity.
Traditional foods	People are introducing traditional dishes and unique cooking methods as part of the tourism experience.
Traditional ceremonies	Local people can develop the tourism village by continuing to hold traditional ceremonies as part of the tourism activities.
Handicrafts	People are developing traditional handicrafts as part of the tourism village development. Examples include handicrafts made from woven bamboo.

Table 4. Forms of social entrepreneurship and their impact on organic tourism village development

Form of social entrepreneurship	Impact of social entrepreneurship on organic tourism village development
Increase in income	There has been a successful increase in the income of the local community. The significant increase in income is an indication of the positive impact of social entrepreneurship initiatives.
Creation of jobs	New job opportunities have been created through the organic tourism village development. Data can be collected by recording the number of new jobs available in the tourism sector, organic farming sector, and handicraft sector.
Community empowerment	Greater community participation in decision making, local business ownership, and involvement in training and development programs.
Community welfare	Overall increase in welfare and quality of life of the local community, including access to health facilities, education, proper housing, and infrastructure.
Environmental conservation	Success in preserving environmental sustainability. Initiatives that have managed to reduce the negative impact on the environment indicate the commitment to sustainable social entrepreneurship.
Positive social impact	Increase in quality of education, health, welfare of women and children, and family empowerment.

- -	
Form of	Impact
Integration and Characterization	
Use of Local Raw	Increased income and strengthene the seconomy of the local community
Materials:	Increases income and strengthens the economy of the local community.
Strengthens the	Improves the skills of the local community in processing raw materials to
local economy	become products with a high sale value.
and preserves	Preserving local wisdom helps to strengthen the identity and local wisdom of the
local wisdom.	local community. Local products created from local raw materials have unique characteristics that are different from other products.
iocai wisdonii.	Minimizes the use of dangerous chemical materials, reduces the use of packaged
	materials that are hard to decompose, and lowers the emission of greenhouse
	gases from the transportation and distribution of raw materials.
Empowerment of	Increases economic independence by involving the community in the
Local	development of tourism enterprises, thereby creating additional income from
Communities:	sustainable activities.
training and	Increases access to education and health for the local community. Through
development of	tourism business development, local people can gain an additional income that
skills, such as	can be used to pay for their children's education or to obtain access to better
making	health facilities.
handicrafts,	Provides an income from the sale of local products and promotes the cultures
traditional foods,	and traditions of the local area to tourists.
and tourism.	Through training and teaching about organic farming practices and sustainable
	environmental management, the local community can learn about practices that
	are environmentally friendly and implement them in their daily lives.
Partnerships with	Increases the availability of local raw materials for organic products and
Local Business	encourages the use of sustainable local raw materials.
Operators:	Provides training and teaching for developing business enterprises and may
collaborations	create new job opportunities for the local community.
with local	Local business operators can also offer input on the development of products
producers to supply foods and	and services for the tourism village, thereby improving the quality of products
handicrafts to sell	and services.
in the tourism	Increases community involvement in organic tourism village development
village.	The local people gain new skills and experiences in developing their businesses
Utilization of	and strengthen a sustainable local business network. Increases efficiency and effectiveness of production (using modern technology
Technology	for organic food processing to increase plant yield.
strengthens the	Increases access to information and marketing, providing the local community
development of	with easier access to information about tourism and the organic products they
the tourism	produce.
village based on	Increases tourism appeal by using multimedia technology such as videos or
local wisdom and	virtual reality images to show the beauty and uniqueness of the organic tourism
social	village to tourists.
entrepreneurship.	Increases environmental awareness and health awareness (using educational
	technology such as educational applications about organic farming or healthy
	organic products that are good for people's health).

Table 5. Integration of local wisdom and social entrepreneurship in tourism village development

The integration of local wisdom and social entrepreneurship (Table 5) is an important foundation for tourism village development [28–30]. In the integration of local wisdom and social entrepreneurship as the foundation for the development of tourism villages, it is important to involve local communities in the development process and to take into consideration the existing social, cultural, and environmental values in the decision-making process. With the proper integration, the development of tourism villages can help to improve the welfare of local communities and to promote local wisdom to the outside world. The

integration of local wisdom and social entrepreneurship in tourism village development is presented in table 5.

Organic tourism village development based on local wisdom and social entrepreneurship has been proven to increase the welfare of local communities and to help preserve their natural resources (Table 6). In addition, the development of organic tourism villages also has the ability to increase the number of tourists who visit the area, which in turn boosts the local economy. This is in line with [31–33] who find that integrating local wisdom and social entrepreneurship in the development of organic tourism villages can create sustainable tourism destinations. In addition, by combining local wisdom with organic tourism village development, the cultures and traditions of the local communities can be maintained and preserved [34]. The traditional farming practices, handicrafts, dances, music, and unique foods that exist in Gentungan Village can all serve as a tourism attraction that enriches the experience of the tourists. This can also contribute to strengthening the local cultural identity and increasing the pride of the local community in their cultural heritage [35].

 Table 6. Indicators and phenomenon that have evolved in sustainable organic tourism village development in Karanganyar Regency

Indicators	Phenomena that have evolved in sustainable organic tourism village development
Organic	No use of pesticides, chemical fertilizers, or other synthetic materials in the
Farming	farming process. On the contrary, natural methods such as compost, green
Practices	fertilizer, and organic pest control are used to maintain environmental
	sustainability and soil health.
Environmental	Organic tourism villages encourage environmental conservation and
Conservation	sustainability. This is carried out by protecting natural areas, preserving
	biodiversity, minimizing waste, and using natural resources wisely.
Education and	Education and awareness programs about organic farming, sustainability, and the
Awareness	importance of protecting the environment, in the form of farmers' tours,
	workshops, or seminars which teach visitors about organic practices.
Local	Empowerment of local communities, by involving them in tourism activities
Community	(training in organic farming, tourism management, traditional handicrafts, and
Empowerment	education about the importance of sustainability).
Organic	Organic tourism villages offer organic products to visitors (vegetables, fruits,
Products	herbs and spices, as well as processed organic products such as snacks and drinks).
Environmentally	Organic tourism villages have an environmentally friendly infrastructure. This
Friendly	may include the use of renewable energy, efficient waste treatment, good water
Infrastructure	management systems, and sustainable architecture.
Preservation of	Organic tourism villages have preserved their local cultures and traditions
Local Culture	(performances of art and culture, handicraft exhibitions).
Collaboration	Organic tourism villages have established collaborations with other local
with other	communities, non-government organizations, and other institutions that have a
Communities	similar focus on maintaining sustainability and promoting organic farming.

The results of this research are in line with [36–38], and show that the development of sustainable organic tourism villages can contribute significantly to the local economy. Through tourism, the organic tourism village in Gentungan Village has created new job opportunities, both directly and indirectly, in the sectors of tourism, organic farming, handicrafts, and other services. This has increased the income of the local community and reduced unemployment. The organic tourism village of Gentungan Village is based on principles of sustainability and organic farming practices. This corresponds to the findings of [39] about the wise management of natural resources, use of renewable energy, reduction of waste, and environmental conservation. Therefore, organic tourism villages contribute to natural conservation and the protection of a healthy ecosystem.

Sustainable organic tourism villages pay attention to the local wisdom and culture of the local community. Farming practices, handicrafts, art, music, dance, and special foods from the area are maintained and preserved. This promotes cultural diversity and enhances local identity, as well as providing tourists with the opportunity to become acquainted with and appreciate the cultural wealth of the area. Organic tourism villages also play an important role as centers of education and learning. Tourists can learn about organic farming practices, methods of natural resource management, and local wisdom through training and interactive activities. This offers the opportunity to increase environmental awareness and knowledge about sustainability.

As a result of the increase in income and the development of supporting infrastructure, organic tourism villages can have a positive impact on the lives of local communities. With better access to education, health, and other public facilities, local communities are able to improve their living standards. In addition, organic tourism villages also provide opportunities to develop skills and empower local communities. Organic tourism villages are a real example of sustainable tourism development. By paying attention to natural conservation, culture, and community welfare, organic tourism villages promote tourism which has a positive social, economic, and environmental effect (Fig. 1).

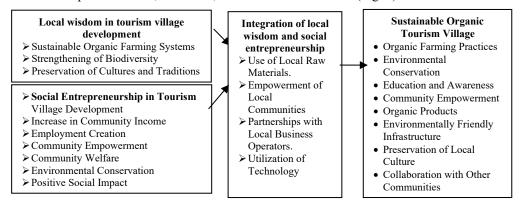


Fig. 1. Model of an organic tourism village based on integration between local wisdom and social entrepreneurship.

4 Conclusion

Sustainable organic tourism villages maintain and preserve the local wisdom and cultural heritage of the local community. Traditional farming practices, handicrafts, art, music, and special foods are unique tourism attractions. This not only promotes the cultural identity of the village but also provides opportunities for tourists to understand and appreciate cultural diversity. Organic tourism villages also function as centers of education and learning about organic farming practices, local wisdom, and sustainability. Tourists can gain new knowledge about environmentally friendly practices which they can adopt in their daily lives. This contributes to increasing environmental awareness and promotes a sustainable lifestyle. The development of organic tourism villages based on local wisdom and social entrepreneurship is proven to have the ability to empower local communities. The management of the organic tourism village Embung Setumpeng, with the concept of a sustainable organic tourism village, is proven to be capable of optimizing local potential. This is due to the synergy between the local institutions that are present in the management of the tourism village.

References

- 1. S. F. Chaerunissa and T. Yuniningsih, J. Public Policy Manag. Rev. 9, 159 (2020)
- 2. I. D. K. Halim, Teori N-GreenV: Mengukur Dan Mengembangkan Desa Wisata Hijau Yang Berkelanjutan (Bukunesia, 2023)
- Z. Arifin, M. S. Ariantini, I. G. I. Sudipa, R. Chaniago, A. D. Dwipayana, I. Adhicandra, A. A. G. B. Ariana, M. L. Yulianti, N. A. Rumata, and T. Alfiah, *GREEN TECHNOLOGY: Penerapan Teknologi Ramah Lingkungan Berbagai Bidang* (PT. Sonpedia Publishing Indonesia, 2023)
- J. Pranata, H. Wijoyo, and A. Suharyanto, Budapest Int. Res. Critics Inst. Humanit. Soc. Sci. 4, 590 (2021)
- 5. S. Pandapotan and H. Silalahi, Budapest Int. Res. Critics Institute-Journal 2, 469 (2019)
- 6. S. A. Nurannisa F.A, J. Ilm. Pendidik. Lingkung. Dan Pembang. 23, 42 (2022)
- 7. A. Wibowo, R. Karsidi, B. Sudardi, and M. Wijaya, E3S Web Conf. 232, 04004 (2021)
- 8. D. Aswita, I. G. P. Suryadarma, and S. Suyanto, (2018)
- 9. T. Wijijayanti, Y. Agustina, A. Winarno, L. N. Istanti, and B. A. Dharma, Australas. Accounting, Bus. Financ. J. 14, 5 (2020)
- 10. A. Mamabolo and K. Myres, J. Soc. Entrep. 11, 65 (2020)
- N. Gali, T. Niemand, E. Shaw, M. Hughes, S. Kraus, and A. Brem, Technol. Forecast. Soc. Change 160, 120230 (2020)
- 12. V. Campos, J.-R. Sanchis, and A. Ejarque, Int. J. Entrep. Innov. 21, 156 (2020)
- I. L. Bahena-Álvarez, E. Cordón-Pozo, and A. Delgado-Cruz, Sustainability 11, 3714 (2019)
- 14. J. S. Ngadiman, (2021)
- A. Naderi, L. Nasrolahi Vosta, A. Ebrahimi, and M. R. Jalilvand, Int. J. Sociol. Soc. Policy 39, 719 (2019)
- K. S. Utami, L. E. Tripalupi, and M. A. Meitriana, J. Pendidik. Ekon. Undiksha 11, 498 (2019)
- 17. I. G. M. Fujihasa, I. A. P. W. Widawati, and N. M. E. Mahadewi, Ekuitas J. Pendidik. Ekon. 10, 290 (2022)
- 18. T. B. Adi, JIRAN J. Southeast Asia Stud. 2, (2021)
- 19. A. M. A. Khan, I. Musthofa, I. Aminuddin, F. Handayani, R. N. Kuswara, and A. Wulandari, J. Master Pariwisata **5276**, (2020)
- 20. K. M. Lukman, Y. Uchiyama, J. M. D. Quevedo, and R. Kohsaka, J. Coast. Conserv. 26, 14 (2022)
- 21. D. Howitt, Introduction to Qualitative Research Methods in Psychology (Pearson UK, 2019)
- 22. M. R. Roller, A Quality Approach to Qualitative Content Analysis: Similarities and Differences Compared to Other Qualitative Methods (SSOAR-Social Science Open Access Repository, 2019)
- 23. A. J. Sundler, E. Lindberg, C. Nilsson, and L. Palmér, Nurs. Open 6, 733 (2019)
- 24. M. Järvinen and N. Mik-Meyer, Qual. Anal. Eight Approaches Soc. Sci. 1 (2020)
- 25. S. Hadfield-Hill and C. Zara, Geoforum (2019)
- 26. J. Zahle, Stud. Hist. Philos. Sci. Part A 78, 32 (2019)
- 27. L. E. Tomaszewski, J. Zarestky, and E. Gonzalez, Int. J. Qual. Methods 19,

1609406920967174 (2020)

- R. Andari, I. W. G. Supartha, I. G. Riana, and T. G. R. Sukawati, Int. J. Soc. Sci. Bus. 4, 489 (2020)
- 29. H. Lubis, N. Rohmatillah, and D. Rahmatina, J. Ilmu Sos. Dan Hum. 9, 320 (2020)
- 30. R. Sidiq, S. Sofro, A. Sulistyani, and W. Achmad, Webology 19, (2022)
- 31. H. Widjojo and S. Gunawan, J. Soc. Entrep. 11, 88 (2020)
- 32. R. Andari, I. W. G. Supartha, I. G. Riana, and T. G. R. Sukawati, Webology **19**, 4088 (2022)
- A. T. Alkhudri, N. Heriyanto, F. Zulfikar, and T. T. Nugroho, in *1st Annu. Int. Conf. Nat. Soc. Sci. Educ. (ICNSSE 2020)* (Atlantis Press, 2021), pp. 307–314
- 34. I. W. G. Suacana, I. N. Wiratmaja, and I. W. Sudana, J. Posit. Psychol. Wellbeing 6, 2608 (2022)
- R. H. Demolingo, D. Damanik, K. Wiweka, and P. P. Adnyana, Int. J. Tour. Hosp. Rev. 7, 41 (2020)
- R. Wikantiyoso, D. S. Cahyaningsih, A. G. Sulaksono, S. Widayati, D. Poerwoningsih, and E. Triyosoputri, Int. Rev. Spat. Plan. Sustain. Dev. 9, 64 (2021)
- L. T. Lan, N. T. Hang, and D. T. N. Huy, Rev. Geintec-Gestao Inov. E Tecnol. 11, 2261 (2021)
- M. Setini, I. Wardana, I. Sukaatmadja, N. Ekawati, N. Yasa, and I. Astawa, Manag. Sci. Lett. 11, 595 (2021)
- Q. Ali, M. R. Yaseen, S. Anwar, M. S. A. Makhdum, and M. T. I. Khan, Resour. Policy 74, 102365 (2021)