

Building Herb Culture in Tourist Destination to Develop Health Tourism: Evidence From Central Java Indonesia

Rara Sugiarti¹, Bambang Pujiasmanto², Sri Marwanti³

¹Center for Tourism research, Universitas Sebelas Maret, Indonesia

²Faculty of Cultural Sciences, Universitas Sebelas Maret, Indonesia

³Faculty of Agriculture, Universitas Sebelas Maret, Indonesia

Email: rarasugiarti@staff.uns.ac.id

Abstract. This study highlights how far medicinal plants found in many areas of Klaten Central Java are utilized to build herb culture and support health tourism, i.e. tourism which provides travellers with good habits of consuming healthy food and drinks while in the destination. This descriptive research applied qualitative approach and employed several data collection techniques which include site observation, interview, focus group discussion, and document study. Data were analysed using interactive and thematic analysis technique. Results show that most eating places including restaurants and food stalls in tourist destinations do not provide traditional drinks made of medicinal plants such as ginger, tamarind, turmeric, curcuma zanthorrhiza (*temulawak*), and kaempferia galanga (*kencur*). Tourism stakeholders have not yet realized the potentials to build herbs culture where the locals provide traditional drinks made of medicinal plants and the tourists consume them in tourist destinations to perform health tourism.

Keywords: health tourism, medicinal plants.

1. Introduction

In terms of biodiversity Indonesia is the second richest country in the world. One of them is medicinal herb, which has health benefits. Similarly, the country's tropical rainforest has the second richest diversity of medicinal plants in the world after Brazil (Hemani, 2011: 20). Up till now there are around 30,000 plant species that have been identified. As many as 950 species are recognized as medicinal plants which can be utilized as medicine, health food, and nutraceuticals (a food which has medicinal benefit and contains health-giving additives). Considering the huge natural resources Indonesia has a great chance to become one of the largest countries in terms of traditional medicine and natural cosmetics which utilize medicinal plants. This also means a great potential market (Purba, 2013: 2).

Despite the fact that the number of medicinal plants is abundant, only 283 species are registered and utilized by Indonesian traditional medicine industry. In other words there are still many species of medicinal plants that have not been utilized. This is because the

cultivation of medicinal plants is not yet professional, the ability of farmers to produce quality medicinal plants is limited, and the attention of the medicinal plant industry to research that seeks to develop medicinal plants is minimal. In addition, final assistance to small farmers to develop medicinal plants agribusiness is limited (Zamroni & Munadi, 2017). Table 1 below shows the harvested area and the amount of medicinal plant production in Indonesia in 2015.

Tabel 1. Harvested area and production of medicinal plants in Indonesia in 2015.

No.	Types of medicinal plants	Harvested area (m ²)	Production (kg)
1	Ginger (<i>Jahe</i>)	153.238.159	313.064.300
2	East Indian Galangal (<i>Kencur</i>)	21.570.175	35.971.956
3	Turmeric (<i>Kunyit</i>)	56.578.610	113.101.185
4	Galanga (<i>Lengkuas</i>)	20.422.258	55.149.830
5	Zingiber Aromaticum (<i>Lempuyang</i>)	5.781.264	10.123.347
6	Black Turmeric (<i>Temuireng</i>)	4.514.720	8451938
7	Java Turmeric (<i>Temulawak</i>)	14.803.423	27.840185
8	Chinese Keys (<i>Temu Kunci</i>)	3.596.489	5019089
9	Sweet Root (<i>Dringo</i>)	572.127	778132
10	Java Cardamom (<i>Kapulaga</i>)	43.436.665	93121006
11	Indian Mulberry (<i>Mengkudu</i>)	639.614	5.637.074
12	Phaleria Macrocarpa (<i>Mahkota Dewa</i>)	225.928	8.306.565
13	Verbenaceae (<i>Kejibeling</i>)	210.722	601.926
14	King of Bitter (<i>Sambiloto</i>)	1.869.975	2.104.194
15	Aloevera (<i>Lidah Buaya</i>)	1.113.729	11.225.883

Badan Pusat Statistik Indonesia (2019).

As can be seen from Table 1 the highest production of medicinal plants in 2015 was ginger (313,064,300 kg). Medicinal plant is one of Indonesia's agricultural commodities that has a high comparative advantage. Parts of the plant that have medical efficacy include leaves, flowers, fruit, roots, stems or bark.

Nowadays the international market demand for medicinal plants is increasing. It is caused by the increase of people's awareness of healthy and natural life. Concerning Indonesia's export of medicinal plants, ginger, turmeric, and Java cardamom were the most widely exported medicinal plants in 2018. Ginger's export volume amounted to 3,203.12 tons which was worth 3.65 million dollars, followed by turmeric with 9.049.26 tons worth 12.26 million dollars. The least amount of export was cardamom which amounted to 7,847.52 tons worth 16.48 million dollars (Badan Pusat Statistik Indonesia, 2019).

In recent decades people's interest in medicinal plants and traditional knowledge began to increase. Similarly, public awareness to maintain health using medicinal plants is improving. People began to plant medicinal plants for family use in their respective gardens. At the same time they start abandoning chemical drugs and switch to using

medicinal plants (back to nature). Besides, this plant is useful for cooking ingredients and cosmetics (Insani, 2014: 1).

Over the past few years, people's traveling lifestyles tend to move to 'back to nature' concept. In the international context, health tourism is starting to attract many consumers. Many people, including tourists, have moved towards a healthy lifestyle. This developing lifestyle has an impact on tourism. Many people seek tourist destination which provides facilities that support healthy life. Health tourism is one alternative to diversify tourist attractions. Many people who want to maintain health, improve fitness, and take care of their body, mental, and spiritual, choose to undertake health tourism activity. Tourists can enjoy healthy food and drinks served in tourist destinations while enjoying natural scenery and visiting exciting new places. They have the opportunity to experience something different.

Several regions have both abundant medicinal plants or herbs and tourist attractions. However, not all regions have taken the opportunity to synergize those two resources to develop health tourism. Symbiotic relationship between herbs and tourism performs health tourism which can become tourism product icon of a region (Farsani, Hossein & Moaiednia, 2018). Therefore, local community's knowledge about the significance of herbs and their participation to support health tourism is important. Furthermore, the utilization of herbs in tourism can develop a significant economic activity (Ratknic & Milovanovic, 2016). This study aims to identify the participation of stakeholders in supporting the development of health tourism based on medicinal plants and how far the plants have been utilized to support the development of health tourism. Although many other studies show that health tourism is currently becoming a trend and can be used to promote healthy lifestyles, the results of this study in general show that the use of medicinal plants to support health tourism is still very limited. Similarly, the participation of stakeholders in the development of health tourism based on medicinal plants is low.

2. Method

This research was carried out in Ponggok Klaten Central Java Indonesia using qualitative method. Data were obtained through field observation, interview, and focus group discussion. Data sources included informants, places and events, as well as archives and documents. In this case, informants consisted of private sectors (owners of food stalls and restaurants), local community (representatives of youth organization, tourism awareness groups, family welfare organization), local farmers, tourists, and representatives from related government offices of Klaten such as Tourism and Culture Office, Industry and Trade Office, Health Office, Cooperatives and Micro-Sized Enterprises Office, and Ponggok Village Office. They all have the capacity and relevance to all issues and problems concerning medicinal plants and tourism development in the region. To maintain the validity of data, this study applied triangulation of data sources (Densin, 1978 in Moleong (2000), Patton, 1987 in Moleong, 2000) to obtain higher degree of confidence by comparing and checking the degree of confidence of information obtained through various sources and different information related to research on the

development of health tourism based on medicinal plants in Klaten Regency in order to support health maintenance and economic development of the region.

This study used interactive analysis proposed by Miles & Huberman (1984) Interactive analysis has three main components, namely data reduction, data presentation, and conclusion. In the initial step of data collection, the researcher tried to understand the regularity, pattern, statement, configuration, as well as cause and effect. Data reduction is a process of selecting, focusing, simplifying, and abstracting rough data contained in field notes. Data from the field in the form of interviews or secondary data summary were transcribed in the form of reports and then reduced and selected. By reducing the data, researchers will obtain accurate data and avoid overlapping. Data presentation (data display) is an information organization in the form of classification or categorization that allows the conclusion of research. In this case the display includes various types of matrix, figures, diagram, and tables. Conclusion drawing is an organization of data that has been collected to make conclusion of the study.

3. Result and Discussion

3.1. Herb Culture and Tourism in Klaten

Klaten is one of the regencies of Central Java which produces medicinal plants. A variety of the plants have long been planted in the area. The local government's Health Office also encourages communities in all villages to grow medicinal plants in their own yards. In 2018 there were 34 villages fostered by the government to grow and develop the plants. Some of the products are sold in local traditional markets. Some others are sold to pharmaceutical companies. Considering the resources of medicinal plants in the area, herb culture should, therefore, have developed in the area. Medicinal plants have long been utilised in healthcare, and their efficacy has been verified by several research. Data on harvested area and production of medicinal plants in Klaten can be seen in Table 2 below.

Table 2. Harvested area and production of medicinal plants in Klaten Central Java in 2015.

No.	Type of Plant	Harvested Area (m ²)	Production (kg)
1	Ginger (<i>Jahe</i>)	3.991	4.786
2	East Indian Galangal (<i>Kencur</i>)	2.100	1.902
3	Turmeric (<i>Kunyit</i>)	4.220	5.140
4	Galanga (<i>Lengkuas</i>)	885	1.459
5	Zingiber Aromaticum (<i>Lempuyang</i>)	2.285	3.125
6	Black Turmeric (<i>Temuireng</i>)	1.000	1.800
7	Java Turmeric (<i>Temulawak</i>)	900	1.013

Dinas Pertanian Tanaman Pangan dan Hortikultura Provinsi Jawa Tengah (2016).

However, despite the abundance of herbs in the area, the culture to manage health by utilizing local wisdom such as medicinal plants has not developed. Herb culture is not yet developing. The integration between tourism and medicinal plants for the purpose of health maintenance has not yet become highlighted culture. The number of people consuming medicinal herbs for healthcare is limited. On the other hand, Klaten has many tourist attractions, both natural and cultural. Thus, besides producing medicinal plants, the area also provides varied tourism places of interest. However, the two resources have not been synergized to develop health tourism based on medicinal plants as local wisdom. In spite of the fact that shows the abundant harvest of medicinal plants, the production has not been used to develop health tourism. This niche tourism has the potential to be recognized as an iconic tourism product of Klaten. However, medicinal plants have not been utilized to support the development of health tourism in the area.

Implementation of health tourism development by utilizing medicinal plants is limited. It is due to restricted participation of stakeholders, including local government, community, and private sectors. The concern of stakeholder in building herb culture to support the development of health tourism is low. The culture of consuming food and drinks made of medicinal plants has not been developed. The sellers have not implemented local wisdom in their business by packaging herbs to be their food and drinks products. Local food stalls and restaurants in tourism places do not provide drinks made of herbs or medicinal plants. Similarly, buyers or tourists do not have the culture of consuming traditional drinks that have medical benefits. Tourists tend to consume unhealthy soft drinks which use preservatives. Moreover, the local government has not yet developed health tourism program.

Considering the significant role of stakeholders in initiating the use of medicinal plants to foster health tourism development, the lack of stakeholder attention and participation has restricted its development. In addition to developing health tourism, medicinal plants can be utilized to establish educational tourism based on local wisdom by giving explanation and providing examples of how to use medicinal plants to maintain health. Farmers need to be facilitated with technical assistance to build networks with travel agents, schools, and institutions to participate in educational tourism development. This is in line with research conducted by Sonja, Modric & Randic (2017) highlighting that the existence of medicinal plants can be one of the strengths of promotion to make travelers visit tourist attractions and stay longer in the destination.

3.2. The Role of Stakeholders in Building Herb Culture for Health Tourism Development

Stakeholders are groups or individuals who can affect the achievement of an organization's goals or are affected by the process of achieving the goal (Freeman, 2010; Slaba, 2016; Anuar, 2012). Handayani & Warsono (2017) mention that stakeholders consist of primary, key, and secondary stakeholders. Primary stakeholders are those who are directly affected by both positive and negative impacts of a plan or activity and have direct links and interests with the activity. These stakeholders are fully engaged in all stages of an activity. Key stakeholders are those who have legal authority in terms of

decision-making. Secondary stakeholders are those who have no direct interest in a plan or activity but have great concern for the development process. These stakeholders become facilitators in the process of developing an activity and affect the decision-making.

Liu & Ma (2017) stated that participation of stakeholders plays an important role in tourism development. Furthermore, it is mentioned that tourism practitioners, community residents, and tourists are core stakeholder groups of tourism development. They are considered as the major groups that have a close link with the realization of sustainable tourism development and promotion of the competitiveness of tourism destination. Muganda, Sirima & Ezra (2013) mentioned that local communities are considered as important asset and regarded as moral and legitimate stakeholders in tourism development, while Vijayanand (2013) added that travel agency, tour operators, government, DMO (destination management organization), and NGO are also parts of tourism stakeholders who intend to provide better tourism services for more enhanced tourism growth. In his research Aseres (2016) added university as another important element of tourism development in Bale Zone Ethiopia. Begum, Alam & Sahazali (2014) mentioned that tour guide is also part of tourism stakeholders.

In the context of this research, Ponggok was selected as one of the areas of study. This was due to the fact that this area is visited by a lot of tourists who basically want to do some water-sport activities such as swimming, snorkeling, and diving. In fact, after doing water-sport activities, hot drinks made of ginger, turmeric, tamarind, and Java turmeric are suitable to consume. However, at present this situation has not taken place. Most food stalls in the area only provide limited drinks such as tea, coffee, milk, and some preserved drinks. The local government has in fact recognized the advantages of medicinal plants and herbal tourism. However, health tourism which is supported by medicinal plants is not yet developing.

The development of health tourism based on medicinal plants in Klaten regency is determined by several factors. One of the factors is the role of stakeholders. In the context of this research stakeholders are categorized as primary and secondary stakeholders. Primary stakeholders consist of Office of Tourism and Culture, Office of Health, owners of food stalls/ restaurants, travel agents, local guides, and tourists/ customers. Secondary stakeholders consist of Office of Agriculture, Government of Ponggok village, POKDARWIS, PKK, Youth organization, Local farmers, and media. The elaboration of the current role of stakeholders of Ponggok Klaten Central Java in building herb culture for tourism development is provided in Table 3 below.

Table 3. The Current role of stakeholders in building herb culture for tourism development in Klaten.

Types of Stakeholders	Role	Activities related to the role
Primary Stakeholders		
1. Village-owned enterprise (BUMDES)	Facilitator	Providing technical assistance to develop both tourism supply and demand sides.
	Programmer	Programming all activities concerning how to develop tourist attractions.
	Practitioner	Creating tourism packages/ products and tourist activities.
2. Owners of food stalls / restaurants	Provider	Selling food and drinks for tourists who visit the site.
3. Village Government	Facilitator	Providing technical assistance to develop both supply and demand sides.
	Evaluator	Evaluating all programs concerning how to develop tourism in the area.
4. Tourists/ customers	User/ Consumer	Visiting the destination; Doing recreational activities.
	Evaluator	Evaluating tourism products.
	Promoter	Promoting tourism products through words of mouth based on their experience during their visit to the destination.
Secondary Stakeholders		
1. Office of Tourism and Culture	Facilitator	Providing technical assistance to develop both supply and demand sides. Informing public about health tourism products. Creating promotion materials on official website.
	Facilitator	Participating in the efforts to enhance local people knowledge about tourism. Empowering local community through tourism awareness program.
	Facilitator	Building coordination with owners of food stalls/ restaurants.
4. Youth organization	Facilitator	Building coordination with village-owned enterprise.

What is lacking in stakeholders' role to build herb culture to support health tourism development by using medicinal plants resources is the active role of stakeholders.

Currently, herb culture in tourism site is not yet developed. Related stakeholders do not yet give attention to build the synergy between medicinal plants and tourist attractions. Concerning the effort to build herb culture in tourist destination for developing health tourism the following recommendations need to be taken into account.

- Village-owned enterprise builds coordination with related institution such as university research centers to improve knowledge to develop health tourism by utilizing medicinal plants produced in the area. Such efforts would improve the advantageous of tourism development for all stakeholders. Moreover, they need to facilitate technical assistance to develop both tourism supply and demand sides, programming all activities concerning how to develop tourist attractions, and creating herbal tourism packages/ products. The development of health tourism had better make use of medicinal plants in the area.
- Private businessman, in this case owner of food stalls/ restaurants, produces and sells food and drinks made of medicinal plants as their new traditional yet healthy menu. Consuming food and drinks made of medicinal plants are believed to have a lot advantages for people's health. They become one of the core human resources. If they do not provide these products there will not be healthy drinks for tourists. Therefore, to develop health tourism the role of F&B business owners should be maximized.
- Local village government provides facilities concerning how to develop health tourism which include access (village road), sanitation facilities, parking area, eating places, and other related facilities.
- Office of Tourism and Culture facilitates various techniques and media of promotion to boost health tourism development. The government of Klaten regency, especially represented by Office of Tourism and Culture, needs to make efforts to promote health tourism by utilizing medicinal plants or herb in such a way that visitors can consume them safely. These efforts could lead to the enhancement of community development. Office of Tourism and Culture can also provide technical assistance to develop both tourism supply and demand, inform people about health tourism products, and plan activities which support health tourism development.
- Tourists/ customers need to be informed about and educated about tourism and health, that consuming healthy drinks in tourism site after doing some activities is good. Tourists, therefore, play the role as users that consume health tourism products. Moreover, tourists can promote health tourism through words of mouth based on their experience.
- Travel agents needs to be approach to provide assistance in marketing the new iconic tourism product, i.e. health tourism. Doing promotion of health tourism packages/ products
- Office of Agriculture provides information concerning medicinal plants. They can also arrange some programs and activites related with how to develop farming of medicinal plants. The programs need to be projected for health tourism development, herb culture building, health maintenance, biodiversity conservation, employment generation, and income improvement.
- Local guides need to be coordinated formally by establishing tourist guides association to help enhance the development of health tourism. Local guides also promote tourist destination by providing the best service for tourists so that they have quality travel experience and will recommend the place to their friends, relatives, and colleagues.

- Tourism Awareness Group (POKDARWIS) facilitate activities which are aimed at enhancing local people knowledge about tourism and empowering local community through tourism awareness program. They also have a significant role in performing the seven charm of tourism in health tourism destination.
- Family Empowerment Institution (PKK) facilitates family members to produce traditional drinks made of medicinal plants as a tool for generating employment and family economic improvement through some herb based activities by women. It can also conduct awareness campaign about the advantages of consuming herb, fruit, and products (food and drinks) made of medicinal plants. It also conduct socialization and training for food stall/ restaurant owners to introduce medicinal plants as well as provide technical guidance to improve the competence of their members in making herbal drinks and improving the quality of medicinal plants-based products.
- Youth organization also participates in developing health tourism by encouraging people to use medicinal plants for health maintenance. In terms of operating the day-to-day work in tourism destination, they can participate in managing parking area in the recreational sites.
- Local farmers, especially those who grow medicinal plants, provide their raw products to support the development of health tourism. They play their role as one of the stakeholders who mobilize agricultural resources of the area. Their agricultural products could support the production of herbal drinks which also boost local economy and support rural development.
- Media facilitates tourism development by providing sufficient information to the public concerning health tourism. Media also play a significant role in the promotion of health tourism destinations and enhancing a better understanding about health tourism.
- NGOs assist the government, communities, and private sectors in the implementation of health tourism as well as participate in monitoring and evaluating the development of health tourism. They also assist the government in undertaking tourism awareness programs and build communication between private sectors and communities to increase their involvement in health tourism development, deliver education, and provide training to local communities.

4. Conclusion

Herb culture building is not yet taken into consideration by stakeholders to support the development of health tourism in Klaten. Despite abundant resources of medicinal plants in the area, tourism development has not yet optimized the use of medicinal plants. Limited role of stakeholders to build herb culture in tourist destination is due to the lack of networking among stakeholders. Efforts to build coordination by all stakeholders for developing health tourism development are still lacking. All stakeholders have their role in the development of health tourism which makes use of medicinal plants in Klaten regency. They also have a role in creating an atmosphere which is conducive to health tourism development.

References

- Anuar, A. N. A., Ahmad, H., Jusoh, H., & Hussain, M. Y. (2012). Understanding the role of stakeholder in the formation of tourist friendly destination concept. *Journal of Management and Sustainability Study*, 2(2), 69-74.
- Aseres, Sintayehu Aynalem. (2016). Key stakeholders' roles and tourism development in Bale Zone, Ethiopia. *World Academic Journal of Business Management and Administration*, 1(1), 001-004.
- Badan Pusat Statistik Indonesia. (2019). Statistik Tanaman Biofarmaka 208. Jakarta: Badan Pusat Statistik Indonesia.
- Begum, Halima, Alam, Ferdous, & Sahazali, Nurain. (2014). Tourist's perceptions towards the role of stakeholders in sustainable tourism. *Procedia – Social and behavioral Sciences*, 144, 313-321. doi: 10.1016/j.sbspro.2014.07.301
- Denzin, Norman K. (1978). *The Research Act: A Theoretical Introduction to Sociological Methods*. New York: McGraw-Hill.
- Farsani, Neda Torabi, Zeinali, Hossein & Moaiednia, Maedeh. (2018). Food heritage and promoting herbal medicine-based niche tourism in Isfahan, Iran. *Journal of Heritage Tourism*, 13(1), 77-87.
- Freeman, R. E., (2010). *Strategic Management: A Stakeholder Approach*. Cambridge: Cambridge University Press. ISBN 978-0521151740.
- Handayani, F. & Warsono, H. (2017). Analisis peran stakeholders dalam pengembangan objek wisata Pantai Karang Jahe di Kabupaten Rembang. Retrieved from <https://ejournal3.undip.ac.id/index.php/jppmr/article/view/16543/15936>
- Hemani. (2011). *Pengembangan biofarmaka sebagai obat herbal untuk kesehatan*. Bogor: Balai Besar Penelitian dan Pengembangan Pascapanen Pertanian. http://pascapanen.litbang.pertanian.go.id/assets/media/publikasi/bulletin/Buletin_Pascapanen_7.1_3_2011.pdf
- Insani, M. I. (2014). *Tanaman Biofarmaka di Indonesia dan Persaingannya dengan Negara China*. Surabaya: Program Studi Agribisnis Fakultas Pertanian Universitas Pembangunan Nasional "Veteran" Jawa Timur.
- Liu, Junsheng & Ma, Yaofeng. (2017). The perceptual differences among stakeholders in the tourism supply of Xi'an city, China. *Sustainability*, 9, 214; doi:10.3390/su9020214
- Miles, M. B., & Huberman, A. M. (1984). *Qualitative Data Analysis: A Sourcebook of New Methods*. London: Sage Publications.
- Moleong, Lexy J. (2000). *Metode Penelitian Kualitatif*. Bandung: Remaja Rosdakarya.
- Muganda, Michael, Sirima, & Ezra, Marwa. (2013). The Role of local communities in tourism development: Grassroots perspectives from Tanzania. *Journal of Human Ecology*, 41(1), 53-66.
- Patton, Michael Q. (1987). *How to Use Qualitative Methods in Evaluation*. Newbury Park: SAGE Publications.
- Purba, F. H. K. (2013). Pengembangan Agribisnis Biofarmaka Indonesia dalam Potensi Usaha. Retrieved from <http://heropurba.blogspot.com/2013/07/pengembangan->

[agribisnis-biofarmaka.html](#)

- Ratknic, Tatjana and Milovanovic, Jelena. (2016). Medicinal herbs as part of the development of sustainable tourism in nature park “Stara Planina”. *Economic of Agriculture*, 3, 847-860.
- Salim, Zamroni dan Munadi, Ernawati. (2017). *Info Komoditi Tanaman Obat*. Jakarta: Badan Pengkajian dan Pengembangan Perdagangan Kementerian Perdagangan Republik Indonesia.
- Sisic, Sonja; Modric, Marko; and Randic, Marko. (2017). Medicinal plants a potential tourist attraction. Retrieved from: <https://ju-priroda.hr/en/2017/04/medicinal-plants-as-a-potential-tourist-attraction/>
- Slaba, M. (2016). Stakeholder profile and stakeholder mapping of SMEs. *Littera Scripta*, 9(1), 124-137.
- Vijayanand, S. (2013). Stakeholders and public private partnerships role in tourism management. *International Journal of Scientific & Engineering Research*, 4(2), 1-11.