

## EMPOWERING FOREST BATHING TOUR GUIDES FOR YOGURT PRODUCTION IN LEREP UNGARAN BARAT VILLAGE, SEMARANG REGENCY

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### Abstract

Wellness tourism is a tourist activity that not only aims for entertainment and pleasure, but also health. Lerep Village is one of the tourist villages that has a lot of potential to be developed into one of the *wellness tourism objects*. One of the highlights is the culinary sold in the traditional Sunday Pon market based on local wisdom. Currently there is no development of yogurt-based products in this traditional market, even though there is a lot of potential from livestock and agricultural products that can be developed as yogurt products. Yogurt is one type of food rich in bacteria which is expected to be one way to maintain public health, especially digestive health. Tourism cadres in this village have long been fostered by the Faculty of Medicine of Sultan Agung Islamic University, especially in the development of *forest bathing* tourism. This service activity aims to provide basic education and training to 20 *forest bathing* tourism cadres in traditional yogurt making. The training was held for 1 day with counseling methods and one-day training. Before and after the training, the participants were given pretest and post test, and the results of a significant increase in knowledge were obtained from the participants. After this training, it is hoped that the tourism cadres can produce yogurt so that it can become one of the healthy snack choices in Lerep Tourism Village.

**Keywords:** Digestive Health, Forest Bathing, Tourism Village, Yogurt, Wellness Tourism.

### INTRODUCTION

*Wellnes* tourism is currently a tourist activity whose trend is increasing along with public awareness in maintaining their body health Lerep Village is one of the *Wellnes* tourism objects that has developed since 2015. Pon's main activity every week is a traditional culinary snack market based on local wisdom called the Ndeso snack market. Lerep Village is also one of the fosters of the Faculty of Medicine, Sultan Agung Islamic University whose have been fostered as *forest bathing tour guide* This village was chosen one of them because it is located on the slopes of Mount Ungaran, West Ungaran District, Semarang Regency, with a cool mountain atmosphere and beautiful scenery. The determination of Lerep village as a tourism village is based on the Decree of the Regent of Semarang No. 556/0431/2015. Initially, the management

of Lerep Tourism Village was carried out by Pokdarwis Rukun Santosa. Currently, the management is taken over by the Lerep Village Lantern Gate Village Owned Enterprise, based on Lerep Village Regulation of West Ungaran District No. 3 of 2017, which stipulates the management of tourism villages as one of the BUMDes business units.

One of the problems in the development of tourism in the village is food service facilities that often do not pay attention to health, especially digestion. This can increase the incidence of diarrhea in tourists. According to Cabada et al (2011) and Harvey et al (2013) 40-60% of tourists experience diarrhea caused by dysbiosis (Youmans, 2015). Yogurt is one alternative healthy food choice that can prevent dysbiosis in tourists. The development of yogurt as a superior product in Lerep tourism village is not only expected to improve public health but also can improve the economic status of the community.

The main income of the people of Lerep village comes from the agricultural sector. Based on its topography on the slopes of Mount Ungaran, this village has great potential as a *forest bathing* tourism object that will add health benefits to tourists. Currently, the development of village tourism only focuses on the utilization of agricultural products including fruits, cassava, sweet potatoes, and vegetables. The people of Lerep Village create a Ndeso snack culinary market which is held every Sunday pound. Agricultural products are processed into traditional foods with natural concepts without using chemicals and artificial colors, and served with leaf packaging and woven bamboo to reduce the use of inorganic waste. In the market is also provided a place of traditional cultural attractions, besides that the traders and organizers also wear traditional clothes. The Ndeso snack market was attended by 312 traders, 20 organizers, 10 parking guards, 30 tourist taxis, 22 traditional art presenters, and 12 road operators. Ndeso snack market, can be a target for socialization / market share of products produced from PKM activities.

Based on the analysis of the situation above, Lerep Village needs to be one of the *forest bathing tourism clusters* that needs to be developed with icons of products that nourish digestion such as traditional yogurt. The partner in this activity is the Lerep village Pokdarwis group led by **Mr. Daniel Bayu Anggara**. In the village organizational structure, Pokdarwis is a group managed by Village-Owned Enterprises (BUMDES).

## IMPLEMENTATION METHOD

The method of implementation of activities is carried out using several methods including:

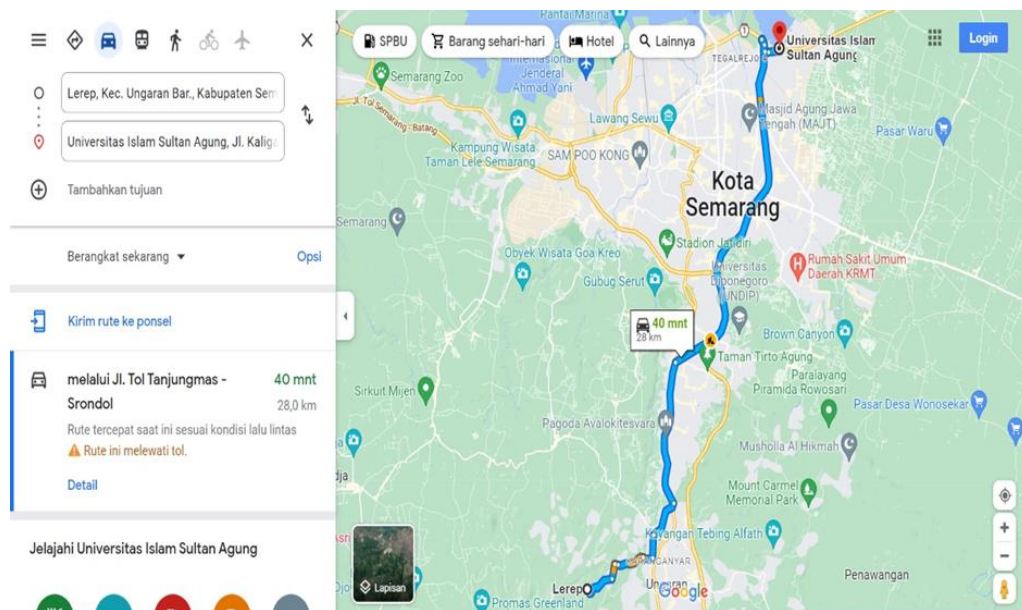
1. Group-based, all community service activities use group learning methods with mentoring, planning and program monitoring.
2. Comprehensive and gradual, all community service activities are carried out simultaneously through counseling, training and mentoring so that they can be implemented in the community
3. Based on local potential and local wisdom by utilizing superior natural resources that can be a solution for health and improve the economic level of farmers.

The three methods above are carried out in 3 activities:

1. Counseling and tour guide formation
2. The practice of making yogurt as a superior product for tourism
3. Monitoring

## RESULTS AND DISCUSSION

Counseling and training has been carried out for 20 main tour guides of forest bathing health tourism in Lerep Village, Ungaran District, Semarang Regency which was held on Sunday, September 24, 2023. All participants before training were given post test and pre test and obtained a significant increase in knowledge level ( $p = 0.001$ ). It was held in Lerep Village, Ungaran Barat, Semarang Regency. With the following location map:



**Figure 1. Location of Lerep tourist village**

In this activity, training was carried out to make yogurt with easy and simple raw materials. Tools used include stoves, milk pots, thermometers, glass jars for yogurt holders, vegetable spoons for stirring, towels, and ice/rice flasks. The ingredients used include one liter of UHT whole milk. Stater yogurt in the form of Greek yogurt as much as 50 grams.

The following are yogurt-making techniques taught in this training:

1. Sterilize all tools by washing them thoroughly and rinsing with boiling water to sterilize.
2. Pour milk into a saucepan, and heat to a temperature of 40o C. Insert a stater of approximately 50 g. Mix well.
3. Put it in a glass-sealed container, then wrap it in a towel and put it in an ice/rice flask. Allow approximately 20 hours.



**Figure 3. The process of making yogurt**

Here is a picture of traditional healthy snack market activities in Lerep Tourism village:



**Picture 2. Community Service implementation team and Forest Bathing Tour guides in Lerep Village, West Ungaran District, Semarang Regency.**

Forest bathing tourism activities are known to have health impacts, one of which is increasing body immunity so as to prevent infectious diseases. Many studies support the health benefits of forest bathing, especially against natural killer cells that play a role in defense against intracellular viral and bacterial infections, as well as cancer. Digestive health during *forest bathing* is very important to note. The digestive system, especially the intestine, is the broadest endocrine and immune organ that has the greatest diversity of microbiomes in the human body. Diarrhea in tourists if not prevented will cause dysbiosis that can last a long time and persist. Dysbiosis in the intestine will increase the risk of obesity, Inflammatory bowel disease (IBD), Irritable bowel syndrome (IBS), etc.

Consumption of foods containing probiotics according to many studies can prevent and treat diarrhea in travelers. Probiotic for the prevention of diarrhea in travelers according to metaanalyst research by McFarland (2007) proven to prevent traveler diarrhea. Furthermore, a systemic review also conducted by McFarland et al (2019) stated that there is only 1 type of



probiotic out of 3 types of probiotics that are proven effective in preventing travelers, namely *Sacharomyces Boulardii*. Research by Black et al (1989) using capsules containing  $3 \times 10^9$  bacteria including *Lactobacillus acidophilus*, *Bifidobacteria bifidum*, *Lactobacillus bulgaricus*, and *Streptococcus thermophilus*. This research proves that giving probiotic supplements can reduce the frequency of diarrhea in 73% of tourists.

Yogurt is a fermented product that usually uses milk-based ingredients, with starter cultures of lactic acid bacteria such as *Lactobacillus acidophilus*, *Bifidobacteria bifidum*, *Lactobacillus bulgaricus*, and *Streptococcus thermophilus*. In this training, a stater with a composition of good bacteria was used using bacteria containing the four probiotic bacteria as used by Black et al (2007). To make it easier for the community, the method of making yogurt with a stater that is easily found around the community, namely Greek yogurt with a brand that is easily obtained and known to contain a composition of live bacteria as in Black's research (2007). The limitation of this study is that organoleptic tests were not carried out on the practical results of this training.

## CONCLUSION

Tourism Cadre Empowerment Activities for the production of Vitamin D-rich yogurt As an effort to integrate *Wellness* Tourism in Lerep Village, West Ungaran, Semarang Regency can increase cadre knowledge and also add ideas related to innovations carried out in order to make Lerep Tourism Village provide highly nutritious and natural-based Market Snack products.

### Future direction:

The training should be followed by a 2-day workshop, and assistance in production and organoleptic testing. In addition, they should be taught a variety of processed yogurt products that can be created with local agricultural products such as purple sweet potatoes.

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