

KNOWLEDGE, ATTITUDE AND BEHAVIOR OF THE LOCAL COMMUNITIES TOWARD THE PRINCIPLES OF SUSTAINABLE TOURISM¹

Preliminary Results of Survey in 3 Tourist Destinations in Yogyakarta Special Region

Janianton Damanik,² Sucipto,³ and Debora Purba³
Tourism Studies, Graduate School of Universitas Gadjah Mada

Email: antondmk@ugm.ac.id

ABSTRACT

The implementation of the principles of sustainable tourism has long been recommended, but it is unclear how it was proven in the field. Furthermore, the knowledge and attitude of tourism stakeholders against it has not been revealed clearly. This paper aims to explore the knowledge, attitudes and practices undertaken by the community to the principles of sustainable tourism. Data were collected in three tourist villages with 60 local residents as respondents. Survey method using questionnaires was deliberately chosen to collect data about the attributes of the three main variables of sustainable tourism. The empirical evidence shows, that the knowledge, attitudes and behavior of the respondents toward the three basic components of sustainable tourism can be classified as good or excellent. They understand that the preservation of the environment, economic empowerment, and social integration of the local communities is fundamental basis for sustainable tourism development. Indeed, further exploration is needed, to clarify the inconsistencies between the knowledge and attitude of the communities, though it is not too obtrusive.

Keywords: knowledge, attitude, behavior, principles, sustainable, tourism.

INTRODUCTION

Diverse tourist attractions, which range from natural, cultural and artificial attractions, have made the Special Region of Yogyakarta one of the primary tourist destinations in Indonesia. Among the nature-based attractions are caves, rivers and karst that include alternative destinations for tourists,⁴ such as Pindul Cave and Nglanggeran Ancient Volcano. To add the tourist attractions in Yogyakarta, Jogja Bay recreation center was newly opened for

¹ Paper presented on 8th International Graduate Students and Scholars' Conference in Indonesia (IGSSCI), Graduate School, Universitas Gadjah Mada, Yogyakarta, 27-28 October 2016.

² Lecturer at the Tourism Master Program, Graduate School, Universitas Gadjah Mada, Yogyakarta.

³ Students at the Tourism Master Program, Graduate School, Universitas Gadjah Mada, Yogyakarta.

⁴ Damanik, J & Raharjana, D. T (2014). Penguatan Kelembagaan Pengelolaan Destinasi pariwisata Goa Pindul, Gunung Kidul. *Jurnal Kepariwisata Indonesia*, 7(2)....

public. Notably, the number of tourists⁵ and hotel rooms, culture-based tourism events (exhibitions, festivals and many more) continues to grow every year.⁶ Consequently, more infrastructure, main and supporting facilities are in demand.

Despite the positive trend, waste remains the main environmental problem. Among 300 tons of accumulated waste per day, only 20 tons are able to be decomposed,⁷ generating potentially massive threats of pollution. So far, no effective solution to this problem has been found despite that the local government has issued waste management-focused regulation.⁸ Unfortunately, the regulation does not affirm the obligation to reduce waste production at the individual level. Waste-generated problems also occur in Parangtritis beach, one of the main tourist destinations in Yogyakarta, where tons of waste pile up. The waste is largely sourced from households and becomes the constant complaints from the tourists.⁹

The afore-described issues are real threats to the practice of sustainable tourism in the province. The case describes presumably inconsistent knowledge, attitude and behavior of the tourism actors in the sustainable development practices. Tourism development requires high awareness and concrete actions of the stakeholders¹⁰ to materialize the principles of sustainable tourism.

The facts on site vividly indicate the end result of the accumulated knowledge, attitude and actions of the tourism actors in the field. However, few in-depth studies have explored the detailed information on this issue in spite of importance of the studies for designing proper policies to realize practices of sustainable tourism.

This study was driven by the idea that no practices of sustainable tourism can be carried out without consistent understanding, attitudes and actions of all stakeholders particularly the communities in the tourist destinations. The local people highly depend on the surrounding environment where they manage and offer services to the tourists. Attractive destinations

⁵ Hampton, M. P (2003), Entry Points for Local Tourism in Developing Countries: Evidence from Yogyakarta, Indonesia, *Geografiska Annaler. Series B, Human Geography*, 85(2), hal. 85-101; Also: Santoso (2014), Analisis Pertumbuhan Jumlah Kamar Hotel, Jumlah Wisatawan dan Mahasiswa Perguruan Tinggi Pariwisata Program Studi Perhotelan, *Jurnal Media Wisata*, 12(1), 43-69.

⁶ 62 Event Meriahkan Pariwisata Jogja 2015 (<http://infowisata.co/62-event-meriahkan-pariwisata-jogja-2015.html>).

⁷ Anonim, Sampah kian Jadi Masalah Serius di Yogyakarta, *Kompas.com*, 26.10.2009; 30 Persen Sampah di Yogyakarta Belum Terkelola (<http://www.harianterbit.com/hanterdaerah/read/2015/02/21/20136/81/20/30-Persen-Sampah-di-Yogyakarta-Belum-Terkelola>), accessed 21.5.2016.

⁸ Regulasi ini, sayangnya, hanya mengatur sampah keluarga, padahal sampah industri juga ikut menyumbang persoalan lingkungan. Lihat: Perda DIY No. 3 Tahun 2013 tentang Pengelolaan Sampah Rumah Tangga.

⁹ 2000 Meter kubik Sampah Diangkut dari Parangtritis (<http://www.harianjogja.com/baca/2016/03/19/masalah-sampah-2000-meter-kubik-sampah-diangkut-dari-parangtritis-702504>), accessed 21.5.2016.

¹⁰ Kruja, D & Hasaj, A (2010), Comparisons of stakeholders' perception towards the sustainable tourism development and its impacts in Shkodra Region (Albania). *Turizam*, 14(1), 1-12; Chen, J. S (2015), Tourism stakeholders attitudes toward sustainable development: A case in the Arctic. *Journal of Retailing and Consumer Services*, 22, 225-230.

will sustain when they understand, behave and act in accordance with the principles of sustainable tourism.

Thus, this study focuses on the scientific exposition on in-depth understanding of the local towards the principles of sustainable tourism principles, the consistency between their knowledge and attitude and between their behavior and actions to support the sustainable tourism.

Literature Review

Sustainable tourism development has long been under spotlight among the experts. The concern is generated by the worries about the negative effects of tourism which are increasingly outstanding behind its positive effects¹¹, associated with environment,¹² marginalized social and cultural aspect, and economy that likely spark dependence.¹³ A newly-built awareness for controlling the negative impacts and manage the industry in the long term encourages researchers and decision makers to formulate the concept and practices of sustainable tourism.¹⁴

In some countries, the government, non-governmental organizations and companies apparently gear for the best ways to implement the concept of sustainable tourism.¹⁵ A decade ago, the World Tourism Agency initiated to compile the indicators of sustainable tourism.¹⁶ The indicators become the main references for the government, non-governmental organizations and companies when exercising the development program of tourist destinations.

In practice, however, gaps between the ideal concept of sustainable tourism with its practice remains exist. Stunned by huge economic benefits of tourism, the decision makers easily ignore the risks of environmental¹⁷

¹¹ Bryden, J.M. (1973). *Tourism and development: a case study of the Commonwealth Caribbean*, London: Cambridge University Press; Nash, D. (1995). "Tourism as a Form of Imperialism", In: V.L. Smith (ed), *Host and Guest: The Anthropology of Tourism*. Philadelphia: University of Pennsylvania Press, 37-54.

¹² Mathieson, A & Wall, G. (1982). *Tourism: economic, physical and social impacts*. New Jersey: Prentice Hall; Davies, T dan Cahill, S. (2000). *Environmental Implications of the Tourism Industry*. Resource for the Future (Discussion Paper 00-14). Washington.

¹³ Mathieson, A & Wall, G. (1982). *ibid*; Fletcher, J. (1998). "The economic impacts of tourism," In: C. Cooper, J. Fletcher, D. Gilbert & S. Wanhill (eds), *Tourism: Principles and Practice, (2nd ed.)*. Essex: Pearson Education Limited. Smith, M. D & Krannich, R. S. (1998). Tourism Dependence and Resident Attitudes, *Annals of Tourism Research*, 25(4), 783-802. For the Indonesian case, see: Karim, A. (2008). *Kapitalisasi Pariwisata dan Marginalisasi Masyarakat Lokal di Lombok*. Yogyakarta: Genta Press.

¹⁴ Clayton, A. (2002). Strategies for Sustainable Tourism Development: The Role of the Concept of Carrying Capacity. *Social and Economic Studies*, 51(1), 61-98. Retrieved from <http://www.jstor.org/stable/27865262>

¹⁵ Lundie, S., Dwyer, L & Forsyth, P. (2007). Environmental-Economic Measures of Tourism Yield. *Journal of Sustainable Tourism*, 15(5), 503-519.

¹⁶ UNWTO. (2004). *Indicators of Sustainable Development for Tourism Destinations: A Guidebook*. Madrid: UNWTO.

¹⁷ Cater, E. (1995). Environmental Contradiction in Sustainable Tourism. *The Geographical Journal*, 161(1), 21-28.

cultural¹⁸ and social¹⁹ destruction. As a result, a considerable number of tourist destinations are no longer attractive and unable to lure tourists.²⁰

Sustainable tourism does not only links to the environmental aspects but also the social welfare aspects, opportunities and economic equality in tourism destinations.²¹ When the local communities are better in prosperity because of tourism, they willingly preserve local resources to fit the tourism needs for better tourist attractions.²² Tangible negative impacts of environmental destruction that discomfort the tourists and local communities encourage them to focus on preserving the environment in the sustainable tourism. Not always collective, the local communities' knowledge is sometimes personal,²³ depending on social, economic, and demographic characteristics. Education and age are mostly the variables that set the level of one's knowledge.²⁴ This suggests that higher education will result in better knowledge of the surrounding environment. Bascombs and Taylor²⁵ found that community involvement in ecotourism activities differ by different communities's knowledge of the tourists' customs or culture.

Good and proper knowledge of the complexity of tourism does not only become a sound justification to develop tourism as an economic driver of a particular region,²⁶ but also ensures the use of resources in a controlled and sustainable tourism. The theory of planned behavior is commonly used to explain it.²⁷ This human behaviour approach-based theory²⁸ highlights that one's intention is determined by the relative weights on attitudes toward the behavior, subjective norms, and perceived behavioral control.²⁹ A positive

¹⁸ Nash, D. (1995). *ibid*.

¹⁹ Mbaiwa, J.E. (2005). Enclave tourism and its socio-economic impacts in the Okavango Delta, Botswana. *Tourism Management*, 26, 157-172; Mbaiwa, J. E. (2004) The Socio-cultural Impacts of Tourism Development in the Okavango Delta, Botswana. *Journal of Tourism and Cultural Change*, 2(3), 163-185.

²⁰ Plog, S. (2001). Why Destination Areas Rise and Fall in Popularity: An Update of a Cornell Quarterly Classic, *Cornell Hotel and Restaurant Administration Quarterly* (June), 13-24; Butler, R.W. (1980). The Concept of a Tourist Area Life Cycle of Evolution: Implications for Management of Resources. *Canadian Geographer*, XXIV(1), 5-12.

²¹ Reino, S & Schröder, M. (2009). Consumer-Driven Sustainable Tourism: Towards Inconspicuous Consumption. Edinburgh: Queen Margaret University.

²² Bascomb, B & Taylor, M. (2008). Ecotourism and Sustainability in a Q'eqchi' Maya Community, Guatemala. *Focus On Geography*, 51(3), 11-16.

²³ Michalos, A. C., Creech, H., Swayze, N., Kahlke, P. M., Buckler, C & Rempel, K. (2012). Measuring Knowledge, Attitudes and Behaviours Concerning Sustainable Development among Tenth Grade Students in Manitoba. *Social Indicators Research*, 106(2): 213-238.

²⁴ Michalos, et. al, (2012). *Ibid*.

²⁵ Bascomb & Taylor. (2008). *ibid*: 15.

²⁶ The World Bank. (2013). *Tourism in Africa: Harnessing Tourism for Growth and Improved Livelihoods*. New York: The World Bank.

²⁷ Ajzen & Fishbein, cited by Phetvaroon, K. (2006). *Application of the Theory of Planned Behavior to Select a Destination After a Crisis: A Case Study of Phuket, Thailand*. Faculty of the Graduate College of the Oklahoma State University (unpublished dissertation); also: Juvan, E & Dolnicar, S. (2014). The Attitude-Behaviour Gap in Sustainable Tourism, *Annals of Tourism Research*, 48, 76-95.

²⁸ Phetvaroon, K. (2006). *ibid*.

²⁹ Phetvaroon, K. (2006). *Ibid*, 11.

attitude towards tourism is likely followed by the intention to take actions in accordance with the demands of the tourism environment and vice versa.

The tourism experts found that people who positively perceive the impacts of tourism on the environment tend to have a positive attitude towards developing sustainable tourism.³⁰ The assumption, however, remains at the level of attitude. To strengthen it, subjective norms are used. The norms refer to the guidelines for everyday life based on the social events. For example, people take conservation as an obligation for preserving nature. The intention will perfectly transform into planned behavior when both aspects are embedded with boundaries to which extent people can act.

The theory may serve as the basis of explanation on gaps between the knowledge and attitude and people's behavior towards sustainable tourism. The first assumption argues that different knowledge toward sustainable tourism development depend on the backgrounds of social, demography and economy³¹. Thus, different levels of education and importance among the local people will result in different attitude and actions towards the principles of sustainable tourism.

The second assumption relates to the attitude of someone who is likely unstable, not necessarily in line with one's behavior. In short, in the context of behavior complying with sustainable tourism, the relations between attitude and behavior are not always parallel. Experts highlighted that positive attitude is not a proper determiner to choose tourism activities that are environmentally friendly.³² Individuals find it easier or feel more secure to describe their activities than their plans.³³ This has become the main source of gaps between knowledge and attitude with people's behavior.

The third assumption relates to incidental change of behavior. Local communities often face uncertain situations (e.g. urgency to meet basic needs) when they carry out their respective activities. In the context of sustainable tourism, such behavior may conflict with their knowledge and attitude, as long as they want to change or stay with the common behavior. Thus, to ensure that attitude is materialized in behavior, one should have desire to change his or her behavior itself.³⁴

Based on the afore-mentioned highlight, a theoretical frame of reference can be structured as follows:

First, that people's insight of sustainable tourism depends on the socio-demographic characteristics and the proximity of livelihood to tourism. As previously stated, age and education level contribute to how someone perceives the changes in the surrounding environment. Tourism refers to activities outside and take place within the community. Therefore, age and

³⁰ Choi & Sirakaya; Twining-Ward & Butler, cited by Assante, L. M., Wen, H. I., Lottig, K. (2010). An empirical assessment of residents' attitudes for sustainable tourism development: a case study of O'ahu, Hawai'i, *Journal of Sustainability and Green Business*, 1-27 (<http://www.aabri.com/manuscripts/10602.pdf>), accessed 2.5.2016.

³¹ Assante, L. M., Wen, H. I & Lottig, K. (2010). *ibid.*

³² Juvan, E & Dolnicar, S. (2014). *ibid.*

³³ March, R & Woodside, A. G. (2005). Testing Theory of Planned versus Realized Tourism Behavior. *Annals of Tourism Research*, Vol. 32, No. 4, pp. 905–924.

³⁴ Teo, C. B. C., Khan, N. R. M & Rahim, F. H. A. (2014). *ibid.*

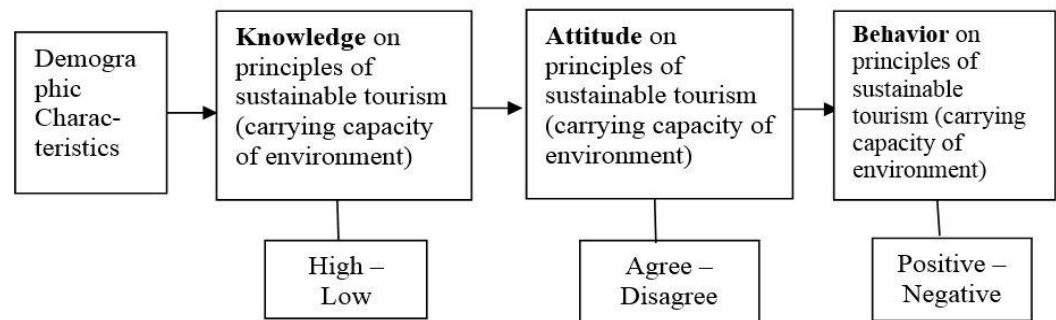
education can be a predictor for the level of one's knowledge towards the environment.

Second, compared to knowledge, attitude normally generates more impacts on behavior.³⁵ Positive and negative attitude towards tourism is likely to be followed by behavior that supports or rejects tourism. Positive attitude usually stems from a more complete understanding of tourism as an economic activity with cost-benefit entities. More support for tourism development are given by the communities that enjoy positive impacts of tourism on their livelihood.³⁶

Third, within the consumers' perspective, behavior towards sustainable tourism depends heavily on the awareness level and calculation of the value of benefits obtained. Review by experts pointed out that an individual will conduct pro-environment activities when he or she realizes the direct and indirect benefits for self and community.³⁷ The benefits are well obtained the initial negative impact of tourism has not been identified.³⁸

Fourth, given far difference between the position and the local communities in tourism³⁹, their attitude and actions related to the principles of sustainable tourism are likely to be different as well. When people's livelihood depends on or closely related to tourism, they will be more protective towards the local resources. Such a situation is also strongly affected by social and demographic characteristics⁴⁰ including real tourism effects on their livelihood.⁴¹ To this extent, young people show better responses towards tourism than the old ones.⁴²

The frame of reference on knowledge, attitude and behavior on the principles of sustainable tourism among different communities are described in the chart below.



³⁵ Shultz, P. W dan Zelezny, L. C. (1998). Values and proenvironmental behavior: A five-country survey. *Journal of Cross-Cultural Psychology*, 29, 540-558

³⁸ Yasong Wang, Y., Pfister, R. E & Morais, D. B. (2006). Residents' Attitudes toward Tourism Development: A Case Study of Washington, NC. *Proceedings of the 2006 Northeastern Recreation Research Symposium (GTR-NRS-P-14)* (http://www.nrs.fs.fed.us/pubs/gtr/gtr_nrs-p-14/54-wang-p-14.pdf) accessed on 02.07.2016.

³⁹ Dowling (1993), *ibid*.

⁴⁰ Fredline, E and Faulkner, B. (2000). Host community reactions: a cluster analysis. *Annals of Tourism Research*, 27(3), 763-784; also: Huh, C & Vogt, C. (2008). Changes in residents' attitudes toward tourism over time: a cohort analytical approach. *Journal of Travel Research*, 46(4), 446-455.

⁴¹ Hanafiah, M. H., Jamaluddin, M. R & Zulkifly, M. I. (2013). Local Community Attitude and Support towards Tourism Development in Tioman Island, Malaysia. *Procedia - Social and Behavioral Sciences*, 105, 792-800.

⁴² Huh, C & Vogt, C. (2008). Changes in residents' attitudes toward tourism over time: a cohort analytical approach. *Journal of Travel Research*, 46(4), 446-455.

Research Method

Three areas of tourism were opted for the research sites which include Bejiharjo and Nglanggeran Village in Gunung Kidul District and Prawirotaman Kampong, Jogja. Selecting the tourist areas was based on the premise that local communities are affected by environmental, social, and cultural aspects in the areas and how the aspects affect the local communities. Another consideration points to the natural and cultural environment which is crucial to see the changes sparked by tourism and how the aspects ensure the tourism sustainability.

The population includes all households registered as residents in three locations. Samples were selected from a cluster of households living nearest to the activities of tourism to ensure the exposure of tourism to their livelihood. The exposure becomes the basis for them to be able to assess the development of tourism in the areas.

The number of samples was limited to 60 households which comprise 25 samples in Bejiharjo, and Nglanggeran Village and Prawirotaman Kampong respectively. The samples were selected purposively including those who interact directly with tourism activities in each location such as providers of tourism services or raw materials for the accommodation. Purposive sampling was taken because not all households were able and willing to fill out the questionnaires.

Meanwhile semi-open questionnaires were used to collect the primary data from the respondents. The questionnaires contained questions about the respondents' understanding, responses and actions towards the activities of sustainable tourism in their areas.. A total of 35 question items in the questionnaires consist of 5 question items about the respondents' identity and respective 10 question items about knowledge, attitude, and actions on sustainable tourism.

Each question item focuses on the environmental, economic, socio-cultural aspects of sustainable tourism. The aspects were opted on the basis of UNTWO version⁴³ on the parameters of sustainable tourism indicators to meet the local context. The questions about the environmental and economic aspects consist of respective 3 questions while the socio-cultural aspects comprise 4 questions, which represent the commonly used format to collect varied data.⁴⁴

RESULTS AND ANALYSIS

General Description of Research Sites

Located in Patuk Sub-district, Gunung Kidul Regency, which is about 20 kilometers east of Yogyakarta, Nglanggeran Village is gaining popularity as a rural tourist destination because of the ancient volcano, the only one in Yogyakarta. The village extends to 762 hectares, 48 hectares of which are occupied by the ancient volcano, representing the main tourist attraction of the village. Thanks to the local group of youth, the village was made as a tourist

⁴³ UNWTO. (2004). *Indicators of Sustainable Development for Tourism Destinations: A Guidebook*. Madrid: UNWTO.

⁴⁴ Muganda, M., Sirima, A & Ezra, P. M. (2013). The Role of Local Communities in Tourism Development: Grassroots Perspectives from Tanzania, *Journal of Human Ecology*, 41(1), 53-66.

destination in 1999 by planting trees in the barren mountain areas among the giant rocks scattered. Observing the efforts done, the local administration trusted 48 hectares⁴⁵ of the mountain areas for conservation and ecotourism activities. Driven by the massive earthquake in 2006 that harmed people's livelihood, the local communities were eager to explore alternative business to survive. They therefore organize themselves to take the advantage of the growing number of visitors to the village.

Not far from Nglanggeran, Bejiharjo Village lies in Karangmojo Sub-district, Gunung Kidul (150-250 m asl), 45 kilometers away from the downtown of Yogyakarta or 6 kilometers from Wonosari, the district capital of Gunung Kidul. The village is mostly flat land which covers approximately 1,825 hectares. Most of the areas are used for agriculture, where 72 percent of the residents work as farmers and peasants while the rest are traders and service providers.⁴⁶ The tourist attractions of the village relies on the natural attractions by Pindul Cave that offers stalactites and stalagmites, the beauty which visitors can enjoy on a rubber boat. Empowering the cave and river as tourist attractions was initiated by local community groups in 2009 and managed to lure more and more visitors. Despite weak management, the empowerment of tourism resources in the areas includes active involvement of communities.⁴⁷

Located 2.5 kilometers south of the downtown of Yogyakarta, Prawirotaman Kampong, the densely populated area has been long well known as one of the tourist areas in the province. Tourists, mostly foreign ones, can easily find a hotels, restaurants and souvenir shops in the area where most houses are converted into commercial buildings.

Social and Demographic Characteristics

Most respondents (61.7%) are men, which suggests that men have relatively bigger opportunity to work in the tourism sector in the three tourist areas.

Meeting the characteristics of the areas, the respondents' occupation varies. Nearly 80 percent of respondents in Nglanggeran and Bejiharjo Village are farmers. Meanwhile, the respondents in Prawirotaman Kampong in general work as traders and service providers (n = 10) indicating that the work among most urban communities concentrates in providing services (Damanik, 2014).

Nearly 93% of respondents belong to the productive age who mostly range between 30-60 years old.

Table 1. Age-based Distribution of Respondents

Age (year)	n	%
< 20	5	8.3
21-29	11	18.3
30-45	22	36.7
46-60	18	30.0
> 60	4	6,7
Total	60	100

Source: field survey, 2016.

⁴⁵ Decree of the chief of Nglanggeran Village No.05/KPTS/1999 dated 12 May 1999.

⁴⁶ Monograph of Bejiharjo Village, 2015.

⁴⁷ Damanik, J & Raharjana, D. T. (2014). *ibid*.

Understanding towards the Principles of Sustainable Tourism

A number of indicators of sustainable tourism development were asked to the respondents to assess their understanding towards the development. The data reveal that the best understanding (mean = 4.43) of the respondents refers to the need to maintain the cleanliness of tourist destinations. A good understanding is shown towards the obligation for maintaining the beauty of the tourist areas and cultural preservation (mean = 4.19 and 4.18), followed by a decent understanding towards the urgency for preservation of natural resources (mean = 4.17). Simply, the people's living habits to maintain the cleanliness of the surrounding environment justifies the understanding. Another reason is the strong dependence on nature as the main source of income, suggesting that maintaining environment is an integral part in daily activities. On the other hand, the understanding of the respondents is low in relation to the economic aspects within the principles of sustainable tourism. One important element of sustainable tourism is the ownership of assets by local communities (UNWTO and UNEP, 2005). Ownership of assets facilitates the local communities to access the advantages of tourism for long-lasting tourism. The lack of such an understanding (mean = 3.57) compared to the understanding towards environment stems from the local situation. Among other reasons is a small number of business and employment opportunities that tourism generates compared to the other sectors, especially agriculture. It takes more time for tourism to be a major provider of employment and income for the communities, particularly in Nglanggeran Village and Bejiharjo Village. Tourism, however, offers alternative opportunities for people to earn additional income.

In contrast to understanding the economic dimension in sustainable tourism which is low, the respondents show better understanding towards the socio-cultural dimension in sustainable tourism. The respondents are much aware of assuming responsibility to keep the order and preserve local culture and traditions (mean = 4.03 and 4.18). They also understand that the community should prosper thanks to the tourism development (mean = 4.05). Such a good understanding is closely related with rural life that still preserve traditional rituals and culture.

Table 2. Knowledge on the Principles of Sustainable Tourism

No	Do you understand that communities should:	Mean	Sd
1	maintain the cleanliness of the tourist areas	4.43	0.53
2	make the beauty of the tourist areas	4.19	0.81
3	preserve the nature (prevent water, soil, and air pollution) in the tourist areas	4.17	0.69
4	have assets in the tourism business	3.57	1.15
5	be given ample opportunities for running business in tourism	3.83	0.94
6	get a job in tourism	3.73	0.86
7	get involved in planning, implementating, supervising and evaluating the development of the tourist areas	3.73	1.10
8	keep order/security in the tourist areas	4.03	0.80
9	preserve culture as tourist attractions	4.18	0.72
10	be increasingly prosperous thanks to the development of tourism	4.05	0.81

Source: field survey, 2016.

The communities in Gunung Kidul keep conducting Rasulan, a ritual that symbolizes gratitude to God⁴⁸ by local art performances. Loyalty to the local culture supports the people's understanding towards the importance of preserving local traditions. Community order is also well understood, in which the local communities uphold social harmony and avoid conflicts. Social sanctions for any violators are well imposed, which are supported with the institutional security (night watch) to maintain social harmony. Low level of crimes provides comfort,⁴⁹ therefore, the communities believe that social order is obligatory in tourist destinations.

Notably, people's understanding towards obligatory involvement in the tourism management is slightly lower (mean = 3.73) compared with the other socio-cultural aspects. This finding indicates that the communities are aware of their involvement in planning, implementing and evaluating the tourism development is less important than the economic or ecological aspects. This fact is interesting to analyze as generally in the management of tourist villages, the community's involvement in planning, implementing and evaluating the tourist villages is more massive than in the development of other types of tourism.⁵⁰

Attitude towards the Principles of Sustainable Tourism

In general, the respondents reveal positive attitude towards the principle of sustainable tourism. They disagree to ignore the environmental issues in the tourist destinations. Disregarding the beauty and cleanliness of the tourist destinations is totally unacceptable (mean = 4.13). Environment and tourism destinations which are badly managed, barren, even slum are responded negatively (mean = 4.25). Likewise, the negative attitude is also shown when people ignore the environmental pollution (mean = 4.23). High environmental awareness is the key for the negative attitude towards the any kinds of environmental destruction.

The utilization of the economic opportunities offered by tourism receives positive responses. They, however, generally disagree with the transfer of principal asset ownership and livelihood to the other parties (mean = 3.91). This corresponds to the understanding that the takeover of asset ownership is likely to eliminate their opportunities to obtain the economic opportunities of tourism. They also reject to compete along with foreign business competitors in the tourism industry (mean = 4.03). The presence of investors in tourism development in the rural areas is worried to shift the role of local communities as the owners of primary resources. Therefore, assistance by the third parties remains important to enable the local economy to survive. Such an attitude is associated with the evidence of community development in economic capacity within tourism development that the government carries out

⁴⁸ Brahmanto, E. (2014). Tradisi Rasulan Menjadi Andalan Etnik Tourism Kabupaten Gunung Kidul, Yogyakarta, *Khasanah Ilmu*, 5(2), 69-75; also: Damanik, J., Daryanti, S & Prihatin, S. Dj. (2014). *Konstruksi Kesejahteraan Subjektif dalam Masyarakat yang Sedang Berubah di Perdesaan DIY*. Faculty of Social and Political Sciences, UGM. Research Report (unpublished).

⁴⁹ Damanik, et.al., *ibid*.

⁵⁰ Kayat, K. (2008). Stakeholders Perspectives toward a Community-based Rural Tourism Development, *European Journal of Tourism Research*, 1(2), 132-143.

among others through facilitation for PNPM (the National Program for Community Development) and Pokdarwis (Tourism-aware Group). The three research sites as the tourist destinations a number of technical assistance from the government

Table 3. Respondents' Attitude toward the Principles of Sustainable Tourism

No	Do you agree or disagree that communities should:	Mean	Sd
1	ignore the cleanliness and beauty of tourist areas	4.13	1.10
2	let the tourist areas be badly-managed, slum and arid	4.25	0.91
3	disregard pollution (soil, air, water) in tourist areas	4.23	0.91
4	sell land and houses to tourism entrepreneurs from outside areas	3.91	0.92
5	not be assisted when competing with foreign business competitors in the tourism industry	4.03	0.95
6	work outside the tourism sector	3.55	1.14
7	be ignored in planning, implementing, supervising and evaluating the dedevelopment of tourist areas	3.98	0.87
8	let the security forces maintain the order / security of the tourist areas	3.90	0.95
9	let outsiders preserve culture as tourist attractions	3.25	1.30
10	get alienated and suffered by tourism	3.60	1.21

Source: field survey, 2016.

The respondents' attitude towards to the need for community participation in tourism development compromises, which suggests that it is not a must, yet necessary. They reject to be ignored in the management of tourism destinations (mean = 3.98). They believe that once they are not involved in the management of tourist destinations, they will only be spectators to the development of tourism. The rejection towards the foreign domination is driven by a strong sense of belonging to the local resources. They, however, compromise to preserving the local culture by the outside parties for tourist attractions (mean = 3.25). Thus, they will accept contribution by outsiders to preserve the local culture and refuse if tourism results in marginalized communities (mean = 3.60).

Implementing the Principles of Sustainable Tourism in Behavior

The activities potentially harm the environment such as littering, cutting down unlimited trees, or disposing solid and liquid waste carelessly are the ones that the respondents likely avoid and ignore. Most respondents almost never or rarely do environmentally unfriendly actions. The rejection against careless littering is very strong (mean = 4.47). Likewise, the activities of cutting trees (mean = 4:58) and the disposing waste (mean 4.67) is very rare. This active behavior for conservation indicates that local communities collectively give positive contribution to the sustainable tourism in the three research sites.

The awareness of the local communities for preserving nature is very high given much benefit of sustainable nature to support daily life. The rural communities in Gunung Kidul use local wisdom for conservation of the critical land, among others by planting various kinds of trees and crops in rotation to provide high economic value on the natura.⁵¹ Environmental wisdom, that refers to the intelligence to manage the environment on the basis of local values is apparent in the unstated agreement not to take even the fallen

⁵¹ Abdullah Abas Id, A. A., Soelaeman, Y & Abdurachman, A. (2003). Keragaan dan Dampak Penerapan Sistem Usaha Tani Konservasi terhadap Tingkat Produktivitas Lahan Perbukitan Yogyakarta, *Jurnal Litbang Pertanian*, 22(2), 49-56.

timber out of the forest or cut down trees, because they believe that using forest wood will spark calamity (their house will get burnt or collapsed).⁵²

Table 4. Respondents' Behavior toward the Principles of Sustainable Tourism

No	Do you often do or deal with the following activities?	Mean	Sd
1	litter waste in the proper place	4.47	0.85
2	cut down trees freely	4.58	0.76
3	drain liquid waste and / or burn plastic waste in improper place	4.67	0.82
4	sell or redeem the rights of ownership of land, houses and other assets to outsiders	4.53	0.93
5	ignore business opportunities in the tourism industry	4.33	1.07
6	find difficulty to get a job in the tourism industry with difficult	4.13	1.17
7	avoid the activities of planning, implementing, supervising and evaluating the tourism development	4.35	1.02
8	let the order / security of the tourist areas be fully in the hands of the security forces	4.03	1.41
9	accept foreign/outside art to substitute for the main cultural attractions	4.47	0.93
10	openly reject the activities of tourism development	4.23	1.28

Source: field survey, 2016.

Economic sustainability of tourism is also quite promising. The rapid development of tourism in the last 4 years in the research sites fails to encourage the respondents to fully commercialize the local resources. They prevent the transfer of ownership of the main resources (land, houses, etc.) to investors (mean = 4.53). Strong control over over the local assets remains an option for the respondents despite that growing tourism becomes attractive investment and lead to possible asset commercialization. Conversely, the respondents see the tourism activities as an opportunity for optimal utilization (mean = 4.33). Besides, rural tourism offers better job opportunities (mean = 4.13). Small-scale rural tourism⁵³ allows them to develop small-scale business accommodation. To take an example, the local communities in Nglanggeran village operate approximately 70 homestays and 12 stalls. Soon after joining trainings on the management of tourism business, they obtain additional skills to run a small business in accommodation.

Sustainable tourism requires the massive participation of local communities in the tourism development.⁵⁴ Respondents' rate of participation in planning, implementing, supervising and evaluating the tourism development is high (mean = 4.35). It means that they are actively involved in the activities of destination management despite no information about their real contribution in it. Similarly, the respondents also get involved in maintaining security and order (mean = 4.03). They do not let security issues be fully addressed by other parties or the security forces. They are responsible for

⁵² Nurhadi, A., Setiawan, B & Baiquni. (2012). Kearifan Lingkungan dalam Perencanaan dan Pengelolaan Hutan Wonosadi, Kecamatan Ngawen, Kabupaten Gunungkidul, *Jurnal Manusia dan Lingkungan*, 19(3), 226-237.

⁵³ Nasikun. (1997). *ibid.*

⁵⁴ Nasikun (1997), *ibid.*, Also: Damanik, J. (2009). Isu-Isu Krusial di Dalam Pengelolaan Desa Wisata, *Jurnal Kepariwisata Nasional*, 4(2), 127-137.

safeguarding the environment by conducting night watch in the three research sites.

The respondents reject any foreign arts as cultural attractions (mean = 4.47). This attitude corresponds to the principles of sustainable tourism in the social field. They rely more on local arts and local cultural performances as parts of the cultural attractions of the tourist destinations. In a bid to show the local identity as tourist attractions, art performance, cultural carnivals, cultural festivals and the like are frequently performed. The activities mark the high appreciation to the local culture and different types of arts to learn and practise in everyday life.

CONCLUDING REMARKS

This study succeeds to capture the community's knowledge of the principles of sustainable tourism. The understanding towards the need for the communities to environment, obtain open economic opportunities from tourism, and engage actively in the tourism development is relatively high. Their daily observations on the development of tourism that generates various (positive and negative) effects becomes a positive learning to increase their knowledge. The positive attitude is also shown towards 10 sustainable tourism indicators which this study uses. This finding enhances the results of previous studies showing positive attitude of local communities towards sustainable tourism.⁵⁵ Positive behavior is also apparent in avoiding activities that potentially damage the environment and bring about social and economic marginalization by the tourism development. Importantly, respondents also show consistency between knowledge and attitude and behavior that support the principles of sustainable tourism.

Further exploration, however, is deemed necessary to find out the extent of the understanding, attitude and behavior of the local communities towards the overall indicators of sustainable tourism as this study is limited to capturing some parts of the indicators.***

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⁵⁵ Assante, L. M., Wen, H. I & Lottig, K. (2012). An empirical assessment of residents' attitudes for sustainable

tourism development: a case study of O'ahu, Hawai'i, *Journal of Sustainability and Green Business*, 1, 1-27. (<http://www.aabri.com/manuscripts/10602.pdf>); Also: Muresan, I. C., Oroian, C. F., Harun, R., Arion, F. H., Porutiu, A., Chiciudean, G. O., Todea, A & Lile, R. (2016). Local Residents' Attitude toward Sustainable Rural Tourism Development, *Development*, 8(100), 1-14.