ABSTRACT

The development of tourism has led to the emergence of various types of attractions; one of them is a tourist village which is expected to improve the welfare of the local community. Malang Regency has several tourist villages with various potentials. Pujon Kidul, Sanankerto, and Gubugklakah are villages that carry the concept of sustainable tourism. The purpose of this research is to improve its economic sustainability status. The method used is the AHP test. The results showed that the best strategy for Pujon Kidul village was to develop a strawberry picking tourist attraction, while for Sanankerto it was the addition of new tour packages related to water tourism and for Gubugklakah village was the development of Mount Bromo tour packages.

Keywords: tourism village, community-based tourism, sustainable tourism.

INTRODUCTION

Many believe that tourism is one of the industries that are able to contribute to regional and national income. Pitana, I Gede and Putu Gayatri (2005) found that tourism influences economy in terms of foreign exchange income, price, economic ownership and control by the public, job opportunities, development and government income, public income, and benefit distribution. Such effect for Malang regency will be even more beneficial as around sixty percent of its population will benefit from the high number of tourism objects in the area.

In the last few years, it is believed that the most suitable tourism for the protection of ecology, socio-cultural environment, local community’s economy is tourism village. The concept of which is places with distinctive characteristics and values attracting tourists with particular interest of rural life (Nusastiawan, 2012).
This study focuses on independent tourism villages of Pujon Kidul, Gubugklakah, and Sanankerto, three of nearly 130 villages in Malang regency, to identify the correct strategies to increase sustainability. There are four reasons behind the selection of the villages.

First, according to the 2019 mapping conducted by the tourism agency of Malang regency, the villages are considered independent with the support of village fund. Second, their institutions are instrumental in managing their effort of becoming independent tourism villages and, in the future, sustainable ones.

Third, the villages have their own attractiveness. As Pujon Kidul has Kafe Sawah that offers beautiful selfie spots and fruit picking activities, Gubugklakah serves the natural beauty of Nusa Pelangi Sapi and apple picking activities, and Sanankerto has fruit picking activities and Bonpring Andeman, a conservation of seventy variants of bamboo from all around the world. Those villages are considered of having their own advantages in terms of agrotourism and offering the experience of blending with the nature. Fourth, the villages are areas with smaller scope with special assets and effective entrance barriers. Furthermore, as they can be more protected by competition hindrance yet having customer loyalty (in this case tourist loyalty), the can be regarded as sustainable (Toften, Hammervol, 2013).

Studies concerning tourism village gain their importance due to three reasons. First, the empirical reality has shown that community-based tourism villages in Malang regency have not been the main focus of tourism development. It is because the attractions only comprise ten percent of all destinations, as shown in Figure 1.1.

**Figure 1.1 Percentage of Tourism Objects by Type of Tourism in Malang Regency in 2018**

Source: Malang Regency Tourism Office (2020)
The figure above describes that tourism village only comprises of 10 percent of all types of attractions, falling behind swimming pools/waterfalls and beaches with 14% and 25%. This indicates the urgency of special attention to community-based sustainable tourism villages in order to develop them in terms of both quantity and quality.

The second reason is empirical inconsistencies with the theory, or research gap. According to Shapley (2009), sustainable tourism development should focus on the continuance of tourism as economic activities and sustainable development policy as in economy and environment. Nevertheless, the process of building tourism village may disrupt environmental conservation and causes disparities and land conversion, which reduces the agriculture.

The third reason is gaps among previous studies. Siti et al. (2019), who conducted a study in villages in Batu city, proposed the development of growth strategies and tourism management to enhance such sector in the city. Meanwhile, Mujanah, Ratnawati, and Andayani (2015) found that strategies for rural tourism in villages in Bromo must involve the community, private parties, SME, local investors, and educational institutions. Susilo et al. (2018) found that the number of visiting tourists and hotel occupancy significantly affect the local income of Greater Malang area. Finally, Reni (2016) came to a conclusion that local wisdom serves as the foundation for the development of rural tourism in Kalibiru and Lopati villages in the Special Region of Yogyakarta.

Based on the background above, this research attempts to identify the correct strategy to increase the sustainability status of Pujon Kidul, Sanankerto, and Gubugklakah as tourism villages in Malang regency.

Tourism in rural areas is a quite complex concept. In order to narrow it down, rural tourism can be described as tourism activities taking place in rural areas. It can also be defined as a specific form of tourism such as agricultural tourism or agrotourism (Flannigan, 2014). This type of tourism can help improve local people’s economy without jeopardizing the environmental sustainability. In the end, such progress will reduce disparity in the community as new jobs emerge. Nevertheless, attention must be paid to the occupations’ continuity since in tourism sites they are temporary, particularly during holiday seasons.

Tourism in rural areas is inseparable from community’s contribution.CBT attempts to support kinds of tourism suitable with the communities, ensure fair distribution of benefit within the community, and present alternate responses to traditional forms of tourism development with the focus of profit maximization (Blackstock Kirsty, 2005)

**METHODOLOGY**

This research combines qualitative and quantitative methods. The former was used in data collection to identify alternatives of strategies. Here questionnaires were distributed, and interviews were conducted with related agencies and tourists in the three tourism villages, i.e. Pujon Kidul, Gubugklakah, and Sanankerto. Below
are the respondents.

**Table 3.1 Research Respondents**

<table>
<thead>
<tr>
<th>No.</th>
<th>Village Name</th>
<th>Position</th>
<th>Identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pujon Kidul</td>
<td>Environmental Agency</td>
<td>Anis Sulityowati Hasan Biyanto S.Sos, (Head of Environmental Impact Department)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social Agency</td>
<td>Fajar</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Destination Governance and Community Empowerment Agency</td>
<td>Aan Nehru, ST. MM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community and Village Empowerment Agency, Division of Business Development for Community’s Economy</td>
<td>Wahju Martini</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tourists</td>
<td>Pambudi, SE., ME Ruth Eviana SE., ME Dyah Dwi SE Kartika Sari SE., ME Rihana Sofie SE., ME</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Village Head</td>
<td>Udi Hartono</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manager of Kafe Sawah</td>
<td>Samsul</td>
</tr>
<tr>
<td>2.</td>
<td>Sanankerto</td>
<td>Environmental Agency</td>
<td>Anis Sulityowati Hasan Biyanto S.Sos, (Head of Environmental Impact Department)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social Agency</td>
<td>Fajar</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Destination Governance and Community Empowerment Agency</td>
<td>Aan Nehru, ST. MM</td>
</tr>
<tr>
<td>No.</td>
<td>Village Name</td>
<td>Position</td>
<td>Identity</td>
</tr>
<tr>
<td>-----</td>
<td>---------------------------</td>
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<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Destination Governance and Community Empowerment Agency</td>
<td>Aan Nehru, ST. MM</td>
<td></td>
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<tr>
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</tr>
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<td>Pambudi, SE., ME</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dyah Dwi SE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Kartika Sari SE., ME</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rihana Sofie SE., ME</td>
</tr>
<tr>
<td>3</td>
<td>Gubugklakah Environmental Agency</td>
<td>Anis Sulityowati (Head of Environmental Impact Department)</td>
<td>Hasan Biyanto S.Sos</td>
</tr>
<tr>
<td></td>
<td>Social Agency</td>
<td>Fajar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Village government staff (Public Relation division)</td>
<td>M Abdullah Faqih</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marketing officer of</td>
<td>Heri Siswoyo</td>
<td></td>
</tr>
</tbody>
</table>
The quantitative approach was performed using the Analytical Hierarchy Process (AHP) to estimate the best strategy to increase the sustainability of the tourism villages. This approach was taken to emphasize the objectiveness of a phenomenon using figures and statistical calculations. The final outcome of it is figures that can be reinterpreted by the researcher through scientific explanations.

Policy analyses were conducted to prepare various strategies and policies to increase the sustainability status by potential development and economic growth in Malang regency through the tourism villages. The discovered strategies were compiled, reanalyzed, and compared to decide which is the best, so in AHP the scales can be compared in pairs. The following is the comparison of strategies performed using AHP.

**Table 3.2 Analytical Hierarchy Process Scale**

<table>
<thead>
<tr>
<th>Intensity</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Both elements are equally important</td>
</tr>
<tr>
<td>3</td>
<td>One element is slightly more important than the other</td>
</tr>
<tr>
<td>5</td>
<td>One element is more important than the other</td>
</tr>
<tr>
<td>7</td>
<td>One element is definitely more important than the other</td>
</tr>
<tr>
<td>9</td>
<td>One element is absolutely more important than the other</td>
</tr>
<tr>
<td>2, 4, 6, 8</td>
<td>A. Values between two nearby considerations</td>
</tr>
<tr>
<td></td>
<td>B. If activity I gets one point as compared to activity J, J has the opposite value of I.</td>
</tr>
</tbody>
</table>

Source: Falatehan and Farobi, 2016

The valuation between one criterion and other criteria cannot be entirely consistent. The inconsistency may be caused by errors during the entry to the system, lack of information, lack of concentration, the fact that world is not always consistent, or inappropriate model of the hierarchical structure. AHP allows inconsistencies in criteria valuation as long as the inconsistency is not more than the consistency ration value of ten percent. The consistency index is calculated using the following formula.

\[ CR = CI : RI \]

Notes:

\[ CR = consistency \ ratio \]
\[ RI = random \ index \] for each matrix with \( n \) order.

CR is said to be consistent if the value is \(< 1\).

CI is calculated using the formula of:
\[ CI = (\lambda_{\text{max}} - n) : n -1 \]

Notes:

\[ CR = \text{consistency ratio} \]
\[ n = \text{order of matrix} \]
\[ \lambda_{\text{max}} = \text{largest eigenvector value of n-ordered matrix}. \]

**RESULTS AND DISCUSSION**

**RESULT**

**Table 4.1 AHP of the Economic Dimension of Pujon Kidul**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Development of other tourism services</th>
<th>Purchasing Power Improvement</th>
<th>Local product development</th>
<th>Developing local business</th>
<th>Eigenvalues</th>
<th>Total</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of other tourism services</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>0.571</td>
<td>0.666</td>
<td>0.533</td>
</tr>
<tr>
<td>Improvement in Tourist’s Shopping Value</td>
<td>0.25</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>0.142</td>
<td>0.166</td>
<td>0.266</td>
</tr>
<tr>
<td>Local product development</td>
<td>0.25</td>
<td>0.5</td>
<td>1</td>
<td>2</td>
<td>0.142</td>
<td>0.083</td>
<td>0.133</td>
</tr>
<tr>
<td>Developing local business</td>
<td>0.25</td>
<td>0.5</td>
<td>0.5</td>
<td>1</td>
<td>0.142</td>
<td>0.083</td>
<td>0.066</td>
</tr>
</tbody>
</table>

\[ CI = 0.055 \]
\[ CR = 0.061 \]

Source: Processed Data (2020)

AHP allows inconsistencies in criteria valuation as long as it is not over 10%. The table above shows that the consistency ratio of <10%, that is 0.061. Therefore, the inconsistency does not occur.

**Table 4.2 Ranking of Alternative Strategies for Pujon Kidul**

<table>
<thead>
<tr>
<th>Criteria/alternatives of Strategies</th>
<th>Strawberry Picking Unit</th>
<th>Live in Selling of the Village’s Unique Souvenirs</th>
<th>Cow Farm Tourism Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism Service Development</td>
<td>0.422</td>
<td>0.238</td>
<td>0.213</td>
</tr>
<tr>
<td>Tourist’s Shopping Value</td>
<td>0.506</td>
<td>0.214</td>
<td>0.165</td>
</tr>
<tr>
<td>Local Business Development</td>
<td>0.419</td>
<td>0.248</td>
<td>0.195</td>
</tr>
</tbody>
</table>

https://jbhost.org/
https://creativecommons.org/licenses/by/4.0
The main strategy suggested to be taken for Pujon Kidul is developing strawberry picking attraction to enhance its sustainability in economic perspective because the mean value of this strategy is the highest of all, that is 0.461 in table 2. The tourism manager can improve this attraction by increasing its added value, so tourists do not only by the fruit but also its processed product with good packaging. Khotimah et al. (2017) proposed that, in order to develop tourist destinations, attractive tourism product packaging is necessary.

<table>
<thead>
<tr>
<th>Criteria/alternatives of Strategies</th>
<th>Aquatic Packages</th>
<th>Tourism Service Development</th>
<th>Ticket income from Tourists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism Service Development</td>
<td>0.502</td>
<td>0.245</td>
<td>0.147</td>
</tr>
<tr>
<td>Ticket income from Tourists</td>
<td>0.474</td>
<td>0.256</td>
<td>0.155</td>
</tr>
</tbody>
</table>

AHP allows inconsistencies in criteria valuation as long as it is not over 10%. The table above shows that the consistency ratio of <10%, that is 0.0247. Therefore, the criteria valuation is consistent.
The best strategy to enhance the sustainability of Sanankerto in economic perspective is the addition of aquatic tourism package because this attraction has the highest value of all, that is 0.502. This strategy can be applied well Sanankerto has rivers with clear water and an aquatic tourism package that can be developed even further.

Table 4.5 AHP of the Economic Dimension of Gubugklakah

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Development of Other Tourism Services</th>
<th>Purchasing Power Improvement</th>
<th>Local product development</th>
<th>Developing Local Business</th>
<th>Eigenvalues</th>
<th>Total</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ticket income from Tourists</td>
<td>0.5</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>0.214</td>
<td>0.25</td>
<td>0.363</td>
</tr>
<tr>
<td>Local Product Development</td>
<td>0.5</td>
<td>0.5</td>
<td>1</td>
<td>2</td>
<td>0.214</td>
<td>0.125</td>
<td>0.181</td>
</tr>
<tr>
<td>Business Diversification</td>
<td>0.3</td>
<td>0.5</td>
<td>0.5</td>
<td>1</td>
<td>0.142</td>
<td>0.125</td>
<td>0.09</td>
</tr>
</tbody>
</table>

CI= 0.026  
CR= 0.028

Source: Processed data (2020)

AHP allows inconsistencies in criteria valuation as long as it is not over 10%. The table above shows that the consistency ratio of <10%, that is 0.028. Therefore, the criteria valuation is consistent.

Table 4.6 Ranking of Alternative Strategies for Gubugklakah

<table>
<thead>
<tr>
<th>Criteria/alternatives of Strategies</th>
<th>Bromo Mountain Hiking Packages</th>
<th>Parking Unit</th>
<th>Souvenir Center</th>
<th>Plantation Rental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism Service Development</td>
<td>0.502</td>
<td>0.245</td>
<td>0.147</td>
<td>0.105</td>
</tr>
<tr>
<td>Ticket income from Tourists</td>
<td>0.474</td>
<td>0.256</td>
<td>0.155</td>
<td>0.155</td>
</tr>
<tr>
<td>Local Product Development</td>
<td>0.484</td>
<td>0.231</td>
<td>0.168</td>
<td>0.116</td>
</tr>
<tr>
<td>Job Diversification</td>
<td>0.506</td>
<td>0.231</td>
<td>0.165</td>
<td>0.114</td>
</tr>
</tbody>
</table>

Source: Processed data (2020)
The main strategy to increase the sustainability status of Gubugklakah is developing Bromo mountain hiking package as its mean value is the highest of all, that is 0.490. The tourism manager can make optional offers such as tour package with car rental to reach the mountain at discounted prices.

DISCUSSION

4.2.1 Strategy to Increase the Sustainability of Pujon Kidul

One of the developing attributes of tourism service in Pujon Kidul is strawberry picking. Here tourists can experience farmer’s life, that is harvesting the fruit while wearing a hat called caping for their comfort. They can buy strawberry directly from the farm. They only need to pay IDR 5000 for the entry ticket and IDR 11,000 for a pack of strawberries. The natural attraction can be used as an appeal to attract more tourists for higher economic value added. Hjalager Johansen (2013) found that farmers do not only rely on their production but also take benefit from tourist’s interest in rural tourism activities. Thus, strawberry picking can be the main alternative for this village.

Further, this village has a unit live in, a tourism program that belongs to one of the units of village-owned enterprises, Sumber Sejahtera Desa Pujon Kidul, that strive for higher tourist shopping value. The data shows that this unit contributes to the village’s economy for IDR 1,558,817,800 (data of Kafe Sawah’s revenue, 2019). This program is offered to families, schools, offices, companies, and groups that are interested in enjoying holiday in the village for a longer time.

Tourists can live with the villagers in their houses and do their activities such as planting rice, picking vegetables, milking cows, making crafts, and cooking and eating with locals. Here tourists interact with the villagers to do certain activities. This village can also develop unit live in as a strategy to improve its sustainability.

Local product development in this village is seen from their sales of the village’s unique souvenirs such as t-shirts with certain brandings, hats, and other crafts sold in various stores in Kafe Sawah. It will be better if they sell the product online and put brands on all products. The village head has planned to establish souvenir centers. This strategy is expected to improve the village’s sustainability.

Lastly, a local business related to tourism village that can be developed is cow farm education tourism. It can be targeted for school and university students. Around the area, various kinds of milk and yoghurt products can be sold. This is relevant with the concept of rural tourism. Flannigan et al. (2014) stated that rural tourism is all tourism activities taking place in rural area. Therefore, it is important to ensure that local business can be used as a strategy to improve the village’s sustainability.
4.2.2 Strategy to Increase the Sustainability of Sanankerto

Developing aquatic tourism package can be used as one of the strategies to improve tourism in Sanankerto. Sanankerto is well-known as an area that has clear water sources whose utilization can be used to support daily life and develop business potential for the surrounding community. Maximizing this potential can provide various benefits. The village has a plan to develop other businesses and attractions such as swimming pool, boat riding, and bamboo forest. In order to develop even further, it should focus on developing Kampung Enam by adding more attractions such as paragliding and trail bike riding, so it does not rely only on photo spots around the features wooden house. The water sources in Sanankerto is centered in Kampung Enam. This village has nature-based tourism with various characteristics. In addition, this village is also famous as a village with abundant bamboo so that if the two things are combined, the tourism potential becomes very promising.

Good ticket income management is important because the increasing ticket income should add for more revenues for both the villagers and the village government. The point of consideration is whether or not the tourists feel that they pay too much for what they get. It is true that the higher the ticket income, the more the revenue, but if the visitors feel that they pay too much, they will choose other places. In the tomb of Sunan Gresik, one of religious tourist attractions, when the ticket price was raised, the region’s revenue also increased. However, the increase of the local own-source revenue will be higher if the number of the visitors increase (Sari and Indah, 2014). Therefore, good ticket income management is required to level up the tourism revenue without charging the visitors more. The increase of ticket price must be followed by improvements of facilities and addition of attractions.

Ticket price increase is actually good if it is parallel with between facility. As ticket income for tourists can increase local own-source revenue, the government has the obligation to provide comfort for them, so they make revisits and new visitors come. However, there are several things to do, such as listing sources of income and updating regulations according to respective attraction to avoid tax leakage. Such leakage in parking income is caused by poverty, economic pressure, weak supervision, foolishness, poor public awareness, and determination of income target without considering the potentials (Hani and Djasuli, 2015).

Local business that is growing in Sanankerto is culinary business. This village has two unique products: opak and carang mas. They are sold around the tourist destinations and throughout the regency, craving for development. The village has also planned to develop fruit and bamboo craft centers as well as better accommodations to help tourists enjoy their holidays (interview results with head of Sanankerto village and the manager of Bonpring).

Diversification in occupations after the opening of other tourism services in a certain village can make the people have more potentials to open new businesses and jobs such as working in parking lot and selling food and souvenirs. Hence, job diversification needs to be strengthened. For instance, food and souvenir sellers are trained for product development such as online selling and branding, since branding
can increase consumer’s interest. Dinda et al. (2021) found that branding strengthens the effect of company’s rebranding on purchase intention.

### 4.2.3 Strategy to Increase the Sustainability of Gubugklakah

One of the tourism services in Gubugklakah that are experiencing growth is hiking. The village has the potential of taking benefit from the increasing demand for tourism package with mount Bromo as the destination. Hiking is one way for tourist to develop themselves or relieve themselves from the tiring routines. However, uncertainty in tourism business has made people reluctant to engage in it. Here the government’s role is very important because one of the tourist destinations is not owned by this village, but is owned by a certain agency so that tourism income from that destination does not get in to village’s income. In Finland, the government gives easier administrative and bureaucratic arrangement for their citizens who want to start their business. It encourages them to be creative in making their business dreams come true (Sheikh, 2015). As the consequences, more tourists are coming since there are many small businesses that provides many things.

This village need to establish professionally managed parking business units as sources of income from various tourism spots. The unit will decide which spots that charge tourist for parking and how much the parking fare for bot two and four-wheeled vehicles. It is widely known that parking units contributes to the village income. The more the tourist, the higher the village’s income.

Parking unit are useful for tourists as they do not have to face difficulties in finding places to park their vehicles. This unit will also ensure neat, orderly, quick, and easy paring. The size of the parking lot should be adapted according to the tourist destinations. It is better for the village if it can increase the size of the lot as the number of vehicles entering the village will be higher during the holiday season.

Souvenir centers also need to be established to increase the effectiveness of local product development. Tourism manager of Gubugklakah village needs to diversify the types of the souvenirs, for example keychain, mug, and t-shirt. The establishment of such centers can make visitors have more options of souvenirs to buy and increase their shopping value. To realize it, budget specifically prepared for the development of souvenir centers is required.

Business diversification in Gubugklakah includes accommodation business both in the village and along the way to Bromo, souvenir industry, fruit picking, lodging, etc. In addition, farmers hire out their estate for apple and orang picking attractions, from which they do not have to wait until harvest time to receive cash. The local community’s business diversity can increase their economy. this is relevant with the Local Economic Development (LED) theory, which according to Trousdale (2005) is the shared effort by all elements of local communities to stimulate and encourage the growth of local economy toward stronger and more sustainable economy.
CONCLUSION

The best strategy to improve the sustainability status using the AHP method for the tourist village of Pujon Kidul is picking strawberries, followed by live-in units, local product development, and related local businesses. For the village of Sanankerto, the best strategy is a water-related tour package followed by retribution management, workforce empowerment, and bamboo, culinary and fruit centers. Meanwhile, to improve the sustainability status of the economic dimension in Gubugklakah, the best alternative strategy is the Mount Bromo hiking package because of its close location. The following strategy is parking units, souvenir centers, and plantation land rentals. Therefore, managers of tourism villages can apply strategies that have been discussed above in order to increase the sustainability status of their villages, and local communities should be involved in applying those strategies, from which the income of the village will increase as expected.

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