



JOURNAL OF EVENT, TOURISM AND HOSPITALITY STUDIES

<https://e-journal.uum.edu.my/index.php/jeth>

How to cite this article:

Marjuka, Y., Sigiro, E. E., Yudea, R., & Alim, T. E. (2022). Identifying the village fund's effectiveness in strengthening sustainable tourism villages. *Journal of Event, Tourism and Hospitality Studies*, 2(1), 77-105. <https://doi.org/10.32890/jeth2022.2.4>

IDENTIFYING THE VILLAGE FUND'S EFFECTIVENESS IN STRENGTHENING SUSTAINABLE TOURISM VILLAGES

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Received: 25/04/2022

Revised: 21/09/2022

Accepted: 13/12/2022

Published: 23/12/2022

ABSTRACT

This study identified factors that are crucial in sustaining the performance of tourism village through the village fund. Village Fund is one of the fiscal development instruments aimed at accelerating the distribution of welfare for the villages especially for tourism villages. Data used in this study includes the realization of the Village Fund in 2018 and 2019 from the Fiscal Policy Agency (BKF), Ministry of Finance. Data on the realization of the Village Fund are categorised into output codes in the form of numbers. For achieving the research objectives, the analytical tool used is Data Envelopment Analysis (DEA) to measure the

efficiency level of a DMU (Decision Making Unit). The lack of efficiency in utilizing the Village Fund is influenced by several factors, including the lack of knowledge and capabilities of village officials, the lack of data base common platform, the lack of technical capability in managing administrative aspects, and the misalignment of Village Fund expenditures and the village needs or targets. The study concluded that there is a need for more substantial synergies and coordination between the central and regional governments on the common platform village fund data base to minimize the deficiencies to overcome these obstacles.

Keywords: Village Fund, Efficiency of Village Fund, Tourism Village.

INTRODUCTION

The amount of Indonesia Village Fund allocated to develop and strengthen tourist villages continues to escalate in the number and quality of their use. As a fiscal instrument for development from the periphery, Village Fund is intended to accelerate equity and the quality of life of rural communities in every village. The instrument, derived from the General Allocation Fund (DAU) and the Special Allocation Fund (DAK), is allocated based on the concept of the fiscal gap to help finance special activities within regional affairs and in accordance with national priorities. The purpose of DAK is to fully assist the region, in this case, the village, in managing the Village Fund in the context of accelerating the development of tourist villages. DAK has a particular characteristic that can only be used in conformity with the menu of activities determined by the Technical Department related to the area of DAK allocation (David, 2018).

In 2015, the allocated Village Fund amounted to IDR 20.7 trillion, and each village received IDR 200 – 300 million. Furthermore, in 2016 the budget allocation for Village Fund increased by 125% to IDR 46.9 trillion, where each village received IDR 600 – 800 million. Later in 2017 and 2018 Village Fund was raised to IDR 60 trillion and each village received IDR 800

million – IDR 1 billion. In 2019, the Village Fund was increased by IDR 2 trillion from IDR 70 trillion to IDR 72 trillion. Thus, in 2019 each village was allocated the Village Fund of approximately IDR 933.92 million (Indonesia Ministry of Village, 2018).

The Indonesia village funds for implementing Sustainable Development Goals (SDGs) in tourism village

The number of Indonesian tourist villages in 2018 was 7,275, but the number of villages with tourism potential yet to be developed is 17,155. The gap occurs because village development was intensely focused on villages with superior products of traditional crafts, culinary tourism, agro-tourism, and the daily life of local communities. Attention to the less developed tourism villages was minimal. On the other hand, if the budding tourist villages are promoted, Indonesia's number of tourist villages might increase to 24,430. This improvement may strengthen tourism industry employment by increasing the number of village tourism workers from 363,750 to 1,221,550 people. From 2015 to 2017, there were 1,764 activities with total spending of IDR 130.93 billion related to the use of the Village Fund for the establishment and empowerment of tourism villages. The activities include infrastructure and amenities development, such as the construction of roads, bridges, health, and clean water facilities, electrification, and construction of homestays; and also a variety of technical and human resource empowerment, such as foreign language training, workshops for making tourist souvenirs, tour guide training, management training for homestay operators, and training and strengthening of tourism awareness groups (pokdarwis). According to the Minister of Village Regulation No. 21/2017, priorities for allocating Village Fund are the development of physical infrastructure and the empowerment of local communities.

Tourism village is one of the themes for tourist destinations which appeal relies on the form of village life values (Marjuka, 2017; Susilo, 2020; Aguzman, Manurung, Pradipto, & Sanny, 2020). As usual, a destination must have the attributes of amenity, attraction, accessibility, ancillary, and available packages (Middleton, Fyall, Morgan, & Ranchhod, 2009). Sitinjak (2020) argues that each element of a tourist village has its weight of importance; for example, the attraction has the highest weight of 25.5%, followed by accessibility 24.60%; ancillary, 18.60%; accommodation, 18.20%; and amenities 13.00%. Attractions are the main priority, so it is strengthened by increasing the thematic variation of tourism, namely cultural events, improving the quality of souvenirs, and structuring the area to become a photo spot. The five attributes of strengthening the tourist village are carried out following the institutional capacity formed by the local community. Community empowerment in tourism is an expectation from the government so that local communities must also be able to draw positive benefits from tourism development efforts (Herawati, Purwaningsih, & Pudianti, 2014). Communities who are the main actors must be actively involved in tourism development with other relevant stakeholders, both from the government and the private sector, to achieve economic benefits that can improve the welfare of the people.

In achieving the Sustainable Development Goals (SDGs) in 2030, the villages have been documented and are listed in Presidential Decree No. 59/2017. Therefore, the allocated Village Fund is expected to be utilized under the SDGs principles, with no exception for tourist villages. Sustainability, manifested by the SDGs, is a goal for future generations that involves reconciling economic interests with natural resources and local culture so that they continue to provide benefits to stakeholders for an indefinite period. There has been much restructuring in the agricultural sector into modern sectors in rural areas. The tourism sector is an alternative to maintaining socio-economic wealth in rural areas. Many of Indonesia's

countryside is rich in natural landscapes, culture, and traditions that need to be preserved. Rural tourism can promote sustainability and positively impact the community's economy (Marzo-Navarro, Pedraja-Iglesias, & Vinzon, 2015). Stakeholder strength is a requirement of sustainability, environmental support, local policies, and the existence of tourist destinations. The development of tourist destinations is based on a model of local community empowerment concerning the principles of nature conservation, economy, and socio-culture. Community empowerment is fundamental as it is the core of sustainable tourism. The community's perspective as a stakeholder has a significant role in developing a tourist destination. Some researchers argue that sustainable and community-based tourism preserves nature, has high control over tourism activities, and benefits the community as the primary host (Scheyvens, 1999). Community empowerment in tourism also reflects expectations from the government so that local communities must also be able to draw positive benefits from tourism development efforts (Marjuka, 2018; Herawati, Purwaningsih, Pudianti, & Surya, 2014).

The basic concept of a tourism village includes territory, rural heritage, rural life, and rural activities. Combined with the community's involvement in solving issues on a small to a global scale, these attributes are the basis of sustainability (Fons, Fierro & Patiño, 2011). Tourism village, is a form of sustainable development programme supported by the law as regulated in the Minister of Culture and Tourism No. PM.26/UM.001/MKP/2010 regarding General Guidelines National Programme for Community Empowerment (PNPM). This guide contains concepts, strategies, and program stages to build public awareness and strengthen institutions so that the community can be involved as actors in the tourism industry. The success of tourist attractions in achieving sustainability relies heavily on the collaboration between the local government and the community. The Indonesian government is also focused

on this aspect because the economic and welfare impacts are inherent in this strategy, as stated in the 2018-2019 tourism strategy (Ministry of Tourism, 2018).

Tourist villages throughout Indonesia are an inseparable part of global tourism economic activities and are committed in achieving the SDGs. Utilization of the Village Fund to strengthen sustainable tourism villages will promote the village economy. As the epicentre of economic growth, sustainable tourism villages will create economic multipliers through networks and chains of tourism village products. However, research on the effectiveness of using the Village Fund in efforts to develop sustainable tourism villages is still limited. This study is expected to contribute to identifying the Village Fund's effectiveness in strengthening sustainable tourism villages by improving the 4A functions: attractions, accessibility, amenities, and ancillary, which reflect the organizational/institutional capacity. This study consists of four parts. The first part introduces the concept of a tourism village, the Village Fund in Indonesia, and sustainability. The second part explains the methodology used in the study. The third part discusses the results and analysis. The last part provides the conclusion and suggestions.

METHODOLOGY

Analytical framework

Technically, the effectiveness of using Village Fund can be seen from: a) Changes in output indicators before/after Village Fund is allocated; b) Changes in the efficiency of the use of inputs in the creation of outputs, accompanied by information on the size of outputs or changes in productivity. Extensions in this context refer to the additional input capacity in

terms of volume, timeliness, and allocation of use. At the same time, improvements refer to positive progress towards achieving the SDGs targets, both indicated by the SDGs indicators and proxies of tourism output. This research model assumes that tourist village destinations (attractions or tourism programmes) are strengthened by using the Village Fund allocations to create new attractions/spots (and their multiplier effects). In addition, the existence of the Village Fund is expected to improve accessibility, amenities, and ancillary, which are the essential components of tourism villages. Village Fund spending in tourist villages is mapped according to SDGs number 8, 12, 14, and 17. It can help achieve sustainability within the scope of the four SDGs that have been mentioned. A study evaluating the effectiveness of using the Village Fund to develop a tourist village must at least meet the following criteria: analytic, systematic, reliable, reproducible, and easy to use.

Data collection

Data used in this study includes the realization of the Village Fund in 2018 and 2019 from the Fiscal Policy Agency (BKF), Ministry of Finance. Data on the realization of the Village Fund are categorised into output codes in the form of numbers. For example, code 230101 reflects the expenditure and completion of village road maintenance. Then the output codes are categorised into the 4A functions: attractions, accessibility, amenities, and ancillary (institutional). Selection of Village Fund data/output codes related to the use and purchase of goods and services for tourist villages are mapped according to SDGs 8, 12, 14, and 17. The selected villages are located in six provinces: West Java, Central Java, East Java, DI Yogyakarta, Bali, and West Nusa Tenggara. The selection of the six provinces was based on the highest number of tourist villages spread across provinces in Indonesia. The following is the indicator code for village funds in tourist villages in six provinces against the selected

SDGs. Furthermore, the data will be processed using Data Envelopment Analysis (DEA) to find efficiency figures from village funds.

Table 1

Indicator Codes Village Fund of Accessibility Related to SDGs

Village Codes	Fund	Activity	Village Fund Activity Description
230101			Village Road Maintenance
230201			Residential/Alley Environmental Road Maintenance
231401			Village Bridge Improvement/Rehabilitation
231302			Road Infrastructure (Culverts, Ditches, Box/Slab Culverts, Drainage, Other Road Infrastructure)
410201			Maintenance Village Owned
410401			River/Small Fishing Port
410402			Rehabilitation/Improvement of Village Owned River/Small Fishing Port

Table 2

Indicator Codes Village Fund of Amenities Related to SDGs

Village Codes	Fund	Activity	Village Fund Activity Description
230601			Maintenance of Village Hall Building/Community Hall
240301			Maintenance of Clean Water Sources
240501			Maintenance Sanitation
240601			Maintenance of Public Latrine Facilities/public MCK, etc.
240701			Maintenance of Village/Residential Waste Management Facilities
260101			Road Signs
470301			Implementation of Small Industry Development at Village level
280101			Maintenance of Village-Owned Tourism Facilities and Infrastructure
280202			Rehabilitation/Improvement of Advice and Tourism

Infrastructure Owned by the Village

Table 3

Indicator Codes Village Fund of Attraction Related to SDGs

Village Codes	Fund	Activity	Village Fund Activity Description
210901			Land for Art and Learning Studio
210902			Art and Learning
210903			Art and Study Studio Building/Building
210904			Art Equipment
230701			Furniture Art and Study Studio
231602			Maintenance of Village-Owned Cemetery/Village-Owned Historic Sites/Village-owned Petilasan
231603			Village Owned Historic Site
231604			Village Owned Petilan
			Rehabilitation/Improvement of Village-Owned Cemetery/Village-Owned Historic Site/Petilasan

Table 4

Indicator Codes Village Fund of Ancillary Related to SDGs

Village Codes	Fund	Activity	Village Fund Activity Description
340401			Number of Training Participants in Community Institutions Development
450201			Implementation of Development of Infrastructure for Micro, Small and Medium Enterprises and Cooperatives
450301			Procurement of Appropriate Technology for Non-Agricultural Rural Economic Development
470401			Implementation of Establishment/Facilitation/Training/Assisting productive economic business groups (craftsmen, traders, home industries, etc.)
280301			Implementation of Village Level Tourism Development

Data Envelopment Analysis (DEA)

In order to achieve the research objectives, the Data Envelopment Analysis (DEA) analytical approach is used to measure the efficiency level of a DMU (*Decision Making Unit*). Charnes, Cooper, and Rhodes developed the DEA model in 1978. The DEA is a non-parametric method that uses a linear model to calculate the ratio of output and input for all units compared in a population (Endri & Abidin, 2009). The resulting efficiency figure is based on a mathematical algorithm that links the input and output values. In this context, DEA can compare the efficiency of Village Fund allocations in generating tourism output in various villages in line with SDGs No. 8, 12, 14, and 17. Through this information, we can identify the villages with the highest and lowest efficiency, with an interval score ranging from 0 to 1, and further analyse each region's stages of economies of scale. If the score is 1, it indicates an efficient DMU and inefficient if the DMU value is below 1. Qualitative information is added to describe the recipe of success of villages with high-efficiency levels. This approach uses cross-section or panel data.

The DEA mathematical equation used is:

$$\text{Efficiency of DMU} = \frac{\sum_{r=1}^R u_{rb} Y_{rb}}{\sum_{i=1}^I v_{ib} X_{ib}}$$

Limit function

$$\frac{\sum_{r=1}^R u_{rb} Y_{rb}}{\sum_{i=1}^I v_{ib} X_{ib}} \leq 1, \forall j, j = 1, 2, 3, \dots, N$$

And

$u_{rb}, v_{ib} \geq 0$ for each r, i (where $r = 1, 2, 3, \dots, R$ and $i = 1, 2, 3, \dots, I$)

Where Y_{rb} are the outputs and X_{ib} are the inputs of each DMU. Then, u_{rb} is the weight assigned to the

output on the basis of unit b, is the weight assigned to the input.

RESULTS

Rural tourism is one of the most labour-intensive industries, which has a high potential to contribute to the creation of new workplaces and the economic development of rural areas (Hall, Kirkpatrick, & Mitchell, 2005). The financing aspect, including the Village Fund, is one of the main enabling factors in achieving the development goals of tourism villages. Hall and Daneshmend (2003) stated that financing for tourist villages is often limited due to low tourist traffic and short vacation periods. In Indonesia, the government provides support for the development of tourist villages, one of which is through the Village Fund. The primary distribution of village funds is prioritised to finance local-scale programmes and activities to evolve villages and empower communities. Village Funds are following the priorities to ensure that output achievement can be maximised. Additionally, the amount of Village Fund that increases yearly is expected to be used efficiently through the output. The tourist villages that are the unit of analysis for this research are located in West Java, Central Java, East Java, DI Yogyakarta, Bali, and West Nusa Tenggara. This study categorizes the results of Village Fund efficiency based on the output code, which is then categorised into the tourism output code and 4A (Accessibility, Amenities, Attractions, and Ancillary).

Table 5

DEA Results on Output Codes Related to Accessibility in 2018

Output Code							
Efficiency Level	230101	230201	231302	231401	410201	410401	410402

0.00-0.19	39 50	34 58	13 26	66 41	40	15	36
0.20-0.39	2	6	6	1	8	0	2
0.40-0.59	0	12	1	0	5	0	0
0.60-0.79	0	2	0	0	2	0	2
0.80-1.00	6	2	3	11	2	2	3

Tables 5 to 12 present the number of villages categorised at different efficiency levels and output codes. Tables 5 and 6 show the output codes categorised as representations of activities to build/provide/renew village accessibility. Code 23101 is a code for village road maintenance activities; code 230201 is a code for maintenance of residential/alley environmental roads, code 231302 is an activity code, code 231401 is a village road infrastructure activity code, code 410201 is a river fishing port maintenance activity code, code 410401 is an activity code village-owned river/small fishing port, code 410402 is the code for village-owned river/small fishing port rehabilitation/improvement activities. In 2018, overall, in the accessibility category, most villages in the six provinces had the lowest level of efficiency (0.00 – 0.19). This means that almost all villages have been unable to use village funds efficiently to increase village accessibility which is an essential factor for a tourist village. Then, it can be seen that the highest number of villages are involved in village road infrastructure activities. The village road infrastructure includes culverts, box/slab culverts, drainage, etc.

Table 6

DEA Results on Output Codes Related to Accessibility in 2019

	Output Code						
Efficiency	230101	230201	231302	231401	410201	410101	410402

Level							
0.00-0.19	3809	3793	1717	6641	61	15	69
0.20-0.39	3	2	0	1	0	0	4
0.40-0.59	4	19	1	0	0	0	5
0.60-0.79	2	2	0	0	1	0	0
0.80-1.00	5	4	4	11	2	2	2

Table 6 shows that in 2019, there were not many changes, both in the number of villages that used village funds to increase the accessibility of tourist villages and the number of villages that were efficient in using those village funds. There was an increase from 2018 to 2019, namely the addition of one efficient village (0.80-1.00) in the use of village funds at the output code 231302 and two villages at the output code 230201. Then there was a decrease in the number of efficient villages by one village at the output codes 230101 and 410402. Most villages have not efficiently used village funds for the seven output codes. The number of villages that use village funds efficiently is mainly used in village road infrastructure activities (culverts, sewers, box/slab culverts, drainage, and other road infrastructure) with activity code 231401. Activities include improving the quality and quantity of village roads and developing proper sanitation. With the improvement of village infrastructure, it is hoped that it will improve the welfare of the people in the village.

Table 7

DEA Results on Output Codes Related to Amenities 2018

	Output Code								
Efficiency Level	230601	240301	240501	240601	240701	260101	470301	280101	280202
0.00-0.19	708	911	898	626	1068	75	132	148	192
0.20-0.39	5	8	0	5	0	1	4	1	1

0.40-0.59	2	7	0	0	10	0	0	1	0
0.60-0.79	0	2	0	3	0	0	0	0	0
0.80-1.00	7	4	2	2	2	3	4	3	3

Furthermore, Tables 7 and 8 show the number of villages with different levels of efficiency in the use of village funds for the nine output codes that represent the expenditure of village funds to build/improve/rehabilitate the facilities included in the amenities. These output codes include code 230601 for building maintenance activities for the village hall/community hall, output code 240301 for maintaining clean water sources, output code 240501 for sanitation maintenance activities, output code 240601 for public latrine maintenance activities. Public toilets, output code 240701 is an activity code for maintaining village/settlement waste management facilities, output code 260101 is a road sign activity code, output code 470301 is an activity code for implementing small industry development at the village level, output code 280101 is a facility and infrastructure maintenance activity code. Village-owned tourism and output code 280202 is a code for rehabilitating or improving village-owned tourism facilities and infrastructure. In 2018, as shown in Table 7, less than 4% of the villages are efficient (0.80-1.00) in managing village funds for activities that support village amenities. Then, most or around 95% of villages are still classified as inefficient.

Table 8

DEA Results on Output Codes Related to Amenities in 2019

Efficiency Level	Output Code								
	230601	240301	240501	240601	240701	260101	470301	280101	280202
0.00-0.19	1151	1130	1197	1196	1733	75	395	238	408
0.20-0.39	10	5	0	6	14	1	0	2	15
0.40-0.59	2	0	1	2	5	0	0	0	7

0.60-0.79	0	1	0	0	1	0	0	0	2
0.80-1.00	8	6	9	7	11	3	2	4	3

Table 8 shows the efficiency level of using village funds in the output code related to amenities in 2019. The number of villages using village funds for village amenities increased with an average additional village of 267, except for the output code 260101, which did not change. However, most villages are still not efficient in using village funds, where the highest number of villages is at the lowest efficiency level, namely 0.00-0.19. The number of villages that managed village funds efficiently in 2019 increased by one village for the output code 230601 and 280202, two villages for the output code 240301, seven villages for the output code 240501, five villages for the output code 240601, and nine villages for the output code 240701. Other output code does not change or even decrease. In both 2018 and 2019, the number of villages that have achieved efficiency is still far less than those that have not been efficient, which is no more than 4%. In 2018, the most efficient activity was Maintenance of Public Latrine Facilities/public MCK, etc., with activity code 240601, while in 2019, it was Maintenance of Village/Residential Waste Management Facilities with activity code 240701.

Table 9

DEA Results on Output Codes Related to Attraction in 2018

Efficiency Level	Output Code								
	210901	210902	210903	210904	210905	230701	231602	231603	231604
0.00-0.19	1	102	409	3	276	262	18	30	134
0.20-0.39	1	0	60	4	20	0	7	0	0
0.40-0.59	0	1	10	0	4	0	4	1	0
0.60-0.79	0	0	0	0	1	0	0	0	0
0.80-1.00	2	4	5	3	4	4	3	3	2

Table 10 *DEA*

Results on Output Codes Related to Attraction in 2019

Efficiency Level	Output Code								
	210901	210902	210903	210904	210905	230701	231602	231603	231604
0.00-0.19	10	52	463	9	506	658	59	38	134
0.20-0.39	0	7	76	2	45	5	19	5	0
0.40-0.59	0	3	27	2	7	0	0	1	0
0.60-0.79	0	0	3	0	5	1	1	1	0
0.80-1.00	3	3	5	3	5	7	3	3	2

Attraction is one of the essential components of tourism. An object that has an attraction in an area and is continuously developed will undoubtedly become a source/capital for that area. Attractions are divided into three, namely: natural resource wealth, cultural tourism wealth, and artificial wealth. Therefore, village funds are used to develop tourist villages. Thus, research on the effectiveness of using village funds for attractions is essential. Tables 9 and 10 explain the DEA results for the output codes related to attractions in 2018 and 2019. The output code used follows the selected SDGs; namely, code 210901 for art and learning studio land, code 210902 for buildings/ art and learning studio building, code 210903 for art equipment, code 210904 for art and learning studio furniture, code 210905 for other art and learning studio facilities, code for village cemetery maintenance/village historical sites/*petilasan* belonging to the village, code 231602 for historical sites belonging to the village, code 231603 for *petilasan* belonging to the

village and code 231604 for rehabilitation/improvement of cemeteries belonging to the village/historical sites belonging to the village/*petilasan* in villages in six provinces in Indonesia. Based on the table, it is found that the number of villages that have effectively used village funds is at the efficiency level of 0.8 - 1, with only a few or less than seven villages in 2018 and 2019. This indicates that the utilization of village funds is still not optimal, so it is expected that Tourism villages that are not yet optimal with an efficiency level of 0 - 0.79 can try to implement activities or policies for the use of villages that have effectively used them.

In addition to accessibility, amenities, and attractions, the ancillary component also needs to be considered in the development of tourist villages. The local government can provide ancillary as one of services for tourists. Ancillary supports tourism through management agencies, tourist information, travel agents, and stakeholders. Table 11 and 12 show the effectiveness of Village Funds on ancillary output in 2018 and 2019 which consists of five output codes. These are 340401, which is the output code for the number of training participants for community institution development, 450201 is the output code for the implementation of the development of infrastructure for micro, small and medium enterprises, 450301 is the output code for the procurement of appropriate technology for non-agricultural rural economic development, 470401 is the output code for the establishment/facilitation/training/assistance of productive economic business groups (artisans, traders, home industries, and others). Moreover, 280301 is the output code for implementing village-level tourism development. In contrast to the attraction component, the number of tourist villages that can use village funds is much higher, with the most code 470401 in 2018 with 14 villages. The smallest is coded 450201 and 280301 with two villages. While in 2019, the most were still code 470401, as many as ten villages use the village funds efficiently.

Table 11

DEA Results on Related Output Codes Ancillary in 2018

	Output Code				
Efficiency Level	340401	450201	450301	470401	280301
0.00-0.19	2902	490	502	3009	304
0.20-0.39	1	3	18	0	6
0.40-0.59	2	0	6	0	1
0.60-0.79	0	1	1	0	2
0.80-1.00	7	2	6	14	2

Table 12

DEA Results on Related Output Codes Ancillary in 2019

	Output Code				
Efficiency Level	340401	450201	450301	470401	280301
0.00-0.19	1702	1259	611	2343	549
0.20-0.39	1	0	0	0	34
0.40-0.59	0	0	0	0	6
0.60-0.79	0	3	0	0	5
0.80-1.00	6	4	2	10	3

Overall, in 2018 and 2019, Village Fund's average efficiency in each category was relatively low. The number of villages that have been efficient in allocating Village Fund indicated by a value of 1 is very limited. An efficient village can be used as a benchmark for villages that are not efficient in allocating Village Fund. For instance, in 2018, one of the efficient villages in allocating the Village Fund for waste management was Peliatan Village in Bali. This indicates that the use of the Village Fund has been allocated appropriately according to the development of tourism villages. The development is like improving amenities in code 240701 in village waste management facilities. In 2018, Peliatan Village received an award in managing Village Fund and became the village with the highest IDM (Indeks Desa Membangun) in Bali Province, indicating a strong village development. In organic waste management, there are 117 Biopore at the Natar Temple and 25 in the maintenance area, making it 142 Biopore. The construction of Biopore is intended to manage organic waste, such as waste after ceremonies. In addition, the eco brick concept is also applied through compacting plastic wastes such as packaging bottle waste.

Based on the results, the number of villages with a DMU score = 1 is still very limited rather than below 1. It proves that the utilization of village funds still needs to be improved. A review of the State Financial Accountability Agency (BAKN) of the DPR RI on the results of the examination of the Indonesian Supreme Audit Agency (BPK) on the Village Fund Management (DD) Guidance and Supervision Activities stated that the utilization of village funds with 83.381 villages/ward, 1.006 sub-districts in 34 provinces throughout Indonesia found that the existence of several main problems in the management of the Village Fund, both in the aspect of coaching and in the aspect of supervision. Some of these limitations are:

a. Lack of knowledge of village officials in managing Village Fund/lack of village

apparatus competence

The Minister of Village, Development of Disadvantaged Areas and Transmigration, Eko Putro Sandjojo (2018), admits that village funding still has problems so far, especially on how the village officials allocate these funds. In addition, some of the village leaders or heads of villages still lack capabilities and knowledge in managing the reporting system for Village (Anderesta, Maretta, & Arsyillah, 2018). These issues need to be addressed accordingly to promote optimal allocation of the Village Fund.

For a planning strategy to be successful, it must focus on organization efficiency (Baum, 2009). In addition, it must be noticed that not all rural areas are equally attractive to tourists, and it is the planners that must discover the special qualities and local attractiveness and plan for the development of these special features (Gunn & Var, 2002).

b. The problem of orderly institutional administration

The reporting system carried out by each village cannot be appropriately implemented due to several factors. Based on the results of the 2018 BPS survey, the obstacles in establishing village financial reports were primarily due to the limited capability of human resources (41.30%), the absence of guidance (24.64%) and others (6.52%).

c. Realization of Village Fund that is not well targeted

The allocation of the Village Fund increases gradually to improve village quality. The activities include the construction of roads, bridges, water connections, wells, drainage, irrigation, etc. This development is expected to improve physical infrastructure and community empowerment, which would improve the quality of life by reducing poverty and infrastructure gaps and increasing employment opportunities in the village. However, the realization of village funds is still not effectively used by many villages. It can be seen in the results that code 230101 is the construction of village roads; only six villages have succeeded in maintaining the village road

using village funds. In contrast, other villages have not been able to use village funds to support road construction.

The allocation of the Village Fund has increased from 2015 until 2020. Hence the average fund received by each village also increases.

Table 13

Development of Village Fund Allocation

Year	Allocation (in trillion rupiah)	Average per Village (in million rupiah)
2015	20,7	280
2016	46,98	628
2017	60	800
2018	60	800
2019	70	933
2020	72	960

(Source: Direktorat Jenderal Perimbangan Keuangan (DJP) JPK (2020) (processed))

The evaluation results show that the Village Fund's use for the 2019 fiscal year is mainly used for village infrastructure development and for organizing youth and sports festivals/contests (Suharyono, 2020). However, there are obstacles in the context of Village Fund realization. The challenges include potential misalignment, in which Village Fund expenditures are not in accordance with the mapping of village problems and needs. According to Suharyono (2020), the use of Village Fund in 2019 has not been carried out properly because there are still activities that have not been realized, such as management of village libraries, construction/improvement of road infrastructure, training/socialization/awareness of LHP, strengthening and upgrading capacity of security personnel, maintenance of village-owned

river fishing ports. Although the utilization of village funds is still inefficient, village funds have an important role in the independence of a village. It ensues because village funds influence improving public services, alleviating poverty, improving the village economy, overcoming inequality, and strengthening rural communities as objects of development. Several movements can be carried out to increase the utilization of village funds, namely:

- a. The need for the identical nomenclature between ministries, that is between the Ministry of Finance, Ministry of Village, Development of Disadvantaged Regions and Transmigration of the Republic of Indonesia, and the Ministry of Home Affairs. With this equation, it is hoped that it will make it easier for village officials and avoid realizing it is not following the target.
- b. There needs to be data synchronization so that the data used between villages is the same.
- c. Policy innovation is needed to help coordination and break the silos among the government institutions. The aim is to have higher capacity and capability of regulator and policymaker.

CONCLUSION

Village Fund is one of the fiscal development instruments aimed at accelerating the distribution of welfare for the village. This is reflected in the government policy by increasing the Local Government Fiscal (APBDes) allocation for strengthening tourism villages and the number of prioritised villages assigned for tourism development. From 2015 to 2017, there have been 1,764 activities and a total expenditure of IDR 130.93 billion related to the use of the Village Fund for the establishment and empowerment of tourism villages. One of the goals of using the Village Fund is to achieve the TPB (Sustainable Development Goals), which consists of 17 development goals. This study focuses on four objectives, namely: rural employment and economic growth, environmentally conscious village consumption and production, village marine ecosystems, and dynamic village institutions and adaptive village

culture in 6 provinces, namely West Java, Central Java, East Java, Bali, Special Region of Yogyakarta and West Nusa Tenggara. The DEA method is employed to assess the efficacy of the Village Fund in strengthening four tourism village functions, namely Attractions, Accessibility, Amenity, and Ancillary. Using 30 output codes in 2018 and 2019, we show that the efficiency of Village Fund expenditure was still below desired outcome.

The lack of success in utilizing the Village Fund is influenced by several factors, including the lack of knowledge and capabilities of village officials, the lack of technical capability in managing administrative aspects, and the misalignment of Village Fund expenditures and the village needs or targets. These obstacles affect the efficiency of Village Fund realization. There is a need for more substantial synergy between the central and regional governments to minimize deficiencies and overcome these obstacles. Some empowerment activities can be promoted, such as intensifying training activities for the village officials, including administrative processes, and mapping the strategic village problems and goals that need to be addressed urgently. Nonetheless, this study has answered the research objectives, namely the use of the Village Fund in improving sustainable tourism villages. Based on the results, it can be seen that the number of villages that have been effective in using village funds is shown through the results of the DEA. If the DEA score is one, the village has used the funds efficiently. Hopefully, this research can be used as a basis for policy formulation in improving sustainable tourism villages. However, we realize several shortcomings. It will serve as inputs to enrich further research, including:

1. It is necessary to use data over a more extended period to show the impact of the Village Fund.
2. It is necessary to use formal parametric methods to demonstrate better the impact of Village Fund allocations on the development of tourist villages and show effectiveness

of using village funds.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

ACKNOWLEDGEMENT

We would like to express our sincere gratitude to the Fiscal Policy Agency of the Republic of Indonesia and to the Institute of Research and Community Services, Faculty of Economy at Parahyangan Catholic University for all the supports to conduct this research.

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