

ADAPTATION AND MITIGATION STRATEGY OF COMMUNITIES AROUND THE NATURAL TOURISM AREA OF SITUGUNUNG IN THE ERA OF THE COVID-19 PANDEMIC

MUHAMAD REDITO ANJANA^{1*)}, EVA RACHMAWATI²⁾, AND RINEKSO SOEKMADI²⁾

¹⁾ Tropical Biodiversity Conservation Study Program, Faculty of Forestry and Environment, Bogor Agricultural University, Bogor, 16680, Indonesia

²⁾ Department of Forest Resources Conservation and Ecotourism, Faculty of Forestry and Environment, Bogor Agricultural University, Bogor, 16680, Indonesia

*Email: rachmadhe@apps.ipb.ac.id

Accepted February 09, 2022 / Approved January 28, 2023

ABSTRACT

The COVID-19 pandemic has caused losses for communities around the Situgunung natural tourism area. Adaptation and mitigation are needed to reduce the deterioration felt by the community. This research aims to analyze adaptation and mitigation strategies for people in the COVID-19 pandemic. The method used is a household survey of 140 respondents, which was analyzed descriptively. The results showed that the community adaptation level is still low. Adaptation strategies are carried out by people with vulnerable economic conditions based on the characteristics of their work. Tourist workers and non-tourists have different adaptation strategies but have similar mitigation strategies. In general, mitigation is planned with asset and financial management, resource allocation, finding primary and side job alternatives, and strengthening social relationships. The role of various parties, especially destination managers, is needed to strengthen adaptation and mitigation of communities at the village level to achieve resilience in the future.

Key words: *Adaptation, community, COVID-19, mitigation, tourism*

INTRODUCTION

The COVID-19 pandemic had had a significant impact on people and livelihoods, and the tourism sector is no exception (Škare et al. 2021). Many tourism destinations are closed from tourist visits as a consequence of regional quarantine and social restrictions, causing many tourists to cancel their visits and resulting in a drastic decline in tourists (Baiquni 2020). World Tourism Organization (2020) stated that tourism is one of the sectors most affected. The decline of international tourists has decreased drastically, causing the loss of 200 million tourism-related jobs worldwide, including in Indonesia (Sugihamretha 2020). Badan Pusat Statistik (2020) indicated that the number of foreign tourist visits to Indonesia as of October 2020 had decreased drastically by 88.25% compared to 2019. Until the first quarter of 2021, BPS (2021) data noting fluctuations in tourist arrivals still needs to show stability.

Situgunung tourist area adjacent to Gede Pangrango Village is one of the destinations affected by the COVID-19 pandemic. Destination managers and the surrounding community, including the Gedepangrango Village as a location and entrance to the Situgunung natural tourism area, feel losses due to the pandemic's impact. Harahap (2020) and Rachmawati (2018) research results indicated that the village closest to the tourist area is the village that feels the most significant impact from tourism activities.

This natural tourist area with the longest suspension bridge in Southeast Asia as its main attraction involves many local people in tourism activities. Community involvement includes interpreters, street vendors, shop-house users, camping service providers, local transportation providers, tourist motorcycle taxis, and water facilities providers.

The COVID-19 pandemic has caused vulnerabilities in society, including economic decline and stagnation (Puspitasari 2019; Suartana et al. 2020). The community needs adaptation as an act of community adjustment to survive adversity (Cahyani 2015). Mitigation or prevention of the same situation is part of a disaster management activity to reduce risk in the future (Walther 2008; Nasution 2011). Indonesian Regulation Number 24, the Year 2007, describes disaster adaptation as the adjustment of natural and human systems to the stimulus of actual or expected natural disasters without their impacts, which cause losses or exploit opportunities that provide benefits. Mitigation is a series of efforts to reduce disaster risk, both through physical development and awareness and improvement of the ability to deal with disaster threats. Adaptation and mitigation are carried out to reduce disaster risk to communities in disaster-prone areas. Adaptation actions carried out by the community are categorized in the form of physical, economic, and social strategies. Community adaptation and mitigation are essential factors to encourage the achievement of community resilience to the COVID-19 pandemic.

This shows the ability or capacity to bounce back or respond positively to the harmful effects of a disaster with efforts to contain or absorb impacts, efforts to recover quickly, and creativity to reduce vulnerabilities that may occur in the future. (Maguire and Hagan 2007; Masterson et al. 2014). Adaptive and resilient communities play an important role in the recovery phase of a destination (Rapaport et al. 2018; Mostafanezhad and Norum 2019). Understanding the existing community conditions is the basis for formulating the direction of mitigation actions taken by the destination stakeholders and as an effort to prevent the occurrence of material losses and casualties due to disasters (Setiawan 2014). Thus, this study was conducted to analyze the adaptation and mitigation strategies carried out by the community around the Situgunung natural tourism area in the COVID-19 pandemic era.

RESEARCH METHOD

The research site is Gedepangrango Village (999.4 ha; $106^{\circ}92'72''$ E and $6^{\circ}91'67''$ S). This village was selected since it is close to the Situgunung tourism destination. Gedepangrango Village is a buffer village to the Gunung Gede Pangrango National Park area. Topography has a temperature of 18-29°C and an altitude of \pm 800-1200 mdpl. The village is divided into 4 hamlets. Those hamlets and the distance from the tourist attraction are Hamlet Cibunar 1 (4 Km), Hamlet Cibunar 2 (3 Km), Hamlet Cijagung 1 (3 Km), and Hamlet Cijagung 2 (2 Km) (Pemerintah Desa Gede Pangarango 2019).

Situgunung Suspension Bridge is an area that has five main attractions, including Situgunung Lake, Suspension Bridge, Sawer Waterfall, Campground, and Cimanaracun Waterfall. Since May 2020, the area has been officially closed to comply with the Circular Letter of the Ministry of Environment and Forestry Number 407/BBTNGGP/Tek.P2/3/2020 concerning the Closure of Tourist Places in Gunung Gede Pangrango National Park (GGNP), especially in Sukabumi and Cianjur. The closure of the Situgunung has caused a decrease in the number of tourist visits which has an impact on decreasing Non-Tax State

Revenue (PNBP) and disrupting the livelihoods of people who depend on tourism in Situgunung. The following graph presents the number of visitors (Figure 1).

The number of visitors to Situgunung then increased again in July 2020 because, at the beginning of July 2020, Situgunung was re-opened following the Circular Letter of the Ministry of Environment and Forestry Number 764/BBTNGGP/Tek.2/7/2020 concerning the Re-opening of Nature Tourism and Camping in Gunung Gede National Park Pangrango. At the time of re-opening, regulations for adapting new habits in tourism activities began to be implemented, such as SOPs for health protocols, provision of handwashing and temperature checking facilities, and limiting the number of visitors to 50% compared to the previous year. The number of tourists in 2020 decreased by 113,615, or 37.40%, compared to 2019.

Data was collected through a community survey from January to February 2021 with households as the sample unit. The selected respondent are individuals who are >18 years old, so they are believed to be able to provide mature decisions. (Kementerian Pemberdayaan Perempuan dan Perlindungan Anak 2015). The sampling technique used is non-probability sampling with the convenience sampling method. This method was chosen based on the accessibility of comfort, proximity, and the respondent's relationship with the researcher. The respondents' type of job identification in this study was based on the main job and side jobs. The number of respondents who were successfully surveyed was 140 respondents consisting of 38 tourism workers and 102 non-tourism workers. The questions given include:

- The community characteristics.
- The condition of the community in accepting the COVID-19 pandemic situation.
- The efforts that have been made to reduce the impact.
- The efforts that will be made in the future.
- The community's expectations for the parties to help deal with the pandemic situation in the future.

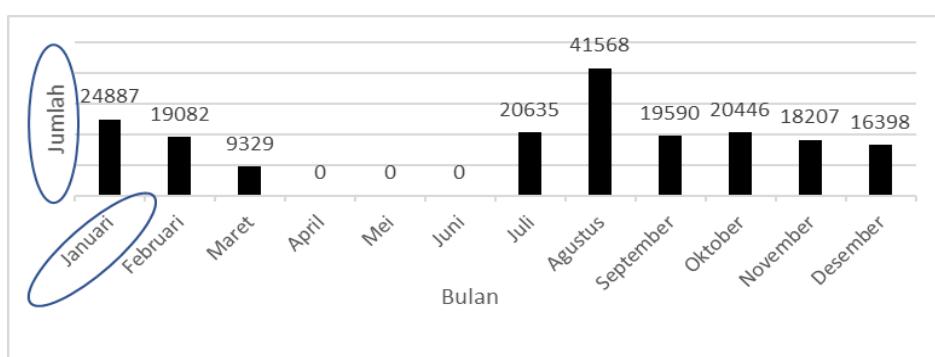


Figure 1 Graph of the number of visits in 2020

Supporting data in this study were obtained from written documents in the form of a profile of Gedepangrango Village, a profile of Situgunung natural tourism, the number of tourist visits to Situgunung during the last 1 year, as well as research results in journals and scientific articles that support the research.

Data analysis was carried out in a quantitative descriptive to provide an in-depth picture of the present state. Descriptive statistics are used to obtain frequency and percentage. In this study, the observed phenomenon is the community's adaptation and mitigation strategy based on the work's characteristics. Strategies are also analysed to identify the differences between those who work in the tourism and non-tourism sectors.

RESULT AND DISCUSSION

1. Respondents Characteristics

The categories and proportions of the respondents' jobs are presented in the Table 1. Most of the respondents' main occupation is casual daily labourer (12.86%). Other livelihood sectors that dominate are traders and farmers (10.71%). People who trade generally sell household staples and other logistical needs. Before the COVID-19 pandemic, the trader used to sell snacks and toys at schools in the Kadudampit District area. Those who work in

agriculture generally grow agricultural commodities such as vegetables. Other occupations are civil servants (3.57%), honorary employees (3.57%), private employees (8.57%), breeders (1.43%), and housewives (15%).

Community involvement in Situgunung, among others, as employees under the auspices of PT. Fontis Aquam Vivam and PT. Tana Kita and as non-employees under the Situgunung Resort. Employees are also divided into permanent employees (7.14%) and casual employees (0.71%). Casual employees work part-time and are paid based on working days or other provisions. Apart from employees, workers are also divided into permanent workers (0.71%) and casual workers (2.14%). Meanwhile, the non-employee professions include motorcycle taxis (5.71%), traders (8.57%), porters (0.71%), and National Park volunteers (1.43%).

In addition, to identify a primary job, side jobs were also identified to find out other sources of community income. However, most respondents (52.86%) do not have a side job. Most side jobs are as traders (16.43%) and casual daily labourers (12.14%). The rest are farmers (4.29%), breeders (0.71%), entrepreneurs (6.43%), traders in Situgunung (3.57%), motorcycle taxis in Situgunung (2.86%), and porters at Situgunung (0.71%).

Table 1. Respondents main and side job.

Category	Proportion (%)	
	Main	Side Job
Government employees	3,57	0
Honorary	3,57	0
Private sector employee	8,57	0
Farmer	10,71	4,29
Breeder	1,43	0,71
Trader	10,71	16,43
Freelance	12,86	12,14
Entrepreneur	2,86	6,43
Retired	0,71	0
Situgunung Permanent Employees	7,14	0
Situgunung Casual Employee	0,71	0
Situgunung Permanent Workers	0,71	0
Situgunung Casual Worker	2,14	0
Traders in Situgunung	8,57	3,57
Situgunung motorcycle taxi	5,71	2,86
Situgunung Porter	0,71	0,71
Volunteer	1,43	0
Housewives	15	0
Do not have job	2,86	52,86

2. Community Adaptation Strategy

The adaptive capability of the Gedepangrango Village community still needs to improve. This capability can be seen from the ability to store and remember experiences (institutional memory), use memory and experiences to learn and innovate (innovative learning), and connect with other people inside and outside the community (Longstaff et al. 2010). There has been no experience of a similar situation as the past COVID-19 pandemic felt by the community. In the beginning, as an impact of the pandemic, the community had to overcome their difficulties in fulfilling their daily needs by using the materials they have. Until the end of 2020, the difficulty of people's access sources of income during the pandemic caused people to tend to surrender and survive with existing conditions.

The absence of a similar experience causes the absence of innovative learning by the community. The community stated that the COVID-19 pandemic was a catastrophic event that was felt by the community for the first time and had a tremendous impact. Even though the public did not experience direct exposure to the COVID-19 virus, they still felt the impact. However, the relationship between communities has been good since before the COVID-19 pandemic, causing them to be responsive in joint prevention efforts from exposure to the virus. The communities are always helping each other deal with household difficulties. They also connect with outside parties, getting and being willing to ask for help from them. But the community has yet to find an ideal solution to overcome economic problems at the village level. Their weak adaptive capacity makes the community need adaptation strategies to survive and overcome problems, at least on the household scale.

Based on the job characteristics, adaptation strategies tend to be needed by people whose jobs could not overcome the economic challenge due to the pandemic, especially those with low-income jobs such as casual daily labourers, traders, farmers, and non-employees in Situgunung. It seems that the middle to lower economic conditions experience difficulty to survive (Nismawati and Nugroho 2020). The overall adaptation carried out by the community is explained below.

a. Changing consumption patterns

The change in consumption patterns is a form of adaptation that is almost carried out by all people, including those who are more resilient. Before the COVID-19 pandemic, the side dishes consumed were relatively varied, ranging from vegetable and animal types. The price of animal side dishes such as chicken, beef, and fish is high, making people choose to reduce the level of consumption of these side dishes.

b. Prioritizing budget

The respondents prioritized the household's budget only for basic needs such as education, health, and daily needs. The whole community carries out this strategy. There is no budget allocation for secondary needs such as clothes, snacks, and other accessories. Several respondents stated that before the pandemic, they went shopping activities at the malls and vacationed with family, which they did not do anymore.

c. Utilizing surrounding resources from home garden or *pekarangan*

Most of the Gedepangrango Village community still has large yards. Some even have a garden planted with agricultural commodities such as leeks, eggplant, lettuce, chilli, cayenne pepper, and tomatoes. The community uses these commodities for the personal consumption of their families. However, there were no citizen plant medicinal plants as a preventive measure to prevent the COVID-19 pandemic because the health aspect was not of much concern to them. Prevention efforts carried out by the community members are implementing health protocols.

The strategy mentioned before was generic. Other communities can carry out this strategy without restrictions or need particular conditions of a destination in another location.

The other specific adaptation strategies were carried out by the community based on their respective types of work, including the following:

a. Non-tourism workers

a.1 Freelance

Respondents with casual daily labourer jobs in the service sector are forced to continue to work outside the village and stay in the area where they work even though conditions are still unconducive. Some of the respondents also work as a farmer on their family land. The absence of public transport passengers also causes public transport driver to cut their working days and hours because their income does not match the cost of gasoline spent.

The stakeholders related to each type of work can encourage the above adaptation. In the COVID-19 pandemic, big companies in the service sector that require some on-site workers who stay at the location permanently would need to provide safe facilities for workers. Those facilities are clean bedrooms, complete health protocol facilities, provision of a COVID-19 handling team at the company level, and implementing work time arrangements for some employees. Time management, for example, by implementing a shift system to provide workers with more rest time. Then for construction workers, during the social restriction period, one of the jobs allowed to take place without Work From Home (WFH) is construction activities. In this situation, employers could also direct their employees to work with strict health protocols. Companies with development projects can target rural

workers by setting strict qualifications to employ young workers to adulthood and reducing workers in the old age category.

Furthermore, the employer must enhance communication and application in implementing health protocols in transportation facilities for their workers. This is because the community's sense of security in using public facilities has yet to be built due to the low level of awareness of other users who do not comply with health protocols. This effort can be made through direct or indirect broadcast media to build a perceived level of security for passengers so that public transport workers can operate adequately.

a.2 Trader

At the beginning of the pandemic, traders who previously used to sell around the area chose to stop and start doing it at home. Concerning the types of goods traded, most of them still sell the same type of goods traded before. The community's ability to survive based on work as traders are more owned by those who have settled with the location and type of goods traded. This is because they have had regular customers since before the COVID-19 pandemic.

In a difficult situation during the COVID-19 pandemic, one of the efforts that can be taken by parties who can be involved in encouraging the adaptation of traders is to assist in planning business strategies in new locations. Traders' habit today is to sell similar products to competitors who already have their market. The types of products traded need to be adjusted to the currently available target market. Careful planning will help new traders to enter a competitive and turbulent trading environment and reduce the impact of changes that may occur in the future.

a.3 Farmer

During the pandemic, farmers began to reduce the services of farm labourers and work on the land with their own families. The species planted is also a fast harvest type, like caisim. This is done so that income is still obtained more frequently, even though prices are falling and the number of requests is reduced. Farmers who previously chose independent businesses are now trying to fulfil their production facilities, such as affordable plant fertilizers, by registering themselves as members of farmer groups in the village.

The stakeholder could support the community's adaptation by ensuring the availability of plant seeds at affordable prices in the market. Then to avoid the trend of shifting types of commodities, the government must ensure that market prices remain stable. In addition, to protect farm workers who are starting to have lacked the opportunity to work, the government could be loaned the land to be used as agricultural land by farm workers in the village. It is recorded in the village data of natural resources that settlements and yards of 116 hectares can be used as agricultural land.

b. Tourism Workers

Adaptation during the pandemic is shown more by those with tourism jobs as non-employees at Situgunung. Motorcycle taxis and traders in Situgunung choose to work only at busy times, such as on weekends and other holidays. On weekdays, motorcycle taxis in Situgunung choose to work as public motorcycle taxis in the village. Meanwhile, traders only trade in other locations, such as outside the tourist area and only depend on income at that location. As for the volunteers and porters at the resort, they choose to keep working every day, although the severance pay they get depends on the number of visitors who come.

The company's current policy to divide the quota of tourist motorcycle taxi workers daily has supported motorcycle taxi workers to have the same opportunities at work. The adaptations that motorcycle taxi workers have made have also been able to describe good actions by trying to find sources of income elsewhere. As for the tourist traders, the interview results show that one factor preventing visitors from buying their merchandise is the need for more trust from visitors in the safety of selling locations during the COVID-19 pandemic. Therefore, cleaning the work environment for tourist traders is also necessary. The companies can adequately implement the CHSE (Cleanliness, Health, Safety, and Environmental Sustainability) program to encourage safe and healthy tourism activities (Fitriana et al. 2020). The call for traders to apply 3M (Wearing masks, Washing hands with soap, and Maintaining distance) needs to be increased. This can be seen from the field conditions, which still show a crowd of fellow traders, traders who do not wear masks, and the availability of cleaning facilities around the trading location, which still needs to be improved.

The current actions of traders who choose not to work during low visitor times also do not show adaptive behaviour. Some literature shows that one form of adaptation by the community is to diversify sources of income. For example, the people of Langensari Village (West Java), Mojo Village (Central Java), and Sumber Klampok Village (Bali) have more than one source of income to reduce the risk of failure of some livelihoods due to the impact of climate change (Sakuntaladewi and Sylviani 2014). Good learning about disaster phenomena will also encourage community adaptation to recover quickly. For example, the people of the Bukit Lawang Plantation Village were able to bounce back from natural disasters (flash floods) in a reasonably short time (Rachmawati 2018). Purwahita et al. (2021) research result regarding the impact of COVID-19 on Bali tourism suggested that the community could reach out to businesses in other sectors so that the community's economy would not continue to experience long-term problems. However, this is done without leaving the tourism sector while

developing innovations to deal with tourism activities when the situation returns to normal.

The difficult pandemic situation makes the community responsive to opportunities to get assistance from the government, such as MSMEs used by people who work as traders. Based on the survey, it was recorded that more than 1,000 people registered for assistance. The community uses business capital assistance, such as opening a shop, creating a home catering business, selling clothes and accessories through social media, and selling pulses and electronic quotas. But unfortunately, many MSME recipients need to maintain their business sustainability. This is seen as something that the government needs to pay attention to. So that people need to see that the aid distribution is correct and on target.

As for many household populations in this village, only a few people with sufficient materials have resilience. This is because, at the household level and individual communities with a good economy are able and have a more significant opportunity to reduce risk factors both in pandemic situations and other disasters (Uscher-Pines et al. 2007; Chinzorig et al. 2019; Dalimunthe 2021). Jobs with fixed salaries and severance pay, and assistance from other parties encourage the community's level of adaptation in reducing exposure. External factors such as the role of the parties are believed to influence differences in the level of community resilience (Ariviyanti and Pradoto 2014). People who work as civil servants, private employees, and employees in Situgunung have better adaptability. The workers who still receive salaries during the pandemic have yet to make significant economic changes. People are still working like before the COVID-19 pandemic. However, even so, adaptation in the form of changing consumption patterns is still carried out to deal with unexpected things. The company's policy in Situgunung during the closure of the area by not laying off employees, cutting some salaries, and providing cash and non-cash assistance has helped the community survive.

The people of Gedepangrango Village's adaptation strategies and efforts can be replicated in other locations with similar conditions or characteristics. In general, the strategies described, such as efforts to create a clean work environment, assist in job diversification, and provide assistance, can be carried out by any sector stakeholder (e.g. the government, the private sector, or other actors such as non-governmental organizations and communities).

3. Community Mitigation Strategy

The difficult pandemic situation makes people have to be able to project the impact into the future. The community knowledge about mitigating the impact of the COVID-19 pandemic is formed from the mindset of people who feel a significant impact based on their recent experience. Similar to the adaptation

strategy carried out by communities with vulnerable jobs, the community has also planned mitigation to deal with similar situations in the future. In general, vulnerable communities' mitigation strategies include asset and financial management, resource allocation, finding alternative jobs, creating side jobs, and strengthening social relationships.

In the recovery phase of a tourist destination, the highest priority for building resilience is to prepare the tourist objects and attractions in the area. Several studies have shown that efforts to understand the resilience of the tourism industry are from the objects' resilience and other aspects that support the tourism industry, such as hotels, restaurants, transportation (Mair et al. 2016; Orchiston and Higham 2016; Yamali and Putri 2020), marketing and rebranding (Morrish et al. 2016), and tourist motivation (Biran et al. 2014; Morrish et al. 2016). This way, other aspects, including society, can also be touched. As for Tang dan Feng (2018), the best possibility to restore the affected destinations is by redeveloping, not restoring to a previous state, to have long-term prospects. This can also be done through product development, image enhancement, enrichment of local knowledge, and strengthening connections between visitors and destinations. Everything is packaged with a sustainable purpose and vision. Based on this, the following are some of the mitigation strategies that have been planned by the community, as well as the efforts that can be taken by the parties to encourage such mitigation.

a. Asset Management and Finance

Saving for business capital that the community will carry out is very important because one of the obstacles for traders to innovate products during a pandemic is the availability of capital. The community carries out the saving strategy by working as traders, either at tourist sites or not. The habit of people not allocating a budget for emergency conditions is one thing that must be improved. The high poverty level reflects a consumptive household culture, not an investment one. Preparing an unexpected budget helps families not to take routine family funds for these purposes (Pradyanyi et al. 2018). Unexpected allocation of funds will also avoid the possibility of selling assets to meet needs in difficult times. According to Masassy (2004), Asset and financial planning can be done by (1) knowing the current net worth, namely the number of assets, debts, and funds that can be saved; (2) determining short-term and long-term financial goals; (3) determining the allocation of income for consumption, savings, investment, and protection; (4) implement the allocation plan with discipline; and (5) evaluate the plan. The community still needs to record their current finances, so monthly financial arrangements are still very irregular. Almost all types of work fields carry out this strategy.

Each household still carries out this strategy to reduce the reduced savings and loss of assets. Efforts at the household level are also due to the absence of joint economic activities at the community level. Joint economic activities in this village have yet to be found due to the absence of shared memory that fosters innovative learning at the community level. Based on this, to support mitigation in a current situation, the presence of cooperatives as socio-economic institutions is indispensable as a big house for MSMEs, a means of lending and lending money and goods, a means of developing the community's economy, and as an aggregator in the community.

b. Resource allocation

Current resources, such as plantations and other forms of land, can be used to grow vegetables for their household needs. Potential land can also be planted with promising commodities as a side income source. The non-farmer workers are starting to realize that there are opportunities from the existence of the resources they have so that they will carry out this strategy.

Currently, there are not many forms of utilization of natural resources originating from forests in the National Park area that are relied on by the community to help reduce risks during the COVID-19 pandemic. The interviews with the community show that community access to utilize the area is increasingly limited. The community's utilizing natural resources such as non-timber forest products (NTFPs) are expected to help the community adapt to similar situations in the future. One of the steps that can be taken is forming a forest farmer group engaged in utilizing potential NTFPs in Situgunung, such as copal, palahlar wood sap, and forest honey. In addition, using natural resources can also be used for the cultivation of medicinal plants and land use with an agroforestry system. In addition to household use, several respondents also suggested agroforestry and agro silvopasture activities, which could become a tourist destination. Meanwhile, to strengthen the productivity of utilization results, farmers need to be assisted and facilitated in meeting the needs of all their production facilities and ensuring market price stability. In this activity, the role of regional agricultural agencies is vital.

c. Looking for Alternative Jobs

On average, housewives have the motivation to work to help their husbands to increase family income. Four respondents in this study who worked as housewives admitted that they wanted to work as migrant workers when the pandemic situation had improved. Then the survey results show a tendency for people who work as non-employees in Situgunung to look for alternative jobs in the future. This is because people think that the current job is seen as unable to guarantee the continuity of income in difficult times

like this. In addition, the public's disappointment with the actions of companies that provide logistics for tourists during the COVID-19 pandemic is considered to have further reduced the number of consumers buying food at community stalls. They hope that if they continue with their current job, they are expected to receive direction from the company and the management of the National Park so that logistics can be provided by empowering them.

Meanwhile, other workers with older age have yet to make plans to find other jobs. This is due to age, which reduces the motivation to look for other jobs outside the village. They only hope the pandemic will end soon so their work can stabilize again.

Concerning tourism workers in Situgunung, efforts to diversify work by the stakeholders can be carried out by utilizing the current conditions of the community around tourism and the current conditions of national tourism development. Strategies that can be taken include re-empowering the community as suppliers of tourist logistics needs on a wider scale. This is because, before the pandemic, this activity had been carried out but decreased daily. An example is making the community a supplier of welcome drink needs such as bananas, cassava, sweet potatoes, ginger drinks, etc. Besides that, it is also a supplier of catering needs, snack boxes, and other snack providers included in the tour packages offered by the company.

Innovation in tourism activities is urgently needed during a pandemic. One of them is increasing the local knowledge of the community as a provider of interpreter services for tourists. The interview results with the community show that some have high knowledge of the resources at the Situgunung resort. They are used to being guides in research activities. This potential can be a recommendation for procuring educational-based tourism activities in this area, either directly or indirectly (virtually), as informal or curriculum-based formal education.

The economic shock of the pandemic is prompting some industries to adapt to digital platforms (Mehrolia et al. 2020), including the tourism industry. Technology is a major force in creating flexibility in the tourism industry (Hall et al. 2020). Currently, the Ministry of Tourism and Creative Economy has introduced Work From Home activities that can be carried out in tourist areas, known as Work From Destinations or Digital Nomads. Through digital nomads, everyone can have the opportunity to complete their work, not in the office but nomads or moving from one place to another, such as a cafe, library, or relaxing vacation spot (Riauaktual.com, 4 January 2021), including in the tourist area of Situgunung. The technological facilities needed for the innovations are an adequate electricity network, telecommunication channels, availability of wifi networks, and other supporting facilities. Informally,

educational activities can be embedded in special tour packages focusing on regional interpretation. Based on suggestions integrated with surrounding natural resources.

Then the use of virtual travel advice for promotional activities or tour packages is also one of the promising digital innovations. Many marketing experts use virtual tourism to attract potential consumers to come to a destination. Good visualization helps to promote the area that leads to regional economic development. Virtual tourism also helps ensure the safety and protection of resources. This activity also continues to provide an educational function in it (Voronkova 2018).

Tourism development in the digital era, such as Digital Nomad and Virtual Tourism, is an opportunity for the community to keep getting more varied jobs in the tourism sector. The post-pandemic tourism industry can turn into a new global economic order that is marked by welfare and local community involvement (Sharma et al. 2021).

d. Creating a Side Job

Although many of the workers choose to stay with their current main job, the community has plans to create side jobs as an additional source of income. The side jobs identified include home catering, electronic credit and household furniture, freshwater fish farming, agro pastures (agricultural and livestock businesses), clothing and online accessories businesses, and property businesses.

Efforts that can support this strategy are community empowerment in the MSME sector. The community expects an industry that can reach households to produce products sold in a broad market. Community MSME assistance can be done to seek business innovation with a wider market.

e. Strengthening Social Relations

The community currently sees good connectivity between communities as one of the things that must be maintained to face the pandemic situation in the future. Helmi and Satria (2012) stated that good social relations are one of the strategies that can be built to deal with change. Social relations also represent a resilient community and become the foundation of community resilience because it allows for collective action, provides human, psychological, financial and material resources (Luke and Evensen 2020; Paterlow 2020).

In connection with the creation of good social relations at this time, it cannot be separated from the role of the village and sub-district governments, who have built a comfortable situation during the COVID-19 pandemic. This is certainly a lesson to be improved in the future. However, the built conditions must be accompanied by the awareness of negligence in the community by not complying with health protocols. Appeals and strict rules must still be the priority of the parties in building safe village conditions.

Based on the description above, it needs to be identified that there are many differences which show

the curriculum, formal education agencies can work with area managers to develop outdoor learning that the community's mitigation strategies are generally based on their work. The difference is only found in the use of surrounding resources, the tendency to look for other alternative jobs, and the efforts related parties can make.

The experience of the COVID-19 pandemic is very valuable and will be a future lesson for the community. The current low adaptive capacity can be improved by implementing the planned mitigation. Folke (2006) explains the essential characteristics that shape resilience, including system knowledge about risks (i.e., social pressures faced by the community), knowledge of disaster potential and risk, socio-economic vulnerabilities, the ability of the system to organize itself, the ability of the system to learn and adapt and prepare mechanisms for dealing with risks. The social conditions of rural communities will generally foster better resilience because they are better able to translate the resources they have (Rapaport et al. 2018; Yang et al. 2020).

CONCLUSION

Community adaptation capacity still needs to improve. High capacity is only owned by people who work with a fixed salary or severance pay and people who receive assistance. The strategy begins when people with vulnerable economic conditions feel changes in the economic sector based on their work characteristics. Workers in tourism and non-tourism have different strategies. The similarity between the two is seen in the tendency to choose the time to work. The community already has a mitigation strategy, but it is still in the initiative at the household level. The community expects assistance from outsiders to encourage community mitigation at the village level. There is no difference in mitigation strategy between tourism and non-tourism workers. In general, mitigation is planned with asset and financial management, resource allocation, finding alternative main and side jobs, and strengthening social relations.

Stakeholders in the non-tourism sector could pay attention to vulnerable workers such as farmers, traders, and casual daily laborers by conducting various counseling, mentoring, and ensuring the availability of job opportunities in difficult situations. In the tourism sector, community empowerment is needed to direct and take advantage of the current conditions of non-employee workers to fulfill the logistical needs of tourists. Policies implemented during the pandemic need to consider the sustainability of the work of the community, not employees. Policies that National Parks and companies can carry out are to establish a pattern of public communication with the surrounding community regarding the impact of the COVID-19 pandemic, maintain the number of permanent and non-permanent employees, reduce the cost of renting shop houses for

traders, ensure a clean tourist environment by preparing health protocols and procedures that detailed and consistent for tourists, as well as optimizing local potential to be appointed as part of the selling value of the Situgunung tourist area.

REFERENCES

- Ariviyanti N, Pradoto W. 2014. Faktor-Faktor Yang Meningkatkan Resiliensi Masyarakat. *J Tek PWK*. 3(4):993–1002.
- Baiquni M. 2020. Menata Ulang Kepariwisataan yang Berkualitas dan Berkelanjutan Merespons Pandemi COVID-19. In: Masudi W, Winanti P. New Normal: Perubahan Sosial Ekonomi dan Politik Akibat COVID-19. UGM Pr. Yogyakarta. 210–233.
- Biran A, Liu W, Li G, Eichhorn V. 2014. Consuming Post-disaster Destinations: the Case of Sichuan, China. *Ann Tour Res*. 47: 1-17. doi:10.1016/j.annals.2014.03.004.
- BPS. 2020. Perkembangan Pariwisata Dan Transportasi Nasional Oktober 2020. *Ber Resmi Stat*. No.92/12/T.
- BPS. 2021. Perkembangan Pariwisata Dan Transportasi Nasional April 2021. *Ber Resmi Stat*. No.43/06/T.
- Cahyani RI. 2015. Resiliensi Komunitas Petani Padi Sawah dalam Menghadapi Serangan Hama di Dusun Bangle, Kabupaten Karawang. *Skripsi*. Institut Pertanian Bogor. Bogor
- Chinzorig T, Sugiyama K, Aida J, Tsuboya T, Osaka K. 2019. Are Social Inequalities in Influenza Vaccination Coverage in Japan Reduced by Health Policy?. *Prev Med Reports*. 16:100959. doi:10.1016/j.pmedr.2019.100959.
- Creswell JW. 2007. *Qualitative Inquiry and Research Design: Choosing Among Five Approaches - Second Edition*. SAGE. California.
- Dalimunthe SA. 2021. Bencana Pandemi Covid-19 Tidak “Socially Neutral”!. Pusat Penelitian Kependudukan LIPI. Jakarta.
- Fitriana R, Simanjuntak D, Dewanti R, Author C. 2020. Pembekalan Materi CHSE (Cleanliness, Health, Safety and Environmental Sustainability) dalam Training of Trainers Akademisi Pendamping Desa Wisata History Article. *CARADDE: J Pengabdian Kpd Masy*. 3(1): 138-145.
- Folke C. 2006. Resilience: The Emergence Of A Perspective For Socio Ecological Systems Analyses. *Glob Environ Chang*. 16(3): 253–267. doi: 10.1016/j.gloenvcha.2006.04.002.
- Hall CM, Scott D, Gössling S. 2020. Pandemics, Transformations and Tourism: Be Careful What You Wish For. *Tour Geogr*. 1-22. doi:10.1080/14616688.2020.1759131.
- Harahap N. Persepsi Masyarakat tentang Dampak Ekonomi dan Sosial Terhadap Wisata Alam Syaakirah View & Resto, Sumatera Utara. *Skripsi*. Institut Pertanian Bogor. Bogor.
- Nurdin I, Hartati S. 2019. *Metodologi Penelitian Sosial & Pendidikan*. Media Sahabat Cendekia. Surabaya.
- Helmi A, Satria A. 2012. Strategi Adaptasi Nelayan Terhadap Perubahan Ekologis. *Makara Hum Behav Stud Asia*. 16(1): 68-78. doi:10.7454/mssh.v16i1.1494.
- Kementerian Pemberdayaan Perempuan dan Pelindungan Anak. 2015. *Modul Pelatihan bagi Fasilitator Data Terpisah menurut Jenis Kelamin dan Usia*. Kementerian PPPA. Jakarta
- Longstaff PH, Armstrong NJ, Perrin K, Parker WM, Hidek M. 2010. *Building Resilient Communities: A Preliminary Framework for Assessment*. Homel Secur Aff. Torrens Resilience Institute. Adelaide.
- Luke H, Evensen D. 2020. After the Dust Settles: Community Resilience Legacies of Unconventional Gas Development. *Extr Ind Soc*. doi:10.1016/j.exis.2020.12.004.
- Maguire B, Hagan P. 2007. Disasters and Communities: Understanding Social Resilience. *Aust J Emerg Manag*. 22(2): 16.
- Mair J, Ritchie BW, Walters G. 2016. Towards a Research Agenda for Post-disaster and Post-crisis Recovery Strategies for Tourist Destinations: a Narrative Review. *Curr Issues Tour*. doi:10.1080/13683500.2014.932758.
- Masassy E. 2004. *Cara Cerdas Mengelola Investasi Keluarga*. Gramedia. Jakarta.
- Masterson JH, Peacock WG, Van Zandt SS, Grover H, Schwarz LF, Cooper JT. 2014. *Planning for Community Resilience: a Handbook for Reducing Vulnerability to Disasters*. Island Press. Washington DC.
- Mehroli S, Alagarsamy S, Solaikutty VM. 2020. Consumers Response to Online Food Delivery Services During COVID-19 Outbreak Using Binary Logistic Regression. *J Consum Stud*. doi:10.1111/jcs.12630.
- Morrish S, Prayag G, Nguyen M. 2016. From Brand Love to Brand Divorce: the Effect of a Disruption in Supply on Consumer-Brand Relationships. In: Hall CM, Malinen S, Vosslamber R, et al. *Business and Post-disaster Management: Business, Organisational and Consumer Resilience and the Christchurch Earthquakes*. Routledge. Abingdon.
- Mostafanezhad M, Norum R. 2019. The Anthropocenic Imaginary: Political Ecologies of Tourism in a Geological Epoch. *J Sustain Tour*. 27(4): 21-35. doi:10.1080/09669582.2018.1544252.
- Nasution Y. 2011. Mitigasi Kebakaran melalui Masyarakat. *Kesmas Natl Public Heal J*. 6(4): 179-184. doi:10.21109/kesmas.v6i4.97.
- Nismawati N, Nugroho C. 2020. Perekonomian Masyarakat Kelurahan Tounsaru Pasca Merebaknya Wabah Covid-19. *Indones J Econ Entrep Innov*. 1(1):54–61. doi:10.31960/ijoeei.v1i1.441.

- Orchiston C, Higham JES. 2016. Knowledge Management and Tourism Recovery (De)Marketing: the Christchurch Earthquakes 2010–2011. *Curr Issues Tour.* 19(1): 64-84. doi:10.1080/13683500.2014.990424.
- Paterlow S. 2020. Social Capital and Community Disaster Resilience: Post-Earthquake Tourism Recovery on Gili Trawangan, Indonesia. *Sustain Sci.* 16:203–220.
- Pemerintah Desa Gede Pangarango. 2019. *Profil Desa Gedepangrango Kecamatan Kadudampit Kabupaten Sukabumi.* Pemerintah Desa Gedepangrango. Sukabumi.
- Pradnyani N, Artaningrum R, Wasita P. 2018. Perencanaan dan Pengaturan Keuangan Keluarga Bagi Persekutuan Wanita Dian Kristawati (PWDK) Wilayah Bandung Selatan. *LP2M-UNDHIRA BALI.* 203–208.
- Purwahita AAARM, Wardhana PBN, Ardiasa IK, Winia IM. 2021. Dampak Covid-19 terhadap Pariwisata Bali Ditinjau dari Sektor Sosial, Ekonomi, dan Lingkungan (Sebuah Tinjauan Pustaka). *J Kaji dan Terap Pariwisata.* 1(2): 68-80.doi:10.53356/diparojs.v1i2.29.
- Puspitasari, Aini MN, Satriani R. 2019. Penguanan Resiliensi dan Strategi Penghidupan Masyarakat Rawan Bencana. *Talent Conf Ser Local Wisdom, Soc Arts.* 2(3): 32-40. doi:10.32734/lwsa.v2i1.592.
- Rachmawati E. 2018. Tourism And Community Empowerment: Critical Insights From Indonesia. *Dissertation.* Lincoln University. Christchurch.
- Rapaport C, Hornik-Lurie T, Cohen O, Lahad M, Leykin D, Aharonson-Daniel L. 2018. The Relationship Between Community Type and Community Resilience. *Int J Disaster Risk Reduct.* doi:10.1016/j.ijdrr.2018.05.020.
- Sakuntaladewi N, Sylviani S. 2014. Kerentanan dan Upaya Adaptasi Masyarakat Pesisir Terhadap Perubahan Iklim. *J Penelit Sos dan Ekon Kehutan.* 11(4): 281-293. doi:10.20886/jsek.2014.11.4.281-293.
- Setiawan H. 2014. Analisis Tingkat Kapasitas dan Strategi Coping Masyarakat Lokal dalam Menghadapi Bencana Longsorstudi Kasus di Tawangmangu, Karanganyar, Jawa Tengah. *J Penelit Sos dan Ekon Kehutan.* 11(1):70–81.
- Sharma GD, Thomas A, Paul J. 2021. Reviving Tourism Industry Post-COVID-19: A Resilience-Based Framework. *Tour Manag Perspect.* 37:100786. doi:10.1016/j.tmp.2020.100786.
- Škare M, Soriano DR, Porada-Rochón M. 2021. Impact of COVID-19 on the Travel and Tourism Industry. *Technol Forecast Soc Change.* 163(12049). doi:10.1016/j.techfore.2020.120469.
- Suartana IW, Yasa GW, Setyari NPW, Purnamawati IGA. 2020. Resiliensi Bisnis Badan Usaha Milik Desa pada Era Pandemi: Sebuah Pendekatan Studi Kasus. *Matrik J Manajemen, Strateg Bisnis dan Kewirausahaan.* 14(2): 253-263. doi:10.24843/matrik:jmbk.2020.v14.i02.p09.
- Sugihamretha IDG. 2020. Respon Kebijakan: Mitigasi Dampak Wabah Covid-19 Pada Sektor Pariwisata. *J Perenc Pembang Indones J Dev Plan.* 4(2):191–206. doi:10.36574/jpp.v4i2.113.
- Sugiono. 2016. *Metode Penelitian Kuantitatif, Kualitatif, Dan R & D.* Alfa. Bandung
- Uscher-Pines L, Duggan P, Garoon J, Karron R, Faden R. 2007. Planning for an Influenza Pandemic: Social Justice and Disadvantaged Groups. *Hast Cent Rep.* 37:32–39.
- Voronkova LP. 2018. Virtual Tourism: on the Way to the Digital Economy. *IOP Conference Series: Materials Science and Engineering.* 463(042096).
- Walther C. 2008. The Disaster Management (http://www.grdc.org/uem/disaster/1-dm_cycle/html). [27 Dec 2021]
- Wardhani W, Sumarwan U, Yuliati LN. 2015. Pengaruh persepsi dan preferensi konsumen terhadap keputusan pembelian hunian green product. *Jurnal Manajemen dan Organisasi.* 6(1): 45-63.
- WTO. 2020. UNWTO World Tourism Barometer May 2020. 18(2): 1–48. (<https://doi.org/10.18111/wtobarometereng>) UNWTO.[12 Dec 2020}
- Yamali FR, Putri RN. 2020. Dampak Covid-19 Terhadap Ekonomi Indonesia. *Ekon J Econ Bus.* 4(2). doi:10.33087/ekonomis.v4i2.179.
- Yang J, Zheng Y, Gou X, Pu K, Chen Z. 2020. Prevalence of Comorbidities and Its Effects in Patients Infected with SARS-CoV-2. *Int J Infect Dis.* 92(2020): 91-95. doi:10.1016/j.ijid.2020.03.017.