



Community participation in the management of land conservation areas and educational tourism at forest farmer groups, Panderman District Batu, Batu City, Indonesia

Yayuk Yuliati¹, Bektı Nur Utami^{2*}

1. Postgraduate Program Faculty of Agriculture, Brawijaya University, Malang, Indonesia

2. Postgraduate Program Faculty of Agriculture, Brawijaya University, Malang, Indonesia & Animal Husbandry Extension and Animal Welfare, Politeknik Pembangunan Pertanian, Malang, Indonesia

* Corresponding author's E-mail: bekti.n.utami@gmail.com

ABSTRACT

The COVID-19 pandemic has significantly impacted the development of agroforestry tourism areas in Batu City, Indonesia. An area becomes resilient and robust through community participation in adapting, especially in the forestry village environment. This study will reveal community participation in managing land conservation areas and educational tourism in Oro-Oro Ombo Village, Batu City. The study is a qualitative research type of centralized interview to find community participation when managing a land conservation area. In February 2022, there were 25 informants in the form of 20 members of forest farmer groups, 6 village institutions, and 4 related official institutions who were interviewed using the in-depth interview method. The interview results were collected and processed using the help of a qualitative application, i.e., Atlas.ti version 9. The dissemination of interview text was propagated using an enumerator with a voice recorder help tool. The results showed that the results of data processing of the word 'Management' are the words with the most frequency, i.e., 7.43% of all research data sources community. Participation in the management of land conservation areas and educational tourism, followed by the words 'area' and 'conservation', was 6.86% of all research data sources. If concluded with four stages of participation, i.e., planning, implementing, utilizing results and evaluating the community, they were very concerned about the sustainability of conservation land management, so that they have full participation in advancing this land as a potential economic land. This example can be used as a government policy to find the best method to foster community awareness to produce excellent participation in advancing a forestry area. The advanced Forest Farmers Group will become a new face in empowering the community in the future.

Keywords: Forest Farmers Group; Participation; Forest Land Conservation; Tourism; Oro-oro Ombo..

Article type: Research Article.

INTRODUCTION

The rise of the tourism industry due to the COVID-19 outbreak that has spread throughout the country is a challenge (Fabeil *et al.* 2020). In March 2020, lockdown rules were imposed, which made it difficult for the tourism industry to find profits (Ertac & Tanova 2020; Wu *et al.* 2022; Zhang *et al.* 2022). How difficult was access to food needs and self-actualization during the lockdown period (Chopin *et al.* 2021; Nchanji & Lutomia 2021). Another challenge also arised due to the significant food needs of the community that should be met in a state of inability to do anything (Cvitanovic *et al.* 2016; Kunasekaran *et al.* 2017; Goswami *et al.* 2021; Utomo *et al.* 2022, Uralovich *et al.* 2023). Village food independence was one of the success points of a country in saving

Caspian Journal of Environmental Sciences, Vol. 22 No. 1 pp. 111-127 Received: Feb. 12, 2023 Revised: May. 23, 2023 Accepted: July 09, 2023
DOI: 10.22124/CJES.2024.7446 © The Author(s)



Publisher: University of Guilan,

its people amid the COVID-19 pandemic outbreak (Davila *et al.* 2021; Nchanji & Lutomia 2021). The community's success in eradicating the outbreak was needed (Ooi *et al.* 2015; Skene 2018; Novaes das Virgens *et al.* 2020), to be more balanced to environmental concerns that had been providing abundant blessings (Mkono *et al.* 2022). Search results and comparisons on Google Trend showed for the last five years. Residents in Indonesia passing the COVID-2 year period have produced a finding: The results of agro-tourism searches related to the use of the environment as a tourist vehicle were more sought after than those about environmental concerns. It also illustrated that the existence of environmental-based tourism needs to be balanced by environmental concerns for the past five years. One of the areas with natural resource potential but experiencing very fast land degradation in East Java is Batu City, which itself is one of the areas with setbacks in land function or what can be called agricultural involution. It is a process of decline of farmers when there is an intensification of commodity production without an improvement in technology and support in the form of political policies that are relevant to the situation of Batu City itself so as to give rise to social complexity. The selection of Batu City itself was also based on searches that are often carried out by the public in agro-tourism searches which can be seen on google trends 2022. In Batu City, this involution arose because of the political policies of agriculture and development that were only strong in one sector but reduced the strength of other sectors (Utami Azis *et al.* 2019). Batu City is famous for its tourism; there were at least 30 tourist attractions recorded in BPS 2020. Over time, new tourist attractions continued to develop, so that agricultural land was evicted for lodging construction to support tourist areas in Batu City. The developing tourism sector does not balance areas that experience continuous land degradation. In addition, the land in Batu City has also undergone land conversion. Depreciation of agricultural land to other lands ranges from 5% - 10% per year (Suardi *et al.* 2022). Land degradation and land conversion are depictions of the absence of successful application in appropriate technology, especially in balanced spatial planning. Data obtained from the results of an interview with the Mayor of Batu obtained the results that a number of lands with protected and conservation types covering an area of 4,867 ha experienced land degradation of 900 ha. Inland consumption within an area of 36,903 ha, production forest type land experienced land degradation of 1,560 ha from the area of community forest land use of 2,460 ha. Where if you add up the land degradation in Batu City, it at least occurs in an area of 2,460 ha. This appropriate spatial arrangement is even though able to create an educational potential that is right in its goals and objectives. One form of educational potential that can be created is a forest protection area in the form of a Conservation and Education Model Area (AMKE) which is a conservation area in the forestry environment that realizes a literacy of the world of plantations, animal husbandry and agriculture that is built to resemble an agricultural integration ecosystem. AMKE was formed by the Panderman Forest Farmers Group (KTH), which was built in 2018 with the status of a legal entity, located in Jalibar Dusun Dresel Oro-Oro Ombo Village, Batu District, Batu City, East Java. The number of KTH Panderman members was 72 people, and they managed 10 hectares of village cash land with villages and villages that have been determined by the Village Head. This AMKE is a form of forest managed by the people with a type of agroforestry where there are various kinds of activities that have a combination of forestry with various branches of farming business carried out by the community, such as essential oil production, fruit and vegetable breeding, animal feed production and community animal husbandry. This business was integrated with each other which was managed directly by the Forest Farmer Group (KTH) Panderman. This group carried out activities to overcome land degradation in Batu City through an overview of the area with community activities around the forest by integrating agricultural and livestock cultivation in a forest area. This was verified that the rise of society from the slump due to the COVID-19 outbreak is very likely. One of the purposes of writing this study is to illustrate how community participation in the management of land conservation areas and educational tourism in the COVID-19 era at the AMKE Panderman Forest Farmer Group in Batu City.

MATERIALS AND METHODS

Location

The research was conducted at the Panderman Farmer Group, Oro-Oro Ombo Village, Batu District, Batu City, East Java Province. Location determination was carried out intentionally (purposely) or with a specific purpose. Site selection was based on considering that the research site is a conservation area also used for educational activities.

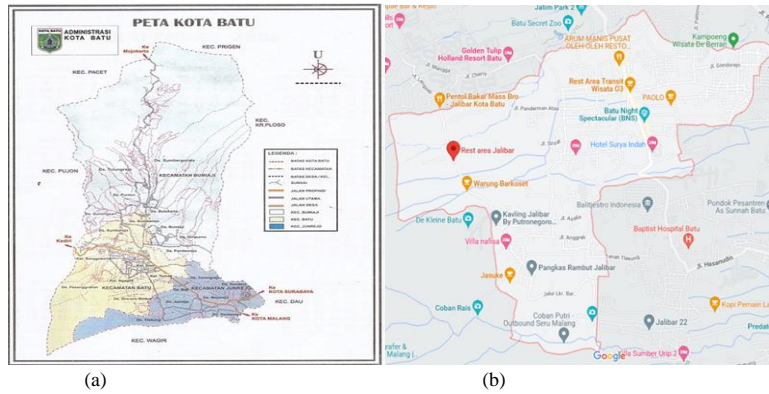


Fig. 1. (a) Map showing the location in Batu City, (b) the specific site of Oro-Oro Ombo Village, Batu District Batu City East Java Province, Indonesia.

Questionnaire Design

The questionnaire was prepared based on a literature review related to this research. There are theories used in compiling questionnaires, i.e., the idea of community participation (Nasution & Khairiah 2023; Mardiyanto *et al.* 2022). Dissemination of questionnaires in digging data was performed with in-depth interviews through enumerators using tools in the form of voice recorders. Interviews were conducted face-to-face with each designated informant in their respective homes to avoid crowds and obtain complete and in-depth data results. The questionnaire focused on four community participation stages: planning, implementing, utilizing results and evaluating.

Table 1. Indicators, Operational Definitions, and Classifications/Categories of Participation Indicators.

Indicator	Operational definitions	Sub variables	Classification/ Categories
Planning	Community involvement in preparing various kinds related to conservation and educational activities	1. Participation in meetings	1. Very diligent (100% present) 2. Diligent (75% present) 3. Be a little diligent (50% of attendance) 4. Non-industrious (25% of attendance) 5. Very non-diligent (0% of attendance)
		2. Provide opinions / input / suggestions	1. Very diligent (100% opinion) 2. Diligent (75% opinion) 3. A little diligent (50% opinion) 4. Not diligent (25% opinion) 5. Very undiligent (0% opinion)
		3. Participation in making decisions	1. Very diligent (100% opinion) 2. Diligent (75% opinion) 3. A little diligent (50% opinion) 4. Not diligent (25% opinion) 5. Very undiligent (0% opinion)

		4. Accountability in planning	1. Highly responsible (100%) 2. Responsible (75%) 3. Slightly responsible (50%) 4. Irresponsible (25%) 5. Highly irresponsible (0%)
Implementation	Community involvement in carrying out various kinds of activities related to conservation and educational activities	1. Provision of funds and energy in carrying out activities	1. Provision of funds and manpower (100%) 2. Provision of energy (50%) 3. Funding (25%) 4. Does not give anything (0%)
		2. Become an executor in activities	1. Become the core team (100%) 2. Become a support team (member) (50%) 3. Not being what (0%)
		3. Responsible in the implementation team	1. Highly responsible (100%) 2. Responsible (75%) 3. Slightly responsible (50%) 4. Irresponsible (25%) 5. Highly irresponsible (0%)
		4. Understand and perform correctly the job description in the implementation	1. Very understanding and doing (100%) 2. Understand and do (75%) 3. Understand and do not do or vice versa (50%) 4. Do not understand and do nothing (25%) 5. Very clueless and do nothing (0%)
Yield utilization	Community involvement in utilizing the results of various activities related to conservation and educational activities	1. Increase the use value of the product	1. Very capable of doing (100%) 2. Able to do (75%) 3. Slightly able to carry out (50%) 4. Unable to perform (25%) 5. Very incapable of carrying out (0%)
		2. Utilizing product waste	1. Very capable of utilizing (100%) 2. Able to utilize (75%) 3. Slightly able to utilize (50%) 4. Inability to utilize (25%) 5. Very incapable of utilizing (0%)
		3. Take advantage of the moment of activity to make a profit	1. Very capable of utilizing (100%) 2. Able to utilize (75%) 3. Slightly able to utilize (50%) 4. Inability to utilize (25%) 5. Very incapable of utilizing (0%)

Evaluation	Community involvement in the evaluation of various activities related to conservation and educational activities	1. Participate in routine evaluation activities	1. Very diligent (100% present) 2. Diligent (75% attended) 3. A little diligent (50% present) 4. Not diligent (25% present) 5. Very non-diligent (0% attendance)
		2. Provide suggestions for improvement	1. Very diligent (100% give advice) 2. Diligent (75% give advice) 3. A little diligent (50% give advice) 4. Not diligent (25% give advice) 5. Very not diligent (0% give advice)

Sampling and data collection

Determining an informant in this study was performed by Snowball techniques. So initially, the researcher interviewed one of the informants in the percentage of 33% of the community members of community empowerment activities. Furthermore, it continued to grow according to the recommendations of previous informants related to research (Nazir 2014). It consisted of community leaders and group members Forest Farmer Group (KTH; 20 members), village institution: Youth organization Management, Family Welfare Programme Group (PKK), Community Information Group (KIM), Village Owned Enterprises (Bumdes), Batu City Forestry Extension Officer, Batu City Environmental Services Officer, Batu City Tourist Office, college, Village Secretary and Village Head. In order to obtain the right source information from key informants, three stages were carried out, as follows:

1. Selection of preliminary information related to the research focus.
2. Selection of advanced informants to enrich the description of the information and track variations of information that may exist.
3. Only select advanced informants if there is more novelty of information.

In addition to key informants, this study also used supporting informants to support research data. These informants were from Tourism Office, Forestry Service, Universities and educational institutions/schools involved in conservation and education area management activities at KTH Panderman. The number of supporting informants was one person each. Data collection techniques in this study used primary and secondary data collection.

Data analysis

The qualitative data analysis processing technique used in this study was an analysis technique using the Atlas.ti application version 9. In Atlas.ti, the analyzed data sources can be divided into internal research data sources, external research data sources, research records during data collection and matrix frameworks. In addition, another application used to make data collection easier was Microsoft Excel 2010.

RESULTS

Community participation in land conservation area management and educational tourism

Community participation was one of the illustrations of the progress and success of the entire series of activities. In the Panderman Forest Farmers Group, it was evident that the community controls the group's progress. The Forest Farmer Group is one of the members of the village community, where the community is the benchmark for success in a country's economy. It happens because villages have a strategic role in meeting food needs in a city of the government (Rahmah Insani *et al.* 2018). There were four indicators of community participation in the management of land conservation areas and educational tourism in the COVID-19 era in the conservation and education model area of the Batu sub-district, including (a) planning, (b) implementation, (c) utilization of results and (d) evaluation. Participation in these lines formed a pattern of unity and uniformity in developing the proportion of duties and responsibilities of each person in charge of the activity later.



Fig. 2. Community participation in Conservation and Education Model Area Panderman.

The results of in-depth interviews with village officials and secretaries showed that the community had good participation in managing village assets to be used as income for the community. As stated by Mr A (51 Years Old):

"..... In the village, there is a policy that there are restrictions for outside investors, especially in managing village cash land, meaning that outsiders/third parties should not manage village cash land because village cash land is used for the benefit of the village community so that it will empower the community and improve community welfare. The existence of AMKE is expected to empower the surrounding community. In addition, it is also a place for education/training/internship / PKL and useful as a tourist attraction and at the same time as a conservation land.....".

The theory of Power and Social Change is that the government has the power to change various habits of society under its government. The village government can manifest multiple potentials in the community to be used as a leader or be called (power over). The village government also can collaborate on the superiority of the community, or it can be reached (power with). Finally, the village government can contribute to making community changes or call (power to). These three manifestations of energy can be objects of change in that change and innovation initiatives which can explicitly seek to challenge forms of injustice in society or empower communities through capacity building or collaboration.

Planning management of land conservation areas and educational tourism

The community's planning activities are a synergy between members of forest farmer groups, extension workers and institutional members in Oro-Oro Ombo Village. Planning is one of the first activities the community and related institutions should carry out. The planning is the involvement of the community in preparing all matters related to activities related to conservation and educational activities. The planning activities carried out by the community in the management of land conservation areas, and educational tourism includes (a) participation in meetings, (b) providing opinions, (c) participation in making decisions, and (d) accountability in planning. The planning can be seen in the categories in Table 2.

Table 2. Planning in the management of land conservation areas and educational tourism.

No	Activities	Value (%)	Category classification
1	Attendance at the meeting	100	Very diligent
2	Providing revenue	75	Diligent
3	Participation in making decisions	100	Very diligent
4	Accountability in planning	100	Very diligent

Community planning by the Panderman forest farmer group is well done by attending the meeting. The meetings conducted by this group will hold an agenda of new activities, such as conservation and education area formation programs initiated by forest farmer groups and accompanied by extension workers. Before the program's implementation, members and the community held five meetings to plan the activities that would be formed and implemented later. The various participation of members in this planning activity is the presence of the

community. It can be considered to be included in the category of very diligent. This is based on the attendance list of members of the forest farmer group supported by a statement from the extension mother as the coach Mrs. A (51 years old).

"...This Panderman forest farmer group, from its inception to establishing an AMKE concept, was very enthusiastic and always present. Because the purpose of AMKE itself was for the common good and was able to improve the economy at the level of the surrounding community, the village office directly supported, especially this concept..."

A good presence in this planning activity will form a climate that allows a variety of hidden potentials of the community to be expanded. Each individual who attends has the potential of each extension worker to have a hand in exploring. That potential together so that it can form the independence of each individual in the group that extends to society. In addition to excellent attendance, participation in this planning provides an open space for the community to give opinions. The purpose of openness in giving ideas is a form of the realization of the theory of resource mobilization, in addition to being a society or group which is empowered and has powers other than money and science; a group should also have the strength or an important role so that this group will give strength to a region. That strength will also provide power to that community.

This form of openness of opinion is the first step for groups to jointly develop a plan for activities carried out in the future so that the group feels protected and has an interest in activities to strengthen its socioeconomic value. The Panderman Forest Farmers Group has a diligent category (75%) in providing opinions, since 25% of the ideas raised are the ideas of the group leader and accompanying extension workers. This is the results of an interview with Mr B (52 years old):

"..... The group conveys opinions that follow the needs and priorities. Still, the initial idea and the entire course of the activity have been conceptualized by the extension mother and the head of the group. We just stick to it and participate in how to make a group; besides that, the entire group accountability is also held by the extension mother, so just follow her well....."

Through this presentation, extension workers seem to have the effort to improve and develop positively in this environment in line with the theory of community development as a centralized thing in helping people at various age levels to continue to grow and develop through multiple facilities and support so that they can decide, plan, and take action to manage and develop the physical sphere and social welfare.

Activities in this planning have an incredible impact on the group, through careful planning will reduce the level of risk. In addition to the presence and delivery of opinions, participation and responsibility are also essential aspects of the involvement of this empowerment planning. The burden of each individual will make a group strong so that development will be created in it. The participation and responsibility scores of the group members are at 100%, with the classification category being very diligent. This value was obtained through the results of an in-depth interview with Mr C (50 years old):

"....Community participation here as a form of forum to accommodate aspirations and references in carrying out activities, if given a meeting at the beginning, we are both good and understand what you want to do, so all those who take responsibility if there are obstacles and problems in the field, besides that the management of farmer groups, village / village officials or Village Owned Enterprises and extension workers participate in rembug so that later the activities are good and useful for the village, activities like this can increase togetherness, mutual ability and self-reliance in the group...."

Community participation activities through this preparation can increase confidence in future development, through this the results of the implications that must be met to strengthen participation in empowerment planning can be seen in Fig. 3.

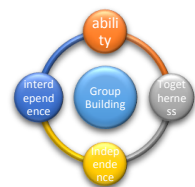


Fig. 3. Group building in society community.

In Fig. 3 above, it is explained that the community is given an opportunity in group development in the form of being free to choose various alternatives according to the level of awareness, ability, desire and opportunity to learn, both from their successes and failures, especially in terms of responding to changes that will be carried out later.

Community implementation in land conservation area management and educational tourism

Implementation activities in land conservation management and community education tourism get full scale participation where the community produces a wide range of choices in all aspects of development activities in the group. The community has the opportunity to take advantage of the natural resources that have been granted by the government in the form of fruit trees and then funding from the village ministry to be used as the initial capital for members of the Panderman Forest Farmer Group in licensing and establishing conservation and education model areas in Oro-Oro Ombo village, in addition to the support from the village through the Community Information Group provides a great opportunity to use technology in the form of social media to use as a mediating platform advertising for the Panderman Forest Farmers Group. In this implementation activity, the members have a variety of activities which are a form of community participation in the management of conservation and educational activities. The activities can be seen in Table 3.

Table 3. Implementation in land conservation area management and educational tourism.

No	Activities	Value (%)	Category Classification
1	Provision of funds and manpower in the implementation of activities	100	Provision of funds and manpower
2	Become an executor in activities	100	Become a core team
3	Responsible in the implementation team	100	Highly responsible
4	Understand and do job descriptions correctly in the job	75	Understand and do

The implementation of empowerment activities, such as providing funds and energy in various activities, is included in a very high value. Members and the surrounding community synergize in collecting funds; the funds are used to construct conservation and education model areas. The funds are obtained from the proceeds of contributions and supported by funding from the village; the members are required to contribute and the funds collected are combined with the assistance funds from the Oro-Oro Ombo Village development program. In addition to funding, members also use their energy to implement activities ranging from preparing various equipment repairs and creating conservation and educational model areas. Members and the surrounding community work together every Sunday to create a variety of planting areas, tourist areas and educational areas and clean up the route of these areas. Of course, this good teamwork is the realization of community concern for development in the village. This is also supported by a statement from the Village Secretary (48 years old):

"..... The people here can be modelled after mom, the majority of farmers are old with a low level of education / elementary school. Farmers' knowledge of agriculture is very low because there is rarely also training in agriculture that suits the needs of farmers. Government conducts training but is based on a program of activities from the Government, so it is less concerned with increasing the knowledge of farmers. The majority of the population is of productive age human resources who are young, the majority work in the field of tourism, work in tourist attractions, travel or in hotels. There has been a shift in mindset that jobs in tourism are more promising than in agriculture. Even with such problems, the community remains enthusiastic and still establishes a work and has a strong determination to advance this AMKE, mom, they are willing to make contributions and use their energy sincerely so that this village is known in the wider community"

The many limitations experienced by the community do not make people retreat further. Instead, they have good determination. This is the central tendency in the growth of rural or suburban areas. Durkheim's theory fits perfectly with this situation where the development of rural areas is due to the diffusion of values and structures of modern social and urban regions towards socio-equilibrium if we compare it with Marx's Theory where rural areas grow in a state of unbalanced development, backwardness, dependence as marginalized areas. This is different from the reality in the Oro-Oro Ombo Village community which proves that the village is able to grow and develop in accordance with its cultural and rural values even in the era of modernization through various assistance from current technology. The implementation of this empowerment has a method of driving participation can be done by considering several things, including: (a) adapted to the real needs of the community, (b) encouragement in community awareness, (c) creation of changes in knowledge, attitudes, and skills, (d)

development projects, (e) organizational and institutional support of the community. The community plays a role in implementing AMKE development activities; one example of activities carried out together is bazaar and exhibition activities to welcome guests from the Ministry of Villages PDTT. In the annual assessment of the village building index, the community is divided into several groups of committees to be able to wrap an extraordinary event treat. In addition, the community also plays an active role in activities related to the independence of the Republic of Indonesia. The series of Tirakatan activities and activities of various competitions are well facilitated by forest farmer groups and become one of the marketing strategies and introduction of Oro-Oro Ombo Village and Conservation and Education Model Area. Joint harvest activities such as pumpkin planting products processed by the PKK group of Oro-Oro Ombo Village in collaboration with the Panderman Forest Farmers Group. In addition, in the context of a storefront in the Forest Farmer Group, a variety of products produced by the Forest Farmer Group itself were also exhibited, such as bio-enzymes processed from by-products in the form of fruit peels of organic vegetable waste harvested in the Panderman Conservation and Education Model Area. These bio-enzymes are sold and used by members for use in the process of planting horticultural products and production trees around AMKE. In addition, village products also fill this storefront, such as processed milk, tempeh and pumpkin. Good management can also have a good impact on village forest management in Oro-Oro Ombo Village. In addition to activities related to social and agricultural cultivation, the members of the Forest Farmer Group, together with Village Owned Enterprises, also modified the agricultural products of Yam Porang from AMKE processed into ready-to-eat food in the form of meatballs, besides that the group members also sold an educational content in the form of a small-scale mushroom cultivation science package for the visiting community so that they could cultivate mushrooms at home. The area formed is close to Batu City, so access to AMKE is effortless to get to know the wider community. The activities of these communities describe the paradigm of sustainable development (Sustainable Development). Through these activities, new indicators are produced that can meet that the AMKE of Oro-Oro Ombo Village is a form of the Sustainable Development Paradigm by Table 4. This paradigm makes members of the Panderman Forest Farmers group an example of the people-centred strategy. With the role of the community, it will recover the implementation of empowerment. There are many empowerment models with growth and equity paradigm that cannot be used in empowering people in Indonesia. Who must emphasize domination of human resources in forming empowerment, through the case of the Panderman Forest Farmers Group has dominance that human resources must have a mindset and will and ability to create a development system. Suppose we review the results of these sustainable development indicators. In that case, the community in Oro-Oro Ombo Village has a wealth of human resources that can manage various surrounding natural resources related to forestry and agricultural products.

Table 4. The Value of sustainable development indicators.

No	Assessment Dimensions	Indicator	Value	Category
1	Purpose	Meeting the needs of the present without compromising its ability to meet the needs of future generations	A	Excellent
2	Intended system	Sustainable production	A	Excellent
		Fulfillment of human needs	A	Excellent
		Social justice for generations	B	Good
3	Input Factors	Population change	B	Good
		Basic Needs	A	Excellent
		Economic growth	A	Excellent
		Availability of natural resources	A	Excellent
		Quality of the environment	A	Excellent
4	Process	Long and measurable development period	B	Good
5	Expected results	Can be estimated according to the selected sekenario	B	Good
6	Economic principles	Natural resource efficiency	B	Good
		Optimal and balanced utilization of natural resources	A	Excellent
		Optimal and balanced utilization of human resources	A	Excellent
7	Sector Focus	Integration of economic, social and ecological activities	B	Good
8	Community Participation	As executor	A	Excellent
9	Government intervention	Dominant as a planner and compiler of development scenarios	B	Good
	Total		B	Good

In implementing this activity, what is often forgotten in the process of implementing this management is a maintenance project that has been created and successfully formed. In the Panderman Forest Farmers group, the group leader can coordinate members and the community to carry out the maintenance of rides and areas and public facilities that are formed so that the benefits can continue to be enjoyed in the long term. This leadership is the key to the sustainability of the maintenance of the facilities that have been created so that they have long-term value and sustainability.

Utilization of community results in land conservation area management and educational tourism

One of the cores of empowerment activities is the output of benefits from empowerment activities. This output results from the resources and potential of the Forest Farmers Group and Communities in Oro-Oro Ombo Village members. These resources and possibilities are processed and utilized through various activities and innovations. These creations increase the selling point of the results of the empowerment program. There are many activities from multiple government programs in different ministry lines, the Ministry of Forestry and Environment, the Ministry of Villages PTT, and the Ministry of Agriculture. The synergy of this ministry is one of the lives that gives life to the group, so the Forest Farmers Group has high hopes for socio-economic life in the future amid the scouring of the economic recession in 2023. Even though the COVID-19 outbreak in 2020 did not prevent groups from continuing their activities without leaving the city, it could still meet economic activities, and kitchen needs without having to feel the impact of people in the city area. The types of ministerial programs carried out by the Panderman Forest Farmers Group can be seen in Table 5. Various ministry programs support members of the Panderman Forest Farmers Group in utilizing their potential to produce an output that is useful for their needs. This indicator of funding and programs from the ministry indicates that groups and villages in Oro-Oro Ombo have (power) and great opportunities to continue to exist and be independent in the future. Oro-Oro Ombo Village is superior from various sides compared to other villages in Batu City. Various indicators of participation in community empowerment implementation can be seen in Table 6.

Table 5. Ministry program in Panderman forest farmers group.

No	Types of Programs	Ministry	Output
1	KBD (Village Nursery)	Ministry of Forestry and Environment	Provision of seeds to meet the needs of seedlings in the village
2.	GNPDAS (National Movement for the Restoration of Watersheds)	Ministry of Forestry and Environment	Restoration of critical land upstream of the watershed
3	Independent Village	Ministry of Villages, Development of Disadvantaged Regions and Transmigration	Provision of village funds for the development of village facilities and Village Owned Enterprises
4.	Organic Farming Certificate	Ministry of Agriculture	Awarding of organic certificates of herbal plants

Table 6. Participation in utilization of outcomes in land conservation area management and educational tourism

No	Activities	Value (%)	Category Classification
1	Increase the use value of the product	100	Very capable of doing
2	Utilizing product waste	100	Very capable of utilizing
3	Take advantage of the moment of activity to make a profit	100	Very capable of utilizing

Products of the members of the Panderman forest farmer group, such as milk from dairy cows on community farms that are processed into milk crispy crack, pasteurized milk, and milk candy. Agricultural products such as mustard greens, chillies, cabbage, and leeks are sold fresh in the village market. Agricultural products of medicinal plants such as ginger, turmeric, Galangga, and Curcuma are sold in new products directly in the organic market, which has a higher selling value than the stock market, so these medicinal and herbal plant products become superior products in Oro-Oro Ombo Village. Agricultural products in the form of oyster mushrooms are one of the products that are processed, such as mushroom chips. In the field of forestry, wood that has a selling value, such as mahogany, teak, timber and Moluccan Sau, is sold for the manufacture of various wooden furniture, but still for trees that are cut down and directly replaced with planting new trees so that wood production stocks will

remain available. Plantation products also dominate in the Forest Farmers Group in the form of stink lily tubers sold in the form of flour and processed partly as fine foods such as beef meatballs with stink lily tubers. This food servitization is one of the innovations of the Panderman Forest Farmers Group. This is also supported by a statement by Mr C (50 Years Old):

"..... That's right, mom, the community maximizes the use value of products in conservation activities by using superior seeds, planting well-cared for, processing agricultural products into processed products, and recycling used goods into reusable items; this activity is routinely carried out together with the group leader as a coordinator has a list of schedules at any time and does anything so that members are always active in various activities together"

Storefront facilities and sales bazaar exhibitions fully support this variety of products through the Village Owned Enterprises Panderman program. This Village Owned Enterprises, owned by Oro-Oro Ombo Village, collaborates with the Panderman Forest Farmers Group. Village Owned Enterprises is an institution that can make the community aware of the awareness to introduce the advantages of Oro-Oro Ombo Village. The concern of each individual is well created so that Village Owned Enterprises becomes an administrative centre that oversees other organizations from the community and Oro-Oro Ombo village institutions. Village Owned Enterprises in Oro-Oro Ombo Village is responsible for facilitating the village's marketing so that the community's products through KTH, PKK, UMKM, and Youth organization can be adequately absorbed and generate profits in each group. All lines of society are divided into several small groups in Oro-Oro Ombo Village. There are five small groups of Village Owned Enterprises, PKK, Karang Taruna, KTH and KIM, and each has produced results that are absorbed through Village Owned Enterprises. This Village Owned Enterprises has a function as a marketing and capital provider for the community who are members of Oro-Oro Ombo Village. KIM (Community Information Group) is one of the groups that play an essential role in disseminating news about the developments and achievements of the small group of Oro-Oro Ombo Village. Through this flow, Village Owned Enterprises becomes the centre's core in the course of activities in the community of Oro-Oro Ombo Village.

Community evaluation in land conservation area management and educational tourism

The last activity in community participation is evaluating the management of land conservation areas and educational tourism. One of the evaluation results that it can assess is the results of achievements and various shortcomings in land conservation area management activities and educational tourism. This evaluation activity is carried out regularly by multiple members of community groups, especially the Forest Farmer Group as one of the centres and implementing leaders. Various indicators of community empowerment evaluation participation can be seen in Table 7.

Table 7. Community empowerment evaluation participation.

No	Activities	Value (%)	Category classification
1	Participate in routine evaluation activities	100	Very diligent
2	Provide suggestions for improvement	100	Very diligent in giving advice

Routine evaluation activities are carried out one day after the Forest Farmer Group carries out various activities. These regular meetings occur in a joint Gazebo in the Panderman Model and Conservation Area. The evaluation of this activity is usually attended by KTH as the KIM committee and Village Owned Enterprises Members and Extension Officers as the person in charge. The review discussed the results obtained from activities in the form of profits in the form of money, increasing social value and results in the form of skills. It will consider these three results for future activities that it will include in the implementation list in the following year. The role of the community in Oro-Oro Ombo village also gave very satisfactory results. For two consecutive years, they received awards from the Ministry of Villages PDPT in the form of 10 Villages in Indonesia with the Highest Building Village Index in 2022. The village building index itself has an understanding that in forming a developed and independent village, it is necessary to have a sustainable development framework where aspects both in terms of social, economic, and ecological become forces that build each other, fill and maintain the potential and ability of the village to prosper the village community. Development policies and activities, as well as the empowerment of village communities, must produce equity and justice, are based on and strengthen local and cultural values, and are environmentally friendly by managing the potential of natural resources appropriately and sustainably.



Fig. 4. Ten Villages with the Highest Building Village Index in 2022.

In this context, social, economic, and ecological resilience works as a dimension that strengthens the movement of processes, the achievement of development goals, and the empowerment of village communities. Through the joint work of the Forest and Community Farmers Group, Oro-Oro Ombo Village was able to obtain the title so that it can categorize that the community in Oro-Oro Ombo Village is very cooperative in building the village, realizing village development. This is by the statement of Mr D (43 years old):

"..... The community is very diligent in participating in routine evaluation activities, usually, yes, it is held every time we finish the activity, and we gather with by extension workers when collecting. Yes, members very often give opinions on constructive ideas for the advancement of conservation education and tourism and villages in the future....."

The importance of evaluation in this community is to re-examine whether the activities carried out have been able to reach the groups and communities that are the beneficiaries of this activity and then reassess whether the activities carried out have utilized resources, service delivery and benefit acquisition as planned. Suppose the results of this empowerment activity are formulated. In that case, it can conclude that the final result changes that occur directly in the object or target of empowerment in the form of the community. In empowerment activities carried out through the participation of communities from Oro-Oro Ombo village and the Panderman Forest Farmers Group who are helpless and have any achievements, they are objects or targets that can penetrate the top 10 villages with the best village development index in Indonesia. The activeness of community members is a supporting factor in the success of group and village achievements. Evaluation activities by giving various suggestions to be carried out in the following years and activities. Each member and community voices constructive suggestions and criticisms, and the group leader and the person in charge provide opportunities directly or indirectly by giving papers to be collected into one where the content is in the form of constructive suggestions in forest farmer groups.

DISCUSSION

Community participation in the management of land conservation areas and educational tourism is a community activity in its participation in building, carrying out activities and evaluating actions that take away from work in the management of land conservation areas and educational tourism. Land conservation areas and educational tourism can provide economic and natural benefits to the community environment. The financial benefit felt by the community is the provision of assistance from villages in the form of rice and food staples that it can access at Village Owned Enterprises Panderman. The beneficiary's data is recorded in a system that it can access for collection every month. Another benefit is in the form of natural advantages in the form of assets in the village that can be used by the Panderman village community and forest farmer groups to support daily activities. People who get assistance from plant seeds and financing through village funds are used in farming and farming activities that can produce food and meet the community's needs. In addition, the community can use conservation facilities as a means of entertainment to unwind. The amount of community participation produces the number of benefits obtained by the community in terms of economic and natural benefits. In the discussion of this study, researchers

analysed community participation in the analysis of the Atlas.Ti 9 application. This analysis is used in the processing and generating qualitative data using Atalas.Ti, which is an application developed to meet this goal. Until now, qualitative research still uses automated systems in processing qualitative data. In qualitative research, researchers usually process data in the following ways: tabulation of data, reduction of data, provision of codes on the data to be studied, presentation of data, and verification of data by hand (Fathimah *et al.* 2020). That is why Atlas.ti is used as a research tool to conduct qualitative data research, assuming that the researcher is familiar with the data to be processed and analysed by the software. Based on the search results with the Word List feature of the software Atlas.ti 9 from various data sources that have been inputted has been imported the word 'management' is the word with the most frequency, namely 7.43% of all research data sources community participation in the management of land conservation areas and educational tourism, followed by the words 'area' and 'conservation' which is 6.86% of all research data sources. The results of the Atlas.ti version nine analyses are adjusted to the actual real situation in the field where implementation activities in the conservation and education model area are carried out directly by the community. AMKE is formed by community initiation so that its management is carried out together in accordance with the capacity of community organizations. Each community organization and a small group formed has its responsibility for regulating the course of activities that have been arranged as appropriate in accordance with the instructions and instructions of the person in charge. Each sub-division of activities is usually filled by a group in the order of each exercise. During the COVID-19 pandemic, each sub-division also works by the fields that are usually carried out during the implementation of conservation and education model area activities in Oro-Oro Ombo Village, such as the Forest Farmer Group focusing on meeting the needs of vegetables and improving self-quality through various pieces of training that it can access through social media, so that as long as the members keep their distance and always maintain the cleanliness of the production cultivation activities of the informants, there is no significant change. Despite the restrictions on activities during the early days of the COVID-19 pandemic, these forest farmers continued to carry out activities as usual on forest land and around conservation and education areas; one forest farmer and another farmer rarely came into physical contact when cultivating wood production, horticulture and spice crops. A good change during the regional lockdown policy was an increased demand for raw materials for spices such as red ginger, Chinese teak leaves, turmeric, Kencur and Temulawak. In addition, the raw materials for forest farmers' herbs also work with PKK members and their wives to produce spice powder that can be marketed by Village Owned Enterprises Panderman. Although there is an increase in the price of staples and various other needs, it increases the sales of spices that people outside Panderman Village can use to boost body immunity. In more detail, the percentage value of the results of the Word List software Atlas.ti 9 in Community Participation can be seen in Figure 5 below:

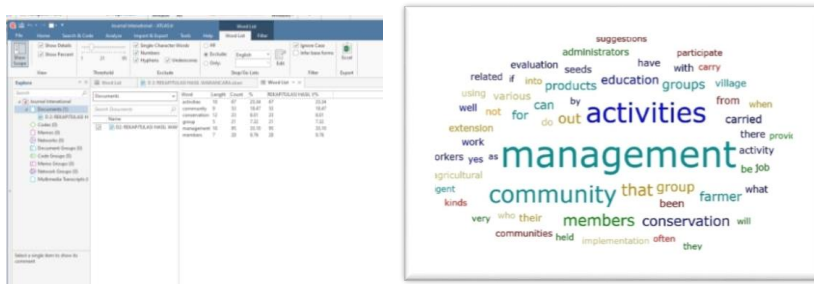


Fig. 5. (a) Word List software Atlas.ti 9 on Community Participation; (b) Word Cloud Community participation in land conservation area management and educational tourism.

Fig. 5 is the result of Atlas.ti 9 analysis in the form of a Word Cloud. Word cloud is one of the methods in Atlas.ti analysis to describe visual text data. The word cloud can display the picture of the frequency of words in an exciting and informative form. The more words that are conveyed over and over again, the larger the size of the word displayed in the word cloud. Fig. 5 shows that the word "management" has a lot of word frequency that arises from the transcripts of interviews with community participation. This indicates that the community is heavily involved in conservation and educational area management activities. The results showed that the community was very focused on management at AMKE Panderman, so it was able to offer the village of Oro-Oro

Ombo significantly, which was previously unknown to many people to become one of the villages that tourists outside the village always go to visit and even to stay in the area. In addition, if we look at the word cloud there are the words "government", "extension workers", and "members" are three essential actors in supporting the management of this area. The contributions of these three lines of actors make strength in the management of AMKE Panderman. Government and extension workers are government agencies tasked with guiding the main actors and business actors to advance farmers and their families by changing knowledge, behavior and attitudes in a measured manner in each individual group. In addition, if you look at the conditions in the field, the government is biased to provide facilities to active community groups to provide additional knowledge related to e-commerce, export mechanisms, market network creation and access to tools to develop a variety of products (Bartik *et al.* 2020). The results of the networking analysis through the processing of informant interview data on the Atlas.ti software produced a liaison arrangement that explains in detail how the community participates (involvement) in processing conservation and education model areas in Panderman. There are four community participation involvements in management, including (a) participation in various activities, carried out on certain holidays, daily activities in the form of land management and cultivation and training, (b) Increase value carried out by the community to increase the use value of Oro-Oro Ombo village as a potential tourism village through increasing the selling value of services and agricultural products, (c) Community initiation in making a decree to be used as consideration of various program implementations at AMKE Panderman, (d) evaluators of various activities and various joint decisions so as to produce various constructive suggestions.

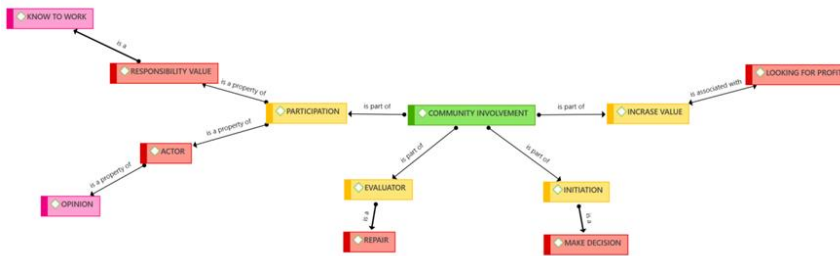


Fig. 7. Networking Community participation in land conservation area management and educational tourism.

In addition, referring to the data from community interviews in Oro-Oro Ombo Village. The members of the Panderman Forest Farmers Group are one of adopters who are included in the Innovator category. This category is based on the conclusions produced through the results of in-depth interviews with informants involving various groups of community organizations which can be seen in the results of data tabulation in Table 8.

Table 8. Category Adopters of Oro-oro Ombo Village group.

No	Name of Group	Characteristic	Adopter Categorize
1	Panderman Forest Farmers Group	The group dares to take risks, is mobile, smart in making activities, has adventurous abilities and has sound economic management for each member	Innovator
2	Village Owned Enterprises Oro-Oro Ombo	This group contains role models in the community who often express opinions, respectable people are invited, and have access to high local government	Early adopters
3	Community Information Group	This group has careful consideration in carrying out activities and has higher internal interactions with other groups	Early majority
4	PKK Oro-Oro Ombo Village	Members of this group are sceptical when compared to members of other groups; they accept because of demands from other groups as their obligation, so when carry out activities very carefully	Late majority
5	Youth organization Oro-Oro Ombo Village	This group always has a variety of considerations in carrying out activities and has higher internal interactions with other groups than other groups	Early majority

Each group of people has different categories according to the characteristics of each group. All community groups, especially the Forest Farmer Group, are classified as groups with good innovation categories, none of which are old-fashioned or traditional, so they are not included in the laggard category. If observed, the value of activity in the group that is high in management will make the group one of the groups with the adopter category better than the group that is not active in leadership in the Panderman Conservation and Education Model Area. The group with fast adopters, KTH Panderman, is a group that is very active in managing AMKE in terms of agricultural production, processing and social activities at AMKE, such as mushroom cultivation training and eco enzyme making. A more detailed category can be seen in figure 8 where the left side of the adopter group develops faster than the right side of the image. The speed of this adopter has a good impact on accelerating the alleviation of social and economic problems to the research findings of Sari *et al.* (2009), which states that farmers who fall into the category of fast adopters have a high perception of the characteristics of relative profit innovation and observability so that they have a low perception of the attributes of complexity innovation.

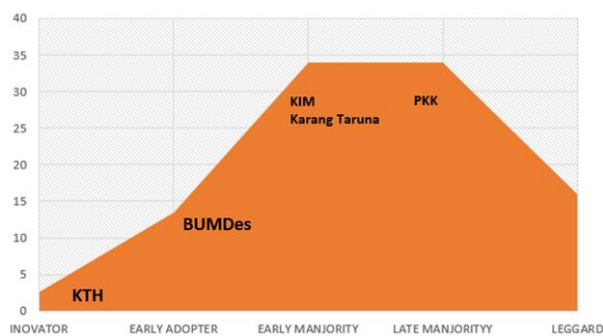


Fig. 8. Adopter categories based on group innovation.

CONCLUSION

The COVID-19 pandemic has changed the paradigm of society as a whole towards the meaning of togetherness within the community. The pandemic has had a profound impact, especially on tourism and economic activities in the Oro-Oro Ombo village community. The decline of tourists and the difficulty of selling products produced by members of the Forest Farmers Group and training activities have no interest compared to the period before the COVID-19 pandemic. The Panderman Forest Farmers Group finally adapted to make AMKE (Conservation and Education Model Area) one of the areas for producing spices and basic family food needs. Management activities are carried out well by the community with good participation. Four stages of community participation make Oro-Oro Ombo Village strong, especially in dealing with the COVID-19 Pandemic. The four stages are planning, implementing, utilizing results and evaluating. This form of participation makes it a new challenge for the government to provide facilities, especially in funding active group activities with the innovator and product categories in the form of offering e-commerce for groups that start empowerment activities. The involvement of community participation carried out in management includes (a) participation in various activities carried out both on certain holidays, daily activities in the form of land management and cultivation as well as training, (b) Increase value carried out by the community to increase the use value as a potential tourism village through increasing the selling value of services and agricultural products, (c) Community initiation in making a decree to be used as a consideration various program implementations, (d) evaluators of various activities and various joint decisions to produce various constructive suggestions.

ACKNOWLEDGEMENTS

Brawijaya University funded this research. Last but not least, we would like to thank all respondents for sharing their experience and information, which made this study meaningful.

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Bibliographic information of this paper for citing:

Yuliati, Y, Utami, BN 2024, Community participation in the management of land conservation areas and educational tourism at forest farmer groups, Panderman District Batu, Batu City, Indonesia. *Caspian Journal of Environmental Sciences*, 22: 111-127.

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