



## Participation and Community Motivation to Protect the Forest Park Tahura of Bukit Barisan



Tri Astuti<sup>a</sup>  
Marulam MT Simarmata<sup>b</sup>

---

### Article history:

Submitted: 9 May 2020  
Revised: 18 June 2020  
Accepted: 27 July 2020

---

### Keywords:

*community motivation;*  
*conservation;*  
*forest;*  
*motivation;*  
*protected;*

---

### Abstract

The participation and motivation of the community around the forest is a process that participates in determining the intensity, direction, and diligence in the individual in the effort to give a contribution to the conservation of health in the area Tahura Bukit Barisan. With the participation and motivation, the forest protected. Forest protection is an effort to safeguard the natural resources that exist therein. The results showed that (1) the condition of the respondent was in the productive age, the level of public education of the area of Tahurajunior high school until graduation, has a family of 3-5 people/KK. The main work of the surrounding community is selling installs and flowers. Every weekend or holiday visitors flock to the tourist attractions in the tourist area of the flower, the average monthly income of 1.5 million  $\times \leq$  3 million, long stay around the Tahura area more than 20 years, the location of the house of respondents to Tahura area belongs to close, about under 500 m by 62.47%. (2) The role of community participation and motivation is positive and insignificant to the protection of the Tahura area.

*International research journal of management, IT and social sciences* © 2020.  
*This is an open access article under the CC BY-NC-ND license*  
*(<https://creativecommons.org/licenses/by-nc-nd/4.0/>).*

---

### Corresponding author:

Astuti, T.  
Lecturer in the Faculty of Agriculture Forestry Study Program, Simalungun University of Indonesia  
Email address: [tutiarianinasution@gmail.com](mailto:tutiarianinasution@gmail.com)

---

<sup>a</sup> Lecturer in the Faculty of Agriculture Forestry Study Program, Simalungun University of Indonesia

<sup>b</sup> Lecturer in the Faculty of Agriculture Forestry Study Program, Simalungun University of Indonesia

## 1 Introduction

Social changes experienced in human life from the agricultural, industrial, and present era (Toffler, 1970; Toffler, 1980; Aslan, 2019). The present era or known as the information age with technological sophistication. (Mujiburrahman, 2017; Aslan, 2019; Aslan and Hifza, 2020; Putra *et al.*, 2020). The impact of these changes has destroyed existing ecosystems, such as forests.

The existence of forests as part of a large ecosystem has an important role in supporting the system of life. Various benefits can be obtained from the existence of the forest through its functions both as a provider of water resources for human and environmental, carbon absorption capability, the oxygen supply in the air, tour providers, and regulating the global climate (Utter *et al.*, 2006; Cunningham *et al.*, 2005). It is given by the existence of the forest is very high either directly benefit or indirect benefits, because the forest is the most important natural resources and also serves as a source of diversity of species and genetic, processing machinery, warehouse giant carbon storage and climate stabilizers of the world. In the local sphere, the presence of forests guarantees the availability of clean water supply and maintaining soil fertility. Forest areas can also be a cultural base of rich forestry for communities in and around the forest, one of which is a forest area that needs to be preserved is the Forest Park (Tahura).

Tahura is a complex ecosystem that is influential in almost every species on earth and is a natural conservation area for plant collection and or natural or non-natural nature, original and non-genuine type, which is utilized for the public interest as the aim of the research, science, and education. Also as a facility that supports the cultivation, culture, tourism, and recreation. Having a distinctive characteristic, both original and artificial, which can be found in the area whose ecosystem is still intact or the ecosystem has changed, has a natural beauty, has an area that allows for the development of plant collections and or animals either genuine or non-genuine species (Das, 2014; Carrera *et al.*, 2018).

Although it is recognized as a very important ecosystem, and various voluntary commitments from Governments and corporations are proclaimed to protect the remaining forests the rate of damage to forests is increasingly dismay concern. The forest damage that occurs at this time is not a very rare thing that we will meet in all regions of the world. Very many cases of forest damage occurred, even if we look further, there are many forests around us currently have been damaged and have been far from the state of the forest should be, although the rate of decline in the number and the environment quality of the forest area is quite large, but in the absence of a reduction. The presence of forests is vital to human life. Therefore, it is necessary to protect the forest protection efforts, apparently, only by certain people or organizations who are aware of the importance of forest sustainability, the very striking forest damage today is Tahura.

Tahura Bukit Barisan is a conservation area which is a management unit that is a protected forest area as well as a conservation area, with a total area of 51,600 hectares. The majority of them are protected forest in the form of mountainous natural forest since the Dutch era, including the forest protection of Sibayak I and Simancik I, Sibayak II protection forest, and Simancik II and Sinabung protection forest. Area of Tahura Bukit Barisan which has dense forest covering Karo District Government Area of 19,805 hectares, there are 17,750 hectares, Langkat 13,000 hectares, and Simalungun Regency 1,045 hectares. The entire area is 51,600 hectares, derived from a protected forest of 38,273 hectares (74.17%), the National Park 13,000 hectares (25.19%) Sibolangit Campground 200 Hectares (0.39%), tourism reserve 120 hectares (0.23%), and park tours Lau Debuk-Debuk 7 hectares (0.01%).

Tahura Bukit Barisan belongs to the pride of the people of North Sumatra, which aims to preserve natural resources and environmental utilization and to be able to improve the function and role of forests for human life. To that end, Tahura Bukit Barisan has the intention and the main purpose of making it as a source of genetic and germ plasma, information center and research role of flora and fauna for current and future generations, hydrological protection, that the area of Tahura Bukit Barisan is a source of clean water for Medan city, deterrent erosion and flooding the east coast of North Sumatera, vehicle, location of counseling and conservation education in cultivating natural love consciousness and as a means of recreation and tourism. There is no denying that the various environmental cases that occur today, both in the global sphere and the national sphere, are largely sourced from human behavior. Pollution causes and forest damage are sourced from irresponsible human behavior, not caring and self-seeking only.

The purpose of the establishment of Tahura Bukit Barisan in the future has many advantages that can be developed. If managed to the fullest, it will give an increase to the growth of PAD North Sumatera. Tahura's comparative advantage is a very strategic tourist site because it is close to the provincial capital, has the potential of the value of flora and fauna is quite large, with its landscape allows to be developed for various tourist and recreational activities and functions as the lungs of Medan city.

Forest damage was massively occurring almost all over the region, the community surrounding the forest, wild and emotionally flocking to the looting and exploitation of the forest irresponsibly, they no longer pay attention to the functions and benefits of the forest. Authorities are not able to stem the flow of mass that emotionally loot the forest. Utility's need the existence of forest protected because the forest is needed by current and future generations.

Forest protection is an effort to safeguard, protect and natural resources in it such as flora and fauna, marine life, ecosystem, habitat, and water supply as well as forest protection based on local community participation in the understanding that people living around the area have understood the characteristics of potential forest areas, can live in harmony and harmony, enjoy and keep the place of residence from damage. Forest protection and security-based participation of local communities to safeguard, protect, and defend forests from various disruptions. The existence of a mutual sense of the forest, which raises the existence of an action that is the foundation of the community that loves the forest. The involvement of people in protecting forests has a purpose to keep the forest sustainable, namely by combining the social musty especially economic and ecological, and in need of community participation in the management of forest parks as the most capable party to manage forests for the existence of the forest is safe. Forest security is carried out with all activities, efforts, and efforts undertaken by the forestry authorities with the support of the community to secure forests and forest outcomes in a continuously planned manner with empowered and successful principles.

To safeguard the forest, the management of Tahura as representatives of the community around the forest to serve as partners working together with stakeholders whose functions participate in activities conducted such as forest security patrol activities, the collection of potential data of flora and fauna and socialization and counseling. Local community participation needs to be raised. Community participation as a person's mental and emotional inclusion in a group situation encourages them to contribute ideas, thoughts, and feelings that the goal is jointly responsible for the purpose. Participation in the era of regional autonomy is now an important issue that continues to be encouraged because the high participation of the community will reduce the cost of development in the region and foster the sense of ownership and responsibility of the community to the results of development.

The form of community participation is the contribution of energy, mind, time and funds poured in the planning, implementation, and supervision of environmental management or conservation activities. Participation of local communities needs to be raised and encouraged to be more active with the knowledge of community-based supervision techniques in the form of training so that the field can carry out its duties following the prevailing procedures, solve the problems faced, help the organization achieve the objectives of the organization effectively and efficiently. Ideally, the involvement of new societies is said to participate in full when participation is at the stage of community supervision or at least in the stage of partnership and delegation of authority, is consultative and partnership. Community participation is very necessary and has a pattern of consultative relations that occurs among the officials of the decision-makers with concerned community groups that are located around the forest area, members of the community have the right to be heard and to be notified, although at the time of the final decision remains in the hands of the decision-maker officials. In fact, in the field, there are still many who view the participation of the Community solely as the delivery of information, counseling, even just a public relation tool so that the project can run unimpeded. In other words, community participation is not only used as a means to reach the goal but also used as a destination.

The motivation of the community around the forest is a process that participates in determining the intensity, direction and diligence of the individual in the effort to give a contribution to the conservation of the environment because they have used the natural resources, culture and knowledge they are rooted from his environmental communities that settled around the forest areas understand the importance of preserving the forest, but they also require the utilization of exploitative. The motivation and protection of forests committed by the communities living around the forest has shown a good impact on the ecosystem to maintain the sustainability of the forest area where one of the efforts of protection such as forest land planting, suggests the help of seedlings be planted. This activity is a good social potential to continue to improve the quality of forest resources.

The management efforts of Tahura Bukit Barisan have been implemented such as setting boundaries, land rehabilitation as well as monitoring and securing areas. However, reality shows that the conversion rate of this area is very high and the efforts expected to restore the forest's functions are increasingly difficult to materialize. The main constraints of this problem include the lack of management activities, the planning of re-allocation of the area according to the condition and potential of the region, and alleged consequences of low community participation in the management activities. Management of conservation areas is not successful due to differences in understanding the basic concept of conservation that is engaged in organizing also the desire of people to manage natural resources within the region. Because conservation is not contrary to development-oriented to economic gains, even the reverse development will not be sustainable without the conservation of.

The purpose of this research is to analyze the participation and motivation level of the community on Tahura Bukit Barisan. Local people often participate in managing forests and motivated by increasing revenues from the Tahura region.

### *Participation Library*

Community participation as mental and emotional inclusion is also a tool to obtain information about the circumstances or conditions, attitudes, hopes, and needs of the local community, which without the local community presence of development programs and projects implemented will fail (Kapinga, 2015). By emphasizing how participation becomes a means, so to see it can be traced from the idea and form of community response and the Community's wishes in an activity. Participation in group situations encourages them to develop their thinking and feelings for achieving goals, along with being responsible for those goals (Forestry, 2011); (Nurrochmat, 2005); (Regulation, 2004). Participation is a form of response or response to the stimuli given in this regard, responses are a function of the benefits that can be expected in the determination and involvement of individual desires in the circumstances and conditions of the Organization, thereby encouraging the individual to participate in the achievement of organizational objectives, and take part in each joint accountability (Sgandhy, 2009; Glance, 2008).

Participation as a mental involvement or the thoughts and emotions or feelings of a person in a group situation that encourages it to contribute to the group to achieve its objectives and to be responsible for the business and the active involvement in participating, not only means a physical involvement alone. Participation can be interpreted as an involvement in a person's perception in a group situation that motivates it to contribute to the group in achieving the objectives and also responsible for the business. (Kissinger *et al.*, 2012). There are several factors predicted to have a relationship to the level of community participation, among others: 1) gender; 2) Age; 3) income; 4) Education; 5) Availability of time; 6) Frequency of collection; 7) Community attitudes; 8) The comfort of the community, and 10) Social norms (Meshack *et al.*, 2006; Musyoki *et al.*, 2016)

### *Motivation*

Society motivation comes from Latin *moevere* - which means moving. Based on the basic word motive, the motivation that is in a person is a person who encourages the individual to perform certain activities in order to achieve their goals. Motivation refers to encouragement and effort to achieve a goal or satisfy a person's life needs with action or behavior. Human behavior to achieve certain objectives is conscious or not influenced by the encouragement that exists in the individual itself or from outside, such as the environmental influence in which the person lives and the social life of his people. The urge that moves humans to behave is called motives. Motifs can also be said as a driving force in an individual or someone to perform certain activities in order to achieve the desired goal (Mohammed *et al.*, 2017; Glance, 2008).

Motivation is a process that gives spirit, direction, and persistence to behave. Motivation is divided into two namely extrinsic motivation and intrinsic motivation. Extrinsic motivation is the motivation to do something to get something else that is the way to reach the goal. (Kissinger *et al.*, 2012; Murhaini, 2012). This motivation is often influenced by external incentives, namely reward and punishment. While intrinsic motivation is an internal motivation to do something in itself. Human motives give direction to behavior. Activities performed against an object have their motives. The categories of motifs are: 1) the sole motif and the motif joins. A single Motif is seen when individuals help manage natural resources independently. If a person becomes a member of the agency allow existing motives to join. Also, individuals get support from working groups. 2). biogenetical motifs. These motifs are motifs derived from human biological needs. Examples of this motif to meet the needs of family food. 3). Sociogenetical motives. This sociogenetic motif is a motif that a person comes from his social and cultural environment where he is and develops. Examples of this motif can be seen in the desire of people to Bergotong-Royong. 4). The genetic motif. This Motif stems from human interaction with his belief as in worship. The desire to realize its religious norms according to scripture Instruction (Meshack *et al.*, 2006; Musyoki *et al.*, 2016).

Human behavior to fulfill its needs can be divided into five levels, namely: 1) life-sustaining needs, manifestations of necessity appear in three things: clothing, food, boards that are the primary need to meet human physiological needs. 2). The need for safety, the manifestation of this need, among others, the need for life safety, property security needs, fair treatment, and retirement as well as the guarantee of the old days. 3). Social needs, the manifestation of this need looks at the need for feelings of acceptance by others, the need to advance and not fail, the feeling of participating, 4).

Need for appreciation, the higher the status of a person the higher the reward, 5). Work actualization needs, the manifestation of this need looks at the desire to developmental capacity and working capacity (Rodgers, 2012; Sgandhy, 2009; Glance, 2008).

### *Forest Park*

A park is a versatile tool. The park is an open space that is usually overgrown by some trees and has several facilities for people to use. The existence of the park is very useful and supports the social life of society. The park is usually used as a perfect gathering for the community to simply calm the mind after a day of work. The park is indeed a very suitable place to gather together with family and also friends. The park is also suitable for gathering places, as well as a place to balance the land ecosystem in the neighborhood (Glance, 2008). How water can be controlled is because of the roots of trees that keep it in the soil. From these questions, inform the park has many benefits.

Forest Park is a natural conservation area that has been set for the collection of plants and or natural and non-natural animals, has a type of genuine and/or not original, and that can be utilized for the public interest as the purpose of research, science, and education, as a unity of ecosystem in life gives many benefits to the survival of human beings from past to present. All species in the forest have economic value for local people and the potential to be a warehouse of genetic resources. Also, forests and local communities have relationships and interactions that are socio-cultural. The physical and emotional closeness of society will produce knowledge about the forest itself, creating a pearl of traditional wisdom. The traditional wisdom that is the social capital of local people can be used as the foundation for forest Resource management. The existence of the local community is the community around Tahura has advantages to forest resources in the form of land benefits for agriculture, timber resources, and water resources for both local community groups (Fauzi, 2012). Some of the benefits of Tahura are the gathering place and socializing among human beings, a relaxing place of relaxation, an oxygen source in a region, as a living place for some merchants, a place where several events are carried out, as a source of oxygen, as a balancing of nature, preventing flooding, preventing landslides, preventing drought, place or home for various flora, preventing soil erosion and neutralizing air pollution and preventing global warming (Hernowo, n.d.; Forestry, 2011); Kissinger *et al.*, 2012).

## **2 Materials and Methods**

This research method is conducted using a combination of Focus Group Discussion (FGD) and Pebble Distribution Method (PDM) method or merging method called Multidisciplinary Landcape Assessment (MLA). For FGD It takes 5-8 people who are jealous of the head of the customs/village head and the key informant of each village. The samples in this research are people who live around the area of Tahura Bukit Barisan, namely Village Spirit Village and Merdeka village, Merdeka District, Karo Regency. The number of respondents in the study was 397 people. The disappeared respondents were determined by "Stratified Sampling". The stratification of respondents includes leaders, farmers, family heads, women, and youth. The collection of data is done by observing directly in the field, to describe factual, careful, and detailed about the state of the field, human activities, and the context in which the activities are located. The interview is to collect data by asking a written question to the respondent using the pre-prepared questionnaire.

## **3 Results and Discussions**

### *Characteristics of Respondents*

The characteristics of the respondents in this study include age, last education, number of family liabilities, types of work, income, long stay in the area of Tahura, home distance to the Tahura area.

The following are the characteristics of the respondent, namely: a. As the age of respondents, the age is alleged to be a variable that affects the participation and motivation of respondents to the protection of Tahura Bukit Barisan. The lifespan of respondents around the Tahura Bukit Barisan area is presented in Table 1.

Table 1  
Age distribution of respondents

Age (Year)	Frequency	Percentage (%)
< 25	32	8,06
25-50	138	34,76
>50	227	57,18
Total	397	100,00

According to the table above, it shows the age distribution of respondents over 50 years by 57.18%. While the age of 25-50 years is 34.76% and the age spread of respondents under 25 years there are 32 respondents or at 8.06%. This indicates that the respondent's age was dominated over the age of 50 years. Although the percentage difference between the age over 50 years and the age of 25-50 years is no different. This indicates the condition of the respondent is in productive age.

#### *Education Level*

The level of education in the respondents around the Tahura area allegedly influenced community participation and motivation to the protection of the Tahura area. Table 2 below shows that 10.58% of the total respondents who had completed their education to the end of ELEMENTARY school or did not finish elementary school, while the level of education in SMP/SMA was 71.54% or as many as 284 respondents. Table 2 also showed that there were 71 respondents or 17.88% of educated diplomas to scholars. This shows that the level of public education in Tahura area is mostly junior high school until graduation. This is because most of the respondents are age over 50 years. The respondent's education level is presented in the Table 2 below.

Table 2  
Distribution of respondent education

Education Level	Frequency	Percentage (%)
Not graduated from elementary school	42	10,58
Middle school	284	71,54
Diploma-Bachelor	71	17,88
Total	397	100,00

#### *Number of family dependents*

The number of family dependents is the number of children or siblings in the family who are still the responsibility of parents. Data on the number of family dependent respondents is presented in Table 3.

Table 3  
Number of dependents of the respondent's family

Number of family dependents (Soul/KK)	Frequency	Percentage (%)
<3	38	9,57
3-5	286	72,04
>5	73	18,39
Total	397	100,00

Based on the results of table 3 above, shows that respondents with the total number of families less than 3 people per family head (KK) amounted to 9.57%. Meanwhile, the burden of family between 3-5 people/KK amounted to 72.04% of total respondents. On the other hand, conditions with a mental burden of more than 5 lives of 18.39%. Results showed the dominance of respondents who have a dependent family of 3-5 people/KK.

Main Job Type. Table 4 shows most of the main jobs respondents were sellers in stalls and flowers with a percentage of 28.46%, farmers 49.12%, as PNS 9.57%, and other jobs at 12.85%. The main types of work respondents are presented as follows.

Table 4  
Types of respondents' main occupations

	Frequency	Percentage (%)
Seller (installs and flowers)	113	28,46
Farmers	195	49,12
Civil servants	38	9,57
Other work (villa)	51	12,85
Total	397	100,00

Some locations in the area of Tahura Bukit Barisan which is an area of interest in tourist areas. Every weekend or holiday visitors flock to the tourist attractions in the tourist areas of the flower. This opportunity is a lot of opportunities to open food and beverage stalls so that the job of selling installs is much in demand.

#### *Average Revenue per Month*

Data on average income per month of respondents are most found in respondents with an income of IDR 500 000-< IDR 1.500.000, amounting to 6.80%, while the income level is IDR 1.5 million-< IDR 3.000.000/month obtained a percentage of 49.37%. Subsequently, the respondents' revenue was above IDR 3.000.000/month with a percentage of 43.83%. Some respondents have income below IDR 500,000. The respondent's revenue is closely related to work. Some of the dominant work on the respondent was selling at the stall. Although the majority of the public income of Rp. 1.5 million  $x \leq 3$  million does not feel difficult to fulfill the cost of his life because it is still supported by agricultural land without spending funds to fulfill daily needs, and the house of residence already belongs to itself. The average monthly revenue rate can be seen in table 5.

Table 5  
Average revenue rate per month respondents

Income Level (IDR/month)	Frequency	Percentage (%)
< 500.000	-	-
500.000 $x \leq$ 1.500.000	27	6,80
1.500.000 $x \leq$ 3.000.000	196	49,37
>3.000.000	174	43,83
Total	397	100,00

#### *Respondents long stay around the forest area*

Long live respondents in forest areas allegedly also determine the level of participation and motivation built by the community to the protection of Tahura Bukit Barisan. Length of respondent's stay where presented in Table 6.

Table 6  
Length of respondent's stay

Length of respondent's stay (Year)	Frequency	Percentage (%)
< 5	16	4,03
5-20	205	51,64
>20	176	44,33
Total	397	100,00

Table 6 shows that most of the community respondents had long lived in the area of Tahura. A total of 44.33% of respondents have stayed for more than 20 years. As for the respondents who lived 5-20 years by 51.64%, respondents who lived around the region of Tahura under 5 years of age belong to a little, amounting to 4.03%. This is due to the history of the forest area that respondents have been domiciled since the opening of the Tahura area.

#### *Distance between the Forest and the Respondents' Home Location*

The magnitude of the distance between the houses of respondents with forests is suspected to affect people's perception of forest use. Data is presented the distance between Tahura and the respondent's home location in Table 7.

Table 7  
Distance between forest stands and the location of the respondent's home

Forest spacing (m)	Frequency	Percentage (%)
≤ 500	248	62,47
500 <math>x \leq 1.000</math>	103	25,94
>1.000	46	11,59
Total	397	100,00

Distance from the location of the house of respondents to the Tahura area is close to, approximately 500 m by 62.47%. That means more than half of the respondents are near the forest. Distance 501-1000 m obtained in respondents with a percentage of 25.94%. Also, the percentage of 11.59% or 46 respondents were located above 1 kilometer. Most of the respondents are said to be very close to the forest because historical history has largely lived, dwelling to a family around the forest area.

#### *Effect of Community Participation and Motivation on the Protection of Bukit Barisan Tahura*

The importance of community participation around Tahura Bukit Barisan is a form of appreciation and recognition of the existence of individuals and communities as holders of power overdevelopment, especially in the field of forest protection. The value of the coefficient of determination is 0.137, meaning that the role of community participation and motivation positively affects 13.7% against the protection of Tahura Bukit Barisan.

Table 8  
Coefficient of determination of community participation and motivation

Model	R	R Square	Adjusted R Square
1	,663 <sup>a</sup>	,439	,137

Less appropriate policy on the allocation of funds for the outcome will give rise to the low motivation of the community so that community participation in the protection of the Tahura area will also be reduced. The majority of the community around Tahura did not implement sharing with the maintainer, thereby resulting in community participation and motivation to be low.

Table 9  
Anova Community Participation and Motivation

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	412,015	2	206,008	154,381	,000 <sup>b</sup>
Residual	525,758	394	1,334		
Total	937,773	396			



The value of  $F_{\text{count}}$  154.381 is greater than that of  $f_{\text{table}}$  3.01 or the value of sig 0.000 is smaller than alpha 0.05. Based on the results obtained then  $H_0$  rejected and  $H_1$  accepted. The community around the Tahura area lacked the right to participate in forest management. This is due to the inaccuracy of the implementation process in the management and pattern of relations that exist in Tahura Bukit Barisan, even still placing the community as the bottom part in the development in the forestry sector. Less conducive climate to participate for the community, weak management of managers, and the support of stakeholders led to the inequality between community expectations of Tahura's protection as an effort to improve the welfare of the community around Tahura. The level of public confidence to the success of the management of Tahura Bukit Barisan is also reduced, this can certainly lead to pessimistic attitudes and low levels of community participation.

Table 10  
Community Participation and Motivation

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
(Constant)	100,974	3,369	
1 Participation	,220	,042	,212
Motivation	,296	,017	,706

From the analysis of the regression equation model is  $100,974 + 0,220X_1 + 0,296X_2$ , the participation of the community is positive and insignificant for the protection of the Bukit Barisan Tahura. Man is a social creature who wishes to always want more and continuously and will stop until the end of his life. This means that if a need is satisfied it will try to explore other needs of the higher. The individual will act in a certain way that will bring towards the restoration of their needs. The results of research related to Maslow's theory suggest that the motivation formed in the respondents was partially patterned because it was to meet the needs of safety and comfort. This means that to encourage people to conserve forests, the maintainers must be able to meet the needs of community Rasaman. According to Nurrochmat et al. (2005), community participation is supported by the motivation from the community to do and expect a reward and services that are deemed to be of mutual benefit. Therefore each respondent shows the source that they consider to be the foundation in the activity, which can affect the protection of Tahura by respondents. All work in addition to requiring personal skills also requires enough motivation to carry out the work. Often the work can be solved well by people who are motivated by strong but with moderate personal skills, with Tahura protection can positively affect the participation and motivation of the community to preserve Tahura.

#### 4 Conclusion

Characteristics of respondents: the lifetime of respondents were dominated by people over 50 years of age at 57.18%, secondary/high school education level of 71.54%, the burden of dependents between 3-5 people/KK of 72.04%, the main job of respondents was the seller in the stall with a percentage of 33.33%, the income level of IDR 1.5 million-IDR 3.000.000/month obtained the percentage of 49.37%, respondents who live 5-20 years of 51.64%, the location distance of the respondent to Tahura area is close to, around 500 m by 62.47 The participation and community motivation was positive and insignificant to the protection of Tahura Bukit Barisan. Nowadays, the orientation of community work is still around the business of food stalls and drinking, therefore it is necessary to be directed to productive efforts related to goods and services of the forest. The need to improve community empowerment with local governments in sustainable and periodic forest work programs in the Tahura district of Bukit Barisan. Need further research on the variables outside of this study.

#### *Conflict of interest statement*

The authors declared that they have no competing interests.

*Statement of authorship*

The authors have a responsibility for the conception and design of the study. The authors have approved the final article.

*Acknowledgments*

We are grateful to two anonymous reviewers for their valuable comments on the earlier version of this paper.

**References**

- Aslan, A. (2019). Peran Pola Asuh Orangtua di Era Digital. *Jurnal Studia Insania*, 7(1), 20-34. <http://dx.doi.org/10.18592/jsi.v7i1.2269>
- Aslan, A. (2019). Pergeseran Nilai Di Masyarakat Perbatasan (Studi tentang Pendidikan dan Perubahan Sosial di Desa Temajuk Kalimantan Barat).
- Aslan, A., & Hifza, H. (2020). The community of temajuk border education values paradigm on the school. *International Journal of Humanities, Religion and Social Science*, 4(1), 13–20.
- Carrera, J. S., Brown, P., Brody, J. G., & Morello-Frosch, R. (2018). Research altruism as motivation for participation in community-centered environmental health research. *Social Science & Medicine*, 196, 175-181. <https://doi.org/10.1016/j.socscimed.2017.11.028>
- Cunningham, J. A., Wild, T. C., & Koski-Jännes, A. (2005). Motivation and life events: A prospective natural history pilot study of problem drinkers in the community. *Addictive behaviors*, 30(8), 1603-1606. <https://doi.org/10.1016/j.addbeh.2005.02.006>
- Das, P. (2014). Women's participation in community-level water governance in urban India: The gap between motivation and ability. *World Development*, 64, 206-218. <https://doi.org/10.1016/j.worlddev.2014.05.025>
- Fauzi, H. (2012). Forest based social forestry development. Works by Putra Darmawati, Bandung.
- Forestry, M. (2011). Development of Forest Management Unit (KPH) concept, legislation and Implementation.
- Glance, S.F. (2008). Forestry Commission. Northern Region.
- Hernowo, S., n.d. Operationalization of Forest Management Unit (KPH) The initial step towards self-reliance. Kanisius, Yogyakarta.
- Kapinga, A. G. (2015). *Impacts of REDD+ activities to rural communities' livelihoods: evidence from Kondoa advancing REDD+ in Kolo hills forests project in Tanzania* (Doctoral dissertation, Sokoine University of Agriculture).
- Kilis, S., & Yıldırım, Z. (2018). Investigation of community of inquiry framework in regard to self-regulation, metacognition and motivation. *Computers & Education*, 126, 53-64. <https://doi.org/10.1016/j.compedu.2018.06.032>
- Kissinger, G. M., Herold, M., & De Sy, V. (2012). *Drivers of deforestation and forest degradation: a synthesis report for REDD+ policymakers*. Lexeme Consulting.
- Meshack, C.K., Ahdikari, B., Doggart, N., Lovett, J.C., 2006. Transaction costs of community-based forest management: empirical evidence from Tanzania. *Afr. J. Ecol.* 44, 468–477. <https://doi.org/10.1111/j.1365-2028.2006.00659.x>
- Mohammed, J., Osei-Fosu, A. K., & Yusif, H. (2017). Factors influencing households' participation in forest management in the northern region of Ghana. *Independent Journal of Management & Production*, 8(4), 1324-1340. <https://doi.org/10.14807/ijmp.v8i4.631>
- Mujiburrahman, M. (2017). Historical dynamics of inter-religious relations in south kalimantan. *Journal of Indonesian Islam*, 11(1), 145-174.
- Mujiburrahman, M. (2017). Urgensi Memahami Banua melalui Kajian Sosiologi Agama. *Khazanah: Jurnal Studi Islam dan Humaniora*, 15(1), 53-69.
- Murhaini, S. (2012). Forestry law. CV. The University of Yogyakarta, Yogyakarta.
- Musyoki, J. K., Mugwe, J., Mutundu, K., & Muchiri, M. (2016). Factors influencing level of participation of community forest associations in management forests in Kenya. *Journal of Sustainable Forestry*, 35(3), 205-216. <https://doi.org/10.1080/10549811.2016.1142454>
- Nurrochmat, D. R. (2005). *The impacts of regional autonomy: on political dynamics, socio-economics and forest degradation; case of Jambi-Indonesia*. Cuvillier Verlag.
- Putra, P., Mizani, H., Basir, A., Muflihin, A., & Aslan, A. (2020). The Relevancy on Education Release Revolution 4.0 in Islamic Basic Education Perspective in Indonesia (An Analysis Study of Paulo Freire's Thought). *Test Engineering & Management*, 83, 10256-10263.
- Regulation, G. (2004). Government Regulation of the Republic of Indonesia No. 45/2004 on Forest Protection. [WWW Document]. URL <https://www.ecolex.org/details/legislation/government-regulation-of-the-republic-of-indonesia-no-452004-on-forest-protection-lex-faoc165437/>
- Rodgers, M. (2012). REDD+, community forestry & gender: lessons learned and paths forward.
- Sgandhy, A. (2009). Basic principles of sustainable development policy environmentally sound. Bumi Aksara, Jakarta.
- Toffler, A. (1970). Organization—the coming ad-hocracy, Chap. 7 in *Future Shock*.
- Toffler, A. (1980). *The Third Wave*. New York: William Morrow and Company. Inc. *Toffler The Third Wave*.
- Utter, J., Denny, S., Robinson, E. M., Ameratunga, S., & Watson, P. (2006). Perceived access to community facilities, social motivation, and physical activity among New Zealand youth. *Journal of Adolescent Health*, 39(5), 770-773. <https://doi.org/10.1016/j.jadohealth.2006.04.009>