Local Community Perceptions of the KHDTK Mungku Baru Management, Palangka Raya, Central Kalimantan

Ise Afitah* and Ardiyansyah Purnama
Muhammadiyah University of Palangka Raya

* ise.afitah@umpalangkaraya.ac.id

Abstract. Mungku Baru Forest Area with Special Purpose (KHDTK) was forest located in the city of Palangka Raya. This KHDTK functions as an area that provides very high economic and ecological value to improve the quality of life of the community from the economic value of the area as a producing area for fish, resin, rubber latex, and other non-timber forest products. This study aims to determine the local community’s perception of the management activities of the KHDTK Mungku Baru. From the research results, it was known that the level of local community perception were included in the low category with an average score of 18.8. Factors on the number of family members, education, and counseling influence the formation of local community perceptions. The low level of local community perception were generally caused by not being involved in planning activities, the level of education that is still inadequate and the level of local community knowledge of the Mungku Baru KHDTK which is still lacking.

1. Introduction
The Mungku Baru Special Purpose Forest Area (KHDTK) functions as an area that provides very high economic and ecological value to improve the quality of life of the community from the economic value of the area as a producing area for fish, resin, rubber latex, and other non-timber forest products. From the ecological value this area is a producer of oxygen as well as a research area for students of the Faculty of Agriculture and Forestry as well as various domestic and foreign parties. With an area of ± 4 910 ha (Four Thousand Nine Hundred and Ten Hectares), KHDTK Mungku Baru has several types of areas such as peat, shellfish, riparian forest, and lowland forest with quite high levels of biodiversity, both vegetation and animals.

In recent years, as the party appointed as manager, the Muhammadiyah University of Palangkaraya has utilized the potential of the KHDTK Mungku Baru area which is a forest area. With the existing potential, UM Palangkaraya developed the area into more than just an ordinary Forest Area. UM Palangkaraya through the Institute for Research and Community Service (LP2M) built and provided quite complete facilities in the KHDTK area. These facilities range from regional entry access, resting places, to information boards.

For the management of KHDTK, UM Palangkaraya also embraces the community around KHDTK to manage it. Co-management which is carried out with a larger portion of management is given to the surrounding community. To find out the need for policies on the management of KHDTK that are right on target, a study of the conditions of the community and the characteristics that shape their behavior is required. Community behavior towards KHDTK can be formed from their perceptions and motivations towards KHDTK, so to find out participatory policies that are right on target, data is...
needed on the perceptions and attitudes of the people in the area. Public perceptions and attitudes towards KHDTK can be used as a basis for engaging (participation) in the management of KHDTK, so that the conditions for KHDTK can be better in the future and KHDTK can be managed properly. From this research study, of course, it is hoped that it will produce output in the form of information in the form of journals or research reports that are useful for improving the management of KHDTK.

In managing an area of 4,910 ha, the Mungku Baru KHDTK collaborates with the surrounding community. The management methods developed have also had positive impacts on the ecological, economic and social sides. From an ecological perspective, the KHDTK area is preserved, so that its main function can run properly. Apart from that, the animals found in these locations, indirectly, are also well cared for. Likewise for the social and economic side. The community can increase their livelihoods through non-timber forest products obtained from the area.

The problem or question that still needs to be answered is whether the ongoing joint management will have a positive impact in a sustainable or sustainable manner. For this reason, the author wants to examine the factors that influence the sustainability of joint management, namely the perception of the surrounding community in managing the KHDTK, along with the role of the Mungku Baru KHDTK in the lives of the surrounding community.

Based on the formulation of the problem above, the purpose and benefits of this study are to determine the relationship between the level of community perceptions in the management activities of the Mungku Baru KHDTK and to provide information about the level of perceptions of the community around the forest and their role in the management of the Mungku Baru KHDTK so that the Mungku Baru KHDTK manager can use this information in evaluating and refining KHDTK management policies.

2. Methods

2.1 Time dan Place

The location of the research on local community perceptions on the KHDTK management was located in Mungku Baru, Rakumpit District, Palangka Raya City, Central Kalimantan Province. The time for conducting this research was from June 2020 to September 2020.

2.2 Tools and Materials

The materials used in this study were questionnaires and statistical data on the development of KHDTK. The tools used in this research include writing instruments, calculators, cameras, laptops, Microsoft Word software, Microsoft Excel software, and IBM SPSS Statistics 20.

2.3 Metode Pengumpulan Data

2.3.1 Method of Determining the Number of Respondents

Determination of respondents is done by purposive sampling, which is purposive sampling tailored to the purpose of data collection, namely respondents who can or are able to provide data, information and explanations. The target of this research is the people living in the area around the KHDTK, namely the residents of Mungku Baru who are directly adjacent to the KHDTK area. The overall number of respondents interviewed was determined based on the formula of the Slovin method[1], as follows:

$$n = \frac{N}{1 + (N)(e^2)}$$

Information:

n = Number of Samples
N = Total Population
E = Error Tolerance Limit (10%)
2.3.2 Types of Data Collected
The data taken to determine the level of perceptions of the surrounding community in the management of KHDTK include: a) Primary data obtained by distributing a questionnaire consisting of respondent identity data, including name, age, education, occupation, number of family members, and length of stay. Interview data with the surrounding community and management parties from related agencies. b) Secondary data obtained from agencies related to research and literature study.

2.3.3 Test the Validity and Reliability of the Questionnaire
The validity test is intended to determine the validity of the questions used in this study. The instrument is said to be valid if the correlation value (Spearman Correlation) is positive and the correlation probability value [sig. (2-tailed)] < significant level 0.05. The construct validity was calculated by looking for the correlation of each question with the total score using IBM SPSS Statistics 20 software.

The reliability test is intended to determine the consistency of measuring instruments in measuring the same symptoms. A questionnaire is said to be reliable if the questionnaire can be used repeatedly in the same group and produces the same data. This reliability test uses the Cronbach Alpha coefficient method in the IBM SPSS Statistics 20 software. If the value is positive and the value is close to 1 (has a Cronbach alpha of more than 0.6) it means that the measurement used is reliable.

2.4 Data Processing and Analysis Methods
Data processing and data analysis in this research was divided into several parts, as follows:

2.4.1 KHDTK management activities
KHDTK management activities are described descriptively with pictures after data processing and analysis of the data obtained are carried out, so that an overview of the management system and activities in KHDTK Mungku Baru, Palangka Raya is obtained.

2.4.2 Internal and External Factors
Internal factors and external factors are factors that can influence the community in shaping perceptions and attitudes to decide regarding community participation in KHDTK management activities.

2.4.3 Community Perceptions regarding KHDTK
Public perception regarding the management of KHDTK is measured based on the total score of the questions on the questionnaire using a Likert scale. Measured perceptions of the views of the surrounding community regarding the management of KHDTK on social, economic and environmental life.

3. Results and Discussion
3.1 DecidedA general overview of research sites
The Mungku Baru Special Purpose Forest Area (KHDK) is located in Mungku Baru Village and Bukit Sua Village, Rakumpit District, Palangkaraya City, Central Kalimantan Province. Rakumpit District consists of 7 villages, including: Bukit Sua, Gaung Baru, Mungku Baru, Pager, Panjehang, Petuk Barunai, and Petuk Bukit. The area of Mungku Baru Village is ± 29 000 hectares, while the area of KHDTK Mungku Baru is ± 4 910 hectares.

The level of biodiversity in KHDTK, both flora and fauna, is very large, there are about 200 bird species (the largest in Kalimantan), and a variety of other protected animals including orangutans, gibbons, clouded leopards, and others. According to BNF, plants are also forest areas with a higher level of diversity than Sabangau and other BNF managed areas in Purca.
Plants vary. Not only ironwood. There are meranti, tengkawang, restless, benuas, rim, karuing and others. The flora in KHDTK include Ulin (Eusideroxylon zwageri), Alau (Dacrydiun beccarii), Semar Bags (Nepenthaceae), Gemor (Nothaphoebe coriacea), Ramin (Gonystylus bancanus), and Orchid (Orchidaceae).

In the forest there are still many wild animals, such as black bears, mouse deer, wild boar, orangutans, gibbons, proboscis monkeys, bangkui, pangolins, hedgehogs, etc., monitor lizards, crocodiles, especially in the Rakumpit River, there are also many birds. There are 34 mammal species (19 protected), 118 bird species (27 protected), 20 reptile and amphibian species (5 protected) and 28 fish species. There are 5 types of cats including Flat-headed Cat (Prionailurus planiceps), Red Cat / Borneo Bay Cat (Catopuma badia), Kuwuk Cat / Leopard Cat (Prionailurus bengalensis), Clouded Leopard (Neofelis diardi), Cat Batu / Marbled Cat (Pardofelis marmorata).

3.2 Respondent Characteristics
3.2.1 Age of Respondent
Respondents consisted of various age levels. Respondents were dominated by the age group 37 to 53 years, namely 41.43%. This age is in the range of productive age, statement that the population of productive age ranges from that the population of productive age ranges from 15 to 65 years[2]. The distribution of respondents by age class can be seen in Table.

| Age (Years) | Quantity (Person) | Percentage (%) |
|-------------|-------------------|----------------|
| <37         | 22                | 36.67          |
| 37-53       | 29                | 48.33          |
| >53         | 9                 | 15.00          |
| Total       | 60                | 100.00         |

3.2.2 Number of Family Members
The characteristics of the respondents in terms of the number of family members are dominated by respondents with the number of family members in the vulnerable 4-7 of 56.67%. Family size according to the National Family Planning Coordinating Board [3] is divided into three categories, namely small families (≤4 people), medium families (5-7 people), and large families (≥8 people). The family size referred to by the BKKBN is the size of the nuclear family consisting of a wife, husband and children. The average number of the respondent's family is 4-7 people. The distribution of respondents based on the number of family members can be seen in Table.

| Number of Family Members | Quantity (Person) | Percentage (%) |
|--------------------------|-------------------|----------------|
| <4                       | 19                | 31.67          |
| 4-7                      | 34                | 56.67          |
| >7                       | 7                 | 11.67          |
| Total                    | 60                | 100.00         |

3.2.3 Respondents Education Level
Education has an important role in determining the quality of human resources and the level of welfare so that it can be an overview of the potential resources available in Mungku Baru village. The distribution of respondents based on education can be seen in Table.


Table 3. Distribution of respondents based on education

| Education                          | Quantity (Person) | Percentage (%) |
|------------------------------------|------------------|----------------|
| < Primary school                   | 12               | 20.00          |
| Junior high school to Senior high school | 42           | 70.00          |
| Diploma to bachelor degree         | 6                | 10.00          |
| Total                              | 60               | 100.00         |

Respondents generally have a level of education from junior high school to senior high school with a percentage of 70%. This percentage illustrates that in general people have a moderate level of education. Education, especially formal education, is a very valuable asset to get a decent economic life, education is also very influential on the life pattern of each individual, both ways of thinking and behaving[4].

3.2.4 Respondent's Occupation

The types of work in Mungku Baru village are grouped into 4 categories, namely gold miners, fishermen, civil servants and not working. Respondents' occupation is dominated by gold miners by 40%, followed by fishermen's occupation by 38.33%. Comparison of the percentage of respondents by type of work is shown in Table.

Table 4. Distribution of respondents based on counseling

| Profession         | Quantity (Person) | Percentage (%) |
|--------------------|------------------|----------------|
| Does not work      | 8                | 13.33          |
| Fisherman          | 23               | 38.33          |
| Gold Miner         | 24               | 40.00          |
| Civil servants     | 5                | 8.33           |
| Total              | 60               | 100.00         |

3.2.5 Length of Stay

Respondent characteristics based on length of stay were dominated by respondents with length of stay between 23-46 years, namely 32 people or 53.33%. Complete results can be seen in Table 5.

Table 5. Distribution of respondents based on length of stay

| Length of Stay (Yrs) | Quantity (Person) | Percentage (%) |
|----------------------|------------------|----------------|
| <23                  | 26               | 43.33          |
| 23-46                | 32               | 53.33          |
| >46                  | 2                | 3.33           |
| Total                | 60               | 100.00         |

3.2.6 Counseling

There were 21 respondents who received counseling on the Special Purpose Forest Area (KHDTK) of Mungku Baru with a percentage of 35%. The distribution of respondents receiving counseling can be seen in Table.
Table 6. Distribution of respondents based on counseling

| Get counseling | Quantity (person) | Percentage (%) |
|----------------|-------------------|----------------|
| Never          | 34                | 56.67          |
| once           | 21                | 35.00          |
| Often          | 5                 | 8.33           |
| Total          | 60                | 100.00         |

3.3 The Local Community Perception on the Management Of the KHDTK Mungku Baru

Perception is an internal process that allows us to select, organize and interpret stimuli from our environment and this process affects our behavior. Perception includes sensing (sensation) through sense organs, organization and interpretation. Broadly speaking, perception is divided into two parts, namely perception of objects (physical environment) and perception of humans. A person's perception is different depending on what the perpetrator is experiencing, both what has happened and is currently happening[5].

The factors that influence perception are functional factors and structural factors. Functional factors are factors that come from needs, past experiences and also other things which are called personal factors. Structural factors are factors that come from outside the individual such as environment, culture, law and values that apply in society and greatly influence individuals in making perceptions [6]. Based on the sum of the scores for the perception questions, the results of the level of perception of the Mungku Baru community towards KHDTK management are shown in Table 7.

Table 7. The level of the local community perception on the management of the KHDTK Mungku Baru

| Perception Value | Quantity (Person) | Percentage (%) | Category |
|------------------|-------------------|----------------|----------|
| 29 – 36          | 13                | 21.67          | High     |
| 21 – 28          | 22                | 36.67          | Medium   |
| 12 – 20          | 25                | 41.67          | Low      |
| 18.8             |                   |                | Low      |

The overall perception of the Mungku Baru community towards the management of KHDTK is in the low category with a score of 18.8. The community around the Mungku Baru KHDTK generally has a poor perception of the Mungku Baru KHDTK and believes that the existence of the Mungku Baru KHDTK does not improve the quality of the environment both in terms of air and climate.

Table 8. Factors that influence the perceptions

| Internal & Eksternal Factor | Perception Correlation Coefficient |
|-----------------------------|-----------------------------------|
| Age                         | 0.124                             |
| Total of Family Member      | 0.285*                            |
| Education                   | 0.241*                            |
| Occupation                  | 0.144                             |
| Length of Stay              | 0.112                             |
| Counseling                  | 0.793**                           |

* : Correlation is significant at the 0.05 level (2-tailed)
** : Correlation is significant at the 0.01 level (2-tailed)

From the results of testing the factors that influence perception using the Spearman correlation test at the 95% and 99% confidence levels (Table 8). The factor of the number of families and education has a significant effect on the closeness level of 0.285 and 0.241 on the formation of perceptions.
Meanwhile, the extension factor had a very significant effect, with a level of closeness of 0.793 on the formation of public perceptions.

### 4. Conclusions

The Mungku Baru community's perception of the management activities of the Mungku Baru KHDTK is in the low category with an average score of 18.8. The factors of the number of family members, education, and counseling influence the formation of local community perceptions. A strategy is needed to increase community perceptions of KHDTK management in order to improve and improve the behavior of the Mungku Baru community so that they are more concerned about the condition of the forest in KHDTK, this strategy can be in the form of increasing counseling on peat, shellfish, riparian forest and lowland forest. In the study of community involvement in KHDTK management activities, it is necessary to consider the needs, aspirations and experiences of the community which are aimed at improving the common welfare so that the benefits obtained from the policy are equally distributed to the community, as well as contribute to improving the social status of the community. Community involvement in KHDTK management activities can be in the form of providing and utilizing part of the KHDTK forest area as a cultivation area managed by the Mungku Baru community. In addition, it is necessary to conduct a study on the behavior of the surrounding community towards KHDTK forest management.

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