Analysis of community participation at Community Forestry Group (HKm) in Forest Management Unit (KPH) Region XIV Sidikalang, North Sumatera Province

M Saraan1*, Rahmawaty2 and R H Harahap3

1Natural Resources and Environment Management, Universitas Sumatera Utara, Medan, Sumatera Utara, Indonesia.
2Faculty of Forestry, Universitas Sumatera Utara, Medan, Sumatera Utara, Indonesia.
3Natural Resources and Environment Management, Universitas Sumatera Utara, Medan, Sumatera Utara, Indonesia.

E-mail: *masrizals@gmail.com

Abstract. The community participation is essential for the success of forest management in the Forest Management Unit. This study aimed to identify the form and level of community participation in supporting the Community Forestry Program. This research was conducted from June to September 2018 by using survey and interview methods. The data collection used by reviewing documents, observation, questionnaires, and interviews. The results of this study revealed that the highest participation form was 'engaging in social activities' chosen by 91% of respondents in Aor Nakan Village, 91% of respondents in Kuta Tinggi Village, and 100% of respondents in Sibongkaras Villages.

1. Introduction

The Minister of Environment and Forestry Regulation No. 83 of 2016 confirms that Social Forestry is "a system of sustainable forest management carried out in state forest areas or customary forests/customary forests implemented by local communities or conventional law communities as the main actors to improve their welfare, environmental balance and social and cultural dynamics in the form of 1) Village Forest, 2) Community Forest, 3) Community Plantation Forest, 4) Community Forest, 5) Customary Forest and Forestry Partnership.

Through this policy, there are several things that the government wants to achieve, namely: (a) creating and accelerating equitable access and distribution of forest resource assets; (b) resolving tenure conflicts in forest areas; and (c) reduce poverty and improve the welfare of people living in and around forest areas. The emergence of a sustainable development paradigm indicates the existence of two perspectives. First, the involvement of local communities in the selection, design, planning and implementation of programs or projects that will color their lives, so that can be guaranteed that the perception of local communities, attitudes and mindset patterns and values and knowledge fully considered, while the second is making feedback which is essentially an inseparable part of development activities [1]. The concept of sustainable development which involves community participation in the development process has the goal of improving the welfare of rural populations, including those living in and around forest areas, participating in decision-making and being able to
change their livelihoods. The participatory and pro-poor approach in rural communities is known as the populist approach [2]. The community participation is absolutely essential for the success of a development program. It can be said that without community participation any development will be less successful. It was further explained that the community participating in development activities would go through a learning process [3]. Therefore, communities need to experience a learning process to find out opportunities to participate in the development process, and often their abilities and skills still need to be improved in order to take advantage of these opportunities.

In 2017, the Minister of Forestry and Environment has issued a Community Forest Utilization Business Permit (IUPHKm) to 3 (three) Forest Farmer Groups (KTH) in Pakpak Bharat District. So far there have been no studies or studies that have analysed the factors that support community participation and the form and level of community participation in this program. Therefore, it is crucial to conduct a study on "Analysis of Community Participation in Community Forest Program (HKm) in the Forest Management Unit of Region XIV - Sidikalang, North Sumatra". The objective of this study is to identify the form and level of community participation in supporting the HKm program.

2. Material and methods

2.1. Time and place
This research was conducted in Aor Nakan Village, Kuta Tinggi and Sibongkaras, buffering Sikulaping Protection Forest (Reg. 71), Pakpak Bharat District, which had obtained an IUPHKm decree from the Minister of Environment and Forestry. This area is part of the KPH Region XIV Sidikalang - North Sumatra. The primary and secondary data were collected from June to September 2018.

2.2. Research method
This research was used to survey and interview methods.

2.3. Data types and source
a) Primary data, consisting of actual condition data at the study site such as forest cover, forest use patterns, community socioeconomic conditions, employment, income, education, land area, and others.

b) Secondary data, the supporting primary data, consisting of the general condition of the study site, the long-term management plan of the KPH Reg. XIV, area maps, topography, soil types, and other supporting data.

2.4. Population and sample
a) Population
The community in this study were all members of the Forest Farmer Group (KTH) holders of IUPHKm in Aor Nakan Village, Kuta Tinggi Village and Sibongkaras Village, Pakpak Bharat, North Sumatra, namely KTH Pemuda Tani, KTH Njuah Njerdik and KTH Dos Ukur Mersada, totaling 97 people (Table 1).

| No | Name of Forest Farmer Group | Village | Sub-District | Number of Member (KK) |
|----|-----------------------------|---------|--------------|-----------------------|
| 1  | Pemuda Tani                | Aor Nakan 1 | Pergetteng-getteng Sengkut | 45 |
| 2  | Njuah Njerdk               | Kuta Tinggi | Salak        | 27 |
| 3  | Dos Ukur mersada           | Sibongkaras | Salak        | 25 |
|    | Total                      |          |              | 97 |


b) Sample / respondents
This research was conducted by the census method. Therefore, the respondents of this study were all KTH members in 3 villages totaling 97 people.

2.5. Data collection technique
Data collection techniques are carried out through document review, field observations, questionnaires, and interviews.

a) Document review.
b) Field observations.
c) Questionnaire, based on a Likert scale.

Each question and/or statement provides several alternative answers to be chosen by respondents in accordance with their perceptions, feelings, and activities. The alternative solutions are processed into quantitative data (given a score). The data obtained from the study of documents, observations, and interviews were analysed descriptively qualitatively. While the results of the questionnaire data were analysed in quantitative descriptive using tools such as tables, graphs, and diagrams to explain the level of participation and forms of community participation.

2.6. Data analysis method
Data analysis was carried out to obtain information that could later be used to answer this research question regarding the form, level, and factors that influence community participation in the HKm program. The analysis data are as follows:

1. Forms of participation analysed as support:
   a) Assistance of Thoughts, which are given by participants in a formal event, meeting or meeting;
   b) Participation of Personnel, given by participants in various activities for the improvement or development of villages, assistance for others, and so on;
   c) Participation in Property, which is provided by people in various activities for the progression or development of communities, support for other people who usually in the form of money, food and so on;
   d) Participation in Skills and Finesse, which are given by people to encourage a variety of forms of business and industry;
   e) Social Participation, which is provided by people as a sign of communion [4]

2. The level of participation, in this case, is limited to the process of filing a business permit for utilization of HKm (IUPHKm), measured using indicators of involvement in activities and grading using the Likert scale (1-3) namely:
   a) Participation in planning
   b) Participation in the implementation of activities
   c) Participation in monitoring and evaluation
   d) Participation in the utilization of results [5]

Each of these indicators will be reduced to four questions, in which each question has three alternative answers represented by values of 1 (one), 2 (two), and 3 (three). Values that describe the "level of participation" of each respondent in each indicator are in the numbers 4 and 12. The evaluation is stated as follows:
- High participation, if the number of indicator values is more than 9;
- Medium participation, if the number of indicator values is between 5 - 8; and
- Participation is low if the number of indicator values is less than 4;

3. Result and discussion

3.1 Participation form
The community participation is a process in which people are involved in every stage of the situation that affects their lives [6].
The results of interviews with the community during this study revealed that generally, the terminology of participation was interpreted by the community as a form of community involvement in the Community Forest program, especially in activities directly related to commodity management, because the implementation of the HKm program in this area was facilitated by NGOs. Pesona Tropis Alam Indonesia Foundation (PETAI), where one form of activity is assistance in the cultivation of coffee plants.

As for the regional government, in this case, the Forest Management Unit (KPH) Region XIV and the Pakpak Bharat District scope agencies, so far, only involved the community in activities such as counseling by making the community an object or beneficiary without having been involved in planning and decision-making.

The results of data analysis revealed that the forms of community participation in the three villages were quite diverse, but the highest form of participation was engaging in social activities and was followed by giving ideas/proposals in each meeting. The lowest form of participation is donating assets (money, food, etc.), and this is evenly distributed in all villages (Table 2).

| Types of Community Participation In The HKm Program | Aor Nakan Village | Kuta Tinggi Village | Sibongkaras Village |
|-----------------------------------------------------|------------------|---------------------|---------------------|
| Providing ideas in each meeting                     |                  |                     |                     |
| No                                                  | 9                | 7                   | 4                   |
| Yes                                                 | 36               | 20                  | 21                  |
| Total                                               | 45               | 100%                | 27                  |
| Giving Contribution (energy)                        |                  |                     |                     |
| No                                                  | 23               | 51%                 | 14                  |
| Yes                                                 | 22               | 49%                 | 13                  |
| Total                                               | 45               | 100%                | 27                  |
| Providing Donation (money, foods, etc.)             |                  |                     |                     |
| No                                                  | 38               | 84%                 | 24                  |
| Yes                                                 | 7                | 16%                 | 3                   |
| Total                                               | 45               | 100%                | 27                  |
| Contributing skills/expertise                        |                  |                     |                     |
| No                                                  | 35               | 78%                 | 25                  |
| Yes                                                 | 10               | 22%                 | 2                   |
| Total                                               | 45               | 100%                | 27                  |
| Engaging in social activities                       |                  |                     |                     |
| No                                                  | 4                | 9%                  | 4                   |
| Yes                                                 | 41               | 91%                 | 23                  |
| Total                                               | 45               | 100%                | 27                  |

In Aor Nakan Village, out of 45 respondents, 41 respondents or 91% chose to be involved in social activities as the highest form of participation, and seven people or 7% chose to contribute property as the lowest form of participation. In Kuta Tinggi Village, out of 27 respondents, 41 respondents or 91% chose to be involved in social activities as the highest form of participation, and three people or 11% chose to contribute property as the lowest form of participation. Whereas in Sibongkaras village, out of 25 respondents, all or 100% chose to be involved in social activities as the highest form of participation, and no one chose to contribute property as the lowest form of participation.
Forms of social activities in the target villages of this study include urup-urup (helping each other in the growing season), planting rice, weddings, planning customary activities, etc. Almost all villagers usually take part in these activities; at least one representative from each family will participate. This confirms that engaging in social activities is the highest form of participation in the region. If related to HKm activities, one of the activities carried out is the improvement of coffee crop cultivation patterns, where there is some new knowledge that needs to be practiced, for example, making MoL and making liquid organic fertilizer. The activity was carried out in mutual cooperation in the fields of each member of the HKm group in turn.

Furthermore, the form of participation in giving ideas/proposals in each meeting was also high in these three villages. From the interviews conducted, it was found that in every meeting facilitated by the PETAI NGO in relation to the HKm program, the presence of the community was quite high, they were actively involved in giving proposals and even giving critical questions on material or topics they still did not understand. Furthermore, they are also actively involved in the preparation of activity plans, although often in decision making, they submit it to the group leader and/or village head and community leaders who are considered to know better.

The existence of PETAI NGOs has a positive influence on community understanding of the form of community participation because of the assistance that is carried out by placing live staff in the village. PETAI NGOs conduct weekly meetings and provide some training related to institutional and organizational management. At each meeting, PETAI staff made it possible and even encouraged the community to express their ideas and ideas.

3.2 Participation level
The community participation in the Community Forestry program in Pakpak Bharat is divided into four stages; planning, implementing activities, monitoring and evaluating and utilizing the results. The planning consists of socialization activities, the formation of institutions (Forest Farmer Groups), preparation of work plans, and the management of HKm permits to the Ministry of Forestry and Environment. The Implementation of activities consists of forest utilization activities, preparation of HKm work plans, determination of activity priorities, and implementation of activities. The Monitoring and Evaluation Program consists of monitoring and evaluation activities, conduct regular meetings that discuss the development of activities, and evaluation of activities. The utilization of Results consists of boundaries clarity.

3.3 Participation level in Aor Nakan Village
In general, the level of community participation in Aor Nakan Village is quite high. In the planning and implementation stages, all respondents or 100% with a high participation rate of 100%. At the monitoring and evaluation stage, there were 11 respondents or 24% with medium participation rates and 34 respondents or 76% with high participation rates. Whereas, at the utilization stage of the results, there were 15 respondents or 33% with medium participation rates and 30 respondents or 67% with high participation rates. Detailed results of the questionnaire analysis are presented in Table 3.

| Level of Participation | Planning | Implementation | Monitoring and Evaluation | Utilization of Result |
|------------------------|----------|----------------|--------------------------|-----------------------|
|                        | Skor     | %              | Skor | %           | Skor | %       | Skor  | %       |
| Low                    | 0        | 0.0            | 0    | 0.0         | 0    | 0.0     | 0     | 0.0     |
| Medium                 | 0        | 0.0            | 0    | 0.0         | 11   | 24      | 15    | 33      |
| High                   | 45       | 100            | 45   | 100         | 34   | 76      | 30    | 67      |
| Average                | 15       | 33.3           | 15   | 33.3        | 15   | 33.3    | 15    | 33.3    |
| Total                  | 45       | 100            | 45   | 100         | 45   | 100     | 45    | 100     |
3.4 Level of participation in Kuta Tinggi Village
The level of community participation in Kuta Tinggi Village is also quite high. In the planning and implementation stages, all respondents or 100% with a high participation rate of 100%. At the monitoring and evaluation stage, there were 1 respondent or 4% with a low participation rate, 5 respondents or 19% with medium participation rate, and 21 respondents or 78% with a high participation rate. Whereas, at the utilization stage of the results, there were 14 respondents or 52% with medium participation rates and 13 respondents or 48% with high participation rates.

Table 4. Level of participation in Kuta Tinggi Village

| Level of Participation | Planning | Implementation | Monitoring and Evaluation | Utilization of Result |
|------------------------|----------|----------------|--------------------------|----------------------|
|                        | Skor     | %              | Skor                     | %                    |
| Low                    | 0        | 0.0            | 0                        | 0.0                  |
| Medium                 | 0        | 0.0            | 5                        | 19                   |
| High                   | 27       | 100            | 21                       | 78                   |
| Average                | 9        | 33.3           | 9                        | 33.3                 |
| Total                  | 27       | 100            | 27                       | 100                  |

3.5 Level of participation in Sibongkaras village
The level of community participation in Sibongkaras Village is quite diverse. At the planning stage, four respondents or 16% with a 'moderate' level of participation and 21 respondents or 84% with a 'high' level of participation. At the implementation stage, there were 1 respondent or 4% with 'low' and 'medium' participation rates, and 23 respondents or 92% with 'high' participation rates. Furthermore, at the monitoring and evaluation stage, there were seven respondents or 28% with a 'moderate' level of participation. Whereas in the results utilization stage, there were eight respondents or 32% with medium' participation rates, and 17 respondents or 68% with 'high' participation rates.

Table 5. Level of participation Sibongkaras Village

| Level of participation | Planning | Implementation | Monitoring and Evaluation | Utilization of Result |
|------------------------|----------|----------------|--------------------------|----------------------|
|                        | Skor     | %              | Skor                     | %                    |
| Low                    | 0        | 0.0            | 1                        | 4                    |
| Medium                 | 4        | 16             | 7                        | 28                   |
| High                   | 21       | 84             | 18                       | 72                   |
| Average                | 8.3      | 33.3           | 8.3                      | 33.3                 |
| Total                  | 25       | 100            | 25                       | 100                  |

Based on Table 5, the level of community participation is 'high' in planning, implementation of activities, monitoring, and evaluation, as well as the utilization of results. The community participation is needed, as agree with a previous study [7,8]. The community participation in the management of HKm was realized because of the role of PETAI NGOs who assisted by practicing decision making forms. Therefore, in the end, the form and level participation were apparently absorbed and are implemented by the community member. The HKm program in three villages in Pakpak Bharat Regency is a participatory program in the mean of involves the community as HKm manager in various stages, namely planning, implementing activities, monitoring, and evaluating and utilizing the results (Table 5). The community was involved from the beginning, even in choosing the social forestry scheme to be implemented, which is the Community Forest (HKm). One of the planning forms is the preparation of general work plans and annual work plans.
4. Conclusions
In the Aor Nakan Village, 91% of respondents chose to be involved in social activities as the highest form of participation, and 7% choose to contribute property as the lowest form of participation. In Kuta Tinggi Village, 91% choose to engage in social activities as the highest form of participation, and 11% choose to contribute property as the lowest form of participation. Whereas in Sibongkaras village, all or 100% of respondents choose to be involved in social activities as the highest form of participation. The level of participation in the three Forest Farmer Groups at the planning and implementation stages was high, reaching 100%. At the monitoring and evaluation stage in the Aor Nakan village 24% respondents with medium level of participation and 76% respondents with high level of participation, in Kuta Tinggi Village, 4% of respondents with low level of participation, 19% respondents with medium level of participation and 78% with a level of participation high participation. Whereas at the utilization stage of the results, in Aor Nakan Village 33% of respondents with medium level of participation and 67% of respondents with high level of participation, in Kuta Tinggi Village, 52% of respondents with medium level of participation and 48% of respondents with a high level of participation, in Sibongkaras Village, 32% respondents with medium level of participation and 68% of respondents with high level of participation.

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