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Multi-Stakeholder Contribution in Forest Management in the Gularaya Forest Management Unit (KPHP Gularaya), Southeast Sulawesi, Indonesia

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Abstract: Community forests are managed by communities using a variety of assets that are influenced by various factors, one of which is stakeholders. This factor influences community forest management, forest conservation, and people's livelihoods. This research aims to examine the multi-stakeholder contribution to community capital support of forest utilization in the Forest Management Unit, Gularaya, Mata Wolasi Village, Wolasi Area, South Konawe. Data collection was carried out with observations and interviews of informants. Informants in this study were chosen with the intention (purpose) to represent each party involved and have extensive knowledge of the collaboration program's inception. The informants in this study were selected using the snowball technique and included the Gularaya Forest Management Unit, Coastal and Inland Community Development, Climate Change Adaptation and Resilience-United States Agency for International Development and the village government. For data analysis, qualitative analysis was used with a mixed-methods approach adopted to generate a holistic understanding of the sustainability of the role of stakeholders against forest utilization in the Gularaya. The findings revealed that human and social capital were dominant in initiating collaboration for forest utilization in the Gularaya Forest Management Unit. It included a collaboration program, group discussions, mentoring, forming community institutions, and approving forest use. Resources that support the program's implementation must be maintained sustainably, including natural, human, financial, and social capital. The mutual trust among the stakeholders must be built with good communication in conveying their ideas and suggestion for improvement of Gularaya forest management.

Keywords: Forest Management; Community Forest; People Livelihood; Social Capital.

1. Introduction

Forests are natural resources that have important economic, social, cultural, and environmental implications (Widodo and Sidik 2020). Forest resources become a development capital of forest products, play a role in germplasm, and maintain the ecosystem balance. Forests supply a wide range of products for both domestic and industrial use. These forest products are classified as either timber or non-timber. Although timber products are highly valued worldwide, little attention has been paid to NTFPs, which play an important role in sustaining the livelihoods of communities living near forest areas (Suryandari and Sylviani 2010). However, due to deforestation, Indonesia's forest area has recently decreased, resulting in negative consequences for Indonesia and the world (Arif 2016). Forest conversion into palm oil cultivation caused the deforestation of 57% of the forest, while the other 20% was due to the production of paper and pulp. Then there are forest fires, which happen almost every year. In 2015, 1.7 million hectares of forest were burned, resulting in wildfire smoke impacting education, air transportation, health, the economy, and the environment (Adiputra and Barus 2018).

A scheme is needed for managing and developing forest land use, such as a community forest scheme. The community forest scheme does not provide forest ownership to the community but involves the community as influential stakeholders in forest management, such as creating access rules and product disposition. In Indonesia, community forest has evolved in two distinct directions. It began as legal recognition of usufruct rights to some state land by local communities and has grown under the supervision of the Ministry of Forestry and regional governments, including provinces, districts, and municipalities (Sahide and Giessen 2015). Based on Constitutional Court Decision 35 / 2012, efforts have recently been made to recognize customary forests as distinct

from state forestland. It opens new avenues for community forest legal recognition, including usufruct rights and land ownership (Sahide et al. 2016).

Sulawesi is home to one of Indonesia's forest areas, the Gularaya Forest. The forest area managed by the Gularaya Production Forest Management Unit (KPHP) spans 115,363.01 hectares, with Konawe Selatan Regency covering 112,439.13 hectares and Kendari City covering 2,923.88 ha. A forest management unit is a public service provider, a permanent management entity, and an operational unit that manages and controls a manageable and controllable size of forest managed by national and subnational governments. The forest area in the Gularaya KPHP is divided into four types based on its function: protected forest, production forest, limited production forest, and Highly Important Forest Zones with Strategic Values (Dampak Penting Cakupan Luas dan bernilai Strategis/DPCLS). KPHP Gularaya controls 60.31 percent of the production forest area, including 65,920.85 hectares of permanent production forest and 3,643.72 hectares of limited production forest. Good forest management impacts the sustainable use of forest resources in the long term, including in wood production.

On the other hand, production forest areas are secondary forests with the lowest timber potential. This production forest's wood is typically less than 30 cm in diameter. As a result, efforts should be made to optimize the management of production forests to produce timber and other forest products. Several actions for sustainable forest management can be taken through stakeholder collaboration, such as structuring, rehabilitation, maintenance, and security (Regional Forestry Development Control Center 2014).

Changes in forest environmental conditions have an impact on people's livelihoods, particularly those near forests. In the form of material or social assets humans use to organize their lives, livelihood assets are priceless or invaluable (Krantz, 2001). Humans require a variety of assets; it takes a combination of assets to improve the community's welfare. Human resources, natural resources, financial resources, physical resources, and social resources are the five categories of assets used for livelihood (Scoones 1998).

Because each resource has different characteristics and carrying capacity, livelihood assets must be understood. Communities manage community forests with various assets that are influenced by various factors, one of which is stakeholders. This condition impacts community forest management, conservation, and people's livelihood. To identify the types and contributions of stakeholders in forest management, livelihood assets are required. This study aims to examine stakeholders' contributions to forest use in the KPHP Gularaya, Mata Wolasi Village, Wolasi Region, South Konawe.

2. Method

This research was conducted from September 2017 to November 2018. The research location is Mata Wolasi Village, Wolasi, South Konawe Regency, Indonesia. Mata Wolasi Village was chosen because it is involved in developing community resilience projects against climate change and disaster risk. In addition, this location received a social forestry program facilitated by the Institute of Climate Change Adaptation and Resilience-United States Agency for International Development. The authors asked subjects (or informants) various questions, including the role of each party in the initiation of cooperation, the form of contribution to the initiation of cooperation, the timing of the contribution, and why the role and contribution were carried out.

The study used a qualitative approach in the case of the initiation of the collaboration program. The data collection method was carried out through semi-structured and in-depth interviews using a question guide that had been prepared (Moleong 2010). The interview method is carried out by asking open primary questions and then deepened with secondary questions. Substantially, the question material refers to the focus and sub-focus of the study, including community assets or capital, as stated by Scoones (1998). In addition, data collection was also carried out by observation, document collecting, and Focus Group Discussion (FGD). Data collection was carried out on the subject through observation and interviews. Observation aspects were location identification, field orientation, community needs assessment, dissemination and preparation of action plans with the community, ongoing discussions, and evaluations. Meanwhile, interviews were conducted with stakeholders related to the initiation of the collaboration program, involvement and collaboration of stakeholders, and community capital, including natural, human, financial, and social capital. The subject of observation and interview is explained in the Table 1. The determination of participants was carried out by purposive sampling followed by the snowball method and triangulation on stakeholders related to the initiation of the collaboration program. The participants in this study were 12 people, including six people from Mata Wolasi Village

community, two people from Mata Wolasi Village Government, one person from the Forest Management Unit (KPH) Gularaya, two people from the Coastal and Inland Community Development Institute (LEPMIL), and one person from Program Manager Climate Change Adaptation and Resilience. This study used the snowball sampling method. The characteristics of networking and referral are central to the snowball sampling method, one of the most popular qualitative sampling techniques in which the samples have rare characteristics. Typically, the researchers begin with a small number of initial contacts (seeds) who meet the research criteria and are invited to become research participants. The willing participants are then asked to recommend other contacts who meet the research criteria and may also be willing participants. They are then asked to recommend other potential participants (Parker, Scott, and Geddes 2019).

Table 1: List of Observation and Interviews

Observation	**Interviews**
Observation 1, February 2017. Identify locations for partnership initiatives with APIK-USAID.	Interview 1. 11, 12, and 20 January 2018. Interview with Program Coordinator/Director of LePMIL Southeast Sulawesi regarding the idea of building a partnership with APIK-USAID, facilitating program collaboration, and community assistance (live interview).
Observation 2, April 2017. Field orientation for determining the location and size of the area reserved for the partnership area.	Interview 2. 25 and 26 February 2018. Interview with the APIK-USAID Program Team for Southeast Sulawesi Region regarding the collaboration plan with LePMIL, forms of support, and progress of the forestry partnership program (live interview)
Observation 3, Mei 2017. Assessment of community needs with KPH Gularaya for forestry partnership.	Interview 3. 15, 20 March 2018. Interview with the Manager of the Gularaya KPH Southeast Sulawesi Province regarding social forestry regulations, directions for the location of the partnership area, and the role/contribution of the KPH (live interview).
Observation 4, September 2017. Dissemination and preparation of action plans with the community.	Interview 4. 15, 16, and 27 April 2018. Interview with the Village Head Secretary of Mata Wolasi regarding support from village officials and the community as well as community institutions that are relevant to be developed (live interview).
Observation 5, Nopember 2017. Discussion on the initiation of the required forms and functions of community institutions.	Interview 5. 8, 12, 23, and 24 May 2018. Interview with the Chairperson and members of the Management of Village Owned Enterprises, including community needs, community institutions in forest utilization, and the economic dimension of forestry partnerships (live interview).
Observation 6, Desember 2017. Initiation and implementation of calliandra plant nursery demonstration plots for agroforestry plants.	Interview 6. 13, 14, 15, 25, and 26 June 2018. Interview with the Chairperson and members of the Social Forestry Farmers Group regarding acceptance, partnership institutions and forms of community contribution (live interview).
Observation 7, Pebruari 2018. Multi-stakeholder evaluation meeting on program implementation performance.	Interview 7. 7, 8, and 9 July 2018. Interviews with the farming communities (men) who use the forest area in Mata Wolasi Village regarding the needs, capacity, involvement, support, and mentoring process carried out by LePMIL (live interview). Interview 8. 8, 9, 10 July 2018. Interview with the farming community (women) who use the forest area in Mata Wolasi Village regarding the needs, capacity, women's involvement, support, and mentoring process carried out by LePMIL (live interview).

Qualitative analysis was used in this study. Accordingly, this study employed a multi-stakeholder approach to reflect the multidimensionality of the phenomenon, a mixed-methods approach was adopted to generate a holistic understanding of sustainability of the role of stakeholders against forest utilization in the Gularaya (Dimitrovski et al. 2021). Multi-stakeholder contribution analysis is conducted by examining the support provided by stakeholders in the community capital such as human capital (knowledge and skills), natural capital (forest land and plant species), financial capital (cash funds), and social capital (networking participation) against forest utilization in the Gularaya. Data presentation was evaluated with narrative data analysis and interpretation. The method used to analyze, interpret, and compare the resulting interview is to reduce and create a data log based on the categories (groupings) in each sub-focus of the research on the data obtained. From the log data, the data is compiled and then paired with the data from the observations. The analysis is carried out by describing and interpreting the processes that occur in the initiation of the collaboration program, both sequentially and coexistent.

3. Results And Discussion

3.1 An Overview of Stakeholders in Management Gularaya Forest

Stakeholders are the parties that may affect or be affected (impacted) based on decisions (Freeman, 1984). Several stakeholders are involved in forest management cooperation in the Gularaya Forest, such as The Institute for Coastal and Inland Community Development, Unit of Climate Change and Resilience Adaptation-United States Agency for International Development, village officials, and the community of Mata Wolasi Village and Forest Management Unit, Gularaya. Several parties are involved in the initiation of the collaboration program, both primary and secondary. The role of each stakeholder can be described as follows:

LEPMIL initiates ideas and facilitates implementing collaboration with APIK-USAID as program providers with the Mata Wolasi village community.

APIK-USAID is a service provider concerning the principles and substance of the USAID partnership program with local institutions (LEPMIL).

Village officials (village heads and secretaries) facilitate the community to be involved and support other parties in implementing the collaboration program.

The local community is a resident of Mata Wolasi Village who is willing and directly involved in the initiation of the collaboration program.

KPH Gularaya is a forest management unit under the Southeast Sulawesi Provincial Forestry Service that supports the fulfillment of legal aspects and directives for the initiation of forestry partnerships between community members that are embodied through cooperative forest farmer groups with the Ministry of Environment and Forestry.

A brief description of the roles of each stakeholder can be seen in Table 2.

Table 2: The involved stakeholders in forest management cooperation

Stakeholder	Stakeholder's Category	Role
The Institute for Coastal and Inland Community Development	Secondary	Funder, initiator, mediator, and facilitator organization to increase community and organization capacity in coastal and inland areas through research, education, and training.
Unit of Climate Change and Resilience Adaptation-United States Agency for International Development	Secondary	The unit performs disaster risk management and climate in the coastal and highland communities. In this case, it is a funder assisting in environmental management.
Village Officials	Primary	Government officials at the village level, who support facilitation and are involved in local institutions (cooperatives), permit

		holders, and implementation of collaboration programs in their area.
Community of Mata Wolasi Village	Primary	The Mata Wulasi community (Tolaki tribe) lives from agricultural, paddy fields, plantations, and the utilization of forest products.
Forest Management Unit, Gularaya	Secondary	Institutions with forest management areas in accordance with their main functions and designations must be managed efficiently and sustainably.

There are two types of stakeholders based on relevance to a decision or an activity, namely primary and secondary stakeholders (Townsley 1998). Primary stakeholders are parties who have a direct interest in a resource. These stakeholders are also called key stakeholders (Yang et al. 2010). Meanwhile, secondary stakeholders are parties who have an indirect interest in resources. Based on the role of each stakeholder, there are two stakeholders as primary stakeholders, namely the Village Officials and Community of Mata Wolasi Village and the Forest management unit. The secondary stakeholders are The Institute for Coastal and Inland Community Development and the Unit of Climate Change Adaptation and Resilience-United States Agency for International Development.

3.2 Primary Stakeholders

Mata Wolasi Village is a large village in Wolasi, South Konawe, and Southeast Sulawesi. The local community of Mata Wolasi Village is dominated by the Tolaki tribe who inhabit the Wolasi area. There is a village apparatus consisting of a village head and a secretary. The community fulfills their living needs through rice farming, plantations, and the use of forest products. Most people live around the forest.

Primary stakeholders are parties directly involved as holders of permits to control and use forest areas in forestry partnership areas in production activities. In the context of this study, the primary stakeholders are the village community and the village government. Village officials are represented by the village head and village secretary, who are part of the permit holder institutions, namely cooperatives. Meanwhile, the village community is local farmers who live around forest areas and want to be involved in forestry partnerships. To gain access and use of forest areas, the village apparatus and LEPMIL also play a role in facilitating village community at the field level (local level) to be organized through forest farmer groups and cooperatives. The farmer group cooperative represents the community and village officials in partnering with the Ministry of Forestry through joint facilitation with KPH Gularaya.

3.3 Secondary Stakeholders

The Institute for Coastal and Inland Community Development was founded in 1997 by social observers and academics. Coastal and Inland Community Development has collaborated with the Climate Change and Resilience Adaptation- United States Agency for International Development by offering a project to build community resilience in the Wanggu River against climate change and disaster risks. The funds amounted to USD 60,823.43 with USD 54,723.04 from the Climate Change Adaptation and Resilience Unit-United States Agency for International Development and USD 6,100.39 from the Coastal and Inland Community Development Institute.

The initial idea for initiating the collaboration program came from secondary stakeholders, LEPMIL. LEPMIL responded to the APIK-USAID program to establish cooperation. Through facilitation, LEPMIL then builds an understanding and explores the possibility of the availability of forest areas in the KPH Gularaya area with the potential for forestry partnerships with local communities. The three institutions at the supra-local level finally reached an understanding and a shared willingness to collaborate in supporting stakeholders at the local level (primary stakeholders) to carry out forestry partnerships. Operations are carried out through the LEPMIL facilitation process for village officials and community members, especially those living around forest areas. It showed that LEPMIL is consolidating or synergizing secondary stakeholder support. LEPMIL also has partnered with APIK-USAID to obtain funding support. In addition, to obtain potential area reserves, LEPMIL facilitated KPH Gularaya to facilitate the village officials and village community. Even though LEPMIL is a secondary

stakeholder, they have a significant role in carrying out a multi-stakeholder facilitation process, both secondary stakeholders at the supra-local level and stakeholders at the local level. In carrying out its role at the local level, especially for forest farmers, LEPMIL carried it out together with village officials. The facilitation process in the collaborative functionalization of multi-stakeholder roles for initiating the collaboration program can be seen in the following schematic diagram (Figure 1).

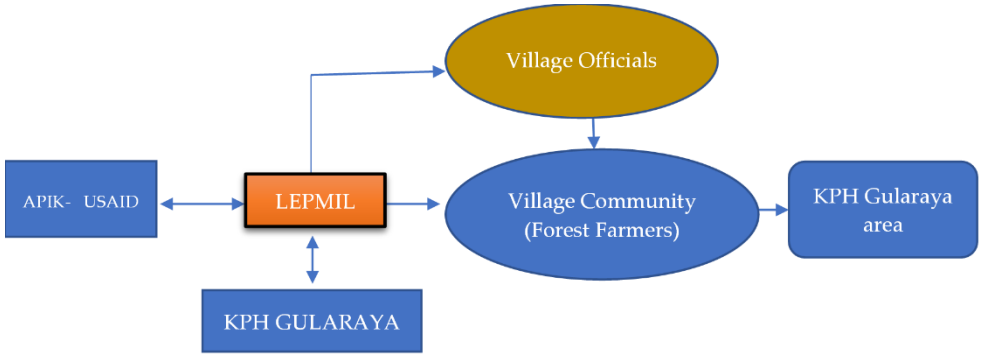

Fig 1: Scheme of Facilitation of the Role of Primary and Secondary Stakeholders in the Initiation of the Collaboration Program

3.4 Initiation activity on the management of Gularaya Forest

The programs carried out by various stakeholders in the Gularaya forest consist of (1) cooperation programs, (2) group discussions, (3) mentoring, (4) community institutions, and (5) forest use approval. This activity is related to the contribution of various stakeholders in community capital, including natural, human, financial, and social capital. Each stakeholder has a different role.

3.4.1 Natural capital

Natural capital is the natural resource stocks that people or communities can draw on for their livelihoods, including land, forests, water, and air. The natural resource in this collaboration is the Gularaya forest area. In the natural capital, collaboration is carried out by the village community, KPH Gularaya, and LEPMIL. The collaboration type is the form of providing land for demonstration plots of plant seedlings and collaboration of forest areas. The detail of natural capital in this cooperative program can see in Table 3. This is a production forest and a protected forest that can be collaborated on in accordance with the Minister of Environment and Forestry Regulation with Number 49 of 2017 (Minister of Environment and Forestry of the Republic of Indonesia 2017).

Table 3: Natural Capital on Collaboration Program in Gularaya Management Forest

Collaboration Program	Stakeholder	Activity and result
Accompaniment	Community	Demonstration plot land (community) The community contributes land to make seedlings and demonstration plot plants. It is vital because the forest area cannot be used before the agreement by the government.
Formation of community institutions	Forest Management Unit, Gularaya)	A forest area that can be managed by the community. There is 3,267 hectares of forest land in Mata Wolasi Village. It consists of 1,183 hectares of production forest and 2,084 hectaress of protected forest.

During the mentoring period, the available natural capital was the nursery field and pilot field of 0.5 hectares which was used for calliandra nursery and cultivation (Table 2). The community contributed the capital

in the form of a temporary lease. After the agreement of forest usage as Hutan Tanaman Rakyat (HTR – The people forest) from the Ministry of Forestry and Environment, around 150 hectares of land was facilitated from KPHP Gularaya. Besides, the other capital was from calliandra plants and seedlings from Climate Change Adaptation and Resilience and Coastal and Inland Community Development, provided from the demonstration plot, which the locals rented. Those plants and seedlings were the input to developing the agroforestry in HTR.

Natural capital is critical because it plays an important role in achieving economic value; therefore, every involved stakeholder should include natural capital in decision-making regarding forest utilization (WWF 2019). Some businesses and organizations include natural capital in their management strategy because it is thought to provide multiple returns in social, economic, and environmental capital (Benson et al. 2018).

The natural capital was created cumulatively during the mentorship phase and the agreement regarding forest utilization in demonstration plot development, HTR plotting, and the production of calliandra seedlings and plants. The activity has a low contribution to output because it is still in the initialization stage of HTR development. According to Nikoyan, each party's contribution during the initial phase of community development will be minimal (Nikoyan et al. 2013). The attention and support are focused on organizing the community and coordinating all involved parties. Regardless, the early achievement can be used as the foundation and followed up in the other phases of HTR management.

3.4.2 Human Capital

Human capital is the knowledge, skills, and ability to earn a living. Cooperation has been agreed upon by stakeholders and then continues with the implementation of various programs. Forum group discussion (FGD) was conducted to determine the relevance and role of each stakeholder. The results of the group discussion forum generate ideas that can be useful for making annual work plans and general work plans with the Forest Management Unit, Gularaya. It must be by regulation of the Minister of Environment and Forestry Number 83 (Minister of Environment and Forestry of the Republic of Indonesia 2016). The idea obtained in the FGD was a mutual understanding and willingness to increase the work productivity of each stakeholder or multiple stakeholders in realizing the collaboration program. In the human capital, the improvement was carried out by establishing work teams and assistance, imparting knowledge on social forestry management plans and village conditions, plans for seedling development and demonstration plots/extension of calliandra plant pilots, formation of a team of field facilitators, training of facilitators, ideas on group institutions, management structures and knowledge transfer in the forest utilization approval process. The stakeholders involved were LEPMIL, the village community, and officials supported by APIK USAID and KPH Gularaya. Then, the increase in human capital through mentoring activities. Mentoring is a form of support and opportunity for the community to utilize the forest, but it must be sustainable. Another action to support human capital is mentoring part of the community to become facilitators. The skills acquired as a facilitator can be the foundation to assist the program in sustainable forest management efforts (Table 4).

Table 4: Human Capital on Collaboration Program in Gularaya Management Forest

Collaboration Program	Stakeholder	Activity and result
Cooperation Program	Institute of Coastal and Inland Community Development Unit of Climate Change Adaptation and Resilience)	Encouraging program ideas on increasing regional resilience and economic resilience through social forestry. Thus, each team was signed as a cooperation program
Focus on group discussions	Institute of Coastal and Inland Community Development Community Village government, Forest management unit	Discussion related to forest management, actions that have been taken by the community, regulations or policies made by the government Plants that are suitable for planting in forest areas are Jabon, teak, areca nut, calliandra, and sengon trees

Accompaniment	Community and village government) Institute of Coastal and Inland Community Development. Unit of Climate Change Adaptation and Resilience	Assistance in implementing the agreed program Training (2 people) to become facilitators, it is hoped that the community will be independent in implementing the program
Formation of community institutions	Institute of Coastal and Inland Community Development Community and village government	Ideas about the importance of groups are essential to the community and how to form a group and how it works Furthermore, the community determines the management of an institutional community.
Approval of forest use	Forest Management Unit, Gularaya, Institute of Coastal and Inland Community Development, Community and village government	Knowledge about the process of forest utilization How to use the forest so that the results are optimal and sustainable. Therefore, the program could benefit the community.

Table 4 showed that every human capital input involves every stakeholder. Coastal and Inland Community Development and Climate Change Adaptation and Resilience initiated the human capital input. The approved program design was then facilitated in focused group discussion (FGD) and discussions. The process was facilitated by Coastal and Inland Community Development and involved the local community, village authorities, and KPHP Gularaya. The joint contribution resulted in ideas regarding how to manage the forest. The idea developed is the identification of processes or stages of activities that are important to be carried out together involving the roles and contributions of each stakeholder. Through a series of activities in human capital, especially with the realization of forest utilization approval permits, in general, the agreed stages of activities to be carried out are 1) Workshop on the preparation of action plans, especially in terms of sustainability of LEPMIL partnership support from APIK USAID, which APIK USAID facilitate. 2) Preparation of general management plan (RKU) and annual work plan (RKT) to be carried out by LEPMIL and Cooperatives with the support of KPH Gularaya; 3) Implementation of the utilization of forestry partnership areas with agroforestry patterns for timber and kalindra plants and honey bee cultivation which cooperative members will carry out with multi-stakeholder support. Details of the plan with stakeholder contributions will be formulated in the RKU and RKT, workshops, and monthly FGD-action plans. Then the implementation will be mentored by Coastal and Inland Community Development, especially in the nursery, and demonstration plot development for calliandra. To support it, the locals and village authorities contribute their knowledge about the village's condition, especially the condition of the surrounding forest.

The other phase that Coastal and Inland Community Development facilitated is the development of community institutions regarding ideas and suggestions regarding the importance of grouping in forest management. Through the activity, the knowledge about membership structure was formed and, in the end, it helped the development of the forest farmer group (Kelompok Tani Hutan). The forest farmer group, with village authorities, formulated the idea for forest utilization.

Human capital input from all stakeholders becomes one of the keys to success in forest utilization. According to Nurrochmat et al. (2021) the success of agroforestry projects lies in the ability of each involved stakeholder to increase the human capital input.

3.4.3 Financial Capital

In financial capital, the type of collaboration from stakeholders is in the form of program funds for cooperation program, FGD, accompaniment, formation of community institution, and approval of forest use (Table 5). In this research, the Institute of Coastal and Inland Community Development and the Unit of Climate

Change Adaptation and Resilience as financial capital (funders). Furthermore, financial capital can be in the form of rupiah value from the estimated ownership of electronic media, livestock (goats, cows), land (rice fields, fields, yards), savings, and communication media (Firman 2020).

Table 5: Financial Capital on Collaboration Program in Gularaya Management Forest

Collaboration Program	Stakeholder	Activity and result
Cooperation Program	Institute of Coastal and Inland Community Development Unit of Climate Change Adaptation and Resilience	The total funds were USD 60,823.43 with USD 54,723.04 from the Unit of Climate Change Adaptation and Resilience and USD 6,100.39 from the Institute of Coastal and Inland Community Development.
Focus on group discussions	Unit of Climate Change Adaptation and Resilience Institute of Coastal and Inland Community Development. Community	Group discussion is performed twice. It concerns discussing forest management. The discussions used funds USD 568.12 for the transportation and consumption of discussion participants at the Mata Wolasi Village.
Accompaniment	Unit of Climate Change Adaptation and Resilience-United States Agency for International Development	Financial capital for assistant fees for a year. Staff fees = USD 207.85 * 2 people * 12 Months = USD 4,988.40 and program coordinator USD 346.42 * 12 months USD 4,157.00
Formation of community institutions	Unit of Climate Change Adaptation and Resilience	Funding to form community institutions was USD 275.05. The funds were used for the transportation and consumption of participants.
Approval of forest use	Unit of Climate Change Adaptation and Resilience and Institute of Coastal and Inland Community Development	The procurement of seedlings Calliandra plants

Climate Change Adaptation and Resilience contributed the financial capital with support from Coastal and Inland Community Development. The financial contribution happened in the collaboration and facilitation design, FGD and series of discussions, and during the mentoring and development of community institutions phases. These showed that the financial capital was in the form of a grant from donor institutions to help in the series of activities of forest utilization. Through forest utilization, it is hoped to create nature capital and independent financial capital. However, financial capital is related to social, human, and natural capital, so it cannot be the main capital in forest utilization.

3.4.4 Social Capital

Social capital is the values or norms of the community in managing forests in cooperation to achieve sustainable needs. Social capital such as trust, cooperation, networks, and attitude, play a significant role in community behavior and good management will empower the community (Thobias et al. 2013). Trust is the most significant social capital in implementing program management in the Gularaya Forest. For social capital, multi-stakeholder collaboration was in the form of participation in networks, equality in the discussion process, program trust, trust in LEPMIL assistance, trust in groups, and trust in cooperatives. The dominant stakeholders contributing are the village community, village officials, and LEPMIL, supported by KPH Gularaya (Table 6). A good application of social capital can empower communities and influence the success of sustainable natural resource management (Nurrochmat Darusman, and Ekayani 2016; Pranadji 2016). Community participation and local institutions can influence the level of social capital in sustainable community-based forest management (Febryano et al. 2014).

Table 6: Social Capital on Collaboration program in Gularaya Management Forest

Collaboration Program	Stakeholder	Activity and Result
Cooperation Program	Institute of Coastal and Inland Community Development Community Village government assistance	There is trust among the Institute of Coastal and Inland Community Development, community, and village government
Focus on group discussions	Institute of Coastal and Inland Community Development, Village government	Equality in the discussion process. Trust is vital to determining the discussion of results. Therefore, it can be accepted by all parties.
Accompaniment	Institute of Coastal and Inland Community Development Community Village government assistance	Mutual trust among the community, village government, and the Institute of Coastal and Inland Community Development is a social capital to support a program. The community can receive various ideas, suggestions, and ideas.
Formation of community institutions	Institute of Coastal and Inland Community Development, Community Village government)	Mutual trust among stakeholders.
Approval of forest use		Communication with stakeholders is part of social capital and requires forming cooperatives. It is the basis of mutual trust. Therefore, cooperatives can become a forum for forest management in partnership with Forest Management Unit, Gularaya.

It is seen that trust and equality are the most significant capital in initiating the collaboration to utilize the forest in the form of HTR. This is following the research by Romzy et al (2019), who observed the trust, network, and norm in the production forest management of Perum Perhutani RPH Pandantoyo, LMDH PHS, and Forest Village Community. Those values are seen until today, and those forests' management is considered good. Anen (2016) also observed the significant contribution of social capital in pushing the community forest utilization in Selupuro to be better and more fruitful to the locals. The HTR management in Mata Wolasi was initiated by Coastal and Inland Community Development, Climate Change Adaptation and Resilience, and the local government. The program was socialized to the local community by giving examples of the previous forest management. The growing trust resulted in the agreement on the 150 hectares of Forest utilization. The legality becomes the basis of the cooperation-forest farmer group to do the planned utilization according to the regulation in HTR management. Based on the initiation of collaborative forest use based on human and social capital that focuses on the sustainability of local forest culture and conditions, the findings of this study have implications for forestry policymakers. This study analyzes the multi-stakeholder contribution to community capital against forest utilization in the Local Forest Management Unit. Therefore, limitations include geographical conditions, community culture, unpredictable availability of research subjects, and self-reported data. However, self-reported data can lead to a bias that may lead to different research results. The information may come from interviews, focus groups, and questionnaires with selective memory, telescoping, attribution, or exaggeration.

4. Conclusions

The stakeholders in the Gularaya forest management are the community, the government in Mata Wolasi, the Center for Coastal and Inland Community Development, and the Climate Change Adaptation and Resilience-United States Agency for International Development and the Gularaya Forest Management Unit. Its activities

include forest planning and management (rehabilitation, maintenance, protection, utilization). Meanwhile, human and social capital are the most used community capital in initiating collaborative forest utilization. Cooperation programs, group discussions, mentoring, community institutions, and forest use approval are among the programs carried out by various stakeholders in the Gularaya forest. Resources that support the implementation of the program must be maintained sustainably, including natural, human, financial, and social capital. Natural capital in land and plant seeds must be available with a clear agreement between stakeholders. Natural capital plays a vital role in achieving economic value. This is aligned with the knowledge and ability of the community in carrying out the program, as well as how to regenerate the community so that they can be independent in carrying out the program in a sustainable manner. Financial support from various stakeholders is also needed so the community can achieve financial independence for implementing the programs. All of these things will not go well without trust between stakeholders, so social capital is something that cannot be ignored. Good communication between stakeholders with the openness of each party in accepting ideas and suggestions is needed to build mutual trust.

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