

2023 Krisdianto Rusmin

by Ekonomi Pembangunan

Submission date: 22-May-2023 08:36AM (UTC+0700)

Submission ID: 2098727959

File name: 2023_Krisdianto_Rusmin.pdf (607.44K)

Word count: 3303

Character count: 18882

Community-Based Approach to Mentoring and Empowering The Locals in Meratus Moutenous Village

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Keywords:

Hinas Kiri,
Moringa
Permaculture.

ABSTRACT

Utilizing local intelligence and juxtaposing it with modern knowledge is a wise effort to maintain a balance in the preservation of natural resources and the dynamics of the needs of local communities, which can be implemented through mentoring business activities for processing Moringa Permaculture plantations in Hinas Kiri village located around the watershed. Batang Alai, Hulu Sungai Tengah Regency. We implemented the mentoring program approach by introducing the concept of balance in caring for nature, caring for kinship, and applying the principles of sharing and equality for the community in the village. The decision-making process for the activity resulted from the FGD stage, and we asked the participating community groups to take part voluntarily, learning together in the Moringa Permaculture demonstration plot, "learning by doing". We also recorded their opinions, suggestions, and impressions, collected photographs and made videos of group discussion sessions or interviews that do not interfere with their regular working time. We invited them to give examples and accompany them when carrying out activities in June–November 2022. The results show that the community's interest in discussing, planting and opening yard-based gardens for Moringa is considerable, so now a seedling garden is also developing it. We have created an example garden on a landscape of 800 square meters. Various results of activities in Hinas Kiri have collaborated more broadly through partnership networks that can benefit Lambung Mangkurat University, which is now a BLU PTN.

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INTRODUCTION

The Meratus Dayak community is a Dayak community who lives in the Meratus mountains, in contrast to other Dayak communities, such as the Kenyah, Kayan and Apo Kayan, who are widespread in the Muller and Schwaner mountains in the provinces of West Kalimantan, Central Kalimantan and East Kalimantan. Dayak Meratus live in the administrative area of the province of South Kalimantan. They live in upstream areas, catchment areas and river flows, one of which is in the Batang Alai sub-watershed area in the administrative area of Hulu Sungai Tengah Regency, South Kalimantan Province. Most gatherers collect forest products, such as rubber, resin, fruits, rattan, and bamboo, simple culture poultry-fish farming, such informed by Esteban et.al. 2022). Sometimes they also hunt to fulfil their daily needs.

Farming paddy fields by moving within a year or two from one place to another is still the farming pattern for most of them, farming adaptation (McKay, 2021). The reasons for tradition and religion are the main arguments and hinder farming using other methods. This traditional, backward, dependent way of nature often puts them in a challenging economic and social position in the family-bases (Bager, 2020).

In recent years, in line with the emergence of negative impacts of climate change, their agricultural model has been challenging to succeed. Uncertain seasonal changes, high forest rainfall, floods and landslides significantly disrupt their lives because of their limited food supply and uncertain economy. Likewise, the risk of the impact of climate change requires adequate mitigation efforts, coupled with the level of education and skills which are adequate to face various challenges and options in the job field. This condition makes them "stuck and lost" at home, and they have little choice, such as an example which is proposed by Ouiminga, I(2022).

The purpose of the mentoring activities for them is to give hope, demonstrate, and convince them of their abilities and be proud of their creations and performance in utilizing services and preserving the ecosystem in their environment. The next step is to acquaint them with the stakeholders they are interested in, facilitate meetings, and promote their value potential to gain stakeholder support.

METHODS

We collected the locals' willingness and planned the progress, then recorded the result and compared it to the time frames. We filter the collected results according to their designation, importance, and needs. The next stage is to promote to the parties to take advantage of local advantages that are unique and have added value. Very intense companion activities occur at particular times.

They conveyed various ideas needed to start various activities desired by each group member. Ideas emerged formally in a specific meeting or spontaneously in various planned or required development activities. Often, some words ignite ideas, such as "paintaku/kami" or "kahandakku/kami". They often use these two words to express their desire to realize their ideas. Likewise, it is often ejected from the continuation of the word "should" or "should-not". Ideas conveyed by community elders or religious leaders are often decisive and supportive of achieving success. That is why we often consider ideas or ways of giving birth, conveying and receiving ideas as instruments and processes determining success. This idea is at the heart of what we often criticize and discuss in depth. We often respond by asking and analyzing how many would like to take part. We always get a relatively large number of participants, and their number decreases at the end of the activity. There are many reasons for them to withdraw from participation, such as just wanting to try out first, doing a regular job they are used to, having other jobs offered by other people, and not being sure that it will work. We used a local agent to persuade participation from local people, as it adapted from Manlosa's, (2022) technique, especially from young people (Hariadi, and Widhiningsih, 2020) and women (Elbert, 2021).

RESULT AND DISCUSSION

The ideas that we assist most often are various activities related to the food supply, water conservation and income. We have used yard gardens for permanent agricultural activities for the last three years. Inflation during the COVID-19 pandemic in 2021 and 2022 did not put too much pressure on local communities, especially for people who had tried Permaculture. The combination of Permaculture with the development of short, medium and cultivated long-lived forest plants is beneficial as a provider of food ingredients. It encourages the creation of other activities, such as

conservation, and for income generation as an example was described by Wang (2020), and Benish, and Blanc (2022).

The local people now widely plant coffee and Moringa in their yards, and we expect two commodities to be commercialized to generate income. In Meratus, there have been many pioneering, independent, partial, and part-time coffee planting activities. Only a few farmers there managed it well; the results could not compete in the market. However, now they are finding a different way of marketing. Support from the local government, and the spirit of developing and introducing the region, has changed the lifestyle of the local millennial group to promote Meratus coffee. Previously, the local coffee used to be unnamed, and now it is being named by referring to the village where it is planted, giving it the name Meratus Coffee, which fertilized planted with chicken manure (Gai, et.al. 2021). Likewise, it used to be sold in small stalls, but now it has gone up to local cafes. Of course, various local tourism drivers use it.

Moringa, although it has been known for a long time by local people, is not a plant they usually cultivate. At the end of the Covid-19 pandemic, some local people planted Moringa. They are optimistic that the results can help solve health and economic problems. In Hinas Kiri village, we grow Moringa in a pilot demonstration plot on land owned by CV. Meratus Sejahtera Agroforestry and Plantation (MSAP). Besides planting Moringa pilots, this small company is also seedling Moringa seeds and distributing them to communities in need.



Figure 1. Moringa planted in modular garden

The Moringa Gardens at Hinas Kiri is a complementary modular to the Permaculture Garden model to complement other modules, such as the Miyawaki Land Conservation Garden. We combine water conservation with the dam/balangan system and social forestry, which has proven to generate income for the community. We planted various tree plants to target the forest's composition for harvesting at a particular time and develop poultry-fish culture, such as developed in other countries (Mathias, 2020; Ahmad and Fatimah, 2020)

The progress of Hinas Kiri Village creates various indications that the community is proud, for example, the election of a community leader as a self-help extension worker in the national forestry sector in 2021, which benefits the community. Almost all houses in the village receive solar electricity assistance from the Ministry of Environmental and Forestry. This mentoring program is an excellent first step to bring the community to understand various things related to climate change as explained by Mdoda,(2020). Assistance from the Ministry of Social Affairs, which introduces activities to strengthen the community's economy in the livestock sector, also encourages local communities to develop.



Figure 2. Involvement, participation of the locals to Moringa Permaculture

The Permaculture model in Hinas Kiri village is a place of learning for students from several faculties at local universities, for example, Lambung Mangkurat University students from the MIPA Faculty conducting field practicum and research activities for Ecology and Biological Resources Management courses. Likewise, the Faculty of Forestry has carried out student activities from IAIN Antasari in Banjarmasin.

Ecological field practice and Community Service Programs bring significant benefits and changes to local communities. Interactions between students and society should be full of new information and attraction for both parties to learn from each other, even informally. Students learn a lot about natural and social ecosystems in rural communities. In contrast, community groups can see the ways of thinking and behave of students from urban areas through exceptional communication. Often this relationship occurred until sometime after the completion of activities in the village. Of course, this creates intercultural interaction (acculturation), although the impact may not be permanent as it has been explained by Macharia (2020).

Land and Forest Rehabilitation, which covers an area of almost 400 hectares, will also be a helpful stimulation and energy for the community in Hinas Kiri village. Community assistance is undoubtedly essential, especially to translate the meaning of achievements that should distribute pretty and equitably. The Hinas Kiri community is fortunate because they have inherited the natural forest that has not suffered much damage. The forest that is still maintained is a natural capital which is confirmed to have a comparative advantage. Natural mountains and forests that are still healthy become local assets that have high value in the world of tourism, nationally and internationally. Various activities aimed at promoting community empowerment are packaged and marketed in tourism. For example, in 2021, the Meratus Coffee Jamboree was held, introducing Meratus coffee to millennial groups about Meratus biodiversity. At this time, the people who are members of the Pokdarwis (Tourism Awareness Group) in Hinas Kiri village are preparing to be actively involved in preparing a Meratus expedition initiated by National Geographic and a national corporation, the Shafwah Group. The multiplier effect can grow because of a sustainable farming (Ouiminga, 2022).



Fig.3 Camping ground accommodates young people activities

The activities of the Hinas Kiri community are not alone. Similar activities form networks and cooperate, although with different characteristics. However, they have the same principle of activity using natural services by conserving it. They use local techniques and knowledge to utilize the natural landscape with the Permaculture model to obtain fair economic value and keep the surrounding sustainable nature. (Tscharntke et.al. 2021; Dayal, 2021).

Table 1 The most common plantation trees

No	Plants	Total Area (Ha)	Number of trees
1	Meranti	0.5	500
2	Sungkai	2.0	1000
3	Rubber	1.0	800
4	Balsa	2.0	500

The mentoring activity for making a demonstration plot for the Moringa Permaculture garden has been able to simultaneously develop other commodity planting activities, such as Coffee (1700 trees), Moringa (420 trees), taro (750 trees), pear (20 trees), Crystal guava (40 trees), grafted Durian (20 trees), ginger and turmeric spices respectively 100 and 60 clumps. The planned land area is only 400 square meters, increase to approximately 2.7 ha. Besides that, currently, there are majority forest tree plants, such as Meranti, Rubber, Sungkai Woods, which total approximately 2800 trees.

Haji Rasdi orchard in Kalibaru village conserves Mantuala, Mantuala durian fruit has a large fruit size, but the taste is different from ordinary durian, more like Pampakin taste. In addition, Haji Rasdi's Permaculture model succeeded in creating energy and material cycles to develop horticultural gardens and duck, chicken and goat farms as duplicate model of Organic Farming Sharma (2021). In addition, to attract foreign tourists, especially from Malaysia. He also creates cultures of non-timber forest products, such as rubber, honey and fruits, likely other indigenous tradition (James et.al, 2022). This activity requires support to improve, such as a precision agriculture (Adamchuk-Chala, et.al. 2020)

Permaculture in Layuh village more firmly defines its designation as a tourist destination resort. Here the landscape at the foot of the Meratus hill is managed into a built ecosystem that presents plants in the open with some unusual plants, which is neatly maintained. The balance of landscapes, water and plants is arranged so that the intervention of nature is very controlled. However, the open natural atmosphere is still a characteristic. In contrast to the Hinas Kiri, Kali Baru villages, which highlight the atmosphere of "farming" agricultural gardens, Kabun Kita prioritizes the activities of its visitors, so the visitors seem more active. In this place, people promote local arts and display in a

participatory learning attraction to earn income. Gamelan and Kuda Gepang arts are used as learning attractions and as instruments for exchanging knowledge between local people and foreign tourists. Of course, this is an exciting presentation and gives a good impression on both parties, namely the local community and tourists on biodiversity and production compromising (Scherber, 2022).

CONCLUSION

Assistance to local communities in Hinas Kiri village is to share knowledge to find added value to existing capabilities by developing networks, gathering information, and helping to select and analyze appropriate solution options based on various constraints and optimal supports. The community easily recognizes the results of assistance to the community through participation, both local communities and the parties involved. The richness of this ecosystem is utilized by the local community, in the form of the provision of services, as well as economic benefits, through natural tourism activities marked by the Meratus Coffee Jamboree in 2021 and the inclusion of Tourism Group representatives in "Digital Academy" training, as well as plans for National Geography activities. (NatGeo), who plans to carry out an expedition to the forest of Meratus. All of the activities mentioned above propose to promote the human and nature relationship. Meratus and Hinas Kiri village will soon become the entrance gate for these nature tourism activities.

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