JHSS (Journal of Humanities and Social Studies)
https://jhss-lppm.unpak.ac.id/index.php/jhss
Volume 10, Number 02 2026, Page 474-476
e-ISSN: 2598-120X; p-ISSN: 2598-117X

ANALYSIS OF THE INFLUENCE OF SOCIOECONOMIC FACTORS ON THE SUTAINABILITY OF VILLAGE FOREST IN THE SEMENDO DARAT LAUT SUBDISTRICT

Liana Restu Adiyatma a*), Yunindyawati b), Rudy Kurniawan c)
a, b, c) Universitas Sriwijaya, Palembang, Indonesia.
**)Corresponding Author: adiyatmaliana@gmail.com*

Article history: received 26 August 2026; revised 26 September 2026; accepted 10 Oktober 2026 DOI: https://doi.org/10.33751/jhss.v10i02..527

Abstract. Frequent forest degradation is often caused by the lack of integration between social, economic, and ecological aspects. This phenomenon has led to the emergence of the concept of social forestry; one such initiative in Muara Enim District is the Village Forest Program, which was established in 2016 and is located within a protected forest area. The objective of this study is to analyze the social and economic factors through the village forest management program regarding the sustainability of forest resources and to assess the level of forest resource sustainability resulting from the implementation of the village forest management program across economic, social, environmental, and institutional dimensions. The data collection methods used in this study included field observations, in-depth interviews, and questionnaires, employing a quantitative approach. Before conducting multiple linear regression analysis to verify the questionnaire data, validity and reliability tests were first performed. The results of the study indicate that the results of the simultaneous test show that the significance value in the regression model is <0.001, meaning that this value is smaller than the established significance threshold of 0.05. This indicates that, statistically, this regression model is adequate to explain that social and economic factors influence the sustainability of village forests in Semendo Darat Laut Subdistrict. This means that the sustainability of village forests in Semendo Darat Laut Subdistrict is closely linked to the social and economic factors of the local community; therefore, to support this social forestry program, social and economic welfare programs for the community are also essential.

Keywords: Social forestry, Sustainable Development, Village Forest

I. INTRODUCTION

Forest areas serve as a source of livelihood for local communities, yet in 2022, Muara Enim Regency experienced a reduction in forest and water area of approximately 1,261,826 hectares over the course of a single year—a figure that is notably higher compared to previous years [1]. This is a deeply concerning situation as it is closely linked to the deteriorating quality of the environment [2]. The high rate of deforestation and the persistent poverty affecting communities within and around the forests have prompted various stakeholders, including the Ministry of Environment and Forestry, to promote community empowerment programs [3].

This phenomenon has led to the emergence of the concept of social forestry. Social forestry is implemented in state-owned forests or customary forests by local communities to improve their well-being, environmental balance, and socio-cultural dynamics in the form of Village Forests (HD), Community Forests (HKM), Community Plantation Forests (HTR), Community Forests (HR), Customary Forests, and Forest Partnerships [4]

Village Forests are a policy initiative aimed at empowering communities within and around forest areas and promoting equitable and sustainable forest management. This policy needs to be disseminated to the public and relevant institutions so that the intended objectives can be achieved. Furthermore, Village Forests are expected to provide access to local communities through village institutions and to improve the well-being of local communities in a sustainable manner [5]

The government has allocated social forestry permits in Muara Enim Regency, totaling 23 permits covering an area of 20,832.70 hectares, consisting of 14 Village Forest (HD) permits covering 17,878.00 hectares, 8 Community Forest (HKm) permits covering 2,911.00 hectares, 1 Customary Forest (HA) permit covering 44 hectares. The Social Forestry (PS) Leadership Communication Subdivision in Muara Enim Regency spans from the downstream to the upstream areas, starting from Gelumbang Subdistrict with 1 PS permit, Rambang Niru Subdistrict with 1 PS permit, Tanjung Agung Subdistrict with 2 PS permits, Semende Darat Laut Subdistrict with 2 PS permits, Semende Darat Tengah Subdistrict with 7 PS permits, and Semende Darat Ulu Subdistrict with 6 PS permits (Lentera Pendidikan, 2022)

According to data from the South Sumatra Provincial Forestry Service for 2025, as of October 2025, a total of 227 Social Forestry Permits had been issued in South Sumatra Province, covering a total area of 140,673.36 hectares for 33,433 households. One type of social forestry permit received by Semendo Darat Laut is the Village Forest (HD), as stipulated in Regulation of the Minister of Environment and Forestry No. P.83/Menhut-II/2016 on Social Forestry. The implementation of Village Forests (HD) involves community participation and aims to improve village welfare[6]. This social forestry program in the form of a Village Forest is managed by a Village Forest Management Agency (LPHD), which serves as a platform for the community in forest management activities and is responsible for maintaining the sustainability of the forest area under its management [7]

The plantation crops found in Semendo Darat Laut include coffee (Coffea sp.) as the primary commodity, followed by cloves (Syzygium aromaticum), kapok (Ceiba pentandra), and coconut (Cocos nucifera) [8]. In addition to plantation crops, there are also seven types of fruit trees grown in this region, namely jengkol (Archidendron pauciflorum), durian (Durio zibethinus), jackfruit (Artocarpus heterophyllus), avocado (Persea americana), matoa (Pometia pinnata), petai (Parkia speciosa), and cempedak (Artocarpus integer). As for hardwood tree species that are cultivated or have existed since the initial land clearing, these include African leaf (Vernonia amygdalina), champaca (Michelia champaca), and kapok (Ceiba pentandra). Generally, farmers sell their forest products to markets or middlemen; Non-Timber Forest Products (NTFPs) play a crucial role in ensuring the sustainable existence of HD [9]

One of the areas granted a village forest management permit is Semendo Darat Laut Subdistrict, which is regulated by the Muara Danau LPHD and has agricultural management that is considered ineffective. In fact, agriculture is one of the factors in institutional effectiveness in efforts to improve community welfare [8]

Many factors contribute to the degradation of village forests in South Sumatra, particularly in Muara Enim Regency; but when viewed from the perspective of forest management, this degradation is generally largely due to a failure to consider aspects of forest sustainability—such as ecological, economic, and social factors—which include issues like poverty surrounding the forests, the income of community forest farmers, the low bargaining power of community forest farmers, underdeveloped regional infrastructure, and so on [10]. Therefore, forest management must continue to adhere to the principles of sustainable development, particularly by prioritizing the concept of sustainable forestry development [11].

This study is a case study of the Muara Danau Village Forest, located in Muara Danau Village, Semendo Darat Laut Subdistrict, Muara Enim Regency, South Sumatra Province. The Muara Danau Village Forest was established in 2016 and is situated within a protected forest area. As a forest with a protective function, the management of the Muara Danau Village Forest is aimed at obtaining non-timber forest products and utilizing the area's functions, such as tourism development. Therefore, it is important to conduct a social

Volume 10, Number 02 2026, Page 474-476
e-ISSN: 2598-120X; p-ISSN: 2598-117X

and economic analysis of forest sustainability at this location to ensure the achievement of sustainable forest management. The hypothesis of this study is that there is a relationship and influence between socioeconomic factors and the sustainability of forest resources through village forest management programs.

II. RESEARCH METHOD

This study will be conducted in Muara Enim Regency, specifically in the village of Muara Danau, Semendo Darat Laut Subdistrict, and will involve all farmers registered as members of the LPHD. The study will be carried out over a three-month period divided into four phases: preparation, data collection, data processing, and completion, from November 2025 to January 2026.

The data collection methods used in this study include field observation, in-depth interviews, and questionnaire techniques, employing a quantitative approach.

The population for this study consists of all forest village residents participating in village forest management activities in the Muara Danau Village Forest, Muara Enim Regency. The population size is 199 people. The sample size was determined using the formula [12], which states that if the research population exceeds 100, a sample of 10–15% or 15–25% of the population may be selected. Therefore, this study took a sample of 199 × 25% = 50; consequently, this study included 50 respondents in the sample.

This study identifies several variables related to village forest management, including.

Independent Variables: Social Factors (trust, networks, norms, and social status) and Economic Factors (income, use of agricultural technology, market access, and farm size).

Dependent Variables: Sustainability of Village Forests (maintenance of forest resources, waste management techniques, preservation of main and intercropped plants, and forest fire prevention)

Data collected by the researcher through observations were then analyzed numerically using a questionnaire based on a likert scale, with scoring options ranging from 1 to 4. Skala Likert adalah salah satu instrumen yang paling banyak digunakan untuk mengukur sikap, persepsi, atau opini dalam penelitian kuantitatif [13] The validity and reliability of the scores were tested. Subsequently, correlations were calculated using multiple linear regression analysis.

III. RESULT AND DISCUSSION

This study uses a quantitative approach to analyze the influence of socioeconomic factors on the sustainability of village forests. Before conducting multiple linear regression analysis to verify the questionnaire data, validity and reliability tests were first performed. Validity and reliability tests are tools used to ensure a research instrument serves as an acceptable measurement tool by comparing the r-values calculated from Pearson's correlation between items and total scores with the r-table values [14]

The results of the validity test on the variables of social and economic factors and the sustainability of village forests, with a significance level of 0.1 for 50 respondents, yielded values above the table r-value (0.361); therefore, they were deemed valid.

TABLE I

RELIABILITY TEST

Variable	Cronbach's Alpha
Social Factor (X1)	0.848
Economic Factor (X2)	0.681
Sustainability of Village Forests (Y)	0.739

Source : SPSS output data processed by the researcher (2026)

According to Imam Ghozali [15] a construct or variable is considered reliable if it yields a Cronbach's alpha value > 0.6. Based on the results of the reliability test, it was found that all questionnaire items were reliable, as calculated using Cronbach's alpha, where the calculated r > the table r, which can then be further analyzed using hypothesis testing in multiple regression analysis.

Multiple regression analysis is used by researchers to predict the state (fluctuations) of the dependent variable when the researcher has two or more independent variables as predictor factors [16]

Hypothesis Testing

Partial test (t-test)

TABLE II

PARTIAL TEST (T-TEST)

Model	Variable	B	Std. Error	Beta	t	Sig.
1	(Constant)	15.929	3.660		4.352	<0.001
1	Social Factor (X1)	.461	.092	.603	4.994	<0.001
1	Economic Factor (X2)	.139	.126	.133	1.103	.275

Dependent Variable: Sustainability of Village Forests (Y)

Source : SPSS output data processed by the researcher (2026)

The t-test is a statistical test used to test the validity or invalidity of a hypothesis stating that there is no significant difference between the means of two samples drawn at random from the same population [17]. The results of the partial tests indicate that social factors have a significant effect on the sustainability of village forests, as evidenced by a significance value of <0.001, which is lower than the threshold of 0.05. This indicates that the communities surrounding the village forest area play a social role in maintaining the sustainability of the village forest, driven by the local wisdom of these communities regarding efforts to preserve forest resources, which were already well-maintained long before the social forestry program was established. However, the economic factors of the communities surrounding the village forest do not show a significant influence on the sustainability of the village forest.

Simultaneous Test (F-Test)

TABLE III

SIMULTANEOUS TEST (F-TEST)

Model	Source	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	513.448	2	256.724	19.539	<0.001
1	Residual	617.532	47	13.139		
1	Total	1130.980	49			

Dependent Variable: Sustainability of Village Forests (Y); Predictors: (Constant), Social Factor (X1), Economic Factor (X2)

The results of the simultaneous test show that the significance value in the regression model is <0.001, which means that this value is less than the established significance threshold of 0.05. This indicates that, statistically, this regression model is adequate for

Volume 10, Number 02 2026, Page 474-476
e-ISSN: 2598-120X; p-ISSN: 2598-117X

explaining that social and economic factors influence the sustainability of village forests in Semendo Darat Laut Subdistrict.

This test was conducted to determine the direction and magnitude of the effect of the independent variable X on the dependent variable Y [18].

The regression equation is presented as follows:

$$Y = 15.929 + 0.461X1 + 0.139X2$$

Based on the regression equation above, it can be concluded that since the constant term has a value of 15.929 with a positive sign, this indicates a positive relationship between the independent and dependent variables. This indicates that if all independent variables are set to 0% or remain unchanged, the value of village forest sustainability is 15.929. Meanwhile, the social factor variable has a positive sign with a value of 0.461; this indicates a positive relationship such that if other variables remain constant and the social factor increases by 1%, the value of village forest sustainability will also increase by 0.461. The economic factor variable has a positive value of 0.139, which also indicates a direct relationship: if all other variables remain constant and the economic factor increases by 1%, the value of village forest sustainability will also increase by 0.139.

Communities living near village forests fully understand that forest areas are a source of life that must be cared for and preserved, and this can be achieved in various ways, ranging from local traditional knowledge to local government programs. Without the active participation of community members in community-based forest management, the principles of sustainability—which encompass economic, ecological, and socio-cultural aspects—will not be optimally achieved [19]

However, the village forest itself still contributes relatively little to farmers' household income. The village forest remains a source of supplementary income for farmers who manage it. Most managers have primary occupations, such as merchants, private-sector workers, or even village officials. Village forests contribute to farmers' income through the management of non-timber forest products. According to Toha et al. (2023), this may be driven by low human resource capacity, suboptimal utilization of existing forest resources, and a lack of community support [20]

IV. CONCLUSIONS

The research findings indicate that the sustainability of village forests in Semendo Darat Laut Subdistrict is closely linked to the social and economic factors of the local community; therefore, to support this social forestry program, social and economic welfare programs for the community are also necessary

REFERENCES

[1] Badan Pusat Statistik, "Luas Kawasan Hutan," 2019. [Online]. Available: https://jambi.bps.go.id/indicator/60/442/1/luas-kawasan-hutan.html
[2] F. ikrar Jamika, A. Amran, I. Umar, and M. Gusman, "Perhutanan Sosial dalam Pengelolaan Sumber Daya Hutan Di Indonesia," vol. 10, no. 2, pp. 853–863, 2023.
[3] R. Wahanisa, "MODEL PENGELOLAAN HUTAN BERSAMA MASYARAKAT (PHBM)," Model Pengengelolaan Hutan Bersama Masyarakat ..., vol. 4, no. 2, pp. 416–438, Aug. 2015.
[4] E. Hujani, I. Bempah, and Y. Saleh, "Peran Penyuluhan Terhadap Pelaksanaan Program Perhutanan," Agrinesia, vol. 3, no. 3, pp. 156–162, 2019.
[5] Surwati, m saleh Soeaidy, and Suryadi, "IMPLEMENTASI PERENCANAAN PENGELOLAAN DAN PEMANFAATAN HUTAN DESA DI KABUPATEN GUNUNGKIDUL," reformasi, vol. 9, no. 1, pp. 195–203, 2015.
[6] F. Asmin, D. Darusman, I. Ichwandi, and D. Suharjito, "Mainstreaming community-based forest management in west sumatra: Social forestry arguments, support, and implementation," Forest and Society, vol. 3, no. 1, pp. 77–96, 2019, doi: 10.24259/fs.v3i1.4047.
[7] R. Qurniati, Duryat, and H. Kaskoyo, "Penguatan kelembagaan pengelola hutan desa di sekitar Gunung Rajabasa Lampung," Jurnal Sakai Sambayan, vol. 1, no. 3, pp. 80–86, 2017, [Online]. Available: http://jss.lppm.unila.ac.id/index.php/ojs/article/view/26
[8] F. Apriandana, R. Safe'i, I. G. Febryano, and H. Kaskoyo, "PENGELOLAAN HUTAN DESA DI KPH WILAYAH VIII SEMENDO DARI PERSPEKTIF KINERJA KELEMBAGAAN," vol. 18, no. 3, pp. 185–203, Dec. 2021.
[9] S. Irawanti, A. Prawesti Suka, and S. Ekawati, "Peranan Kayu Dan Hasil Bukan Kayu Dari Hutan Rakyat Pada Pemilikan Lahan Sempit: Kasus Kabupaten Pati," Jurnal Penelitian Sosial dan Ekonomi Kehutanan, vol. 9, no. 3, pp. 113–125, 2012, doi: 10.20886/jpsek.2012.9.3.113-125.
[10] T. Sukwika, D. Darusman, C. Kusmana, and D. R. Nurrochmat, "Evaluating the level of sustainablity of privately managed forest in Bogor, Indonesia," Biodiversitas, vol. 17, no. 1, pp. 241–248, Apr. 2016, doi: 10.13057/biodiv/d170135.
[11] D. F. Adiba, B. Suharto, and L. D. Susanawati, "Analisis Keberlanjutan Sumberdaya Hutan melalui Program Pengelolaan Sumberdaya Hutan Bersama Masyarakat (PHBM) (Studi Kasus Desa Donowarih Karangploso Malang)," Jurnal Sumberdaya Alam dan Lingkungan , vol. 4, no. 3, pp. 34–51, 2017.
[12] S. Arikunto, Prosedur penelitian suatu pendekatan praktik. 2013.
[13] F. Sulianta, Metode Penelitian Kuantitatif.
[14] F. Yusup, "UJI VALIDITAS DAN RELIABILITAS INSTRUMEN PENELITIAN KUANTITATIF," Jurnal tarbiah : Jurnal ilmiah Kependidikan, vol. 7, no. 1, pp. 17–27, 2018, doi: 10.21831/jorpres.v13i1.12884.
[15] I. Ghozali, Aplikasi Analisis Multivariate dengan Program SPSS. Semarang: Badan Penerbit Universitas Diponogoro, 2011.
[16] N. Sudariana and M. M. Yoedani, "Analisis Kinerja Statistik Regresi Linear Beganda," Universitas Nusa Putra Martias, vol. 2, no. 2, 2021.
[17] A. sudijono, Pengantar Statistik Pendidikan, no. 8.5.2017. Jakarta: Rajawali Press, 2022.
[18] I. Ghozali, Aplikasi Analisis Multivariate Dengan Program. IBM SPSS 25 (9th ed.), 25th ed. Semarang: Badan Penerbit Universitas Diponogoro, 2018. [Online]. Available: www.buku.sonpedia.com
[19] N. S. Tanjung, D. Sadono, and C. T. Wibowo, "Tingkat Partisipasi Masyarakat dalam Pengelolaan Hutan Nagari di Sumatera Barat," vol. 13, no. 1, Mar. 2017.
[20] Mohammad. Toha, "Dampak perhutanan sosial terhadap kesejahteraan masyarakat sekitar hutan dalam mendukung kelestarian hutan di Kota Tarakan Masyarakat yang bermukim di sekitar kawasan dalam menjaga kelestarian hutan , namun sayangnya memenuhi kebutuhan hidupnya , ditambah," Jurnal Hutan Tropis, vol. 7, no. September, pp. 17–25, 2023.