Journal of Natural Resources and Environmental Management
http://dx.doi.org/10.29244/jpsl.14.4.792

RESEARCH ARTICLE

OPEN ACCESS

Check for updates

Entrepreneurship Capital and Performance of Social Forestry Entrepreneurship Group

Gita Ardia Kusuma[a], Didik Suharjito[b], Soni Trison[b]

[a] Master Program of Forest Management Science, Faculty of Forestry and Environment, IPB University, IPB Darmaga Campus, Bogor, 16680, Indonesia

[b] Department of Forest Management, Faculty of Forestry and Environment, IPB University, IPB Darmaga Campus, Bogor, 16680, Indonesia

Article History
Received 17 July 2023
Revised 18 March 2024
Accepted 06 June 2024

Keywords
community capital, entrepreneurs, social forestry

ABSTRACT

It is important to explain community forestry entrepreneurship in the context of community forest management, which continues to develop as social entrepreneurship that can increase sources of livelihood and environmental benefits. This study adapted the concept of community capital to explain the level of entrepreneurial capital and its influence on the performance of the Social Forestry Entrepreneurial Group (SFEG) through a quantitative approach by collecting data from Focus Group Discussions (FGD), interviews, observations, and literature studies. Data analysis was used with scoring, categorizing, and multiple regression analysis. The results of this study reveal the level of entrepreneurial capital in SFEG in the low to very high category is directly proportional to the simultaneous effect on performance. Natural capital, finance capital, and political capital significantly influence socioeconomic and environmental performance; political capital increases social capital, physical capital, and human capital. SFEG based on forest resource commodities as a source of livelihood needs to get attention, including increasing human capital in the form of intensive skills through a mentoring process by officers and easy access to funding sources through government policies.

Introduction

Effective community forest management has positive ecological impacts and increases welfare [1] by utilizing the economic value of forest products [2], increasing forest cover [3], and preventing deforestation [4]. The failure of community forestry enterprises (CFE) is caused by social conflicts, mismanagement of resources, uneven distribution of benefits, and low skills influenced by other geographical factors [3–6]. CFEs thrive through mentoring processes, land conflict resolution, and profit generation from commercial activities [5,7]. Economic profit is one of the goals of CFE, as social enterprises have both social and environmental goals [8,9]. CFE development encourages poverty alleviation in communities around forests by obtaining jobs and income, and medium enterprises (SMEs) and CFEs can absorb labor, which is higher than the industrial scale [10,11]. Some of the profits from operations allocated to investments in business equipment and the environment play a role in encouraging business sustainability and increasing a community's social welfare [8,12].

The level of business benefits for public facilities in the form of buildings, education, and health still needs to be higher, but CFE could be an important strategy for mitigation and adaptation to withstand the effects of climate change [13,12] improves ecosystem function, maintaining water management, mitigating natural disasters, and conserving biodiversity. The Social Forestry Enterprise Group (SFEG) is a community forestry enterprise (CFE) unit of the social forestry program, and each community has resources that can be used to improve welfare [14]. The concept of community capital [15] reveals that developing community groups are measurable from the capital level because currents and interactions between capital influence the nature of

Corresponding Author: Gita Ardia Kusuma gitaardia@gmail.com Forest Management Science, Faculty of Forestry and Environment, IPB University, IPB Darmaga Campus, Bogor, Indonesia.

capital itself. More specifically, sustainable community forestry management with high economic value is the accumulation of human and financial capital that groups access [16]. Previous studies on CFE have reviewed many aspects from an economic perspective, covering aspects of 1) institutions, 2) governance, 3) capacity building, and 4) productivity [9], while the study of CFE as a social enterprise that has social, economic, and environmental benefits is still limited. From the description above, the objective of this study is to review SFEG as a social enterprise to measure the level of development using the community capital concept and its influence on SFEG performance.

Methods

Study Area

This study was conducted in the Lumajang District (East Java Province) (Figure 1), Pulang Pisau District (Central Kalimantan Province) (Figure 2), and Buleleng District (Bali Province) (Figure 3). The unit of analysis in this study was the Social Forestry Entrepreneurial Group (SFEG), totaling 39 units considering the representativeness of the SFEG independence class, namely blue, silver, gold, and platinum [17].

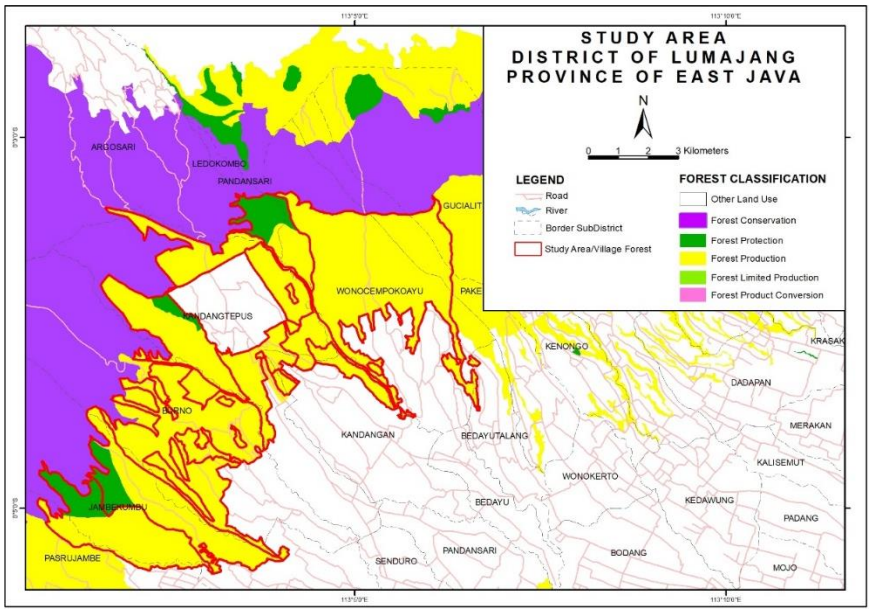

Figure 1. Study area of Lumajang District, East Java Province.

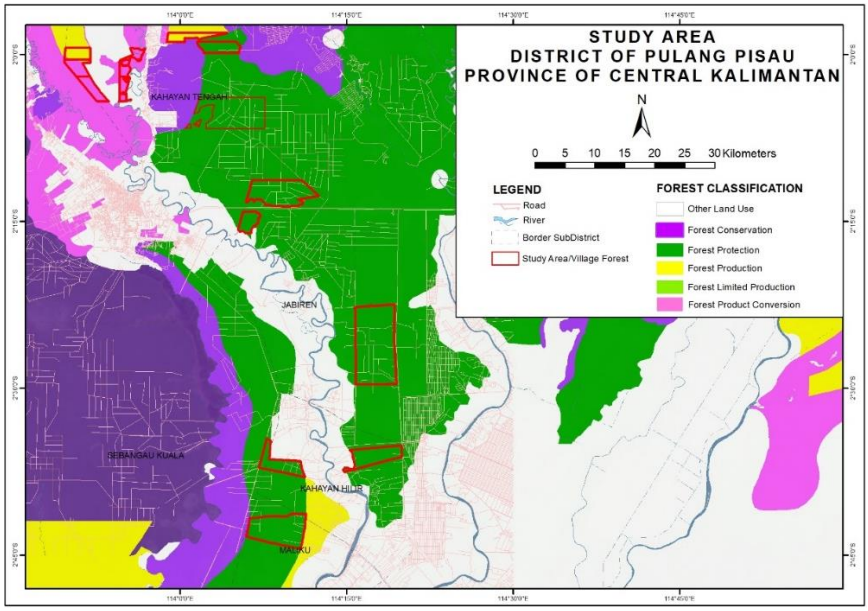

Figure 2. Study area of Pulang Pisau District, Central Kalimantan Province.

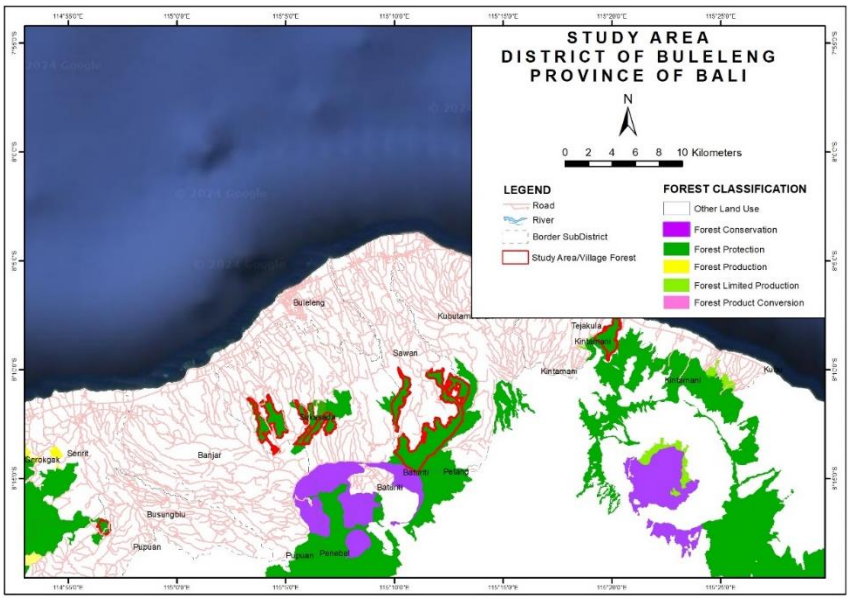

Figure 3. Study area of Buleleng District, Bali Province.

Data Collection Methods

Primary and secondary data were used in this study. Primary data were collected through Focus Group Discussions (FGD), interviews using a questionnaire, observations, and literature review. Table 1 are variable measurements were carried out using scoring method 1 for the lowest score and 5 for the highest score based on a predetermined unit; the level of community capital of a group is the total score of natural capital (X1), social capital (X2), financial capital (X3), physical capital (X4), human capital (X5), and political capital (X6) divided by the maximum number of scores. The level of capital consists of five (5) categories, namely very low (0–0.20), low (0.21–0.40), moderate (0.41–0.60), high (0.61–0.80), and very high (0.81–1.00). The coefficient of determination was tested, and multiple regression analysis was performed to determine the effect of each capital on SFEG Performance.

Table 1. Variables, operational definitions, and indicators.

Variable	Operational definition	Indicator
Natural capital (X1)	Forest resource ecosystems can increase welfare by utilizing the economic value of forest products [18]	• Forest area managed by SFEG (Ha) • Land cover type • Forest area utilization patterns • Routine use of the economic value of forest products
Social capital (X2)	Level of cooperation/participation of SFEG members in entrepreneurship development [19] A set of norms and behaviors that apply and become shared values to achieve collective goals [20]	• Level of trust among members (percentage of members) • Degree of cooperation among members • Member Participation Rate (percentage of members) • Existence of organizational structure/job desk • Meeting intensity (period) • Regulatory compliance/enforcement (percentage of members) • Understanding of the mechanism of distribution of entrepreneurial results (percentage of members)
Financial capital (X3)	SFBG can access sources of funds to run social forestry entrepreneurs [15]	• Personal capital/savings • Subsidy • Credit capital • Capital assistance/grants
Physical capital (X4)	Quality and completeness of physical assets and supporting infrastructure in entrepreneurship development [15]	• Access road utilization of forest areas/forest products (percentage of quality and distance) • Access roads for implementing entrepreneurial activities outside the forest area (percentage of quality and distance) • Entrepreneurial equipment completeness level (percentage of completeness) • Existence of supporting facilities (level of support for entrepreneurs)

Human capital (X5)	Technical skills and entrepreneurial skills of members to generate household economic value [15]	• Training attended (times/year/period) • Certificate of expertise/skills • Length of time running entrepreneurship/skills as a source of income (years)
Political capital (X6)	Political connections, government officials, or bureaucrats to mobilize resources [15,21]	• Relationship with local government (village, district, province) (level of relationship strength) • Relations with regional/central government officials (level of relationship strength)
Ability to voice SEFG development (level of ability)		
Benefits (Y)		
Social and economic	Social and economic benefits for members and the community [8]	• Entrepreneurial productivity level (volume/ha and variety) • Product marketing level (volume/market reach) • Equity level of distribution of entrepreneurial results (percentage of members) • Employment opportunities (percentage of employed members)
Environment	Forest management to protect and conserve forest ecosystems	• Level of avoided deforestation or rehabilitation/reforestation efforts (intensity/period) • The intensity of finding flora/fauna in the social forestry area • The maintained water system, the hydrological function of the forest area

Results and Discussion

Entrepreneurial Capital and SEFG Performance

Groups of people with high resources have a source of livelihood with high returns and investment. In contrast, groups with low resources cannot invest and have low returns [22]. A group has high capital because the nature of capital can be increased by the group itself or by external encouragement. In Table 2, the number of SFEG based on the capital level is four units in the low category, 22 units in the medium category, 11 units in the high category, and two units in the very high category in the platinum class. The level of capital does not describe an SFEG class, as shown in the platinum class. There are medium and high capital levels, and in the blue and silver classes, the level of capital is low to high. Capital is transformed by structures that carry out policies and processes that make it possible to convert one type of asset into another [23].

Table 2. The level of entrepreneurial capital for the SFEG class.

Entrepreneurial capital level	Number of SFEG			
	Blue	Silver	Gold	Platinum
Very low (0–0.2)	-	-	-	-
Low (0.2–0.4)	1	3	-	-
Medium (0.4–0.6)	1	13	7	1
Height (0.6–0.8)	7	2	1	1
Very high (0.8–1)	-	-	-	2

The level of capital for each SFEG class varies, as shown in Table 3, including the level of natural capital in the silver class (0.08) and gold (0.08), which is lower than the blue class (0.11) and platinum (0.14), which manage and utilize the economic value of forest resources together, similar to the higher level of social capital, 0.19 (blue) and 0.23 (platinum). The low social capital of the silver (0.15) and gold (0.16) classes is due to the low level of participation because members have their main livelihood in the mining and plantation sectors; therefore, entrepreneurial management activities are often represented, and the level of participation of members in managing forest resources is influenced by the economic benefits obtained [24].

Table 3. The average entrepreneurial capital for the SFEG class.

Capital	Blue	Silver	Gold	Platinum
Natural	0.11	0.08	0.08	0.14
Social	0.19	0.15	0.16	0.23
Finance	0.03	0.02	0.02	0.04
Physique	0.16	0.13	0.13	0.20
Political	0.10	0.09	0.10	0.12
Human	0.06	0.04	0.05	0.08
Amount	0.66	0.51	0.54	0.81

Human capital is defined as skills to generate economic value as a source of livelihood [15], community forestry management skills with agroforestry patterns, silvopasture and utilization of environmental services class blue (0.06) and platinum (0.08) have been running before the formation of SFEG, these skills were acquired informally, passed down from generation to generation, counseling or mentoring or training facilitation [25]. Facilitation of entrepreneurial skills and strengthening of members' business institutions is needed to increase human capital, which is still low [6]; there is SFEG class silver (0.51) and gold (0.54). Funding is an important capital for running an entrepreneur [26], and the platinum class (0.04) can access entrepreneurial funds sourced from member fees, local investors, subsidies, Village Unit Cooperative/*Koperasi Umum Daerah* (KUD), Village Owned Entrepreneurial Board/*Badan Usaha Milik Desa* (BUMDes), and entrepreneurial capital assistance from the Government or National Owned Entrepreneurial Board/*Badan Usaha Milik Negara* (BUMN). The level of financial capital is low in the silver class (0.02). The majority only accessed program assistance because of the difficulty in obtaining loans. Credit loans to community groups can increase environmental investment, strengthen institutions, and increase other assets [27]. Increasing community forestry entrepreneurs' commodity production and economic value requires adequate equipment and infrastructure. Physical capital in the platinum class (0.20) is the highest, consisting of ecotourism, silvopasture, and agroforestry entrepreneurship commodities.

In contrast, the level of physical capital in access roads, production equipment, and entrepreneurial support facilities in the silver (0.13) and gold (0.13) classes was relatively low. The profits of an enterprise can be distributed in the form of physical capital investment; in addition, it can be obtained through government programs [28] as a benefit relationship between community groups and government officials. High political capital in the platinum class (11.50) Apart from intensive assistance by the officers, the proactive attitude of community groups can also access assistance with equipment, funding, and capacity building. Lack of access or conflicts with the government and its officers can reduce support for entrepreneurial development [29]. The average value of SFEG performance at a low, moderate, high, and very high capital level was 10.25, 11.95, 24.90, and 32. Table 4 shows that a higher level of capital improves a social entrepreneur's performance. The management and utilization of forest resources with a very high level of capital can distribute the results of entrepreneurship and employment fairly and equitably, with a value of 22.00, which is driven by social capital in the form of very high participation, trust, and cooperation in transparent and accountable entrepreneurial governance according to an agreed mechanism [8,30].

Table 4. Average performance based on the SFEG class.

Performance	Capital level			
	Low (0.21–0.40)	Medium (0.41–0.60)	Height (0.61–0.80)	Very high (0.80–1.00)
Socioeconomic	8.00	9.18	17.45	22.00
Environment	2.25	2.77	7.45	10.00
Total	10.25	11.95	24.90	32.00

Environmental performance aims to preserve forests for entrepreneurial sustainability by protecting against forest disturbances and reforestation [31,32]. The SFEG with low (2.25) and medium (2.77) capital levels had lower performance values than the high (7.45) and very high (10) categories. At high and very high capital levels, some entrepreneurial proceeds can be allocated for forest disturbance protection activities, routine planting, or reforestation [33]. Community forestry entrepreneurs' development has influenced forest resource protection and conservation [34]. The effect of entrepreneurial capital on SFEG performance is determined using multiple regression statistical analyses. The ANOVA test results in Table 5 show that the significance value of the entrepreneurial capital variable was 0.000. The significance of entrepreneurial capital on SFEG performance is <0.05, meaning it simultaneously influences SFEG performance.

Table 5. ANOVA test of the effect of entrepreneurial capital on SEFG performance.

Model	Sum of squares	df	MeanSquare	F	Sig.
Regression	2116556	6	352.759	56.123	0.000b
residual	201137	32	6.286		
Total	2317692	38			

The level of capital affects the sustainability of livelihoods in community groups [27], and livelihood capital significantly affects people's livelihood strategies [35]. The level of capital can encourage food security, better health, increased welfare, and sustainable management of natural resources [23,36]. Improving the livelihood of forest-edge communities requires increased capital ownership [37]. Table 6 shows that natural, financial, and political capital have a significance value of <0.05, which means they have a significant influence

on SFEG performance, while social, physical, and human capital have a significance value of >0.05, meaning they do not have a significant influence on SFEG performance.

Table 6. Coefficient of entrepreneurial capital on SFEG performance.

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	std. error	Betas		
1	(Constant)	–6.133	2.446		–2.508	0.017
	Natural capital	1.103	0.278	0.408	3.974	0.000
	Social capital	0.218	0.220	0.084	0.990	0.330
	Financial capital	1.759	0811	0.267	2.169	0.038
	Political capital	1.054	0.435	0.245	2.424	0.021
	Physical capital	0.897	0.671	0.087	1.336	0.191
	Human capital	0.078	0.304	0.034	0.257	0.799

Dependent variable: SFEG performance.

Forest resources as an important natural capital for people who live around forests and depend on forest resources [20] because they affect the main source of livelihood [37] by managing and utilizing the economic value of forest products [38], contrast to the commodity of ecotourism environmental service entrepreneurs is strongly influenced by physical capital, higher physical capital can improve ecotourism performance [4], in line with physical capital and financial capital have an important role in community forestry management [39]. The Social Forestry Enterprises Group, as a source of livelihood, requires various sources of funding to carry out production, management, and marketing processes to generate profits, which significantly influences the sustainability of the livelihoods of community groups based on entrepreneurial bodies [12]. Loans to groups can encourage an increase in the livelihoods of group members; groups with low financial capital cannot develop entrepreneurship because of a lack of access to funding sources [27].

The government's role is very important in improving the welfare of residents around the forest in the poor category through intensive training, the optimal duration of the training, adequate infrastructure, the existence of a productive economy to increase household income and sustain livelihoods [40], and empowering communities to practice sustainable forest management to improve welfare [41]. Human and physical capital in this study did not significantly affect performance; political capital in the form of a close relationship between community groups and government or officers can influence a policy on natural resource management and the economy. Political capital enables the disbursement of technical assistance, increases knowledge and skills [28], and overcomes the shortage of physical capital [42]. In addition to the government's role, the SFEG already has entrepreneurial partners, can access markets, and can increase physical capital through credit, subsidies, or grants. This is in line with the fact that the physical capital of an effective entrepreneur follows market developments [43].

Social capital does not significantly affect the performance of SFEG; in contrast, social capital significantly influences sustainable livelihoods through in24creasing institutional capacity and developing internal and external collaboration networks [44]. The close bond of group members builds cohesion as a solid foundation for governance to develop a community group entrepreneur [28,45]. Awareness of the function of forests and ancestral history is the motivation for developing groups [46], and community adherence to customary institutions and local wisdom serves as the foundation for collective forest management [14] and is important for the development of small and medium enterprises in the forestry sector [30]. Members must actively participate, strengthen social bonds, and work together to improve performance and generate sustainable economic value [22].

Conclusions

The entrepreneurial capital of SFEG in this study is low to very high category, the independence class does not show a high level of capital. The higher the level of entrepreneurial capital, the better is the performance of the SFEG. The level of natural capital, social capital, financial capital, physical capital, human capital, and political capital influences the performance simultaneously. Natural capital, financial capital, and political capital directly and significantly influence SEFG's socioeconomic and environmental performance. In contrast, social capital, physical capital, and human capital do not have a significant influence and can be increased through officers' intensive assistance in increasing institutional capacity, skills, and business management.

Author Contributions

GAK: Conceptualization, Methodology, Writing; **DS**: Conceptualization, Methodology, Writing, Investigation, Software, Supervision; **ST**: Writing-Review & Editing.

Conflict of Interest

There are no conflicts to declare.

Acknowledgements

We want to thank many institutions and individuals. We also thank the families and SFEG members who participated and shared information. Finally, we thank the reviewers for their valuable comments on this manuscript and their support to the editorial team.

References

1. Charnley, S.; Poe, M.R. Community forestry in theory and practice: Where are we now?. *Annual Review of Anthropology* **2007**, *36*, 301–336, doi:10.1146/annurev.anthro.35.081705.123143.
2. Stoian, D.; Donovan, J.; Poole, N. Unlocking the Development Potential of Community Forest Enterprises: Findings from A Comparative Study in Asia, Africa, Latin America, and the United States. In the XIII World Forestry Congress, Buenos Aires, Argentina, 18–23 October 2009.
3. Adhikary, A.; Jhaveri, N.; Karki, R.; Paudel, N.S. *Analyzing the Investment Effects of Forest Rights Devolution in Nepal's Community-Managed Forest Enterprises*, Working Paper 254; CIFOR: Bogor, Indonesia, 2019.
4. Manoppo, V. Natural, social, and physical capital in improving the performance of ecotourism in Bunaken National Park, Indonesia. In Proceedings 3of the 23rd Asian Forum of Business Education (AFBE 2019), Bali, Indonesia, 12–13 December 2019; pp. 514–520.
5. Piabuo, S.M.; Hoogstra-klein, M.; Ingram, V.; Foundjem-tita, D. Forest policy and economics community forest enterprises (CFEs) as social enterprises: Empirical evidence from Cameroon. *Forest and Policy Economics* **2022**, *135*, 1–13, doi:10.1016/j.forpol.2021.102664.
6. Mcqueen, D. Enabling conditions for successful community forest enterprises. *Small-scale Forestry* **2013**, *12*, 145–163, doi:10.1007/s11842-011-9193-8.
7. Tampubolon, R.; Zuska, F.; Purwoko, A. Strategi pendampingan dalam pengembangan usaha kelompok perhutanan sosial di Kabupaten Merangin Provinsi Jambi. *Serambi Engineering* **2022**, *7*, 2510–2519.
8. Antinori, C.; Bray, D.B. Community forest enterprises as entrepreneurial firms: Economic and institutional perspectives from Mexico. *World Development* **2005**, *33*, 1529–1543.
9. Siegner, M.; Panwar, R.; Kozak R. Community forest enterprises and social enterprises: The confluence of two streams of literature on sustainable natural resource management. *Social Enterprise Journal* **2021**, *17*, 584–603, doi:10.1108/SEJ-10-2020-0096.
10. Elson, D. Linking flegt voluntary partnership agreements to jobs and growth: Potential challenges and benefits for small and medium-sized forest enterprises. 2008. Available online: https://www.forest-trends.org/wp-content/uploads/imported/FLEGT_SMFEs_FINAL.pdf (accessed on 23 September 2023).
11. Purnomo, H. Forest degradation and unemployment: Towards small-scale forest management. *Journal of Tropical Forest Management* **2006**, *12*, 44–56.
12. Merino, L. Community forest management in Mexico: A viable strategy for entrepreneurial development and stewardship for conservation. 2003. Available online: https://www.fao.org/3/XII/0776-A4.htm (acessed on 17 August 2023).
13. Charmakar, S.; Chivhenge, E. Community forest enterprises in developing countries: A potential strategy for climate change mitigation and adaptation. In *Forest in Climate Change Research and Policy: The Role of Forest Management and Conservation in a Complex International Setting*, *Proceedings of the 2nd International Workshop, Pietermaritzburg and Durban, South Africa, 1–7 December 2011*; Fehrmann, L., Kleinn, C., Eds.; Cuvillier Verlag: Göttingen, Germany, 2012; pp. 223–233.

14. Syafar, M.; Ulumi, H.F.B. From community capital to sustainable rural livelihoods: Exploring green development programs in Masoso, Indonesia. *Jurnal Pemberdayaan Masyarakat: Media Pemikiran dan Dakwah Pembangunan* **2021**, *5*, 77–104.
15. Emery, M.; Flora, C. Spiraling-Up: Mapping Community Transformation with Community Capitals Framework. In *50 Years Community Development Vol I: A History od its Evolution and Application in North America*, 1st ed.; Walzer, N., Phillips, R., Blair, R., Eds.; Routledge: London, England, 2020; ISBN 9781003103066.
16. Dongol, C.M.; Kenneth, F.D.H.; Bigsby, H.R. Capital formation and sustainable community forestry in Nepal. *Mountain Research and Development* **2002,** *22*, 70–77, doi:10.1659/0276-4741(2002)022[0070:CFASCF]2.0.CO;2.
17. Minister of Environment and Forestry. Regulation of the Minister of Environment and Forestry Number 9 of 2021 on Social Forestry. 2021.
18. Costanza, R.; Arge, R.; Groot, R.D.; Farber S.; Grasso, M.; Hannon, B.; Limburg, K.; Naeem, S.; Neill R.V.O.; Paruelo, J.; et al. The value of the world's ecosystem services and natural capital. *Nature* **1997**, *387*, 253–260, doi:10.1038/387253a0.
19. Suharjito, D.; Saputro, G.E. Social capital in the management of forest resources in the Kasepuhan community, Banten Kidul. *Journal of Forestry Socioeconomic Research* **2008**, *5*, 317–335, doi:10.20886/jpsek.2008.5.4.317-335.
20. Ohorella, S.; Suharjito, D.; Ichwandi, I. The effectiveness of local institutions in forest resource management in the Rumahkay community, Western Seram district, Maluku. *Journal of Tropical Forest Management* **2011**, *17*, 49–55, doi:10.7226/jmht.17.2.49-55.
21. Flora, C.B.; Thibomery, A. Community capitals: Poverty reduction and rural development in dry areas. *Annals of Arid Zone* **2005**, *44*, 239–253.
22. Li, H.; Luyu, Y.; Thị, T.N.; Nazan, C.; Jun, L. Factors influencing the livelihood strategy choices of rural households in tourist destinations Factors influencing the livelihood strategy choices of rural households in tourist destinations. *The Journal of Sustainable Tourism* **2021**, *30*, 875–896, doi:10.1080/09669582.2021.1903015.
23. Serrat, O. *Knowledge Solutions: Tools, Methods, and Approaches to Drive Organizational Performance*, 1st ed.; Springer Nature: Singapore, Singapore, 2017; pp. 21–26, ISBN 9789811009389.
24. Tadesse, S.; Woldetsadik, M.; Senbeta, F. Forest users' level of participation in a participatory forest management program in southwestern Ethiopia. *Forest Science and Technology* **2017**, *13*, 164–173, doi:10.1080/21580103.2017.1387613.
25. Robinson-Pant, A.; UNESCO; International Fund for Agricultural Development. *Learning Knowledge and Skills for Agriculture to Improve Rural Livelihoods Investing in Rural People*; UNESCO: Paris, France, 2016; ISBN 9789231001697.
26. Mohammadi, A.; Najafabadi, M.O; Poursaeed, A. A comprehensive sustainable development framework: Community capital and village-cooperative initiatives. *Brazilian Journal of Biology* **2024**, *84*, 1–12.
27. Ibrahim, A.Z.; Hassan, K.H.; Kamaruddin, R. The level of livelihood assets ownership among vulnerability groups in the east coast of Malaysia. *European Journal of Sustainable Development* **2018**, *7*, 157–161.
28. Suarez, A.E.; Gutierrez-Montes, I.; Ortiz-Morea, F.A.; Ordonez, C.; Suarez, J.C.; Casanoves, F. Dimensions of social and political capital in interventions to improve household well-being: Implications for coffee-growing areas in southern Colombia. *PLoS ONE* **2021**, *16*, 1–27, doi:10.1371/journal.pone.0245971.
29. Jacobs, C. Measuring success in Communities: Understanding the Community Capitals Framework Community Capitals. South Dakota State Cooperative Extension Service. 2007. Available online: https://pascalobservatory.org/sites/default/files/capitalsextension_extra.pdf (acessed on 7 September 2023).
30. Rahmawati, F.; Rofiq, A.; Wijayanti, R. Community social capital and firm performance. *Journal of International Conference Proceedings* **2021**, *4*, 219–229.
31. Agarwal, S.; Sairorkham, B.; Sakitram, P; Lambin, E.F. Effectiveness of community forests for forest conservation in Nan province, Thailand. *Journal of Land Use* **2022**, *17*, 307–323, doi:10.1080/1747423X.2022.2078438.

32. Ota, L.; Chazdon, R.L.; Herbohn, J.; Gregorio, N.; Mukul, S.A.; Wilson, S.J. Achieving quality forest and landscape restoration in the tropics. *Forests* **2020**, *11*, 1–17, doi:10.3390/f11080820.

33. Butler, M.M. Community Forest Enterprise Governance in the Maya Biosphere Reserve. Dissertation, University of Minnesota, Minneapolis, Minessota, 2020.

34. Bakouma, J., Seve J. Forest Management by Community-based Enterprises. 2012**.** Available online: https://www.cesbc.org/jeanbakouma/Textes/jbakouma_jseve_eng.pdf (acessed on 26 February 2022).

35. Wijayanto, N. Project participatory establishment collaborative sustainable forest management in Dusun Aro, Jambi. In *Proceedings of Training on Techniques and Management of Restoration, Rehabilitation, and Agroforestry, Bogor, Indonesia, 4–6 May 2006*; Budi R, S.W., Hardjanto, Suharjito, D., Eds.; Volume 3, pp. 63–77.

36. Lamm, K.W.; Borron, A.; Atkins, K. The community diagnostics and social impact toolkit: Development and validation of a reliable measure of agricultural education. *Journal of Agricultural Education* **2020**, *61*, 249–265, doi:10.5032/jae.2020.04249.

37. Wijayanto, H.W.; Affandi, A.; Soemarno. The influence of livelihood assets on the livelihood strategies of the forest community banks in Tawangargo Village sub-district Forest UB Karangploso Malang. *Habitat* **2019**, *30*, 54–61, doi:10.21776/ub.habitat.2019.030.2.7.

38. Contreras-Hermosilla, A.; Fay, C. *Memperkokoh Pengelolaan Hutan Indonesia Melalui Pembaruan Penguasaan Tanah: Permasalahan dan Kerangka Tindakan*; World Agroforestry Centre: Bogor, ID, 2006; ISBN 9793198303.

39. Suka, A.P.; Oktalina, S.N.; Irawanti, S. Livelihood assets in managing community forest in Indonesia: Case study at Pati, Central Java. In Proceedings of the IUFRO-INAFOR Joint International Conference, Yogyakarta, Indonesia, 24–27 July 2017.

40. Jack, J.T.C.B.; Eke, P.; Anele, K. Does skill aquisition improve rural household income levels? Evidence from oil impacted communities of the Niger Delta. *Development Studies Round Table (Journal of Development)* **2018**, *6*, 159–169.

41. Ekawati, S. Evaluation of Community Empowerment Around Forests: To Ensure the Achievement of Social Forestry Goals. 2020. Available online: http://simlit.puspijak.org/files/book/evaluation_pemberdayaan_Masyarakat_2020.pdf (acessed on 05 December 2022).

42. Tabares, A.; Londono-Pineda, A.; Cano, J.A.; Gomez-Montoya, R. Rural entrepreneurship: An analysis of current and emerging issues from the sustainable livelihood framework. *Economies* **2022**, *10*, 1–24, doi:10.3390/economies10060142.

43. Kleban, O. Problems of effective use of physical capital in agricultural enterprises of Ukraine. *Rural Areas and Development* **2010**, *7*, 135–140.

44. Maas, L.T.; Sirojuzilam; Erlina; Badaruddin. Effect of social capital on governance and sustainable livelihoods of coastal city community medans. *Procedia Social and Behavioral Sciences* **2015,** *211*, 718–722, doi:10.1016/j.sbspro.2015.11.092.

45. Ido, A. The effect of social capital on collective action in community forest management in Cambodia. *International Journal of the Commons* **2019,** *13*, 777–803, doi:10.18352/ijc.939.

46. Kusumawardhani, S.D. The role of social capital in sustainable forest management is a case of community forests in Karangrejo and Wonotopo Villages, Purworejo Regency, Indonesia. Thesis, Erasmus University, Rotterdam, Netherlands, 2014.