



# Design of Village Land Multipurpose Model for Poverty Reduction in Rural Areas

Yusmanto Yusmanto <sup>1,a)</sup>, Asep Saepudin <sup>1,b)</sup>

## Author Affiliations

<sup>1</sup> *Department of Community Education, University of Education, Bandung, Indonesia*

## Author Emails

a) [yusmantopenmas@upi.edu](mailto:yusmantopenmas@upi.edu), b) [aspudin@upi.edu](mailto:aspudin@upi.edu)  
Corresponding author: [yusmantopenmas@upi.edu](mailto:yusmantopenmas@upi.edu)

**Abstract.** The purpose of the study focuses on efforts to uncover how village land management can have an impact on the welfare of local village communities. The research method used through a qualitative approach and in data processing uses the NVivo12 Plus application. The number of respondents was 14 people from various elements, namely village heads, heads of village consultative bodies, community leaders, agricultural extension workers, joint chairmen of farmer groups, farmers renting village land, and micro, small and medium enterprises. The results of this study provide a perspective that village land, which is widely spread in various locations, has an impact on community welfare if managed properly, transparently and accountably. Village land not only contributes to nature conservation, but has a multiplier effect on efforts to improve the economy of rural communities. Village land management needs to be supported by a concept that is easy to apply and can be done through the integration of ecology, empowering, entrepreneurship, education, evaluation (5E) and applied sustainably.

**Keywords:** Design, Village Land, Multipurpose Model

## 1. INTRODUCTION

In Indonesia, since the enactment of Law Number 6 of 2014 concerning Villages, there has been optimism regarding the implementation of Village Governance, which increasingly involves activity and creativity in formulating programs and activities outlined in the Medium-Term Village Development Plan, valid for a period of 6 years, as well as short-term regular annual planning outlined in the Village Development Work Plan, which serves as the elaboration of the medium-term planning. The funding sources are well-organized, comprising allocations from the Central Government through the Village Fund, allocations from District Governments in the form of Village Fund Allocation, and similarly from Provincial Governments in the form of Financial Assistance. Other funding sources, in accordance with the prevailing regulations for Village Administration, include Village Own-source Revenue and other legitimate sources. An interesting aspect of program and activity implementation in the village is the active involvement of the community through the development of community empowerment. This particular aspect distinguishes and serves as a characteristic feature in the management of Village Administration.

Village Administration generally possesses village assets in the form of village land. The Central Government has regulated village land through the Regulation of the Minister of Home Affairs of the Republic of Indonesia Number 1 of 2016 concerning Village Asset Management. Prior to the issuance of Law Number 6 of 2014 concerning Villages, village land was primarily prioritized as a reward for village officials, as at that time, regulations did not favor the regulation of salaries or the welfare of these village officials. In contrast to the present time, the salary arrangement for them is now very good, and even in accordance with the prevailing regulations, as the recruitment process has

become highly selective. Therefore, differences in policies regarding village land management should rightfully be implemented not only for the benefit of village officials but should be more focused on enhancing the welfare of the rural community. Clearly stated in the aforementioned Regulation of the Minister of Home Affairs, it emphasizes that village land is land controlled and/or owned by the Village Government as one of the sources of village own-source revenue and/or for social purposes. The depiction of poverty in rural areas remains an aspect that requires special attention. All local potentials in the village, whether they are in the form of human resources related to the daily lives of the villagers or other physical potentials such as village assets including village land, buildings, and so forth, are encouraged to address poverty-related issues. Poverty data in Indonesia shows that the percentage of the poor population in 2023 is 25.90 million people, or 9.36 percent. This condition represents a decrease of 0.26 million people compared to 2022. Based on this poverty rate, it can be detailed that the number of poor people in Indonesia residing in rural areas is 14.16 million, while in urban areas, it is smaller, totaling 11.74 million. Analyzing poverty based on the two regions, rural and urban, the data indicates that the percentage of the urban poor in 2022 was 7.50 percent, which decreased to 7.29 percent in 2023 [1].

In addition to the issue of poverty, attention is currently needed towards the sustainability of the natural environment, which is widely spread, especially in rural areas. To support this effort, one aspect to consider is how the education sector is expected to contribute to sustainable environmental preservation. In ecological education, there is a critical perspective on conventional education methods, stating that a more suitable form of education for ecological understanding is based on aesthetics, elegance, and ceremonial practices [2]. Meanwhile, art-based education methods, combined with enhanced communication skills, sharing perspectives, and empowerment through participation, greatly assist learners in understanding the interconnectedness of environmental issues [3]. Furthermore, it indicates that there is a mutually interrelated relationship between Earth's natural resources and the economic system, in order to sustain our society [4]. This perspective can be integrated through an entrepreneurial concept because entrepreneurial activities make a significant contribution to economic growth. However, on a certain aspect, it is essential to consider the quantity and quality of entrepreneurship because not all forms of entrepreneurship provide proportional contributions to economic activities [5].

Based on these considerations, the author presents a perspective on the management of village land, which empirically shows that each Village Government is highly diverse in terms of the extent of land ownership. The developed idea is the concept of "Multifunctional Village Land." In its implementation, Multifunctional Village Land requires support from various aspects, including ecological strengthening and preservation, the role of the community, and, of course, village officials in efforts to empower village land. Additionally, entrepreneurial aspects should be sought to have a correlation with Multifunctional Village Land. Lastly, education is an essential aspect, specifically focusing on community education in line with the demands of developing Multifunctional Village Land.

The global mandate, as outlined in the goals and indicators of the Sustainable Development Goals (SDGs), consists of 17 Goals and 169 SDG targets categorized into four pillars of development. The interconnection between the goals and development pillars can be explained as follows:

1. Social development pillar encompasses the goals: (1) no poverty; (2) zero hunger; (3) good health and well-being; (4) quality education; (5) gender equality [6].
2. The economic development pillar relates to the goals: (7) affordable and clean energy; (8) decent work and economic growth; (9) industry, innovation, and infrastructure; (10) reduced inequalities; and (17) partnerships for the goals [7].
3. The environmental development pillar includes the goals: (6) clean water and sanitation; (11) sustainable cities and communities; (12) responsible consumption and production; (13) climate action; (14) life below water; (15) life on land [8].
4. The legal and governance development pillar encompasses the goal: (16) peace, justice, and strong institutions [9].

As a proactive step for the global implementation of SDGs in Indonesia, the Indonesian Government has enacted policies for the implementation of SDGs at the village level. The SDGs for villages consist of: (1) poverty-free villages; (2) hunger-free villages; (3) healthy and prosperous villages; (4) quality village education; (5) involvement of rural women; (6) villages with clean water and sanitation; (7) villages with clean and renewable energy; (8) even economic growth in villages; (9) village infrastructure and innovation according to needs; (10) villages without

disparities; (11) safe and comfortable rural settlement areas; (12) environmentally conscious consumption and production in villages; (13) climate change-responsive villages; (14) environmentally caring coastal villages; (15) environmentally caring inland villages; (16) peaceful and just villages; (17) partnerships for village development; and (18) dynamic village institutions and adaptive village culture [10].

It is evident that ecology is an integral part of achieving the SDGs, as well as local policies in Indonesia aimed at promoting the natural environment in rural areas with broad implications. This influence extends beyond local life, contributing to global well-being. Ecology, originating from the Greek word 'oikos,' meaning home, is the study of various organisms in a cycle where interdependence among each part is fundamental to their existence [11]. The ecological approach began gaining popularity in the 1970s when economists argued that the available natural resources created potential constraints on growth [12], [13]. The impact of ecological development on communities, such as ecotourism, can provide potential yet complex solutions for conservation area managers. Consequently, they can regulate tourist circulation, and in addition to conservation efforts, local communities can also benefit from the development of the tourism sector. [14], [15]. The community-involved management of nature is known as Community-Based Forest Management within the scope of the Agroforestry system, as currently implemented by the Indonesian Government. Community-Based Forest Management is a practice of a system in managing forests so that villages can manage them independently [16]. Another perspective related to organizational ecology delves even further into its scope. The ecological approach emphasizes the characteristics and conditions of the environment as determining factors for the evolution and changes in organizations [13]. In sustainable forest management, there is an economic, technological, market development, and social component aimed at preserving and protecting the environment and natural resources [17], finally directed towards the welfare of the community.

Empowerment is interconnected with various aspects, including empowerment through the process and capabilities of individuals or communities to take responsibility for their own future [18]. Personal empowerment has two dimensions: Firstly, there is psychological empowerment, which is related to internal changes in an individual's beliefs that affect their ability to make decisions, take action, and overcome challenges. Secondly, there is political empowerment, which is related to the capacity to act and implement practical knowledge, information, skills, and other resources acquired during the process [19]. Empowerment itself serves as a form of control, thus enhancing community members' control over issues that are important to them [20].

Empowerment involves various human environments and behaviors, a series of natural selection processes, and sequential adaptations to the environment, which encompass both physical and psychological adjustments within an organization [17]. The systems model views an organization as consisting of four main components. These include tasks (the work that needs to be done within the organization), individuals (who perform the work within the organization), formal organizational arrangements (processes that motivate people to work or achieve organizational goals), and a set of informal organizational arrangements dealing with "communication, power, influence, values, and norms [21]. Organizations process inputs and transform them into outputs. The process of transformation requires organizations to remain viable by adapting to changes in the external environment [13].

The interconnection between empowerment and entrepreneurship in the context of a specific community or organization is a focal point for many researchers. Most studies associate low levels of entrepreneurship originating from established organizations with a decline in entrepreneurial drive. According to this perspective, large and mature companies generate bureaucratic processes that hinder the development of the skills, motivation, and aspirations of employees conducive to the formation of new ventures [22]. The perspective on entrepreneurship can indeed be approached from various angles. The viewpoint extends beyond entrepreneurial theory alone, encompassing self-empowerment and subjective well-being [23]. In addition, entrepreneurship is viewed through the roles of the state, the role of innovation, and native theories [24].

Good investment prioritizes how human resources have competitive and adaptive capabilities to the changing times, making human investment not only a humanistic consideration but also taking into account its interconnection with various other aspects of life. The ecological crisis has led us to question traditional educational methods that seem inadequate to bring about the necessary changes for developing a sustainable society because merely teaching the scientific aspects of ecology is not enough. This crisis cannot be addressed solely through information and knowledge but requires a change in mindset [11]. Shaping that can be supported by implementing education according to the needs of the community.

Higher education and training are crucial for economies seeking to enhance the value chain beyond simple production processes and products [25], [26]. In entrepreneurship, how potential human capital and realized human capital play different yet interconnected roles [27]. The enhancement of transferable skills, especially through non-formal education, is a key factor in maintaining the competitiveness of the personal workforce [28], [29]. Intrapersonal transformation and active learning focused on non-formal education are crucial factors for sustainable development education and the enhancement of sustainable development competencies [30]. In non-formal education or community education itself, it is also supported by experiential learning, which involves the deepening of knowledge and skills through practical experience, reflection, experimentation, and real-world application. Kolb developed a four-stage experiential learning cycle [31].

Providing education through the enhancement of skills or the improvement of individual capacity is inseparable from the belief in one's ability to master the skills expected as an outcome of the educational process. Therefore, the presence of self-efficacy is necessary, referring to an individual's belief in their ability to accomplish tasks or work [32]. Individuals who possess qualities in cognitive, affective, psychomotor, emotional, and spiritual aspects are the main assets in undergoing the development of an increasingly modern civilization [33]. Training, courses, and various forms of education organized by and for the community are aligned with their needs. Therefore, community education serves as a partner in meeting the needs of the community [34].

Community development can be viewed from two perspectives: from the system perspective, which is part of the larger system of national development, and from the movement perspective, where community development signifies a conscious, systematic, and directed effort organized by, for, and within the community with the goal of improving their quality of life [35]. The application of evaluation contributes not only to the outcomes directed at a particular product or program but also has the potential for widespread effects. Evaluation is not confined solely to the private sector or public service sector but encompasses all aspects of human life, both consciously and systematically, as well as unconsciously. Essentially, evaluation is applied across various fields. Therefore, in the context of development, the existence of a robust evaluation system can contribute to achieving positive development outcomes, serving as an integral part of a good governance system [36].

In accordance with the study's focus on the multifunctionality of rural land, it is situated in an area with rural characteristics. In the context of this evaluation, rural communities should ideally take the initiative and independently interpret the evaluation results within the framework of the rural community context [37]. Community groups in the village implementing program activities should conduct an evaluation of the program's effectiveness or its impact on performance [38]. There is an emphasis on the importance of attention to the involvement, interaction, and communication between the evaluation client and the evaluator for the meaningful use of evaluation [39]. Similarly to training activities for villagers, the effort of training evaluation becomes crucial to assess the effectiveness, efficiency of the training program, or both. This is necessary to make decisions on whether to further invest in the program [40]. Hence, the results of the program evaluation determine the continuity of activities.

## 2. METHOD

The need for analytical support for a design model integrating ecology, empowering, entrepreneurship, education, and evaluation (5E) in the implementation of multifunctional rural land aligned with this study is apparent. The research methodological approach applied by the researcher is qualitative research. The sampling method used is purposive sampling, and data collection is conducted through observation accompanied by in-depth interviews. The obtained data are then processed using the NVIVO12 application. In this research, there is a formulation of the research question: How is the design of the integration model of ecology, empowering, entrepreneurship, education, and evaluation (5E) in the implementation of multifunctional rural land?

## 3. RESULTS AND DISCUSSION

The results of in-depth interviews with several respondents needed by the researcher, namely policymakers in the Village Government (Village Head) and the Village Consultative Body Chairperson, community leaders, Agricultural Extension Workers, Chairperson of the Farmer Group, farmers who rent village land, and Business Actors in Salagedang Village, Sukahaji Subdistrict, Majalengka Regency, West Java Province. The number of respondents that the researcher could interview was 14 respondents, consisting of the Village Head, Chairperson of the Village

Consultative Body, Chairperson of the Farmer Group, elements of agricultural extension workers, and community leaders, each 1 person, then 4 Business Actors, and 5 farmers who rent village land. Based on information from respondents, various inputs in the form of verbal information related to land use in the village forest were obtained, which were then processed by the researcher. All of these respondents can represent the researcher's expectations to understand the interpretation, implementation, and actual realization at the research site. The steps taken to be able to reveal various potentials, problems, and solutions in this research, the researcher developed a flow to facilitate understanding and support its consistency in a design or design of village land use with an integrated concept. The flow in this research includes aspects of approach, strategy, method, technique, and procedures that can be described as follows:

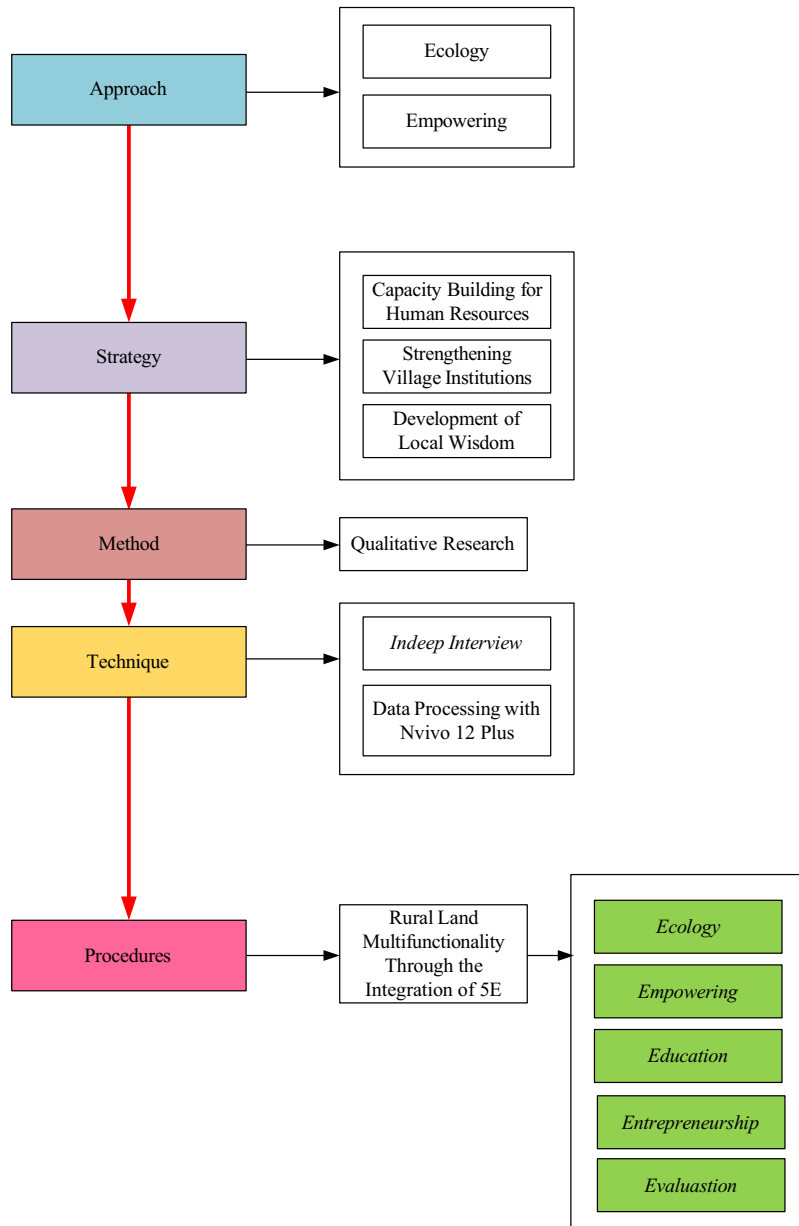


FIGURE 1. Research Flow Implemented by the Researcher

Discussion on Ecology in the development of the multifunctional village land is based on interview data obtained from 7 respondents. The information from tenant farmers leasing village land reveals that the lease agreements have been in place for quite some time, with differences in the duration ranging from 10 to 24 years among the farmers. Furthermore, the average area of village land borrowed annually from the Village Government is quite extensive. Overall, the respondents have an interest in cultivating various plant species, such as cashew plants, which have certified processed products when managed through an industry that processes the harvested produce. The motivation possessed by tenant farmers with an interest in developing different types of crops becomes a supporting factor in creating a concept for environmental management. This is driven to have an impact and is expected to create a boosting movement in community welfare. This welfare is not only obtained by the farmers but also extends to other community members involved in different business activities.

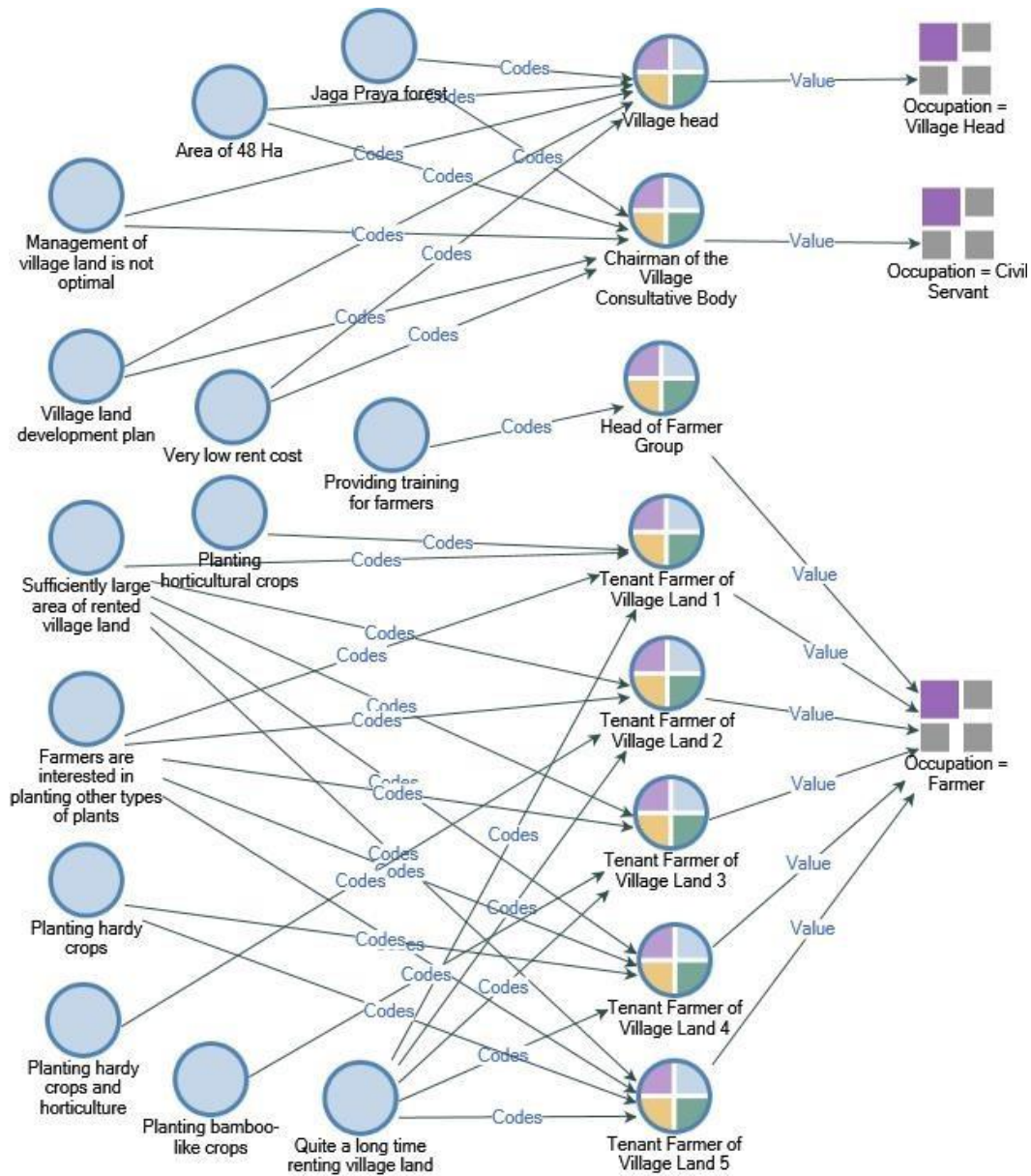


FIGURE 2. Visualization of Respondent Data Regarding Ecology

In-depth interview results revealed information regarding the empowerment carried out by the Village Government and its residents, especially in relation to the preservation of local wisdom. The implementation of empowerment is reflected in the continued preservation of the spirit of mutual cooperation. The mutual cooperation activities are not separated from the local decision maker's policy, namely the Village Head, supported by the Village Consultative Body Chairman, to continuously encourage and stimulate the activities. It is observed that there is a schedule for implementing mutual cooperation, especially on specific days when most residents are in the area. In addition, mutual cooperation activities face challenges such as the negative effects of cash direct assistance data that are not accurate. It is possible to say that the data still includes residents who should be eligible for assistance but are not included in the cash direct assistance database. Furthermore, there are residents who cannot participate in mutual cooperation activities due to the demands of their work schedules.

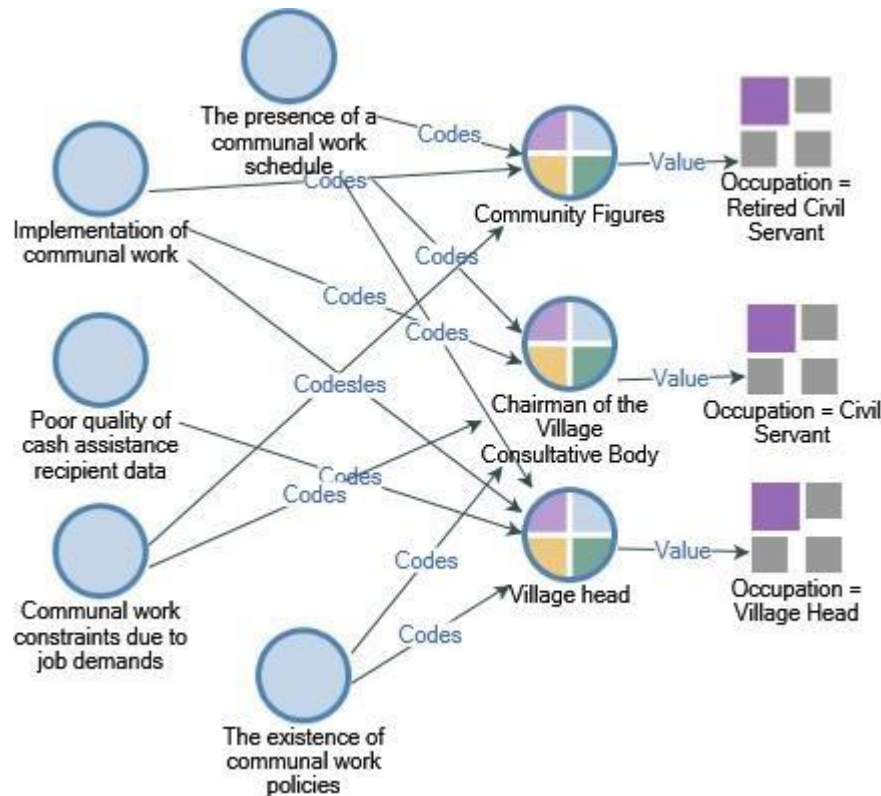


FIGURE 3. Visualization of Respondent Data Related to Empowering

The development of entrepreneurship in rural communities can bring vibrancy to life, especially to support the improvement of the welfare of village residents. However, there are several aspects that must be fulfilled to ensure that the developed entrepreneurial activities can run on the right track. The observed conditions provide an overview that business actors or Micro, Small, and Medium Enterprises (MSMEs) have not yet formed, thus requiring strong support from the Village Government in their establishment. In reality, the Village Government does provide incentives for business actors, but it is still primarily focused on households as its target. Some business actors have not received capacity-building support for product processing, while others strive to enhance their capacity through learning from others. Additionally, it turns out that some business actors have undergone training. On average, the fields of business managed relate to food production, but there are also those engaged in weaving. In general, these business actors are interested in developing other types of products that they can produce, with good market prospects.

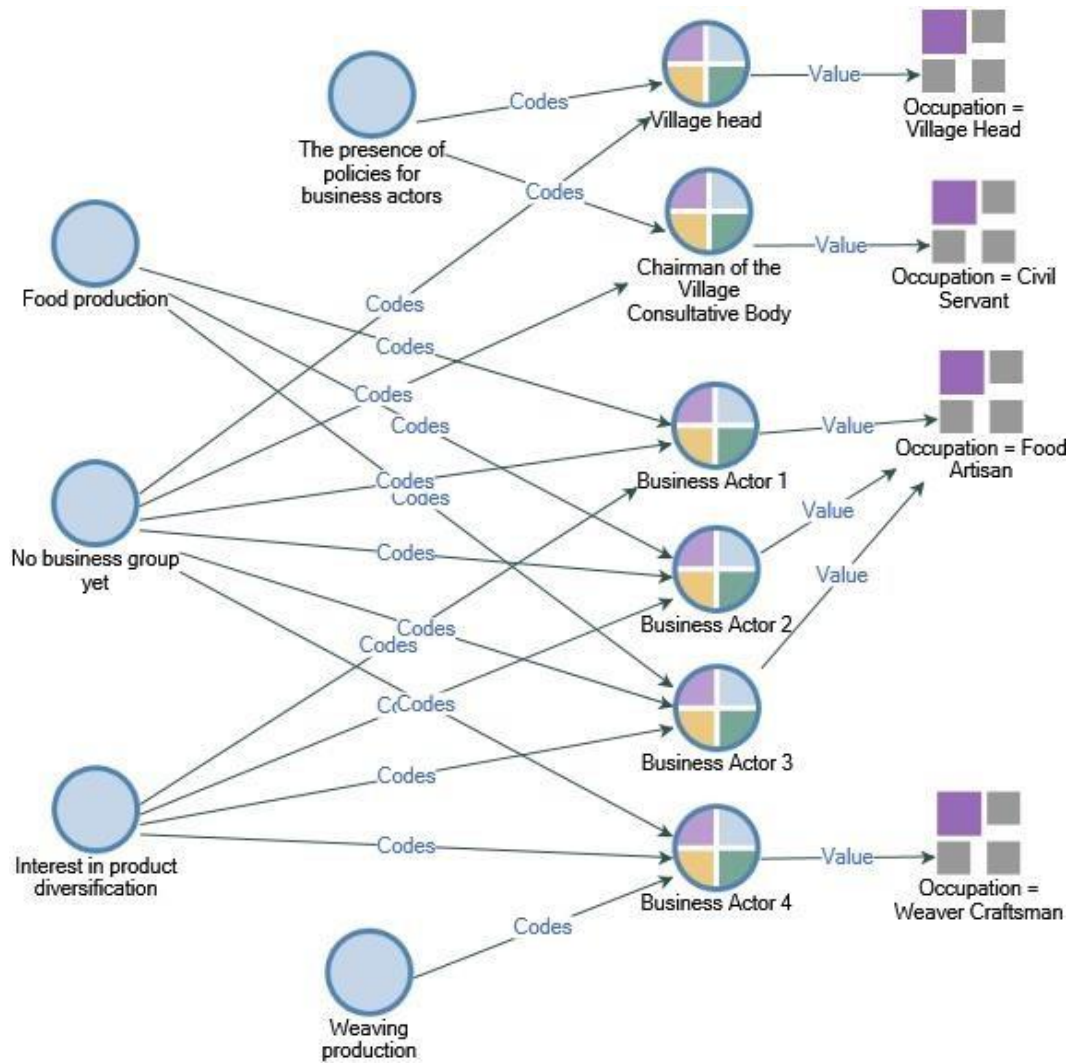
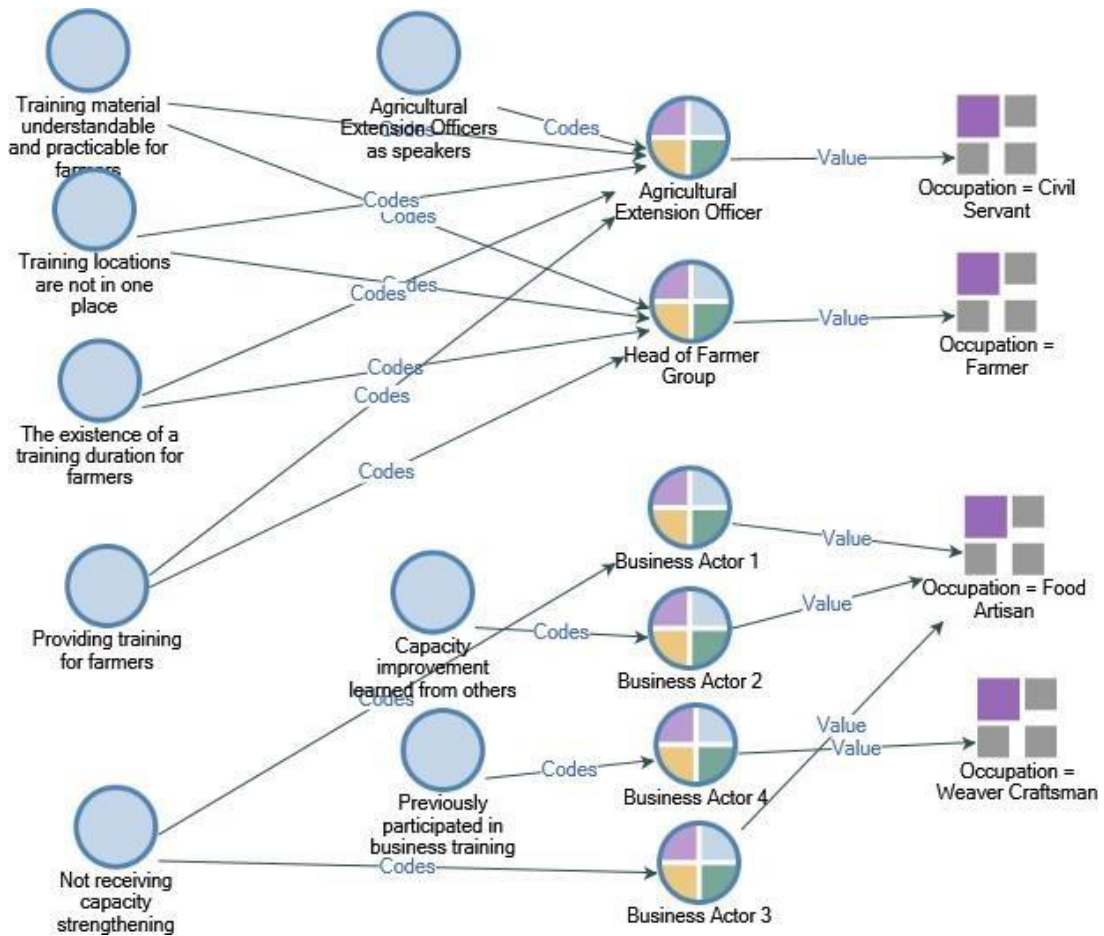


FIGURE 4. Visualization of Respondent Data Regarding Entrepreneurship

One of the education initiatives for farmers is conducted through training, utilizing a mechanism that includes training duration, venue, content, speakers, and, of course, the participants. The training for farmers is referred to as a field school, with the content provided over a period of three months. The training for farmers is facilitated by agricultural extension workers. In contrast to entrepreneurs, the training intensity is not regular for farmers. Some entrepreneurs have received training, while others have not received systematic training but strive to enhance their abilities through other means.



**FIGURE 5.** Visualization of Respondent Data Related to Education

Evaluation becomes one of the concerns in this research, referring to qualitative research data, it is obtained an overview of whether the respondents are familiar with and practice the evaluation process. Regarding the management of village land, 6 respondents have not conducted evaluations, only 2 respondents who apply evaluations to their activities. In addition, there are 8 respondents who actually expect or need evaluations for all activities they undertake.

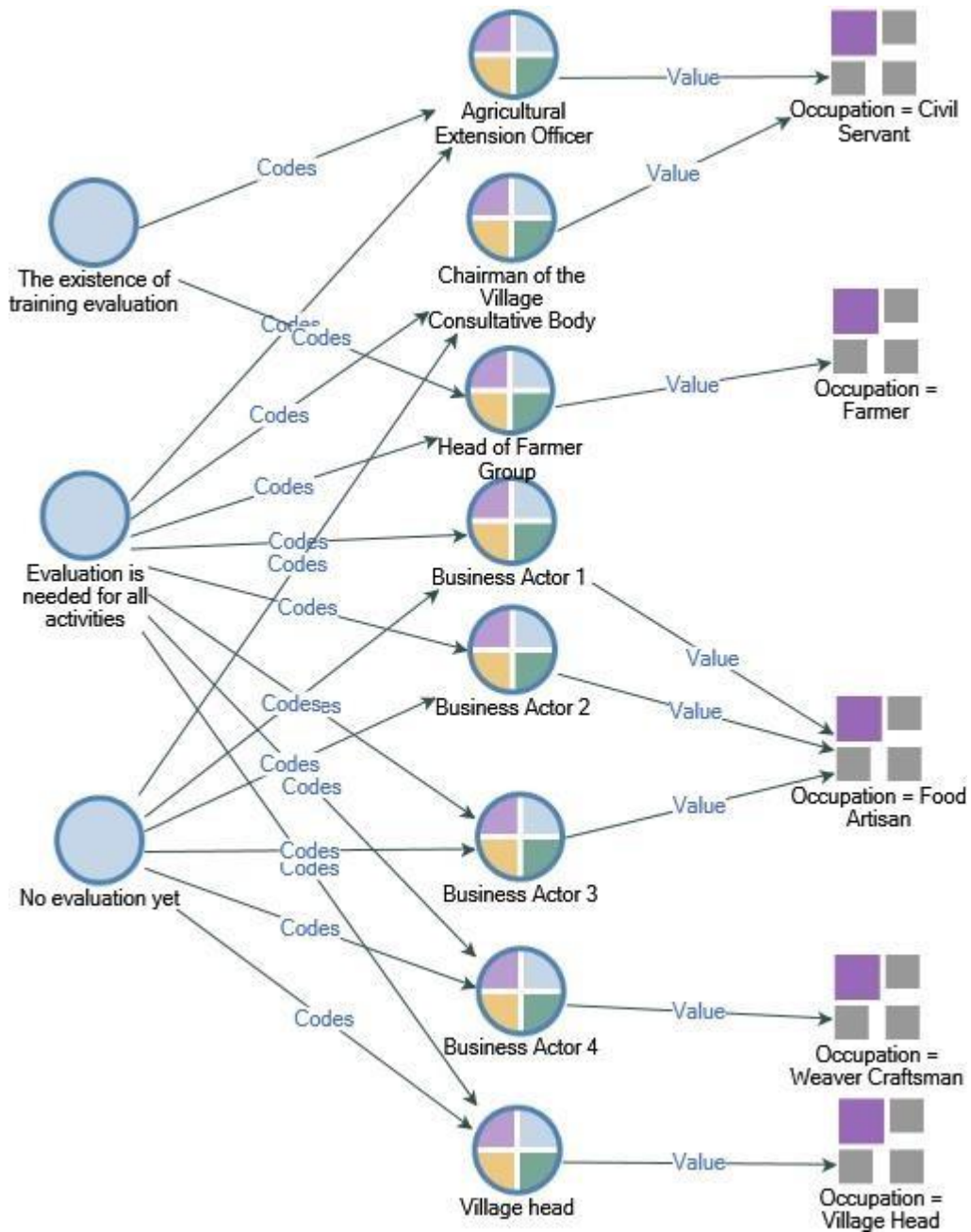


FIGURE 6. Visualization of Respondent Data Related to Evaluation

Considering various information gathered by the researcher, it provides a foundation for designing a program for the utilization of village land that is multifunctional through the integration of the 5E. This design is illustrated in a circular form and exhibits interactions that mutually influence each aspect with the others. Village land should ideally generate an impact on the lives of the community within the scope of the area where the village land is located. In Indonesia, alongside the strengthening of rural development, the government has enacted Law No. 6 of 2014 concerning Villages. This opportunity should be well seized by all Village Governments. The management of village assets in the form of land, whether designated for rice fields, plantations, or forestry, should inherently be guided by a clear concept in the Village Government's paradigm. Based on this, the researcher provides advice for the design of multifunctional village land (village directive) through its simultaneous and sustainable integration with aspects such as ecology, empowering, entrepreneurship, education, and evaluation.

In the ecological domain, farmers or cultivators of village-owned land receive guidance not only to plant trees for environmental protection and preservation but also to truly increase farmers' income regularly within a relatively short period or tend to generate income in the short term but continuously. In the research location, the researcher has encouraged the Village Government to plant a tree that can also spur rural industries, and that tree is the cashew tree. Before planting cashew trees, the Salagedang Village Government organized a village meeting attended by the Head of the Village Consultative Body, community leaders, representatives of village assistants, and tenant farmers. Within a period of 2.5 months, about 500 cashew trees were planted on approximately 3 hectares of land, and this condition is still developing with the expectation to reach 1,500 trees. The planting of cashew trees is done collectively, both in obtaining the seedlings and in regular maintenance. The concept developed in planting cashew trees, firstly; specifically for the young shoots after one year of growth, they will be controlled for harvesting and can be sold to vegetable vendors in several traditional markets or directly to rice stall businesses. Secondly; after 2 years, the cashew tree will bear fruit and can be harvested, so besides the controlled harvesting of the young shoots, the fruits can be processed into food ingredients, fertilizer, and others. The harvest from the farmers will be purchased by the Village-owned Business Entity. This concept emphasizes that village land not only functions as a guardian of environmental sustainability but also as a trigger for the prosperity of the local community.

Empowerment, as a bridge in the community development process, also plays a role in the management of village land. In the concept developed by the researcher, in addition to paying attention to and preserving empowerment based on local wisdom as development indigenous, the targets of empowerment have a two-way direction. Empowerment is aimed at all village officials who will also apply the principles formulated by Ki Hadjar Dewantara, namely "Tut Wuri Handayani, Ing Ngarsa Sung Tuladha, Ing Madya Mangun Karsa." Village officials also function as guides, motivators, and facilitators in the management of village land. Then, the empowerment targets the community members, especially those working in the agriculture and forestry sectors and those working in the micro, small, and medium-sized enterprise sectors. Business actors will process the harvest from farmers, namely cashew nuts. It is expected that there will be active communication between these two actors to create quality products.

In the entrepreneurship aspect, there is a drive to enhance the capabilities of business actors and farmers to develop their ventures effectively, including the strength of business groups. In the business sector, products will be developed, such as various types of food, fertilizers, or other beneficial liquids for human life. In the development of entrepreneurship, the village government through the Village-Owned Enterprises acts as a catalyst and facilitator for farmers' harvests and the development of village industries based on local potential. The Village-Owned Enterprises not only provide loans, as is often done now, but also act as a "Foster Father" in the development of the community's businesses.

Another aspect is education, which plays a role in strengthening the competency of farmers, business actors, and village officials in the context of local economic development. The education developed is through non-formal education or community education, which fundamentally applies andragogy and experiential learning approaches. Community education tends to have a pattern based on the needs of the community. The implementation of community education can be initiated by the Village Government, government departments or agencies, universities providing knowledge through community service, private entities, or other entities not bound by anything but share the same paradigm in strengthening and improving community welfare.

Lastly, concerning the evaluation aspect, this point is a way to be able to correct various activities in the management of village land, including its derivatives in the form of the development of village industries. Evaluation is not only conducted at the end of an activity or the mere result of a product but is carried out in a series of processes from planning, implementation, to the final results of a program or product. Therefore, an evaluation cycle will have an impact on institutional management, individual competence, program achievements, and product results, even the arrangement of life both formally in the form of good governance in the Village Government and in the daily lives of the community.

The foregoing explanations delve into a design for the management of village land, illustrated as follows:

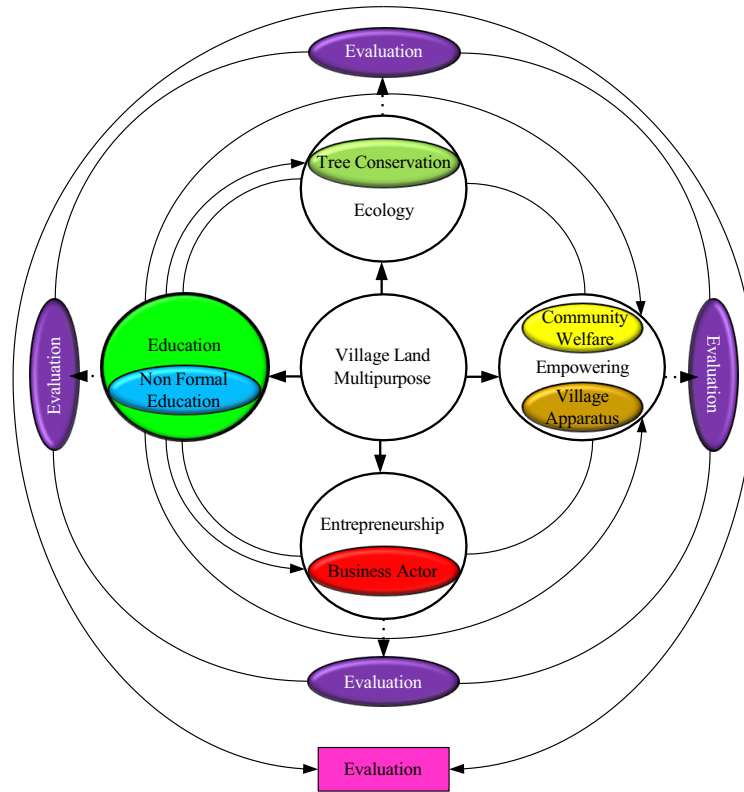


FIGURE 7. Multifunctional Village Land Design Based on 5E

#### 4. CONCLUSION

The results of this research can be summarized as providing a perspective that rural land, scattered in various locations, has an impact on the welfare of the community if managed well, transparently, and accountably. Rural land not only contributes to environmental preservation but also has a multiplier effect on efforts to improve the economy of rural communities. The management of rural land needs to be supported by a concept that is easy to apply and can be done sustainably. Therefore, the researcher suggests the integration of ecology, empowering, entrepreneurship, education, and evaluation (5E) in the management of multifunctional rural land.

#### 5. ACKNOWLEDGMENTS

We would like to express our gratitude to the Village Government and all business actors, farmers, and community figures who have assisted in this research. We also extend our thanks to the Community Education Program at the Indonesian University of Education for their various support.

#### 6. REFERENCES

- [1] Statistics Indonesia, “Welfare Indicator 2023,” vol. 52, p. 207, 2023.
- [2] P. Reason, “Education for Ecology,” *Manag. Learn.*, vol. 38, no. 1, pp. 27–44, Feb. 2007, doi: 10.1177/1350507607073021.
- [3] S. Simon, “Systemic Educational Approaches to Environmental Issues: The Contribution of Ecological Art,” *Syst. Pract. Action Res.*, vol. 19, no. 2, pp. 143–157, Apr. 2006, doi: 10.1007/s11213-006-9008-6.

- [4] P. Hawken, A. B. Lovins, and H. Lovins, "Natural Capitalism. The Next Industrial Revolution 2000," p. 396, 2000.
- [5] F. Chowdhury, D. B. Audretsch, and M. Belitski, "Institutions and Entrepreneurship Quality," *Entrep. Theory Pract.*, vol. 43, no. 1, pp. 51–81, Jan. 2019, doi: 10.1177/1042258718780431.
- [6] Kementerian PPN/BAPPENAS, *Pilar Pembangunan Sosial*. 2017.
- [7] Kementerian PPN/BAPPENAS, *Pilar Pembangunan Ekonomi*. 2017.
- [8] Kementerian PPN/BAPPENAS, *Pilar Pembangunan Lingkungan*. 2017.
- [9] Kementerian PPN/BAPPENAS, *Pilar Pembangunan Hukum dan Tata Kelola*. 2017.
- [10] A. H. Iskandar, *SDGs DESA: Accelerating The Achievement of National Sustainable Development Goals*. Jakarta: Yayasan Pustaka Obor Indonesia, 2022.
- [11] E. Allevato and J. Marques, "Systemic thinking from a scientific and spiritual perspective: Toward a new paradigm and eco world order," *J. Glob. Responsib.*, vol. 2, no. 1, pp. 23–45, May 2011, doi: 10.1108/20412561111128500.
- [12] C. Davidson, "Economic growth and the environment: Alternatives to the limits paradigm," *Bioscience*, vol. 50, no. 5, pp. 433–440, 2000.
- [13] S. Sisaye, "Ecological systems approaches to sustainability and organizational development," *Leadersh. Organ. Dev. J.*, vol. 32, no. 4, pp. 379–398, Jun. 2011, doi: 10.1108/01437731111134652.
- [14] D. B. Weaver, "The Encyclopedia of Ecotourism," in *CABI Publishing*, Abingdon, Oxon; New York, NY : Routledge, 2017.: Routledge, 2001, p. 668.
- [15] L. Dávid, "Tourism ecology: towards the responsible, sustainable tourism future," *Worldw. Hosp. Tour. Themes*, vol. 3, no. 3, pp. 210–216, Jun. 2011, doi: 10.1108/17554211111142176.
- [16] R. Adelismula and A. Witarto, "Pemberdayaan Masyarakat Melalui Pola Agroforestry Berbasis Partisipatif," *J. Ekon. dan Bisnis*, vol. 12, no. 1, pp. 1–14, 2020, [Online]. Available: [http://jurnal.indocakti.ac.id/index.php/eksis\\_iv/article/view/5](http://jurnal.indocakti.ac.id/index.php/eksis_iv/article/view/5).
- [17] S. Sisaye, "An ecological analysis of four competing approaches to sustainability development," *World J. Entrep. Manag. Sustain. Dev.*, vol. 8, no. 1, pp. 18–35, 2012, doi: 10.1108/20425961211221606.
- [18] R. Dvir, F. Lettice, C. Webb, and Y. Schwartzberg, "The Future Center as an empowering ecology," *J. Information, Commun. Ethics Soc.*, vol. 5, no. 2/3, pp. 206–225, 2007, doi: 10.1108/14779960710837650.
- [19] R. J. Parsons, "Expowerment for Role Alternative for Low Income Minority Girls," *Soc. Work Groups*, vol. 11, no. 4, pp. 27–45, Mar. 1989, doi: 10.1300/J009v11n04\_05.
- [20] L. H. Staples, "Powerful Ideas About Empowerment," *Adm. Soc. Work*, vol. 14, no. 2, pp. 29–42, Sep. 1990, doi: 10.1300/J147v14n02\_03.
- [21] D. A. Nadler, "Managing organizational change: An integrative perspective," vol. 17, no. 2, pp. 191–211, 1981, doi: 10.1177/002188638101700205.
- [22] A. J. Kacperczyk, "Opportunity Structures in Established Firms: Entrepreneurship versus Intrapreneurship in Mutual Funds," *Adm. Sci. Q.*, vol. 57, no. 3, pp. 484–521, Sep. 2012, doi: 10.1177/0001839212462675.
- [23] B. Nikolaev, C. J. Boudreaux, and M. Wood, "Entrepreneurship and Subjective Well-Being: The Mediating Role of Psychological Functioning," *Entrep. Theory Pract.*, vol. 44, no. 3, pp. 557–586, May 2020, doi: 10.1177/1042258719830314.
- [24] G. D. Bruton, S. A. Zahra, and L. Cai, "Examining Entrepreneurship Through Indigenous Lenses," *Entrep. Theory Pract.*, vol. 42, no. 3, pp. 351–361, May 2018, doi: 10.1177/1042258717741129.
- [25] D. E. Campbell, "What is education's impact on civic and social engagement?," *Meas. Eff. Educ. Heal. Civ. Engagem.*, pp. 25–126, 2006, [Online]. Available: <https://www.oecd.org/education/innovation-education/37425694.pdf>.
- [26] D. H. Lim, S. Jeong, S. Yoo, and M. H. Yoo, "Older workers' education and earnings among OECD countries," *Eur. J. Train. Dev.*, vol. 42, no. 3/4, pp. 170–190, Aug. 2018, doi: 10.1108/EJTD-08-2017-0069.
- [27] F. Fahrenbach, "How the validation of prior learning can be used to assess entrepreneurial human capital investments and outcomes," *Eur. J. Train. Dev.*, vol. 47, no. 10, pp. 1–14, Dec. 2023, doi: 10.1108/EJTD-09-2019-0168.
- [28] D. Emanuel Froehlich, S. Beusaert, M. Segers, and M. Gerken, "Learning to stay employable," *Career Dev. Int.*, vol. 19, no. 5, pp. 508–525, Sep. 2014, doi: 10.1108/CDI-11-2013-0139.
- [29] S. Koster and C. Brunori, "What to do when the robots come? Non-formal education in jobs affected by automation," *Int. J. Manpow.*, vol. 42, no. 8, pp. 1397–1419, Oct. 2021, doi: 10.1108/IJM-06-2020-0314.
- [30] A. C. F. Caldana, J. H. P. P. Eustachio, B. Lespinasse Sampaio, M. L. Gianotto, A. C. Talarico, and A. C. da S. Batalhão, "A hybrid approach to sustainable development competencies: the role of formal, informal and

- non-formal learning experiences,” *Int. J. Sustain. High. Educ.*, vol. 24, no. 2, pp. 235–258, Jan. 2023, doi: 10.1108/IJSHE-10-2020-0420.
- [31] C. Mayombe, “Success stories on non-formal adult education and training for self-employment in micro-enterprises in South Africa,” *Educ. + Train.*, vol. 59, no. 7/8, pp. 871–887, Aug. 2017, doi: 10.1108/ET-08-2016-0130.
- [32] S. C. H. Chan, “Transformational leadership, self-efficacy and performance of volunteers in non-formal voluntary service education,” *J. Manag. Dev.*, vol. 39, no. 7/8, pp. 929–943, Nov. 2020, doi: 10.1108/JMD-03-2020-0078.
- [33] S. Danim, *Ekonomi Sumber Daya Manusia*. Bandung: CV. Pustaka Setia, 2004.
- [34] E. Sudiapermana, *Pendidikan Masyarakat, Merdeka Belajar dan Memerdekakan*. Bandung: Frasa Media, 2021.
- [35] D. Sudjana, *Pendidikan Nonformal (Nonformal education) Wawasan, Sejarah Perkembangan, Filsafat, Teori Pendukung Asas*. Bandung: Falah, 2010.
- [36] V. Thomas, “Evaluation Systems, Ethics, and Development Evaluation,” *Am. J. Eval.*, vol. 31, no. 4, pp. 540–548, Dec. 2010, doi: 10.1177/1098214010373648.
- [37] K. Miyoshi, “Toward a More Holistic Evaluation Approach for Rural Development,” *Am. J. Eval.*, vol. 34, no. 4, pp. 587–589, Dec. 2013, doi: 10.1177/1098214013493494.
- [38] E. King and P. Nesbit, “Collusion with denial: leadership development and its evaluation,” *J. Manag. Dev.*, vol. 34, no. 2, pp. 134–152, Mar. 2015, doi: 10.1108/JMD-02-2013-0023.
- [39] M. Larsson, “Using environmental evaluation systems and their contribution to sustainable development,” *Evaluation*, vol. 27, no. 4, pp. 453–472, Oct. 2021, doi: 10.1177/13563890211018411.
- [40] D. R. Glerum and T. A. Judge, “Advancing employability: applying training evaluation to employability development programs,” *Career Dev. Int.*, vol. 26, no. 3, pp. 363–390, Jun. 2021, doi: 10.1108/CDI-09-2020-0248.

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

