

THE FIELD SCHOOL OF HUMAN RESOURCES AS THE FORMING CHARACTER OF YOUTH ORGANIZATIONS IN MANGROVE MANAGEMENT ON THE COASTAL VILLAGE

**Dito Aditia^{1*}, Hendrik suhendri², Cakti Indra Gunawan³, Tirta Yoga⁴
Akhhmad Baizuri⁵, Kamila Munna⁶**

¹Magister in Agricultural Economy, University of Tribhuwana Tunggal, email: ditoaditiascholar@gmail.com

²Economic Faculty, University of Tribhuwana Tunggal, email: hendrik_pancasila_sakti@yahoo.com

³Magister in Agricultural Economy, University of Tribhuwana Tunggal, email: cakti.gunawan@gmail.com

⁴Magister in Agricultural Economy, University of Tribhuwana Tunggal, email: tirtayoga13@gmail.com

⁵Nahdlatul Ulama College of Sharia Nusantara Tangerang, email: akhmadabai@gmail.com

⁶Bandung Institute of Technology, email: kamilamunna55@gmail.com

*Koresponden Penulis

Abstract. The mangrove environment is one of the biological ecosystems in coastal regions with fluctuating plant organization, ecological nature and economic development. Mangrove woods play an essential part both naturally and monetarily. Deforestation and degradation of mangroves have been taking place at crucial rates. Mangrove conversion to aquaculture is the primary cause of mangrove loss in Indonesia, the nation with the world's largest mangrove coverage. To maintain the sustainability of mangrove forests, the role of humans is very important. This is because humans as actors who deal directly with mangrove forests, especially residents who live in villages in coastal areas. Nonetheless, the lack of human resources knowledge and understanding of the ecological and economic functions of mangrove forests is one of the factors causing deforestation and degradation of mangrove forests in Indonesia. This article is written with the Systematic Review of literature and Training of the Institutional Capacity in Mangrove Ecosystem Management. The Field School of Human Resources as the Forming Character of Youth Organizations in Mangrove Management on the Coastal Village is an alternative strategy in order to achieve optimal and sustainable management and governance of mangrove forests. The Field School of Human Resources is an alternative concept that we offer in educating and developing the potential possessed by the young generation as an effort to develop character building and awareness of mangrove sustainability. The characters that implanted to students is a good character, smart, and wisdom. Moreover, the implementation of consist of planning, organizing, actuating, controlling, and evaluating. However, existing human resources in coastal areas must support optimal and sustainable mangrove management. Therefore, the seriousness of all stakeholders in realizing field schools for human resource development is a certainty.

Keyword: Mangrove; Management; Human; Resources; School

Abstrak. Lingkungan mangrove merupakan salah satu ekosistem hayati di wilayah pesisir dengan organisasi tumbuhan, sifat ekologi, dan perkembangan ekonomi yang fluktuatif. Mangrove memainkan peran penting baik secara alami maupun finansial. Deforestasi dan degradasi mangrove telah terjadi pada tingkat yang sangat tinggi. Konversi mangrove ke budidaya perairan merupakan penyebab utama hilangnya mangrove di Indonesia, negara dengan tutupan mangrove terbesar di dunia. Untuk menjaga kelestarian hutan mangrove, peran manusia sangatlah penting. Hal ini dikarenakan manusia sebagai pelaku yang berhubungan langsung dengan hutan mangrove, khususnya warga yang tinggal di desa-desa di wilayah pesisir. Meskipun demikian, kurangnya pengetahuan sumber daya manusia dan pemahaman terhadap fungsi ekologi dan ekonomi hutan mangrove menjadi salah satu faktor penyebab terjadinya deforestasi dan degradasi hutan mangrove di Indonesia. Artikel ini ditulis dengan Tinjauan Sistematis Literatur dan Pelatihan Kapasitas Kelembagaan dalam Pengelolaan Ekosistem Mangrove. Sekolah Lapangan Sumber Daya Manusia Sebagai Pembentuk Karakter Karang Taruna Dalam Pengelolaan Mangrove di Desa Pesisir merupakan salah satu alternatif strategi dalam rangka mencapai pengelolaan dan tata kelola hutan mangrove yang optimal dan berkelanjutan. Sekolah Lapangan Sumber Daya Manusia merupakan salah satu konsep alternatif dalam mendidik dan mengembangkan potensi yang dimiliki generasi muda sebagai

upaya pengembangan pembentukan karakter dan kesadaran akan kelestarian mangrove. Karakter yang ditanamkan pada siswa adalah karakter yang baik, cerdas, dan bijaksana. Sedangkan pelaksanaannya meliputi perencanaan, pengorganisasian, pelaksanaan, pengendalian, dan evaluasi. Namun sumber daya manusia yang ada di wilayah pesisir harus mendukung pengelolaan mangrove yang optimal dan berkelanjutan. Oleh karena itu, keseriusan seluruh pemangku kepentingan dalam mewujudkan sekolah lapangan untuk pengembangan sumber daya manusia menjadi sebuah kepastian.

Kata kunci: Mangrove; Manajemen; Manusia; Sumber Daya; Sekolah

INTRODUCTION

The mangrove environment is one of the useful biological ecosystems in beachfront regions with fluctuating plant organization, ecological nature and economic development rates. Mangrove woods play an essential part both naturally and monetarily (Abdillah *et al.*, 2020). In addition, the biological elements of mangrove woods, among others, are a supplement supplier, bringing forth and nursery ground for certain marine biotas like fish, insect, shrimp, crab, obstruction to beachfront scraped spot, spongy squanders, and coastline insurance to the tempest, tidal wave and ocean level ascent (Srikanth *et al.*, 2016). The monetary elements of mangrove woodlands incorporate makers of food from fisheries sources, fuelwood and charcoal, building materials, prescriptions, etc. Mangrove backwoods can be overseen as attractions for ecotourism exercises. Mangrove forest ecosystem areas ought to be preserved and maintained in terms of both quantity and quality due to their significance in terms of ecological and economic considerations (Salampessy *et al.*, 2015).

Deforestation and degradation of mangroves have been taking place at crucial rates. Mangrove conversion to aquaculture is the primary cause of mangrove loss in Indonesia, the nation with the world's largest mangrove coverage (Arifanti *et al.*, 2021). Assuming this obliteration proceeds, the loss of an exceptionally special biological system that has multi-benefits naturally, socially and financially will occur. There are 118 countries with mangrove forests totalling an estimated 137,760 km² worldwide. Arifanti (2020) stated that Indonesia, which has the most elevated mangrove inclusion on the planet (3.31 million ha, has lost around 30% of the mangroves between the long periods of 1983 to 2003 or with a deforestation pace of 52,000 ha yr⁻¹. From 1985 to 2019, further analysis of the Ministry of Environment and Forestry (MoEF) data on mangrove cover loss reveals a decrease of 430,000 ha or a deforestation rate of 12,647 ha yr⁻¹. The fast decay of mangrove timberlands is because of mangrove change for agribusiness, hydroponics, oil and gas, and metropolitan turn of events.

To maintain the sustainability of mangrove forests, the role of humans is very important. This is because humans as actors who deal directly with mangrove forests, especially residents who live in villages in coastal areas. Nonetheless, the lack of human resources knowledge and understanding of the ecological and economic functions of mangrove forests is one of the factors causing deforestation and degradation of mangrove forests in Indonesia (Quevedo *et al.*, 2023). The role of youth through youth organizations in coastal villages must take a role in preserving mangrove forests. However, this can be realized if the development of the capacity and capability of youth human resources in coastal areas is realized (Suhendri *et al.*, 2017 ; Gunawan & Pudjiastuti, 2022). This article will explain the Field School of Human Resources as the Forming Character of Youth Organizations in Mangrove Management on the Coastal Village.

METHODS

A systematic review of literature has been done as suitable philosophy, to deliver a dependable information stock. Several authors have used a systematic review of the literature to carry out their research (Fuertes *et al.*, 2022), systematic review perspectives through an integral multidimensional framework (Betti *et al.*, 2020), to demonstrate the current state of the integration of the methods of selection of variables for the multivariate statistical process control (Peres & Fogliatto, 2018), the conduct on internet based buyer and request satisfaction activities (Nguyen *et al.*, 2018), and offer a comprehensive and in-depth review of the most recent mechanisms for knowledge sharing in the education field as well as directions for future research (Charband & Navimipour, 2018). For this research, the looking-through process is restricted to distributed writing, including books, gathering procedures, and writing acquired from electronic sources, predominantly data sets of logical information. Looking through references utilized were Proquest, Scimago, Scopus, Sinta, Elsevier,

Science Direct, and Google Scholar. The primary catchphrases utilized are mangroves, the board, humans, assets, youth, and associations. The period time covered by the literature review is from year 2013 to 2023.

To strengthen the concept of establishing a field school for human resource development, researchers used the Training of Strengthening the method Community Institutional Capacity in Mangrove Ecosystem Management. This method refers to Kusuma and the Ministry of Forestry, The Republic of Indonesia (2014). It was presumed that the program was intended to oblige exceptional interest in Mangrove biological system character and permit the preparation to the field commonsense for young people as part of Human Resources in Mangrove Management. To make the field school more designated and viable, in the execution mentors set the adolescent members as the future forerunners in saving the mangrove biological system. The techniques utilized in the framing character of Human Resources are address, conversation, task and practice in the field. The prerequisite of members are general for everybody in all backgrounds, not restricted by knowledges, should have the option to peruse and write, and the local communities in the coastal villages, particularly the young generation from youth organizations.

RESULT AND DISCUSSION

3.1. The Theoretical Concept of The Field School of Human Resources

The Field School of Human Resources is an alternative concept that we offer in educating and developing the potential possessed by the young generation as an effort to develop character building and awareness of mangrove sustainability. To prepare them for these, the field school of Human Resources instils character education in students. Winnicott (2018), defined the characters are possessed by an object or individual. These characteristics are "original" and rooted in the personality of the object or individual, and is a machine that drives how a person acts, thinks, says, and responds to something. The characters that implanted to students is a good character, smart, and wisdom. Good in the meaning of all his words and actions do not violate the norms and regulations applicable (Surmiak, 2020). Smart in the sense of being able to think and act to overcome the issues appropriately, particularly issues related to mangrove sustainability, deforestation, or degradation (Herr *et al.*, 2017). Wisdom is a reflection of a person's attitude and behavior towards something that he sees based on what is in his mind precisely in any situation and condition and is objective and able to take meaning/important lessons from what he does (Tiberius & Swartwood, 2011). In other words, a wise person is someone who can make the right decisions, either directly or indirectly, without taking sides fairly and objectively. Figure 1 shows us the kinds of character-building that the school educated the participants.

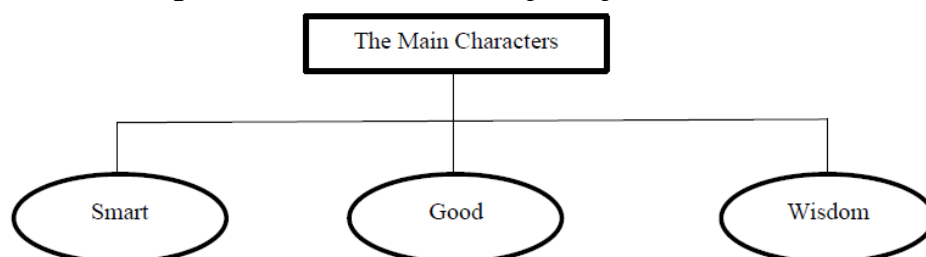


Figure 1. The main character-building that the school instructed to the participants

Source: Modified by Authors

3.2. The Learning Methods of The Field School of Human Resources

The learning method used is Direct Class Teaching and Mastery Learning. Direct Class Teaching is a method in which the material is conveyed by the mentor directly to the participants' students through materials provided by educators (Wu *et al.*, 2019), while Mastery Learning namely a learning method where learning is conditioned gradually. Direct teaching involves a teaching style in which the teacher is actively involved in bringing the content of the lesson to students and teaching it directly to the whole class. The stages in direct learning are (Mandasari & Wahyudin, 2021) : (1) Convey objectives and prepare students, (2) Demonstrate knowledge and skills, (3) Guide training, (4) Check to understand and provide feedback, (5) Provide opportunities for further training and application.

Mastery learning (learning through) is a philosophy that says that with the right teaching system, all students can learn with good results from almost all the subject matter taught by the teacher. Mastery

Learning is a learning approach that adhere to the principle of completeness (Sutiani, 2021). Mastery learning is a learning process which aims to be teaching material completely, meaning the method full of the theoretical and practical material (Winget dan Persky, 2022). The steps of the Mastery Learning model are as follows: orientation, presentation, structured practices, guided practice, and independent practice. Mastery learning has many implementations, including students can use additional media such as video tutorials or material videos, correct answers and steps in the form of videos or presentation slides (Romiszowski, 2016).

3.3. The Competencies and Materials Provided to Participants

The competencies taught cover three aspects, namely smart, good, and wisdom. Smart is a part to fulfill the cognitive element. Good as a part to meet the psychomotor elements. Wisdom is a part to fulfill the affective element. Cognitive is a behaviour that emphasizes intellectuality, such as knowledge and thinking skills (Kolb *et al.*, 2014). Affective emphasizes more on aspects of feelings, such as interests and attitudes (Izard, 2013). While psychomotor emphasizes more on motor skills. The collaboration of cognitive, affective, and psychomotor aspects is very important in forming and developing smart, kind, and wise human resources (Darmadi, 2018). Table 1 below describes the competencies, learning materials, and the length of time for learning.

Table 1. The Competencies, Learning Materials, and The Length of Time for Learning

Number	Main Characters	Aspects	Sub-aspects	Materials	Length of time
1	Smart	Cognitive	Technological literacy	The concept of using computers, the Internet, and online digital marketing	90 minutes
			Information literacy	The basic concept of reading and writing	90 minutes
			Financial literacy	Basic accounting	90 minutes
			Management	Basic management	90 minutes
2	Good	Psychomotor	Teamwork	The basic practice of organization	90 minutes
			The Knowledge of Mangroves	The theoretical and practical skills of mangroves	90 minutes
			The Knowledge of Coastal Villages	Arrange the simple socio-empowerment program	90 minutes
3	Wisdom	Affective	Curiosity	The basic skills of survey and investigation	90 minutes
			Communication skills	The basic skill of formal communication	90 minutes
			Ethics	Business and Socio-ethics	90 minutes

Source: Constructed by Authors

In fostering wise attitude, three elements, namely curiosity, ability to communicate, and ethics must be fulfilled. Curiosity developed by the ability to survey and investigate. Communication can developed by communication skills in a formal situation, while ethics from an understanding of appropriate values in social and business. Based on the explanation from Kusuma and the Ministry of Forestry, The Republic of Indonesia (2014), the indicator of achievements to manage the mangrove forest must fulfill three main points. First, participants can make sense of the means phases of laying out institutional mangrove protection. Second, participants can rehearse how to shape gatherings of mangrove preservation. Third, the participant can pick accomplices and increment their affection for mangrove protection with natural consideration in the presentation of mangrove the board framework..

3.4. The Indicators of Competencies Achievement

Competency achievement indicators are the development of fundamental skills, specifically in the form of behaviors that can be measured or observed to evaluate a subject's achievement of fundamental skills. Indicators of competency attainment are ways of behaving that can be estimated as well as seen to exhibit the accomplishment of specific essential capabilities that act as a source of perspective for evaluation in learning (Paul & Elder, 2019). Indicators of competency are markers for accomplishing capabilities that can be utilized as an action to decide the accomplishment of learning goals (Turner *et al.*, 2020). Table 2 shows the achievement indicators for each aspect and sub-aspect.

Table 2. The Achievement Indicators for Each Main Characters

Number	Main Characters	Aspects	Sub-aspects	The Indicators
1	Smart	Cognitive	Technological literacy	The participant can use computers, the Internet, and online digital marketing
			Information literacy	The participants can understand and apply the basic concept of reading and writing
			Financial literacy	The participants can understand and apply Basic accounting
			Management	The participants can understand the basic concept of management
2	Good	Psychomotor	Teamwork	The participants can understand and apply good teamwork in mangrove management
			The Knowledge of Mangroves	The participants can understand and apply the mangrove management
			The Knowledge of Coastal Villages	The participants can understand and apply the simple socio-empowerment program
3	Wisdom	Affective	Curiosity	The participants can understand and apply of survey and investigation
			Communication skills	The participants can understand and apply the formal communication
			Ethics	The participants can understand and apply Business and Socio-ethics

Source: Constructed by Authors

3.5. The Categories for the Participant and Instructors

The age of participants and instructors who may register and participate is 18–35 or adulthood. Because that age is the potential time for human life. In this age range, the physical and psychological conditions of humans are very good support for the teaching and learning process, because that age is when humans have high youthful enthusiasm and good reasoning power (Deary, 2020). From age 17 and over, humans begin to learn to live in society and get to know the environmental conditions. Age can influence the way a person thinks, perceives and responds to something that becomes an object. Pound *et al.* (2016) explained that, in terms of perceptions and assessments of the importance of education for the young generation and medium groups have more insight broad and provide a positive assessment of education. Adulthood is the formal operational stage, where a person is capable think abstractly and being able to analyze problems scientifically and then solve the problem. Adulthood is the time someone can analyze the problems of a life well and be able to find solutions to problem-solving.

In addition, participants or instructors who took part in human resource development field school activities had good health. Health that must be possessed includes both physical and mental health. Physically, the participants are not suffering from internal, chronic or infectious diseases. Meanwhile, from a spiritual perspective, the participants were not losing their minds or going mad. Duarte-Hueros *et al.* (2020) concluded that, health is a requirement in participating in field school activities because it will support the participants' ability to define, understand, and implement the

material they have obtained in mangrove management and governance. Although participation in field school activities is not limited by personal background, age and health are non-negotiable requirements. With the existence of productive age and healthy body condition, the realization of the field school of human resources can support the realization of optimal and sustainable mangrove management.

3.6. The Implementation Pattern of The Field School of Human Resources

In the implementation, the field school of human resources in supporting sustainable mangrove management cannot be separated from management functions. According to Mehta (2017), management functions include Planning, Organizing, Actuating, and Controlling. In planning, things must be prepared are vision and mission, statutes, laws, strategies and procedures. Then, Organizing is the division of tasks, authority, and functions of the elements in the organization. Actuation is the implementation of programs that have prepared in planning, including the placement of human resources. While Controlling is the process of monitoring, supervising, and controlling all elements of the organization to achieve the goals that have agreed upon within the organization (Chelladurai & Kim, 2022). The following are the technical steps in the implementation pattern (Maduretno & Fajri, 2019).

3.6.1. Planning

At the planning stage, those who are willing to establish a field school can survey the condition of villages in coastal areas. In the survey activity, it was possible to develop criteria for a suitable village as a location for the field school. At the planning stage, it is necessary to collect raw data, unprocessed data such as the level of education of the population, the level of literacy and literacy, the area of existing mangrove land, and the level of welfare of the population. In addition, the activities carried out were interviews and questionnaire distribution. De La Croix, *et al* (2018), stated that the interview is a technique to get information by asking questions to the interviewees. Meanwhile, the distribution of questionnaires was carried out to support the information provided obtained from interviews. The distribution of questionnaires is a technique to get information by distributing papers containing questions which are considered important for the implementation of this idea to the number of respondents a lot. By interviewing and distributing questionnaires, we can know the supporting factors and constraints factors (Razmerita *et al.*, 2016). Various stakeholders that could be interviewed included fishermen, villagers working in sectors other than marine fisheries, the government through agencies authorized to manage mangroves on the coast, as well as researchers, academics.

3.6.2 Strategizing

The process of formulating a strategy is very important after planning has been prepared well. Strategy formulation is preparing strategies when organizing, actuating, controlling, and even evaluating strategies (Kuswara *et al*, 2021). In the context of mangrove field schools, the preparation of strategies is related to the efforts that will be made in organizing stakeholders who have a role in implementation. Several stakeholders can take a role in realizing the strategy formulation, namely the environmental service, maritime and fisheries service, regional development planning agencies, local communities on the coast, community leaders, academics, private entrepreneurs, non-governmental organizations, and academics from universities. Strategy preparation has the following stages:

1. Analyze environmental conditions
2. Analyze weaknesses, strengths, opportunities and threats
3. Determine the vision, mission and strategic objectives for implementing the mangrove field school
4. Formulate a realistic strategy
5. Select and determine a strategy
6. Monitoring strategy implementation

3.6.3 Organizing

After planning, it needs to be done organizing to identify all available resources for create a school field. In this stage, the formation of the management board and administrators of the field school has begun to be realized. It is the field school managers and administrators who will coordinate all field school operational activities from the planning stage to the evaluation stage. Activities included in the organizing stage are the recruitment of prospective instructor candidates who can provide lessons and guidance based on predetermined competencies. On the other hand, recruiting field school participants has begun, provided that all the facilities and infrastructure needed by the field school have been fulfilled. Steiss (2019) stated that the organizing involves the resource determination and activities

needed to achieve goals organization, design and development of an organization or group work that will be able to "bring" things towards the goal, as well as the necessary delegation of authority to individuals to carry out their duties.

3.6.4 Actuating

In implementation, all elements in the human resource development field school carry out the vision, mission and work program plans that have been prepared by the board of directors. Instructors who have been recruited start working by the applicable standard operating procedures. Likewise, the participants who have been recruited, start to undergo training and learning activities based on predetermined competencies and materials. Furthermore, the existence of a field school for human resource development in mangrove management supports the implementation of the constitutional mandate, namely article 28H of the fourth amendment of the 1945 Constitution of the Republic of Indonesia. On the other hand, field schools for human resource development in mangrove management also carry out the mandate of Law Number 1 of 2014 concerning Amendments to Law Number 27 of 2007 concerning the Management of Coastal and Small Islands.

In Law Number 1 of 2014, there is a clear definition regarding coastal areas. Coastal areas are transitional areas between terrestrial and marine ecosystems that are affected by changes in land and sea. Then, it is explicitly stated in the law that mangroves are one of the coastal and small island resources. Thus, maintaining the preservation of mangrove forests through the implementation of optimal and sustainable mangrove management is a certainty that must be implemented. On the other hand, complying with the laws and regulations is a real form of compliance as an Indonesian citizen, as well as described by Fauzia *et al* (2021).

3.6.5 Controlling

In the controlling process, it can not undergo supervision. Supervision of the implementation is carried out by the government, the public, and the mass media. Supervision aims to ensure the implementation of this idea does not get out of hand. The initial goal is to create the character of the youth generation in the mangrove management. Things that need to be considered in monitoring the implementation of this idea are shown below:

- Subject matter provided, whether it is following the needs of today's world, especially in mangrove management.
- Learning methods and competencies that have been prepared, have the instructors have been running as they should?
- The implementation of standard operational procedures. Do the stakeholders of the field school obey the procedures?
- Does the field school ensure the existence of mangrove sustainability?

3.6.6 Evaluating

Evaluating alludes to the method involved with surveying, judging, or deciding the worth, importance, or nature of something. In different settings, assessment can include looking at, examining, and shaping feelings or decisions about the adequacy, execution, or value of an article, activity, or circumstance (McGill *et al*, 2020). The evaluation process is very important in assessing and reviewing the comparison between planning and implementation, planning and strategy, organizing and implementing, as well as all processes in mangrove field school management. Mangrove school assessments by and large include evaluating the school's endeavors to coordinate and keep up with mangrove biological systems as a feature of natural instruction.

CONCLUSION

The Field School of Human Resources as the Forming Character of Youth Organizations in Mangrove Management on the Coastal Village is an alternative strategy that is practically realized in order to achieve optimal and sustainable management and governance of mangrove forests. With the existence of mangrove forests, coastal communities can benefit from an ecological and economic standpoint. Thus, the preservation of mangroves does not only exist in the present, but in the future. However, existing human resources in coastal areas must support optimal and sustainable mangrove management. Therefore, the seriousness of all parties is needed in realizing field schools for human resource development in mangrove management.

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