

Eco-pesantren Implementation Strategy Supports the Environmental Behavior of Islamic Boarding School Students in South Sulawesi

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ABSTRACT

Pesantren is a typical educational institution in Indonesia with a boarding school method that teaches in-depth Islamic knowledge. The purpose of the study was to determine the strategy for implementing the eco-pesantren program in South Sulawesi. The research method uses a quantitative approach with data analysis techniques through SWOT (Strength, Weakness, Opportunity, Threat) to analyze the relationship between external factors (EFAS) and those consisting of opportunities and challenges, as well as internal factors (IFAS) consisting of strengths and weaknesses. The results of the SWOT analysis show that several strategies must be met to increase the chances of the success of the eco-pesantren program in South Sulawesi, including (1) socialization to teachers about the implementation of environmental education with an integrative and extra-curricular approach, (2) increasing teacher competence in integrating educational materials environment in subjects in Islamic boarding schools, (3) improving facilities and infrastructure to support eco-pesantren programs, (4) formulation of essential competencies and environmental learning materials that will be integrated into subjects in Islamic boarding schools, (5) budget allocation, (6) monitoring and evaluation for improvement and assessment of program targets and achievements, (7) increasing collaboration with stakeholders to improve learning quality, teacher quality, funding assistance and supporting infrastructure for the sustainability of the eco-pesantren program.

Keywords: Eco-pesantren; Environmental Behaviour; Sulawesi Selatan; SWOT

1. INTRODUCTION

Pesantren is a typical educational institution in Indonesia that teaches Islamic sciences. Thus, eco-pesantren means an Islamic educational institution concerned with activities that are responsive to the environment. Harper [1] states that eco-theology is a belief about thought and action that connects religion and the environment. Eco-pesantren Efforts to raise environmental awareness through environmental education will significantly prevent further environmental destruction and even repair the damage that has already occurred. According to Wardani [2], students in school taking education are an adequate time for providing knowledge and forming awareness about pro-environmental behavior.

Eco-pesantren-based education is an activity to make Islamic boarding schools environmentally friendly through activities such as lifestyles, developing health and environmental units, incorporating environmental curricula and taking actual actions in waste management, clean water and sanitation, which can be used as examples and lessons for the surrounding community.

The need for providing knowledge and forming an awareness of pro-environmental behavior to students aims to overcome the importance of the environment in a person referred to in environmental knowledge (Ecological Literacy) with the emergence of the impact of damage environment [3].

Through this eco-pesantren education model, it is hoped that it will birth the Islamic intellectuals who are quality-oriented, highly competitive, and based on spiritual attitudes and contribute to developing a nation with an environmentally sound mindset. Eco-pesantren is a form of environmental education based on Islamic boarding schools that focuses on strengthening the morals of the nation's generation to increase environmental awareness, supported by Islamic values and spiritual life that prioritizes environmental protection and management for the benefit of the people.

This is needed considering that students who graduate from pesantren when living in society must be responsive and able to help solve various problems in the community, including environmental problems, so that students need to be equipped with knowledge related to

environmental management. Tuanaya [4] stated that Islamic boarding schools are educational institutions that can educate and create complete human beings, stretching the relationship with God and the relationship between humans and their natural environment. Education is an integral component in development that cannot be separated between education and development [5].

2. METHOD

The development of the eco-pesantren program is based on the priority strategy obtained from the analysis using the Strength, Weakness, Opportunities, Threats (SWOT) approach. This program consists of in-class learning programs and extra-curricular activities. This program aims to develop students' cognitive, affective, and psychomotor aspects. The processed quantitative and qualitative data were then analyzed using the SWOT approach. This method is an approach to analyze the relationship between external factors (EFAS) and consists of opportunities and challenges, as well as internal factors (IFAS) consisting of strengths and weaknesses [6]. The results of this SWOT analysis are presented in the form of a matrix of internal and external factors, then analyzed descriptively to produce strategies. The strategy resulting from this SWOT approach is based on a matrix of internal and external factors mapping (Table 1).

Table 1. Matrix of Internal and External Factors

EFAS / IFAS	Strength (S)	Weakness (W)
Opportunities (O)	SO Strategy (Using strength to take advantage of opportunities)	WO Strategy (Minimize weaknesses to increase opportunities)
Threats (T)	ST strategy (Maximizing strength to overcome threats)	WT Strategy (Minimization of weaknesses to overcome threats)

Note:

EFAS = External Strategic Factor Analysis Summary

IFAS = Internal Strategic Factor Analysis Summary

The eco-pesantren development strategy is prepared by considering the pesantren curriculum, the characteristics of the pesantren residents, and the biophysical, socio-economic and cultural conditions of the pesantren environment, which are described by the SWOT approach. The eco-pesantren strategy in South Sulawesi was prepared to take into account the internal and external factors of the pesantren.

3. RESULT AND DISCUSSION

3.1. Internal Factors

3.1.1. Strengths

Internal factors that become the driving force of the eco-pesantren program include: (1) the policies of the pesantren leadership that encourage eco-pesantren programs, (2) in general, teachers are willing to integrate environmental education materials into the subjects being taught, (3) the strong desire of the majority of citizens Islamic boarding schools to create an environment of life that is environmentally friendly, (4) there is an intense desire from the majority of students who support the eco-pesantren program, (5) has a large area of land and biodiversity of flora and fauna in the pesantren environment that can be developed as a source and medium of learning, (6) has environmental programs that Islamic boarding schools have implemented, (7) has a variety of subjects that can be a forum for the integration of environmental education materials and (8) the possibility of developing various extra-curricular activities related to the eco-pesantren program.

3.1.2. Weaknesses

Weakness factors identified in the preliminary research include: (1) most teachers do not understand the concept of eco-pesantren well, (2) most teachers do not have the competence to teach environmental education, (3) there are still a small number of teachers who are not willing to integrate the material. Environmental education in the subjects they teach, (4) the environmental programs that have been implemented so far are tentative and not well planned, and (5) the load of subjects studied by students in Islamic boarding schools is already dense, making it less possible in terms of time for additional subjects new.

3.2. External Factors

3.2.1. Opportunities

Opportunity factors that can support the eco-pesantren program are: (1) there is an understanding between the Ministry of Religion of the Republic of Indonesia and the Ministry of Environment and Forestry related to the development of eco-pesantren programs, (2) support from stakeholders (communities around the pesantren, the business world, parents of students, government agencies, private and tertiary institutions), and (3) the potential for natural, social, and cultural resources inside and outside the pesantren to support the implementation of the eco-pesantren program.

3.2.2. Threats

The factor that poses a threat to the implementation of the eco-pesantren program is the pessimism of the residents towards the success of the eco-pesantren

program because the output produced in the form of knowledge, attitudes, and behavior cannot be achieved instantly but takes a relatively short time.

Table 2. SWOT Matrix (Strengths, Weaknesses, Opportunities, and Threats)

	Strengths – S	Weaknesses – W
	<ol style="list-style-type: none"> 1. Pesantren leadership policies that encourage eco- pesantren programs. 2. There is a strong desire from the majority of pesantren residents to create an environment-friendly pesantren life atmosphere. 3. There is a strong desire from most of the students who support the eco-pesantren program. 4. Having a large area and biodiversity of flora and fauna in the pesantren environment that can be developed as a source of learning. 5. Has environmental programs that have been implemented by pesantren. 6. Has a diversity of subjects that can be a place for integration of environmental education materials. 	<ol style="list-style-type: none"> 1. Most of the teachers do not understand the concept of eco-pesantren well 2. Most of the teachers do not have the competence to teach environmental education. 3. There are a small number of teachers who are not willing to integrate environmental education materials into the subjects they teach. 4. Environmental programs that have been implemented so far are tentative and not well planned. 5. A load of existing subjects is already dense, making it less possible in terms of time for the addition of new subjects.
Opportunities – O	Strategi S – O	Strategi W – O
<ol style="list-style-type: none"> 1. There is an understanding between the Ministry of Religion of the Republic of Indonesia and the Ministry of Environment and Forestry regarding the development of eco-pesantren. 2. Support from stakeholders (communities around the pesantren, the business world, parents/guardians of students, government agencies, and universities). 3. The potential of natural, social, and cultural resources inside and outside the pesantren supports 	<ol style="list-style-type: none"> 1. Synchronizing the policies of the Pesantren Leaders to determine the approach of the eco-pesantren program with government policies. 2. Improving the quality of teachers for the implementation of conservation education. 3. Utilizing the potential of the pesantren and its surroundings to realize the character and life of a pesantren with an environmental culture. 4. Increase the cooperation of pesantren with various institutions. 	<ol style="list-style-type: none"> 1. Improving teacher competence in the environment by empowering existing stakeholders. 2. Increase the motivation of teachers to integrate environmental education materials in learning activities. 3. Initiating a planned and sustainable eco-pesantren program by utilizing the pesantren's natural, social and cultural potential.

implementing the eco-pesantren program.		
Threats – T	S – T Strategi Strategy	W – T Strategi Strategy
1. The people's pessimism about the success of the eco-pesantren program is because the output produced in the form of knowledge, attitudes and behavior cannot be achieved instantly but takes a relatively short time.	<ol style="list-style-type: none"> 1. Utilize all Islamic boarding schools and surrounding resources to improve students' knowledge, attitudes, behavior, and skills related to environmental education. 2. Increase community participation in environmental education. 3. Forming the quality of students who can set an example and motivate the community to solve environmental problems. 4. Practically implementing the learning outcomes of the eco-pesantren program to increase trust and foster support and participation from the community, government institutions and other institutions. 	<ol style="list-style-type: none"> 1. Develop a conservation education program for students by taking into account the characteristics of students, biophysical potential-Sosekbud, and the existing curriculum in the pesantren and around the pesantren (W3, T1) 2. Increase cooperation with residents around the pesantren to make the eco-pesantren program a success and contribute to improving the environment around the pesantren.

Based on the SWOT analysis carried out, the priority strategies that must be carried out by Islamic boarding schools in South Sulawesi in the context of developing eco-pesantren programs include: (1) determining the environmental theme of the eco-pesantren program so that it is more planned, directed and sustainable, (2) socializing the eco-pesantren program to residents. Pesantren and the surrounding community, (3) implementation of environmental education with an integrated approach through material enrichment and the addition of essential competencies in several subjects, both general subjects and Islamic studies subjects (biology, sociology, English, al-Quran hadith, fiqh, aqidah morals, Arabic, fiqh, interpretation of hadith, etc.) and an extra-curricular approach by forming an environmentally conscious movement involving pesantren residents, the surrounding community and other relevant agencies, (4) developing an eco-pesantren program by utilizing the potential of pesantren and its surroundings that can be used to delivery of materials, media, and environmental learning methods, and (4) improvement of teacher competence in the environmental field through technical guidance and training involving universities, government and private institutions. Education is one way to build environmental knowledge to form sustainable people who have environmental awareness of protecting the environment [7].

The results of the SWOT analysis also show that there are several things that must be met to increase the chances of successful implementation of the eco-pesantren

program in South Sulawesi including: (1) socialization to teachers about the implementation of environmental education with an integrative and extra-curricular approach, (2) increasing teacher competence in integrate environmental education materials into subjects in Islamic boarding schools, (3) improve facilities and infrastructure to support the implementation of eco-pesantren environmental management programs, (4) formulate essential competencies and environmental learning materials that will be integrated into subjects in Islamic boarding schools, (5) budget allocation for the implementation of the eco-pesantren program, (6) monitoring and evaluation for the improvement and assessment of targets and achievements of the eco-pesantren program, and (7) increasing cooperation with stakeholders to improve the quality of learning, teacher quality, funding assistance and supporting infrastructure for the sustainability of the eco-pesantren program.

The implementation of the eco-pesantren program requires the formulation of: (1) program themes, (2) objectives, (3) target groups, (4) implementers for curricular and extra-curricular activities, (5) learning materials, (6) learning media, (7) methods program implementation, (8) time allocation, and (9) evaluation. The program theme refers to strengthening pro-environmental students, namely students who have the ability and commitment to make environmental management efforts. Pro-environmental

students are needed to participate in helping to solve environmental problems in social life.

The integrated environmental education materials include strengthening the concept of the environment and sustainable environmental management through the 3R program, namely reduce, reuse and recycle. To create an environmentally friendly Islamic boarding school, Pesantren residents need to be involved in various environmental learning activities. Islamic boarding schools also need to involve the surrounding community in carrying out various activities that benefit the residents of the Islamic boarding school and the community. Extra-curricular activities at Islamic boarding schools include (1) conducting studies on nature and the environment, (2) playing an active role in environmental action activities carried out by various parties, (3) building networks and partnerships with related institutions, and (4) initiating the development of environmental education in Islamic boarding schools.

According to Saleh [8], extra-curricular programs are learning activities held outside of class hours that are tailored to the needs of students' knowledge, development, guidance, and habituation to have basic supporting abilities. Activities in extra-curricular programs are directed at strengthening the formation of students' personalities. Extra-curricular activities are educational activities carried out outside of class hours whose material is not contained in the description of essential competencies or subject education syllabus. Extra-curricular activities are carried out at school and outside the school environment to broaden students' knowledge and insight to achieve educational goals. Extra-curricular activities can be carried out well and obtain optimal results and benefits; the following things need to be considered: (1) there is a work program or frame of reference for each extra-curricular activity, (2) extra-curricular activities should be held outside effective study hours, namely during holidays, and (3) this activity plan is included in the School Funding and Expenditure Budget Plan.

The types of extra-curricular activity programs to be carried out by schools should be prioritized on: (1) activities that are of great interest to students, (2) availability of instructors who have the ability, skills, and insight for these activities, (3) availability of facilities and infrastructure as well as funds supporting activities, and (4) the extra-curricular activities have the support of parents. The eco-pesantren program design with an extra-curricular approach is carried out using electronic media, print, and the surrounding environment. The library sources used are the Qur'an and textbooks, while the evaluation methods used are written and non-written tests, also and an observation format.

4. CONCLUSION

The eco-pesantren program based on environmental preservation is expected to raise the awareness of Muslims to better understand and care about environmental conditions and be able to explore and study comprehensively about Islamic concepts related to the environment and its implementation revitalization so that the concept of eco-pesantren is expected to become one of the icons in environmental conservation and can make pesantren as a node in the awareness of environmentally sound living during society.

Several strategies must be met to increase the chances of the success of the eco-pesantren program in South Sulawesi, including (1) socialization to teachers about the implementation of environmental education with an integrative and extra-curricular approach, (2) increasing teacher competence in integrating educational materials environment in subjects in Islamic boarding schools, (3) improving facilities and infrastructure to support eco-pesantren programs, (4) formulation of essential competencies and environmental learning materials that will be integrated into subjects in Islamic boarding schools, (5) budget allocation, (6) monitoring and evaluation for improvement and assessment of program targets and achievements, (7) increasing collaboration with stakeholders to improve learning quality, teacher quality, funding assistance and supporting infrastructure for the sustainability of the eco-pesantren program.

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REFERENCES

- [1] E. Harper, P. Raman, *Less than Human? Diaspora, Disease and the Question of Citizenship*, International Migration, Wiley online Library, vol. 46, Issue 5, 2008, pp. 3–26. <https://doi.org/10.1111/j.1468-2435.2008.00487.x>
- [2] Wardani, D. N. Kusuma, *Analysis of Adiwiyata Program Implementation in Building Environmental Care Character*, Southeast Asian Journal of Islamic Education Management, 1(1), 60–73. <https://doi.org/10.21154/sajiem.v1i1.6>
- [3] Rahmadiani, U. Sugeng., & B. Syamsul, *cological Literacy Adiwiyata and Non Adiwiyata High School Students*, Journal of

- Education: Theory, Research and Development: 4(4), 499-503.
<http://journal.um.ac.id/index.php/jptpp/>
- [4] A.M.T. Tuanaya, Pesantren Modernisation, Balai Penelitian dan Pengembangan Agama: Jakarta,
http://library.iainmataram.ac.id//index.php?p=show_detail&id=7308
- [5] N. Utami, Hastuti. K. Puji, & A. Sidharta. Knowledge of Integrated Social Sciences Teachers in Junior High Schools in West Banjarmains District in Facing the Implementation of the 2013 Curriculum. *Journal of Geography Education*, 1(1), 33–43.
<http://ppjp.unlam.ac.id/journal/index.php/jpg>
- [6] F. Rangkuti, *SWOT Analysis Techniques for Dissecting Business Cases*, Jakarta: PT. Gramedia
- [7] Siswanto. 2008. Islam and Environmental Preservation: Initiating Islamic Education with Environmental Concepts, *Karsa Journal*, Vol. XIV No. 2, hal 82-90.
<https://journal.uny.ac.id/index.php/cp/article/view/23154>
- [8] A. R. Saleh, Early Childhood Education, Need Stimulation From an Early Age. *Scientific Journal of Early Childhood Education*, (21) hal 21-41.