Empowering Santri to Create a Sustainable Economy at Pondok Pesantren Munzalan Mubaroka Siliragung Banyuwangi through Asset-Based Community Development (ABCD)

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Abstract: Eco-Islamic boarding schools or green Islamic boarding schools are efforts to provide a "green" label for Islamic boarding schools that have a contribution to environmental and natural conservation. Assistance for students at the Munzalan Mubarokah Islamic Boarding School in realizing eco-Islamic boarding schools is carried out with two programs, namely the land use program and the waste and garbage program. The method used in this assistance uses the ABCD approach method. The results of the assistance of the santri to create an eco-Islamic boarding school are as follows: the first activity is to use the land to become a vegetable garden, namely leek and strawberry plants. This activity went well and was implemented by 90%. The second activity of chicken coop renovation has been carried out 100%. The third activity is sorting organic and inorganic waste and making trash bins. The activities of sorting organic and inorganic waste can already be carried out by students, although some are still not used to it. It can be said that this activity has been carried out by 80%, while the activity of making trash cans has been carried out 100%. And the fourth activity is the eco-Islamic boarding school development book, which can be said to have been implemented 80%. So that it can be said that in general the assistance of santri in realizing this eco-Islamic boarding school has been carried out by 90% with all the support and also obstacles during this assistance activity.

Introduction
Pondok Pesantren is an Indigenous (Native) educational institution born from the land of Indonesia1. Over the years, pesantrens have successfully

1 Ahmad Syauqi Fuady, “PEMBAHARUAN SISTEM PENDIDIKAN DI PESANTREN,” Al-Insyiroh: Jurnal Studi Keislaman (2020); Muh Barid Nizarudin Wajdi, "Philosophy of Islamic Education in the Context of Pesantren; an Analytical Study," EDUTEC: Journal of Education And Technology 6, no. 2 (2022):
adapted and evolved, ultimately transforming into institutions that adapt to the changing times. In the current conditions that demand the cultivation of an environmental-loving spirit due to the impact of climate change that can harm the earth, pesantrens must have a regional development plan that prioritizes environmental preservation.

Currently, pesantren have become one of the preferred choices of education for many parents to enroll their sons and daughters to acquire knowledge. It is crucial to impart environmental awareness to the students, especially concerning nature conservation, the utilization of vacant land, and proper waste management. Eco-friendly activities in the pesantren can be more effective through participative engagements and the creation of an environmentally based eco-pesantren curriculum model.

Pesantren Munzalan Mubaroka Siliragung Banyuwangi is a newly established tahfid pesantren founded in 2019. From waking up until going to sleep, the activities of the students generate waste and garbage. Food prepared by the pesantren administrators sometimes leaves behind stale rice and vegetables, and the students’ daily snacks result in plastic waste.

With a sufficiently large area of land and the number of students reaching 67 by the year 2021, it would be pretty effective to utilize the land to establish a small agricultural area for growing vegetables and raising chickens to meet the daily consumption needs of the students. Additionally, the students are expected to utilize food waste to create chicken feed and compost for plant fertilization as part of managing the waste and garbage they produce daily.

Furthermore, creating a small garden is an initial step towards building an eco-pesantren, which can also be utilized as a learning ground for entrepreneurship activities among the students. This initiative is based on participative engagement with the students.

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Figure 1.1. The location of the Pesantren, which still has a sufficiently large vacant land, at Pesantren Munzalan Mubaroka Siliragung Banyuwangi.

In addition to participative activities involving the students, preserving an eco-pesantren requires the development of an eco-pesantren model related to the conservation of Indonesia’s biodiversity and a culture of environmental cleanliness. It is expected that the development of an eco-pesantren curriculum model will be able to bring about behavioral changes and shape the character of the students to be more environmentally conscious (Wahyono et al., 2020).

Utilizing the vacant land with green plants will also support the pesantren’s learning activities, making them more conducive and ultimately producing high-quality graduates while contributing to the conservation of Indonesia’s biodiversity. The problem formulation in this community service is as follows: 1) How is the process of utilizing the vacant land for vegetable gardens to realize the eco-pesantren at Pesantren Munzalan Mubaroka Siliragung Banyuwangi. 2) How is the process of chicken farming to realize the eco-pesantren at Pesantren Munzalan Mubaroka Siliragung Banyuwangi. 3) How is the process of waste management and daily garbage of the students to realize the eco-pesantren at Pesantren Munzalan Mubaroka Siliragung Banyuwangi. 4) How is the process of developing a local-based eco-pesantren guideline model to realize the eco-pesantren at Pesantren Munzalan Mubaroka Siliragung Banyuwangi.

Method

In this community service, the strategy follows the principles of Asset-Based Community-Driven Development (ABCD), which focuses on understanding and internalizing the community’s assets, potential, strengths, and self-reliance towards achieving well-being and empowerment ⁴. Each principle signifies an awareness of the positive energy and strengths possessed

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by the community, which should be identified, understood, internalized, and mobilized by the community itself to foster development and empowerment among all community elements.

The approach employed in this community service is based on partnerships, where partnerships are established between individuals or groups who share the same cooperation and responsibility in achieving specific goals. In the ABCD principles\(^5\), the community’s ability to discover and recognize their assets, strengths, and potential is considered capable of mobilizing and empowering them to bring about positive changes, with methods such as:

1. Appreciative Inquiry: A method used for discovering the community’s strengths and potentials.
2. Community Mapping: Identifying and mapping the community’s assets and resources.
3. Transect: A method used for observing and analyzing different aspects of the community.
4. Mapping: Creating maps to visualize information and resources.

The stages of the community service using the ABCD approach are as follows\(^6\):

1. Inculturation Stage: Introducing the purpose of the assistance to the community and building trust, allowing for easier facilitation of existing community groups as a core group.
2. Discovery Stage: Identifying the community’s assets and potential, where the service will be provided.
3. Design Stage: Understanding the identified assets and identifying opportunities to develop these assets further.
4. Define Stage: Implementing the priority program based on the identified opportunities.
5. Reflection Stage: The final stage to assess the impact and changes brought about by the community service using the ABCD method.

This community service involves empowerment and real support to Pondok Pesantren Munzalam Mubaroka, located in Dusun Sumberurip, Desa Barurejo, Kecamatan Siliragung, Banyuwangi. The steps to be taken include:

1. Coordinating with Pesantren’s authorities: Preparing all the requirements related to utilizing vacant land, chicken farming, waste separation, and developing an eco-pesantren model.

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\(^5\) Rebecca Harrison et al., “Asset-Based Community Development: Narratives, Practice, and Conditions of Possibility—A Qualitative Study With Community Practitioners,” SAGE Open (2019).

2. Utilizing the Vacant Land for Vegetable Gardens: From seedling until planting and managing vegetable crops to establishing a vegetable garden. Collaboration with Mr. Alex, an expert in gardening, will be carried out.

3. Renovating the Chicken Coop: Renovating the chicken coop to maximize the students’ chicken farming activities.

4. Building Waste Bins and Raising Awareness about Waste Separation: Creating waste bins within the pesantren’s premises and raising awareness among the students about the importance of waste separation for maintaining a clean environment. Cooperation with the Health Communication Forum Banyuwangi will be involved.

5. Socializing the Eco-Pesantren Development Model: Conducting socialization to maximize the implementation of eco-pesantren activities carried out by the students.

6. Evaluating Success Indicators: The success of empowering the students in realizing the eco-pesantren will be determined by the students’ direct practice of eco-pesantren activities and the creation of an eco-pesantren development model book.

Result and Discussion

Based on data from the Ministry of Religious Affairs (Kemenag), there were 1.64 million santri (Islamic boarding school students) in pesantren (Islamic boarding schools) across Indonesia as of September 2022. Out of this total, 1.44 million santri reside in the pesantren, while 1.2 million are a non-resident or daily santri. Among the provinces, Jawa Timur (East Java) had the highest number of santri, with 564,299 individuals. Jawa Barat (West Java) followed in second place with 455,715 santri, and Jawa Tengah (Central Java) had 298,874 santri in pesantren. Nusa Tenggara Barat (NTB) had 249,842 santri, while Aceh reported 175,896 santri. Banten and Kalimantan Selatan (South Kalimantan) each had 156,939 and 73,739 santri, respectively. The data from Kemenag also indicated 26,975 pesantren throughout the country. Jawa Barat had the highest number of pesantren among the provinces, with 8,343 units. The surrounding areas of Pesantren largely depend on natural resources and maintain a simple way of life, returning to nature.

The distribution of pesantren in Indonesia’s provinces is as follows: Jawa Barat has the most pesantren, with 8,343 units. Banten comes in second place with 4,579 pesantren, followed by Jawa Timur with 4,452 pesantren. Jawa Tengah and Aceh have

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3,787 and 1,177 pesantren, respectively. There are 684 pesantren in Nusa Tenggara Barat. Additionally, there are 677 pesantren in Lampung and 319 pesantren in Yogyakarta. On the other hand, Maluku has the fewest pesantren, with only 16 units. Papua Barat (West Papua) has 18 pesantren, and a total of 2,923 pesantren are spread across the other provinces.

![Distribution of Pesantren in Indonesia, 2022](https://dataindonesia.id/ragam/detail/indonesia-miliki-26975-pesantren-ini-sebaran-wilayahnya_di_akses_15_Januari_2022)

Based on data from the Ministry of Religious Affairs (Kemenag) until April 2022, there are a total of 26,975 pesantren in Indonesia, educating approximately 2.65 million santri. From the available data, we can present the percentage distribution as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Province</th>
<th>Amount</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jawa Barat</td>
<td>8,343</td>
<td>34,68</td>
</tr>
<tr>
<td>2</td>
<td>Banten</td>
<td>4,579</td>
<td>19,03</td>
</tr>
<tr>
<td>3</td>
<td>Jawa Timur</td>
<td>4,452</td>
<td>18,50</td>
</tr>
<tr>
<td>4</td>
<td>Jawa Tengah</td>
<td>3,787</td>
<td>15,74</td>
</tr>
<tr>
<td>5</td>
<td>Aceh</td>
<td>1,177</td>
<td>4,89</td>
</tr>
<tr>
<td>6</td>
<td>Nusa Tenggara Barat</td>
<td>684</td>
<td>2,84</td>
</tr>
<tr>
<td>7</td>
<td>Lampung</td>
<td>677</td>
<td>2,81</td>
</tr>
<tr>
<td>8</td>
<td>Yogyakarta</td>
<td>319</td>
<td>1,32</td>
</tr>
<tr>
<td>9</td>
<td>Papua Barat</td>
<td>18</td>
<td>0,07</td>
</tr>
<tr>
<td>10</td>
<td>Maluku</td>
<td>16</td>
<td>0,06</td>
</tr>
<tr>
<td>11</td>
<td>Spread across other</td>
<td>2,923</td>
<td>12,15</td>
</tr>
</tbody>
</table>

The table shows the number of pesantren in each province and their corresponding percentage out of the total pesantren count in Indonesia. Jawa Barat (West Java) has the highest percentage, accounting for 34.68% of all pesantren in the country, followed by Banten with 19.03%, and Jawa Timur (East Java) with 18.50%. The other provinces have varying percentages, with the lowest being Maluku and Papua Barat (West Papua) at 0.06% and 0.07%, respectively. The remaining pesantren are spread across the other provinces, constituting 12.15% of the total.

Pesantren is a distinctive Islamic education system in Indonesia, known for its widespread distribution and large number of students. Educational institutions like pesantren play a crucial and flexible role because they closely socialize and integrate with the local community, becoming an integral part of it. This allows the teachings about the importance of the environment based on Islamic values to spread to the surrounding society through the existence of pesantren.

A conducive environment within the pesantren is essential for producing capable graduates through a high-quality educational system. Moreover, a conducive environment also encourages adopting a quality lifestyle, which is crucial in enhancing the nation’s competitiveness globally while preserving Indonesia’s rich natural resources.

The presence of Pesantren Munzalan Mubaroka, with its diverse students from various regions of Indonesia, each with different cultural backgrounds, requires guidance to achieve an eco-pesantren, aiming to change behaviors towards a healthier lifestyle and love for the environment.

Utilizing the pesantren's grounds through an integrated approach, incorporating various types of plants, livestock, and fish, ensures a continuous supply of diverse food resources. In this context, Pesantren Munzalan Mubaroka utilizes parts of its land for vegetable gardens, parts for raising chickens, and another part for proper disposal of organic and inorganic waste.
In the effort to realize the eco-pesantren, several activities have been carried out, including:

1. **Utilizing Vacant Land for Vegetable Gardens:**

   The initial step in utilizing vacant land is to start with seedling vegetables until planting the seedlings and managing the vegetable garden. This activity involves collaboration with Mr. Alex, an expert practitioner in gardening.

   The utilization of the land begins by utilizing small spaces around the caregiver's residence and the student dormitories. These areas are used for growing vegetables, such as leeks, which are easy to propagate and maintain. The aeroponics method is employed to make the most of the limited space around the caregiver's residence and student dormitories. Aeroponics is a technique where plant roots are suspended in the air without using soil as a medium. The nutrients are directly sprayed onto the plant roots. Hanging planters are placed on the walls of the dormitories and caregiver's residence. The students and the expert team learn to plant, care for, and harvest the vegetables. Initially, the activities involve cultivating leeks and strawberries.

   ![Graph 4.2. Aeroponics Practice](image)

   In addition to using the aeroponics method, the utilization of the land also involves the use of the tabulampot method. Tabulampot is an abbreviation for potted fruit plants, a method that is already familiar to many
people as it has been widely practiced. Similarly, at Pondok Pesantren Munzalam Mubarokah, the tabulampot method is used for growing strawberries. The soil used for tabulampot is a mixture of compost and husks in a 1:1:1 ratio. For optimal results, it is recommended to use pots made of clay.

In practice, the students are taught to make the most of their time, apart from attending regular school in the morning and religious studies in the afternoon. They are encouraged to utilize their gardening and farming skills. This proficiency is part of the eco-pesantren program towards a green pesantren (eco-pesantren). Though still a gradual process, this activity has been carried out in line with the expectations of the pesantren’s authorities.

2. Renovation of the Chicken Coop:

The renovation of the chicken coop is one of the efforts made by the team to maximize the students’ activities, especially in raising chickens. The renovation includes laying tiled floors, providing rice husks as insulation, and replacing the upper part of the coop with bamboo and paranet (netting material) to ensure proper air circulation. The previously disorganized condition of the coop has now been orderly arranged. The materials used for making the coop (where the chickens rest) are carefully selected bamboo, coated with materials to make it resistant to decay or termite damage. The supporting poles are made of bamboo instead of concrete, and the roof is made of tiles (see Image 4.3).

Image 4.3. Renovated Chicken Coop

The primary goal of renovating the chicken coop is to raise and maintain chickens to provide nutritional benefits for the students. Additionally, the chicken feed is sourced from maggots that come from the utilization of organic waste produced by the students. Since the students consume rice and vegetables daily, there is leftover food that would
otherwise go to waste.

The issue of waste is about more than just about environmental cleanliness and comfort; it has become a social problem that can lead to various conflicts and even disasters if left unaddressed. The amount of waste generated daily is increasing, while waste disposal facilities need to be improved or more. Maggot cultivation, particularly the Black Soldier Fly (BSF) maggots, is a new breakthrough in tackling waste management issues.

The cultivation of BSF maggots has economic value, as they serve as special feed for poultry and fish, commanding high market prices. Moreover, the process generates organic fertilizer from the remaining media used for maggot cultivation. The use of BSF maggots can reduce the dependency of poultry and fish farmers on factory-produced feed, providing a solution to the rising cost of animal feed. Feed is crucial in supporting livestock farming ventures. According to Sobang et al. using fresh larvae can significantly influence local poultry farmers.

Furthermore, raising chickens primarily aims to promote an environmentally conscious culture among all pesantren residents. This policy includes incorporating environmental education into the pesantren curriculum, capacity building for human resources, supporting a clean and healthy pesantren environment, and allocating funds for environmental initiatives.

3. Creating Trash Bins and Socializing Waste Separation and Utilization

In this process, two activities are carried out: the creation of trash bins in the pesantren’s environment and the socialization to the students about the importance of waste separation and utilization to create a clean environment.

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13 Wulandari et al., “BUDIDAYA MAGGOT BSF SEBAGAI SUMBER PAKAN DAN PEMELIHARA KUALITAS LINGKUNGAN PETERNAKAN AYAM KAMPUNG DI PONDOK PESANTREN LINTANG SONGO, PIYUNGAN, BANTUL, YOGYAKARTA.”
environment. The collaboration with the Forum Komunikasi Sehat Banyuwangi facilitates these activities.

a. Waste Separation Awareness Activity

Ramang Rameli Rakasiwi conducts the waste separation awareness activity from the Forum Banyuwangi Sehat. During this socialization, the students gain new insights and begin to develop habits of disposing of trash properly. Organic waste management at Ponpes Munzalan Mubaroka involves the use of maggots.

Image 4.4. Organic Waste

The choice of using maggots for organic waste decomposition is due to their rapid ability to break down organic waste. Indirectly, the students who employ maggots for waste decomposition also learn about maggot cultivation, which can serve as livestock feed in addition to decomposing organic waste. The livestock raised at Ponpes Munzalan Mubaroka are free-range chickens and egg-laying chickens.

Apart from waste processing using maggots, the pesantren also practices organic waste management through composting. The creation of compost is one of the aspirations of the pesantren’s authorities. During the implementation, the service team and expert team assist the students in learning how to make compost using available materials found in the pesantren. These materials are easily accessible and often constitute the organic waste generated at Pesantren Munzalan Mubaroka. The students are encouraged to adopt healthy living habits and to protect the environment around the pesantren by separating organic and inorganic waste and disposing of it properly. After this service activity, the students have started to develop the habit of disposing of waste in the appropriate
bins, and they can differentiate between organic and inorganic waste.

b. Creating Waste Bins

In addition to the waste separation activities for organic and inorganic waste, the service team also conceptualized the creation of waste bins for both types of waste. The construction of these waste bins took approximately 10 days and involved hiring skilled laborers. The waste bins were strategically placed within the pesantren premises near the river but far from the students’ dormitories. The selection of this location considered the dormitory’s proximity to avoid any inconvenience to the students due to the smell of the waste. Once the waste bins were constructed, each dormitory had a designated personnel responsible for maintaining the cleanliness of the environment and ensuring there is no litter around the pesantren premises.

4. Socialization of the Ekopesantren Development Model

The socialization is conducted to maximize the activities of ekopesantren that the students at Pesantren Munzalan Mubaroka have already implemented. During this socialization, the students are provided with the ekopesantren module book created by the service team. Before the socialization of the ekopesantren development model, a Focus Group Discussion (FGD) is held with expert team members to discuss and analyze the ekopesantren module book prepared by the service team. The outcomes of the FGD with the expert team are as follows:

a. The ekopesantren development module needs to be more attractive in appearance, and the format should be changed from A4 size to a pocket-sized booklet that is easy for the students to carry around.

b. The content of the ekopesantren module should include detailed descriptions of the programs that have been or will be implemented at Pesantren Munzalan Mubaroka, specifically the programs related to the pesantren’s land and waste management.

c. The two programs mentioned above should be further detailed and presented in a way that is easily understandable by the students, outlining each stage of the programs for easier implementation in the future.

d. The book cover should be more appealing and eye-catching.

e. The font should be changed to Arial or another font style to avoid using Times New Roman, which might appear monotonous.
These valuable inputs serve as constructive feedback for the team to improve the ekopesantren development module before distributing it to the students.

Conclusion

The guidance for students to realize the ekopesantren (Eco-boarding school) at Pondok Pesantren Munzalan Mubaroka consists of two main programs. These two flagship programs in the guidance activities are the utilization of vacant land and the waste and trash management program. In practice, both of these programs can be implemented because the available land assets at Pesantren Munzalan Mubaroka are spacious enough to accommodate three activities simultaneously, namely the first activity of utilizing the land for vegetable gardens, cultivating leeks, and strawberries. This activity has been progressing well and accomplished 90% completion. The second activity, the renovation of the chicken coop, has been successfully completed 100%.

The third activity involves the separation of organic and inorganic waste and the creation of trash bins. Students have already started to adapt to the waste separation practice, although some are still unfamiliar with it. This activity has been implemented to about 80% completion, while the activity of creating trash bins has been fully accomplished with 100% completion. The fourth activity involves the development of the ekopesantren module book, which is already 80% completed. The book received valuable input during the Focus Group Discussion (FGD) with the expert team, allowing it to be improved to better meet the students' needs and expectations.

Overall, it can be concluded that the guidance for students to realize the ekopesantren at Pondok Pesantren Munzalan Mubaroka has achieved approximately 90% completion. This remarkable progress has been made possible with all the support and efforts made during the course of the guidance.
activities. It is hoped that with such a significant level of achievement, the ekopesantren will continue to thrive and benefit the environment and the entire community within the pesantren.

References


