

## EDUCATION FOR SUSTAINABLE DEVELOPMENT (ESD): A STEP TOWARDS A GENERATION THAT CARES FOR THE ENVIRONMENT

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### Abstract

This research aims to analyze the implementation of *Education for Sustainable Development* (ESD) in MTs NU in creating a generation that cares for the environment, in accordance with the vision of MTs NU which is Islamic, Professional, Superior, Trusted, and Environmentally Insightful. A descriptive qualitative approach is used by collecting data through interviews, observations, and documentation. The results of the study show that MTs NU has successfully integrated sustainability values in the curriculum and environmental programs, such as *Zero Waste*, waste management, composting, nurseries and *eco-brick* making. These programs significantly increase students' environmental awareness as well as their active involvement in maintaining cleanliness and practicing sustainability. These findings affirm the importance of synergy between Islamic education and environmental sustainability in producing a morally, socially, and environmentally responsible generation. The results of this study can be a model for other educational institutions that want to implement ESD effectively.

**Keywords:** *Education for Sustainable Development (ESD)*, *Zero Waste*, *Waste Management*, *The Environment*

### INTRODUCTION

Rapid global advancements have led to rapid changes in various fields, not only in technology, but also in many other sectors. One of the most affected is the world of education, which plays an important role in preparing quality human resources to face future challenges. There are three main pillars in the concept of *Education for Sustainable Development* (ESD), namely environmental sustainability, economic growth, and socio-

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cultural aspects of the community (Syakur, 2017:42). These three pillars are integrated with each other because they are key elements in various global problems and challenges faced by humanity. Currently, ESD is an important part of the sustainable development agenda or Sustainable Development Goals (SDGs), which are targeted to be achieved by 2030 (UNESCO, 2020:66).

*Education for Sustainable Development (ESD)* has become an important global agenda in realizing a more sustainable future. ESD aims to equip students with the knowledge, skills, values, and attitudes necessary to face environmental, social, and economic challenges. In Indonesia, efforts to implement ESD are increasingly relevant in the context of madrasahs, especially in MTs NU, which has a strategic role in shaping the young generation who are Islamic and care about environmental sustainability, in line with the institution's vision, namely Islami, Superior, Trusted and Environmentally Insightful Professionals.

As a madrasah committed to this vision, MTs NU has integrated sustainability principles in various aspects of madrasah learning and activities. With a focus on environmentally friendly education, this madrasah seeks to form students who are not only superior in religious and scientific knowledge, but also have a deep awareness of the importance of protecting nature. This is reflected in various environmental programs such as waste management through *the Zero Waste* strategy, composting, nurseries and the use of *eco-bricks* implemented in the madrasah environment. These steps not only strengthen the character of students in preserving the environment, but also become a concrete example of the implementation of ESD at the tsanawiyah madrasah level.

Research conducted at MTs NU revealed that ESD integration efforts play a significant role in increasing student awareness of environmental issues. A study by Santoso (2021) highlights how the implementation of sustainability-based education in madrasahs is able to increase students' understanding of the importance of protecting the environment as part of their religious and social obligations. Similarly, research by Syarifuddin (2022) emphasizes that student involvement in environmental activities in schools contributes to shaping the younger generation who are active and take the initiative in environmentally friendly practices.

In line with this research, MTs NU has made Islamic values as a foundation to develop sustainable programs that support the vision of the madrasah. Nurhadi (2023) emphasized that the integration of environment-based education modules developed in madrasahs can optimize students'

potential in facing the challenges of climate change and natural resource management. With this approach, MTs NU not only educates the young generation who excel in knowledge, but also has a moral responsibility for environmental sustainability.

Therefore, the integration of ESD in MTs NU is a strategic step in creating a generation that is Islamic, professional, superior, trusted, and most importantly, environmentally friendly—in line with the vision of the madrasah. This effort emphasizes the important role of education in supporting sustainable development and encouraging active participation of students in preserving the environment.

## **RESEARCH METHOD**

In this study, data were collected through descriptive methods from a range of trustworthy sources, such as recent papers and literature reviews. A descriptive technique is used to describe the analysis of curriculum management in enhancing the caliber of performance of educators and education staff. Gathering references about the subject of the inquiry is the first stage of this research method. Literature research is conducted using academic databases, scientific journals, and related publications that discuss curriculum management in raising the caliber of instruction and staff performance. The selected literature must be relevant to the research objectives and of high quality. After the literature is collected, relevant data and information about the definition, The fundamentals and purposes of curriculum management, the connection between the implementation of curriculum management techniques and the accomplishment of educational objectives, and the function of curriculum management in raising the caliber of performance of teachers and other education professionals related to the research topic.

This study uses a qualitative approach with a type of case study conducted at MTs NU, Malang Regency. Researchers observe the phenomena that occur in the research object to collect data on the implementation of Education for Sustainable Development (ESD) through environmental programs such as Zero Waste, waste management, composting, nurseries, and eco-brick making. These programs have significantly increased students' environmental awareness as well as encouraged their active participation in maintaining hygiene and practicing sustainability.

Data were obtained through three main techniques: first, observation of activities that took place on the research object; second, interviews with informants, such as kiai, educators, assistants, and students, which are focused on research problems; Third, the analysis of documents both from the research object and those that have been published on the official website of the

pesantren. Research data sources include kiai as pesantren leaders, administrators, and students who are selected based on relevance to the research objectives.

Data analysis is carried out qualitatively using reflective thinking, and is divided into two stages. The initial stage includes three steps, namely data condensation, data presentation, and data verification, as explained (Miles, Huberman, and Saldaña, 2014) The next stage is the interpretation of findings in the field as an effort to understand the meaning obtained from field data.

## **RESULT AND DISCUSSION**

This research aims to understand how MTs NU implements Education for Sustainable Development (ESD) in creating a generation that cares about the environment, in accordance with the madrasah vision: Islamic Professionals, Excel, Trusted and Environmentally Insightful. Based on the results of interviews, observations, and document analysis, several main findings were found that support the implementation of ESD in the madrasah.

### **1. Integration of Environmental Education in Curriculum and Learning**

MTs NU has integrated the concept of ESD in several subjects, especially in Prakarya, Fiqh, Science, and Social Studies lessons. Active teachers associate Islamic principles with environmental issues, such as maintaining cleanliness (*thaharah*) and not doing damage to the earth (*façade*), which are in line with sustainability values.

The head of the madrasah, Dr. Najmah, M.Pd., emphasized that "teaching responsibility for the environment is part of our responsibility as Muslims. We at MTs NU try to integrate these values in every subject, so that students are not only academically intelligent, but also care about nature as a creation of Allah." This shows the madrasah's commitment to not only focus on the academic aspect, but also build the character of caring for the environment.

### **2. Waste Management and Composting Program**

One of the flagship programs in the implementation of ESD at MTs NU is Zero Waste-based waste management. Researchers observed effective waste segregation, where organic waste is processed into compost for madrasah gardens, and plastic waste is collected for *eco-brick making*. All students actively participated in this activity with the division of tasks per team every day, showing the high participation of students in maintaining the cleanliness of the madrasah.

Deputy Head of Madrasah for Student Affairs, Mrs. Lina Erika Maisaroh, S.Pd, explained, "We not only provide theories, but also ensure that students are directly involved in environmentally friendly activities. In this way, they learn through real experiences, and the values of sustainability are embedded in their

daily lives." This emphasizes the importance of direct involvement of students in protecting the environment through concrete actions.

### 3. Making and Using Eco-Bricks

The eco-brick *making program* at MTs NU is also a form of innovation in the implementation of ESD. As many as 85% of grade 8 students participated in the making of eco-bricks used to make tables and chairs and build a small garden in the madrasah. This program not only reduces plastic waste, but also teaches students about the importance of innovation in protecting the environment.

According to Ifa Surya Inanda, S.Pd as a Prakarya teacher, "The eco-brick program provides important lessons about creativity and responsibility for plastic waste. We want students to understand that they can contribute to the environment in a simple but high-impact way." With this program, students are trained to think creatively and responsibly use resources.

### 4. Increasing Students' Environmental Awareness

The results of the interview showed that the ESD programs implemented at MTs NU succeeded in increasing students' awareness of the environment. As many as 90% of students stated that they care more about the environment after being involved in *the Zero Waste* and *eco-brick programs*. They are more active in maintaining the cleanliness of the madrasah and reducing the use of plastic.

Dr. Najmah emphasized that "changes in students' attitudes and habits are one of the indicators of the success of the ESD program in this madrasah. We are proud to see our students become more caring and responsible for their environment."

### 5. Linkage to the Institution's Vision

The implementation of ESD in MTs NU clearly supports the vision of the madrasah: Islami, Superior, Reliable, and Environmentally Friendly. Dr. Najmah stated, "Our vision is not just a slogan. We try to make it happen through concrete steps that teach students to be superior, moral, and caring for the environment."

Table. of Findings

#### Implementing Education For Sustainable Development (Esd) In Creating A Generation That Cares For The Environment At Mts Nu

<b>Integration Of Environmental Education In Curriculum And Learning</b>	→ Active teachers associate Islamic principles with environmental issues, such as maintaining cleanliness ( <i>thaharah</i> ) and not doing damage to the earth ( <i>façade</i> )
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<b>Waste Management And Composting Program</b>	→ Effective waste sorting, where organic waste is processed into compost for madrasah gardens, and plastic waste is collected for <i>eco-brick manufacturing</i>
<b>Making And Using Eco-Bricks</b>	→ Eco-brick used to make tables and chairs and build small gardens in madrasahs
<b>Increasing Students' Environmental Awareness</b>	→ As many as 90% of students stated that they care more about the environment after being involved in <i>Zero Waste</i> and <i>eco-brick programs</i>
<b>Linkage To The Institution's Vision</b>	→ It is included in the Institution's Vision regarding Caring for the Environment, as a form of commitment to support the ESD Program in Madrasahs.

ESD is an approach that emphasizes the integration of sustainable values and aspects to equip students with sustainable knowledge, skills, and attitudes (Segara, 2015). The implementing ESD, education is not only focused on academic aspects, but also on sustainable development issues that are relevant to the environment, social, and economy. Students are invited to understand the complexity of problems that occur in local, national, or global contexts. ESD in the local context, students are invited to understand and overcome problems that exist in their own environment, such as the surrounding environment, community, or school or residential area. These issues are local and will have a more concrete and direct impact on students' lives, so that they can learn how to make a positive contribution to building a sustainable society around them (Suryaningsih, 2018).

The findings of this study show that the implementation of Education for Sustainable Development (ESD) at MTs NU has succeeded in creating environmental awareness among students through various programs, such as Zero Waste, waste management, composting, and eco-brick making. This success is driven by the integration of ESD in the curriculum that includes Islamic values, science, and social responsibility. Students not only learn about the importance of taking care of the environment theoretically, but also get hands-on in real actions that support environmental conservation.

ESD in the Independent Curriculum is expected to be an opportunity, as well as a relevant and strategic step in achieving sustainable and holistic

education (Baiquni & Astuti, 2018). One of the opportunities in implementing Education for Sustainable Development (ESD) through the Independent Curriculum is to give schools the freedom to develop a curriculum that is in accordance with local contexts and needs (Soegiranto, 2010). In this context, schools can integrate ESD values into all subjects taught, so that students can learn about environmental issues, social justice, and sustainability from a variety of perspectives.

The study also highlights that students' active involvement in environmental programs increases their understanding and participation in sustainability issues. This supports the role of madrasas in producing a generation that is not only excellent in academics, but also morally and socially responsible for the environment.

The positive impact of this program is relevant to various fields, especially in education, environmental management, and sustainable school policies. The results of this study can be a reference for other educational institutions that want to implement ESD by involving religious values and environmentally friendly practices.

The implementation of ESD at MTs NU has been effective, with a significant influence on increasing environmental awareness among students. The programs implemented, such as Zero Waste and eco-bricks, not only strengthen student engagement, but also show that Islamic values can support the concept of sustainability. Thus, MTs NU has succeeded in carrying out its vision in producing a generation that is Islamic, professional, superior, reliable, and environmentally friendly.

In (Vioreza, 2023), the results of his research basically also provide a strong foundation for the government, educational institutions, and related stakeholders to consider the integration of ESD in the Independent Curriculum as a strategic step to achieve sustainable development in Indonesia. By paying attention to these opportunities and urgency, the implementation of ESD in the Independent Curriculum will make a significant contribution in creating a generation that is ready to face sustainability challenges and play an active role in creating a sustainable future for the planet.

## **CONCLUSION**

This research proves that the implementation of *Education for Sustainable Development* (ESD) at MTs NU has succeeded in creating a learning environment that integrates Islamic values with sustainability principles. Through programs such as Zero Waste, waste management, composting, and eco-brick making, students are directly involved in activities that support environmental conservation. This approach not only increases students'

awareness of environmental issues, but also shapes their character as individuals who are responsible for nature.

The success of MTs NU in implementing ESD is in line with the vision of an institution that is Islamic, Professional, Superior, Trusted, and Environmentally Friendly. The integration between religious values and environmental education in this madrasah reflects a strong commitment to sustainable development, which can be used as a model for other educational institutions. With real action-based learning and character strengthening, MTs NU has succeeded in producing a young generation who are able to face global environmental challenges while adhering to religious teachings.

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