

Promoting Green Madrasa as Environmental Education Program: How to Implement and Maintain It

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ABSTRACT. Global attention is currently focused on environmental issues, particularly Indonesia's environmental degradation, and one way to increase environmental literacy is through education, such as through the green school program. This study aims to describe the implementation of green schools in madrasas in West Lampung Regency, Lampung Province. This study utilizes a qualitative method. Data collection tools use interviews, observation and documentation. Analysis steps include data reduction, data display and conclusion drawing. Triangulation is also utilized to test the validity of the data. The findings of this study include four things regarding the implementation of green madrasas in West Lampung: (1) government regulations and policies; (2) curricular integration of environmental learning with subjects in forming students' awareness of environmental conservation; (3) social and environmental management in the form of habituation to concrete positive behaviours including discipline, cooperation, care, honesty and respect for local wisdom; (4) environmental friendly facilities and infrastructure management.

Keywords: *Green School, Adiwiyata, Madrasa, Environment*

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INTRODUCTION

Resource depletion, climate change and energy problems are the main challenges facing the world today. With the deepening of industrialization, in the last 200 years the world has witnessed greenhouse gas emissions have resulted in global warming and climate change. According to European Commission data, Indonesia is expected to emit 1.24 gigatons of carbon dioxide equivalent of greenhouse gases in 2022, which is approximately 2.3% of the world's total emissions, and it makes Indonesia the 7th largest in the world (Crippa et al, 2023). Scientists warn that the world is in uncharted territory and the year 2023 shows that climate change is happening now. Against the backdrop of global warming, many climate extremes occur throughout the world such as droughts, floods, snowstorms and hurricanes. Several disasters also frequently occur such as decreased food production, rising sea levels and the extinction of species. Humans' careless treatment of nature is the root of this issue, which has a significant effect on people's lives. Because nature and the environment are interdependent, humans should coexist with them (Zhao et al., 2015). In other words, along with population growth, industrial technology advancements, and poor environmental awareness among the general people, protecting the earth from environmental harm is becoming more difficult. It will be more disastrous if people do not

understand how important it is to preserve the environment and wildlife, especially if they discover it too late. Therefore, cultivating environmental awareness at an early age is crucial.

Regard to the emergence of various environmental damages which has caused environmental quality degradation and interfered with human comfort, Indonesia Ministry of Environment held Adiwiyata School Program. Adiwiyata School, is commonly referred to as the "Green School," is an example of environmental education intended to increase environmental awareness and concern (Nada et al., 2021). School is a formal establishment where instructors and students engage in mutual learning and transmission of knowledge as well as wisdom values. The goal of environmental education is to impart the attitudes and knowledge necessary to comprehend and value the links that exist between people, culture, and the biophysical environment (Darvishmotevali & Altinay, 2022; Maghfiroh et al., 2024; Nurulloh, 2019). Thus, this program has significant impact on students' care for the environment through the Caring and Cultured School Environment Movement (PBLHS Movement).

A green school is an appropriate place to acquire all the knowledge as well as numerous values and ethics that can serve as the foundation for people to build flourishing life that align with the principles of sustainable development (Suryani et al., 2019). With the help of a green school program, students can build their core competence that will allow them to apply the ideas of sustainable development in society as responsible citizens (Megawati et al., 2023). It can be interpreted as the school that are committed to and systematically develop programs to internalize environmental values into all school activities. These activities which influences their personalities, helps them develop responsible behaviour, and gives them good management views and skills (Dian Pratiwi & Komala, 2019). Therefore, the school's physical layout needs to be planned ecologically so that it can serve as a teaching tool for all students on responsible behaviour and environmental consciousness (Mumbaasithoh et al., 2022).

Green schools are commonly defined by four overarching principles: preserving the environment, cutting expenses, enhancing the quality and health of the learning environment, and fusing learning possibilities with the natural world (Warju, 2017). According to the Minister of Environment Regulation Number 05 of 2013, there are four indicators that should be taken into account when implementing green school: (1) strengthening environmentally friendly school regulations. (2) creating a curriculum that emphasises environmental concepts. (3) strengthening environmental projects with active involvement (4) improving and managing environmentally friendly educational facilities.

Realizing that there are many things should be considered in implementing green school, numerous researchers were interested to investigate the implementation of this program (Anggraini et al., 2024; Fatmawati et al., 2024; Kartini et al., 2024; Kumariyah et al., 2023). They indicated that environmental character education is incorporated into schools' vision, mission, and curriculum, and it can be developed through habits and environmentally friendly supporting facilities. From the results of previous studies, it could be seen that there are numerous public schools have joined green school program. Meanwhile, there are only a few Islamic schools or madrasas that participate in the green school program. The implementation of green school or green madrasa is very important considering that madrasa is a school that is centered on Islam. This idea is an attempt to internalise the Islamic principle that "annazaafatu minal iman," or "cleanliness is half of faith". Thus, environmental preservation is one of Islamic values, Since Islam places a high value on cleanliness, the environment of the madrasa must be hygienic. Students studying religion virtually will be assisted by this condition (Manumanoso Prasetyo et al., 2021).

Therefore, this study is crucial to be carried out with the aim of describing the implementation of green schools in madrasas. The participants of this study are MAN 1 West Lampung, MTsN 1 West Lampung and MIN 1 West Lampung that won the 2023 National Adiwiyata Award. By describing its implementation, it will indicate how the process and results

of school programs related to green school policies are both from internal and external aspects. The results of the description can be used as an evaluation and an example for other madrasas that implement green school programs.

METHOD

This study utilized qualitative method with a descriptive approach to describe existing events. Various events can be described as activities, forms, changes, similarities, relationships, qualities, and contrasts between human and natural actions (Sukmadinata, 2017). The subjects of this study were the madrasas that received the 2023 Adiwiyata National Award. There are Madrasah Aliyah Negeri I West Lampung, Madrasah Tsanawiyah Negeri I West Lampung and Madrasah Ibtidaiyah Negeri I West Lampung. Each madrasa involved the heads of the madrasas, teachers, students, heads of TU.

Moreover, interviews, observation and documentation were employed as the techniques of gathering data. The type of interview used in this study was structured interview that utilized a guide to the main issues being studied. In this case, the interviewer was bound by a function, not only as a collector of data relevant to the purpose of the study that has been prepared, and there are guidelines that lead the questions and answers process. By having a guideline to the main issues to be investigated, it will make the interview easier to be conducted. The documentation method was used to collect data about the schools studied which included government regulations and policies, school vision and mission, curriculum, participatory school activities, environmentally friendly management supporting facilities and infrastructure.

Furthermore, executing an analysis of the data is the next step after data collection. Data reduction, data display, and conclusion drawing are the steps in analyzing the data. Data reduction involved compiling all observations, interviews, and documents into a structured textual format. Listening to recordings, making pertinent notes, and picking out important quotes were all part of this process. After being methodically arranged, the data was ready to be presented. The collected data is displayed using tables and sentences. The conclusions were derived from a variety of sources and included written interpretations that contrasted field observations with theoretical viewpoints. To guarantee accuracy and generate valid conclusion, the analysis was carefully examined. To ensure that the data was valid, triangulation was employed.

RESULT AND DISCUSSION

Result

MAN 1 West Lampung, MTsN 1 West Lampung and MIN 1 West Lampung won the 2023 National Adiwiyata School award. Two things were assessed, namely administration and culturally caring documents. The environmental culture care document in schools consists of waste management, cleanliness, sanitation of the school environment, water conservation, energy conservation, and innovations implemented by each madrasa. This study investigated the implementation of green madras based on: 1) government regulations and policies; 2) curriculum; 3) participatory-based environmental activities; 4) management of environmentally friendly supporting facilities and infrastructure.

Government Regulations and Policies

The green madrasa program is regulated in statutory regulations, including Environmental Law Number 32 of 2009 concerning environmental protection and preservation, PP of the Minister of the Environment Number 5 of 2013 concerning guidelines for implementing the Adiwiyata program, and Law Number 20 of 2003 concerning Systems National Education. Likewise in the Al-Quran, the implementation of green madrasa which encourages human to take

full responsibility in preserving the environment is listed in many surahs including Surah An-Nahl verses 10 and 11, Surah Ar-Rum verses 40 and 42, Surah Al-Baqarah verses 10-11, and Surah Al-A'raf verses 56 and 58.

Furthermore, regulations and government guidelines regarding the Adiwiyata program implementaion in Indonesia can be said to be very good and supportive since they are supported by several legal bases. There are policies in order to support the green madrasa policy include environmental care and culture, and it can be seen in the vision and mission of the madrasas. In the madrasa environment, green madrasas are known as the Let's Build Madrasah Movement (GERAMM) program which is the madrasa innovation movement towards green madrasa.

As a part of Adiwiyata school program, setting the vision and mission of the madrasa are equally crucial. To fulfil its aims, the madrasas need to fully engage all of its members in implementing its vision and mission, which will manifest as a positive school culture. The following the Vision and Mission of MAN 1 West Lampung, MTsN 1 West Lampung and MIN 1 West Lampung.

Tabel 1. Vision and Mission of MAN 1 West Lampung, MTsN 1 West Lampung and MIN 1 West Lampung

MAN 1 West Lampung	MTsN 1 West Lampung	MIN 1 West Lampung
<p>Vision : Realizing Religious, Superior, Beautiful and Competitive Madrasa.</p>	<p>Vision: Creating a Madrasa with High Quality, Great Achievement and Commendable Character</p>	<p>Vision: Excellent and Skilled in the Field of Science and Technology and activities of faith and piety and Caring for the Environment.</p>
<p>Mission: 1. Effectuating education based on Islamic religious teachings that is active, creative and innovative. 2. Reading science and technology based on students' talents, interests and potential. 3. Creating a beautiful madrasa environment; Safe, Healthy, Neat, Beautiful, Clean, Fresh and Shady. 4. Creating a conducive learning situation and an evaluation system that is open, objective, participatory and educational.</p>	<p>Mission: 1. Implementing the process of learning and guidance process which is active, effective, varied and fun. 2. Enhancing the competency of educators and education staff by participating in relevant workshops and training activities. 3. Developing students' proficiency in Arabic and English. 4. Improving facilities and infrastructure to enhance academic and non-academic achievements. 5. Organizing extracurricular activities to develop students' potential and achievements in the academic field. 6. Creating a</p>	<p>Mission: 1. Cultivating active, creative, effective and fun learning. 2. Improving student academic achievement and skills. 3. Organizing madrasa-based management. 4. Organizing information technology-based education. 5. Cultivating Islamic relationships and moderation in religion. 6. Enhancing the knowledge and professionalism of teaching and education staff. 7. Creating a green and clean environment and caring for the environment.</p>

comfortable, safe, green,
and clean madrasah
environment.

Based on the table above, MAN 1 West Lampung, MTsN 1 West Lampung and MIN 1 West Lampung have implemented environmentally-minded schools' visions and missions to support environmentally sound policies.

Curriculum

Based on the vision and mission of the three madrasas, it could be assumed that the madrasas integrated environmental education into independent curriculum. The madrasas incorporate environmental approaches with the Pancasila students' profile in order to enhance the harmony between students' environmental awareness and character development. Since they are Islamic schools, they implement approach based on the Islamic concept. Islamic perspective considers nature as a manifestation of God's power. Humans, as God's vicegerents on earth, are obligated to protect and preserve the environment. Islamic teachings are explicit and comprehensive when it comes to regulating ecological issues, and they must be consistently applied. In terms of curriculum and learning, environmental messages are incorporated into the lesson plans. Every learning phase in an environmentally friendly is connected to a knowledge of environmental issues. The following are the learning activities that are integrated with environmental behaviours.

Table 2. The Integration of Environmental Education into Independent Curriculum

Activities	Explanation
Intracurricular Activities	The concept of environmental preservation is incorporated in the lesson plan.
Habituation Activities	The activities are carried out regularly every day and every week.
Co-curricular Activities	Pancasila student profile strengthening project is implemented in tandem with intracurricular activities that emphasises on cultivating environmental care character.
Extracurricular Activities	Students develop environmental care character through once-weekly extracurricular activities that take place outside of school hours.

Based on the table above, the integration of environmental behaviour with learning process can be implemented through intracurricular activities, habituation activities, co-curricular activities, and extracurricular activities to cultivate and strengthen students' environmental awareness, the profile of Pancasila students, and Islamic values.

Participatory-based Environmental Activities

The goal of the Green Madrasa program is to establish an environmentally conscious school and instill fundamental values like solidarity, equality, integrity, fairness, and the preservation of the environment's and natural resources' functions. In addition, the program seeks to put into practice two core ideas: sustainable management, which require all actions to be conducted in a planned, ongoing, and thorough manner, and participatory management, which

involves the organisational community in all facets of the madrasa management, including planning, implementing, and evaluating its operations in accordance with roles and responsibilities. Engaging students in participatory-based environmental activities is crucial to raising their awareness of the environment. An eco-friendly school culture serves as a learning tool to assist students to understand more about environmental issues. The participatory-based environmental activities that are implemented in the schools are elaborated as follows.

Table 3. Participatory-based Environmental Activities

Category	School Name	Activity	Participants	Description
Intracurricular Activities	MAN 1 West Lampung	Climate Change and Sustainability (Science)	Students, Science teachers	Students learn about climate change, renewable energy, and sustainability through experiments and case studies.
	MTsN 1 West Lampung	Environmental Essay and Speech Writing (English)	Students, English Teachers	Students compose essays, debates, and speeches on environmental topics to enhance their awareness and language skills.
	MIN 1 West Lampung	Creative Recycling Project (Art)	Students, Art teachers	Students create artwork and handicrafts using recyclable materials.
	MAN 1 West Lampung	Waste Management and Innovation Project	Students, Teachers	Students conduct research and design innovative ways to manage school waste, such as composting or plastic reuse projects.
Co-curricular Activities	MTsN 1 West Lampung	Water Conservation Awareness Campaign	Students, Teachers	Students conduct research and develop campaigns to encourage water-saving practices both at school and at home.
	MIN 1 West Lampung	School Garden Project	Students' Teachers	Students work collaboratively to create and maintain a school garden, learning about sustainable agriculture.
Habituation Activities	MAN 1 West Lampung	No Pollution Day	Students, Teachers, and Staff	A day where all school members use public transport, bicycles, or walk to school to reduce

Extracurricular Activities	MTsN 1 West Lampung	1	Zero Waste Day	Students, Teachers, and Staff	carbon emission. A designated day where all school members are required to avoid single-use plastics and reduce waste production.
	MIN 1 West Lampung	1	Bring Your Own Bottle (BYOB) Program	Students, Teachers, and Staff	Encourages all school members to reduce plastic waste by bringing reusable water bottles.
	MAN 1 West Lampung	1	Students Scientific Work Club (KIR)	Club Members, Science Teachers	Students conduct research and experiments related to environmental conservation and sustainability.
	MTsN 1 West Lampung	1	ICT – Technology Projects	Club Green ICT Club Members,	Students develop digital campaigns for environmental awareness.
	MIN 1 West Lampung	1	Scout Environmental Awareness Program	Scout, Scout Leaders	Scouts take part in environmental cleanup, ecological preservation, and tree planting.

Madrasas engaged all school members including students, teachers and staff to participate in social service activities around the madrasas. The activities were carried out in order to keep and beautify the seminary so that it is greener, more comfortable and cleaner. Social service activities were also done in the madrasa environment to improve the environment and ensure the integrity of madrasa data so that it could meet the standards of the National Adiwiyata School. It is hoped that this activity in the madrasas can increase awareness of the importance of environmental preservation and cleanliness, as well as encourage cooperation and solidarity among madrasa members. The participatory-based environmental activities run by the madrasas are realized through intracurricular, co-curricular, habituation, and extracurricular activities. All madrasas integrate environmental education into school curricula. They embed environmental education across different subjects such as science, English, and art to cultivate environmentally conscious individuals. It assists students in comprehending how human activity and environmental health are intertwined.

They also integrate sustainability project into the lessons such as waste management and innovation, water conservation awareness campaign, and school garden projects. Encouraging students to learn from their experiences and apply information, values, and practices to their daily lives is possible through the use of environmental project-based learning. By encouraging students' cognitive and behavioural engagement, these projects have significance for them. Additionally, it provides students with group activity experience with the opportunity to address the actual environmental problem. In other words, these projects help students shift from being unaware of environmental issues to caring about them and increase their ability to recycle waste

so they could invest in keeping the school environment clean. These sustainability projects are the efforts to elevate the Pancasila students' profile and Islamic values.

Furthermore, familiarization is used to carry out participatory activities. This habituation is intended to shape environmentally conscious students' characters. Each school has its own flagship habituation activity such as MAN 1 West Lampung with its No Pollution Day, MTsN 1 West Lampung with its' Zero Waste Day, and MIN 1 West Lampung with its' Bring Your Own Bottle (BYOB) Program. There is another habituation activity carried out by all the madrasas, It is Clean Friday that is a routine activity that is carried out on every Friday. Before the learning begin, the students of each class should clean and organize their classrooms. All the school members are also habituated to maintain cleanliness of restrooms, school halls, gardens and overall school environment. By involving all school member including students, teachers, and other staff, Clean Friday turns into a way for the entire school community to actively participate in upholding cleanliness and increasing their involvement. There is also daily picket activity that is carried out every day. All students are also obligated to watering and organizing their class gardens. Students learn the virtues of teamwork and social responsibility as well as the significance of preserving cleanliness when they are involved in this activity.

The madrasas also conduct extracurricular activities that are related to the environment. There is Student Scientific Work (KIR) in MAN 1 West Lampung that provides students an opportunity to conduct the research and its results are utilized for environmental preservation. For example, making compost from waste plant, candle and soap from the used oil, and herbal medicine from family medicinal plants that they have planted. There is ICT Club in MTsN 1 West Lampung where the students are actively involved in various activities such as designing eco-themed poster and infographic, organizing a social media campaign to promote eco-friendly habits campaign, and creating environmental sustainability articles. In addition, scout is also extracurricular activity that can shape students' environmental characters.

Strengthening students' character for caring environment requires not only the active involvement of the school community but also the development of partnerships with outside parties. The madrasas collaborate with surrounding community such as local village government, West Lampung regency environmental service, health center, Indonesian National Armed Forces (TNI), and non-governmental organization. They are engaged in activities such as cleaning up the river and planting trees around the school. Through this partnership, the barriers between communities outside of schools and students will be eliminated.

Management of Environmentally Friendly Supporting Facilities and Infrastructure

Based on observations of the facilities and infrastructure in all madrasas, it can be seen that the madrasas have implemented green energy and green water by using lighting, natural ventilation and air conservation. This can be seen in classrooms that have good natural lighting and ventilation. Electricity networks are present in the majority of the classrooms. One major switch that may control the amount of electrical energy utilised is designed to save energy and it is managed by just a single operator. The use of alternative energy in classrooms and other facilities for purposes like air ventilation and lighting is the primary component of an environmentally conscious school. While the ventilation's hole area can be opened and closed to a minimum of 5% of the floor area, adequate ventilation in the room must satisfy the fixed ventilation hole area criteria of at least 15% of the floor area (Haris et al., 2018).

The availability of trash bins in the madrasas is in good condition, with one trash bin in each classroom equipped with a lid and sorted trash bins for organic, inorganic, and hazardous waste (B3) are located throughout the madrasas. These sorted trash bins are provided by the school to encourage the 3Rs: reduce, reuse, and recycle. The management and utilization of environmentally friendly facilities and infrastructure in the madrasas can be realized through the implementation of waste bank where both organic and inorganic waste are kept. The organic

waste is recycled into compost fertilizer that is carried out by the cleaning staff and assisted by the students. The implementation of this activity is dependent on the availability of composting materials and is not conducted on a regular basis. Additionally, inorganic waste is sorted again based on its market value. Bottles and plastic cups are collected to be sold or recycled into useful items.

Apart from that, the facility used in the madrasas to prevent air retention during heavy rain is to use bioport absorption holes (BIH). There is a green house in each madrasa where there are various plants such as medicinal plants and can add information facilities for students in learning plant growth and development. Moreover, the madrasas have fish ponds that provide students about the interrelationship between biotic and abiotic elements as well as the ecology of plants and animals. The madrasas also have additional facilities as madrasa icons which are a fountain, wall climbing, gazebo and many others for students to study comfortably outside the classroom.

According to Minister of Environment Regulation No. 05 of 2013, there must be at least six supporting facilities for environmental learning in schools, such as: medicinal plant gardens (TOGA), fish ponds, biopores, school gardens, greenhouses, infiltration wells, and biogas. Based on the findings of this study, it can be implied that, environmentally friendly supporting facilities and infrastructure in MAN 1 West Lampung, MTsN 1 West Lampung and MIN 1 West Lampung are already good and meet the standard of green madrasa.

Discussion

The current study aimed to investigate the implementation of green schools in three madrasas: MAN 1 West Lampung, MTsN 1 West Lampung and MIN 1 West Lampung that were granted the 2023 National Adiwiyata Award. The findings highlight the implementation of green school based on government regulations and policies, curriculum; participatory-based environmental activities, and management of environmentally friendly supporting facilities and infrastructure. Adiwiyata Madrasa has implemented a green school program by implementing various regulations. The madrasas implement environmentally sound policy into their vision and mission of the madrasas. This is in line with studies by (Manobe et al., 2021), which shown that schools may support environmentally sound policies through their vision, missions and objectives. The program uses environment-based curriculum that has a strong connection to educators and learners (Adawiah, 2019; Agus et al., 2023; Basri & Abdullah, 2024; Ismail et al., 2024). In terms of curriculum and learning, the madrasas incorporate environmental education into independent curriculum. Participatory-based environmental activities are realized through intracurricular, co-curricular, habituation, and extracurricular activities (Allur et al., 2018; Aswita et al., 2024).

In intracurricular activities. all madrasas integrate environmental lessons into various course subjects. For instance, MAN 1 West Lampung teaches climate change, renewable energy, and sustainability in science subjects, MTsN 1 West Lampung asks students to write an essay about how to reduce plastic pollution or making sustainability campaign video in English subject, and MIN 1 West Lampung provides students opportunities to create products from recycled material in art subject. Embedding environmental education within multiple subjects fosters a sense of responsibility among students, leading to informed decision-making and sustainable practices (Yelve & Sonawane, 2023). It is in line with (Setiawan et al., 2023) that indicate student's environmental literacy is developed since he integrates environmental education into Biology subject. Environmental literacy is known as the ability to comprehend, preserve, and appropriately and accurately solve environmental problems (Fernandez, 2022; Ramadhan et al., 2019).

Furthermore, the madrasas also implement project-based learning in co-curricular activities. they incorporated sustainability project into the lessons such as creating products from recycled plastic, creating videos for sustainability campaigns, and slogans. Encouraging

students to learn from their experiences and apply information, values, and practices to their daily lives is possible through the use of environmental project-based learning. The project raises students' awareness of the environment and increases their participation with it (Setiawan et al (2023). It is a helpful strategy that fosters inquiry learning and increases creativity in environmental education (Paristiowati et al., 2022). By involving students in numerous projects, they are able to identify environmental issues and come up with solutions (Genc, 2015). The projects provides students an opportunity to hone their abilities in communication, cooperation, and leadership (Adeoye et al., 2025; Coronado et al., 2021; Daheri et al., 2023). In other words, students' 21st-century soft skills could be enhanced by integrating project-based learning with environmental education. These project activities could strengthen the profile of Pancasila students and Islamic value.

Moreover, school garden is also carried out as the efforts to enhance students' environmental awareness through co-curricular activities. All madrasas have school gardens which provide students an opportunity to grow vegetable, herbs, or learning sustainable agriculture. School gardens provide a great setting for the introduction of environmental awareness concept to students (Yildiz & Budur, 2019). Especially for primary students, school gardens provide a unique environment that can stimulate children's curiosity by introducing them to a variety of plants and local creatures. Primary school students' involvement and interest in the natural world are fostered by this exposure, which eventually raises their level of environmental consciousness (Kong & Chen, 2024; Demir et al., 2023).

Besides incorporating environmental education through intracurricular and co-curricular activities, the role of extracurricular activities in developing students' environmental awareness is also crucial. There is Scientific Student Work Club (KIR) in MAN 1 West Lampung. In this club, students conduct the research and its results are utilized for environmental preservation. Involvement in environmental research encourages students to analyze complex ecological problems, evaluate data, and develop solutions, thereby enhancing their critical thinking and problem-solving abilities (Bywater, 2014). MTsN 1 West Lampung also has ICT club which provides students opportunity to learn various environmental topics through digital tools. The use of digital tools promotes effective learning and performance in environmental education (Hajj-Hassan et al., 2024). Digital tools can promote better integration of information regarding environmental education and natural occurrences, which in turn can increase knowledge acquisition (Tkotzyk & Hebben, 2019).

In addition, MIN 1 west Lampung include conservation and sustainability practices in scout program. Engaging Scouts in environmental activities fosters a deeper connection to the natural world, promoting environmental stewardship and a sense of responsibility towards conservation efforts. Scout programs an ideal place for enhancing environmental stewardship among students (Ma`arif et al., 2023; Sobreira & Rosseto, 2023). There are also habituation activities such as daily picket, clean Friday, no polution day, zero waste day, and no plastic program. These activities are carried out regularly every day and every week since regular engagement in environmentally friendly practices can significantly enhance students' awareness and contribute to effective ecological management strategies (Jr & Nebrida, 2019).

In order the process of participatory-based environmental activities run well, the madrasas engage all school members including students, teachers and other staff to participate in social service activities around the madrasas. Strengthening students' character for caring environment requires not only the active involvement of the school community but also the development of partnerships with outside parties such as students' parents and surrounding community (Hasan et al., 2024; Ma`arif et al., 2024). Characters of environmental care will be established if communities, schools, parents, and instructors can set an example and create a positive environment (Amalia et al., 2023).

The effective implementation of these participatory-based environmental activities require the appropriate management of environmentally friendly facilities, ensuring their optimal utilization to enhance the development of green madrasas. According (Amrullah & Nurcahyo, 2021), there must be at least six supporting facilities for environmental learning in schools, such as: medicinal plant gardens (TOGA), fish ponds, school gardens, greenhouses, infiltration wells, and composting activities. In order to facilitate environmental-based learning, the madrasas provide six components of facilities and infrastructures.

Moreover, since the madrasas are Islamic schools, implementing green madrasa is appropriate way to cultivate Islamic value to students. Fostering noble virtues in their interactions with the environment can be achieved by a human being starting to cultivate religious principles from a young age (Faisal et al., 2024). Since cleanliness is in line with the Islamic principle of "*annaḥaafatu minal iman*" which states that cleanliness is half of faith, Islam places a great deal of emphasis on cleanliness (Manumanoso Prasetyo et al., 2021).

Islam views the interaction between human and environment as a commandment from Allah SWT that ought to be upheld and protected. In Islam, environmental protection is an essential component of worship. The responsibility as successors on Earth is fulfilled when the human take care of Allah's creation. Islam emphasises the value of showing compassion to all living beings, including plants and animals (Ilmi et al., 2021; Safrilsyah et al., 2024; Zaliyanti & Azani, 2024). Human has responsibilities in bringing civilisation to nature, governing culture according to the laws of nature, and Islamizing culture by introducing rahmatan li al-'alamin as Islamic values (Djuned, 2023). Thus, students' morality in protecting and caring for the environment, which are indicative of Islamic values, are shaped through the Green Madrasa program.

From the description above, it indicates that the implementation of green madrasas at MAN 1 West Lampung, MTsN 1 West Lampung and MIN 1 West Lampung provides benefits for Madrasas: 1) developing environmental awareness and character among students. Teachers, and staff; 2) enriching the learning experience, promoting critical thinking and problem-solving skills; 3) creating more comfortable and conducive environments for teaching and learning; 4) strengthening school and community relation; 5) and cultivating profile of Pancasila students and Islamic values.

This finding aligns with Blair et al.'s (2012) research, which states that prophetic leadership can improve organizational dynamics and create a positive work atmosphere, thus directly supporting increased individual job satisfaction. Britt (2020) added that the influence of prophetic leadership includes spiritual and material aspects, reinforcing relevance in human resource management. Prophetic values, such as guidance, inspiration (Abidin & Sirojuddin, 2024; Alam, 2020; Pernau, 2021; Sari et al., 2020), and the application of transformative pedagogy (Suddahazai, 2023), have been shown to increase motivation and a sense of responsibility at work (Arar & Haj-Yehia, 2018; Egel & Fry, 2017). In addition, Memon et al. (2023) provided strong evidence that prophetic leadership significantly affects teachers' job satisfaction. These findings confirm the importance of applying spiritual values in the management of teachers in schools for optimal results.

CONCLUSION

The green school program has been implemented at MAN 1 West Lampung, MTsN 1 West Lampung, MIN 1 West Lampung which are madrasas that won the National Adiwiyata School award in 2023. These madrasas focus on four aspects: 1) government policy; 2) curriculum; 3) participatory-based environmental school activities; 4) management of environmentally friendly supporting facilities and infrastructure. The madrasas integrate environmental education with independent curriculum by classifying the madrasas' activities into four activities. They are intracurricular, habituation, co-curricular, and extracurricular activities. All school members are involved in creating a green madrasa by implementing

participatory- based environmental activities such as tree composing and planting, Clean Friday program and scheduled daily picket, recycling and sustainability campaign projects. The madrasas have also included green water and energy through the use of air conservation, natural ventilation, and lighting. This is evident in classrooms with sufficient natural ventilation and lighting. Most classrooms have electricity networks installed. The findings of this study can be applied as a benchmark for other madrasas who run green school program. Since this study examined the implementation of green school in primary and secondary school, further studies need to investigate the same issue in university level.

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