

**Implementation of the Gerakan Peduli dan Berbudaya Lingkungan Hidup in  
Adiwiyata and Non-Adiwiyata Schools  
(Study of SMAN 1 Martapura and MAN 1 Banjarmasin)**

**Nur Mala Sari\*, Tuti Mutia, Sugeng Utaya, I Komang Astina**

Postgraduate Geography Education Study Program  
State University of Malang

\*[nur.mala.2407218@students.um.ac.id](mailto:nur.mala.2407218@students.um.ac.id)

**Abstract**

Efforts to overcome environmental problems in South Kalimantan can be carried out through education with the strategy of the Environmental Care and Culture Movement in Schools (Gerakan PBLHS), schools that successfully carry out this strategy will receive an Adiwiyata award. Gerakan PBLHS is not only applied in Adiwiyata Schools, but can also be applied in Non Adiwiyata Schools. The purpose of this research is to find out the forms of implementation of the Gerakan PBLHS in Adiwiyata and Non Adiwiyata Schools and to identify the supporting factors and obstacles in the implementation of the Gerakan PBLHS. This research used descriptive qualitative methods with observation and interviews with teachers, Adiwiyata coaches, and students. The variable in this study is the Gerakan PBLHS based on the Gerakan PBLHS guidebook. The implementation of the Gerakan PBLHS at SMAN 1 Martapura is the integration of Gerakan PBLHS with learning, greening, and Green House, 3R waste management, and clean Friday. Meanwhile, the implementation of the Gerakan PBLHS at MAN 1 Banjarmasin is a ban on the use of plastic bags, clean Friday, and Waste Bank.

**Keywords:** Gerakan Peduli dan Berbudaya Lingkungan Hidup di Sekolah, Adiwiyata, Environmental Education

---

**DOI:** [10.20527/jpg.v12i2.22634](https://doi.org/10.20527/jpg.v12i2.22634)

**Received:** 27 May 2025; **Accepted:** 13 August 2025; **Published:** 28 September 2025

**How to cite:** Sari, N. M., Mutia T., Utaya, S., Astina, I. K. (2025). Implementation of the Gerakan Peduli dan Berbudaya Lingkungan Hidup in Adiwiyata and Non-Adiwiyata Schools (Study of SMAN 1 Martapura and MAN 1 Banjarmasin). *JPG (Jurnal Pendidikan Geografi)*, Vol. 12 No. 2.

<http://dx.doi.org/10.20527/jpg.v12i2.22634>

© 2025 JPG (Jurnal Pendidikan Geografi)

\*Corresponding Author

JPG (Jurnal Pendidikan Geografi) is licensed under  
a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License



## 1. Introduction

The environment as a gift and grace from God is a space for all aspects of life with all objects, forces, conditions, and living things, including humans and their behavior that

affect nature and the continuity of life (Darmo and Rahmayanti, 2021). Inappropriate individual behavior can have consequences for the environment (Sousa et al., 2021), for that reason, the Government of Indonesia has regulated environmental management as stated in Undang-Undang Republik Indonesia Nomor 32 Tahun 2009 about Environmental Protection and Management, which aims to preserve the sustainable function of the environment, so as to achieve harmony, harmony, and environmental balance.

South Kalimantan is one of the provinces in Indonesia where there are many environmental problems such as floods and forest and land fires (Karhutla). Climate change is one of the consequences of these environmental problems which results in weather instability and has an impact on food availability (BMKG, 2023). In addition to natural factors, human factors also contribute to environmental problems. Research by (Ramdhoni et al., 2018) stated that in 2007-2017 deforestation occurred with a reduction in forest area to non-forest area of 32,209.24 hectares. An environmental problem that has happened in Banjarmasin and has been in the spotlight since February 2025 is the uncontrolled accumulation of waste in every temporary disposal site (TPS) in Banjarmasin City. This is due to the administrative sanctions received by the Basirih Regional Technical Implementation Unit Final Processing Site (TPA) by the Kementerian Lingkungan Hidup (KLH) for not managing waste according to regulations, by utilizing the open dumping method (Yulianus, 2025).

Education is a good way to build a society that applies the principles of sustainability and environmental ethics, it needs environmental learning in schools based on environmental education as an effort to instill students' awareness of the environment (Nugroho, 2022). Environmental Education (EE) is a process of changing behavior, attitudes, and habits to be able to respect the environment, therefore environmental education must be implanted to students based on direct experience of the value order in respecting the environment (Muslim et al., 2021).

One of the strategies in the Indonesian education system that focuses on increasing awareness, knowledge, and building care in protecting the environment through the policy of the Menteri Lingkungan Hidup dan Kehutanan Republic of Indonesia is called the Gerakan Peduli dan Berbudaya Lingkungan Hidup di Sekolah (Gerakan PBLHS), which aims to realize environmentally friendly behavior (Aini et al., 2022). Schools that successfully implement the Gerakan PBLHS in accordance with ministerial regulations will be awarded by the government called Adiwiyata (Alhamda and Megawati, 2021).

In the Gerakan PBLHS guidebook, there are several components as standards for achieving the Gerakan PBLHS including cleanliness of sanitation and drainage functions, 3R (Reduce, Reuse, Recycle) waste management, planting and maintaining trees / plants, water conservation, energy conservation, and innovation in the application of Perilaku Ramah Lingkungan Hidup (PRLH) based on the results of the Identifikasi Potensi dan Masalah Lingkungan Hidup (IPMLH). The implementation of the Gerakan PBLHS in Adiwiyata Schools in previous studies has shown that there are obstacles, such as insufficient funding, human resources, and infrastructure, even though human resources are an important component in the implementation of the Gerakan PBLHS for the development of students' knowledge and attitude towards caring for the environment (Fauzani and Aminatun, 2021).

Research conducted by Nuraeni et al. (2020) at Adiwiyata schools states that

teachers and students work together to achieve Adiwiyata awards through actions or the integration of Adiwiyata into learning. Effective education for solving environmental problems does not only focus on providing knowledge, but also on participating in actions (Fytoupoulou et al., 2023). The Gerakan PBLHS has a positive impact on schools and student behavior by creating a clean, beautiful, healthy, and comfortable school environment, thereby increasing awareness of environmental cleanliness alongside student participation in environmental management activities (Komalasari et al., 2023).

The research by Nada et al. (2021) shows that in implementing the Gerakan in Adiwiyata and Non-Adiwiyata schools, different strategies need to be applied. Specifically, Adiwiyata schools require development and sustainability strategies, while Non-Adiwiyata schools need to implement planning and growth strategies. Based on these strategies, it is hoped that the Gerakan PBLHS can run optimally and serve as a reference for the government to develop the Gerakan PBLHS program in every school. This also shows that Non-Adiwiyata schools can implement the Gerakan PBLHS as a form of environmental awareness.

One of the schools in South Kalimantan that received the Adiwiyata award is SMAN 1 Martapura. The school is a National Independent Adiwiyata school that received the Adiwiyata award at the district/city level in 2024 and is located in an environment that received the Program Kampung Iklim (Proklam) award, so the Gerakan PBLHS should be implemented well in accordance with existing procedures. Additionally, MAN 1 Banjarmasin, as a Non-Adiwiyata school, implements the Gerakan PBLHS amid land constraints in a densely populated area. In the face of environmental issues in South Kalimantan, SMAN 1 Martapura and MAN 1 Banjarmasin are schools that serve as agents of change through the Gerakan PBLHS implemented.

Research on the implementation of the Gerakan PBLHS has mostly been conducted in Adiwiyata Schools, even though the Gerakan PBLHS can also be implemented in Non-Adiwiyata Schools. For example, research by Utaya and Wafaretta (2021) comparing the Gerakan PBLHS implemented in two Adiwiyata Schools showed that the vision, mission, methods, and approaches used were not significantly different. Therefore, based on this background, this study aims to identify the forms of implementation of the Gerakan PBLHS in Adiwiyata and non-Adiwiyata schools, as well as to identify the supporting factors and challenges in the implementation of the Gerakan PBLHS.

## 2. Method

This study is a descriptive qualitative study using a case study approach. The study was conducted at SMAN 1 Martapura as an Adiwiyata school and MAN 1 Banjarmasin as a non-Adiwiyata school. Data collection techniques included interviews with teachers and students, observations at the school, and documentation of primary and secondary data. At the Adiwiyata school, the teachers interviewed were two Adiwiyata mentors and students who were members of the Pencinta Alam SMAN 1 Martapura (PASMAN), while at the non-Adiwiyata school, interviews were conducted with the Deputy Head of Madrasah (WAKAMAD) for Facilities and Infrastructure, a teacher, and one student. The research instrument in this study was the researcher as the interviewer, collecting data until saturation using interview guidelines and observations based on the programs of the Gerakan PBLHS outlined in the handbook. The programs are presented in Table 1.

**Table 1.** Gerakan PBLHS Programs

| Aspect                                       | Indicator                                                                                     |           | Sub Indicator                                                                                                                                                                                                                 |
|----------------------------------------------|-----------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Integration of Gerakan PBLHS with Curriculum | Subjects                                                                                      |           | Biology, Geography, and PJOK (physical education, sports and health)                                                                                                                                                          |
|                                              | Extracurricular                                                                               |           | Scouts, Red Cross Society (PMR), Art, and Little Doctor                                                                                                                                                                       |
| Cleanliness, sanitation and drainage         | School Participation                                                                          | Community | Main elements:<br>1. Headmaster<br>2. Teaching staff<br>3. Education staff<br>4. Students (including Adiwiyata cadres)                                                                                                        |
|                                              |                                                                                               |           | Additional elements:<br>1. Parents or caretakers of students<br>2. Cleaners<br>3. Security guards<br>4. Canteen attendant                                                                                                     |
|                                              | Efforts to maintain cleanliness, sanitation and drainage functions                            |           | Clean classrooms/teachers/libraries, toilets and handwashing stations, maintain drainage regularly, repair toilets and drainage.                                                                                              |
|                                              | Cleanliness, sanitation and drainage functions maintained                                     |           |                                                                                                                                                                                                                               |
| Waste management                             | Reduction of landfill                                                                         |           | 1. Choose products with no packaging or as little packaging as possible that can be recycled.<br>2. Using recyclable and biodegradable materials.<br>3. Collecting and handing back waste to the manufacturer for management. |
|                                              | Waste recycling efforts                                                                       |           | Recycling waste into craft items that have useful and economic value                                                                                                                                                          |
|                                              | Involvement of students and Adiwiyata cadres                                                  |           | 1. Organized with scheduled pickets<br>2. Involved in transferring waste to waste management sites (waste bank or composting site)                                                                                            |
|                                              | Reduction of waste generation through 3R                                                      |           | Waste in schools must be segregated by type, thus requiring labeled or marked segregated trash bins.                                                                                                                          |
| Tree Planting and Maintenance                | Tree or plant planting, maintenance, and seedling activities                                  |           | 1. Watering, fertilizing, pruning, and replacing dying plants.<br>2. Provision of plant seeds<br>3. The school labeled the plants with the name and type of plant                                                             |
|                                              | School community participates in tree or plant planting, maintenance and seedling activities. |           |                                                                                                                                                                                                                               |
|                                              | Number of trees or plants maintained                                                          |           | 1. Calculated as a percentage of the total number of school community members.<br>2. Plants are maximized in the form of local/endemic plants                                                                                 |

|                                                              |                                                      |                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                              |                                                      | 3. Plants are not dangerous to the school community and are in accordance with the land conditions at school                                                                                                                                                                         |
| Water Conservation                                           | Number of water conservation efforts                 | Water conservation with 5R principles (reduce, reuse, recycle, recharge, recovery)                                                                                                                                                                                                   |
| Energy Conservation                                          | Number of energy conservation efforts                | <ol style="list-style-type: none"> <li>1. Identify Electricity wastage behavior</li> <li>2. Make rules or regulations for energy-saving behavior</li> <li>3. Create a power plant from renewable energy</li> </ol>                                                                   |
| Other PRLH Implementation Innovations based on IPMLH results | Number of innovative works of educators and students | <ol style="list-style-type: none"> <li>1. The result of the development of utilizing the knowledge, skills, and experience of school members to create or improve a product.</li> <li>2. Innovative work is the original work of the school and utilizes local resources.</li> </ol> |

Source: Gerakan PBLHS Guidebook (Pusbang Lingkungan, 2020)

### 3. Result and Discussion

#### A. Result

SMAN 1 Martapura first obtained the first Adiwiyata school award at the district level, then again obtained the Adiwiyata school award in 2012 at the provincial level, and finally obtained the Adiwiyata national level award in 2013. SMAN 1 Martapura started the Adiwiyata Mandiri school level in 2015, and in 2024 achieved the Adiwiyata Mandiri National Award at the Regency/City Level. The award was commemorated by constructing the Adiwiyata Award monument, which is located in the school grounds and can be seen in Figure 1.



**Figure 1.** Adiwiyata Award Monument at SMAN 1 Martapura

SMAN 1 Martapura's journey in obtaining the Adiwiyata award cannot be separated from the environmental programs that have been undertaken. In 2024, SMAN 1 Martapura focuses on the healthy Adiwiyata program, so that the PBLHS Movement is integrated with Pendidikan Jasmani, Olahraga, dan Kesehatan (PJOK) subjects. Based on interviews with Adiwiyata Team teachers, the PJOK subject has its own Rencana

Pelaksanaan Pembelajaran (RPP), but usually some teachers of other subjects will discuss environmental issues occurring in South Kalimantan. In addition to the Gerakan PBLHS that is integrated with learning, SMAN 1 Martapura also has extracurricular activities that focus on environmental programs, namely Pencinta Alam SMAN 1 Martapura (PASMAM).



**Figure 2.** SMAN 1 Martapura's Garden

The greening movement at SMAN 1 Martapura by planting various types of plants, namely the Green House which contains various types of Tanaman Obat Keluarga (TOGA), trees with rare fruits such as cocoa, fruits such as mango, rambutan, papaya, and flowers to add to the aesthetic of the school. The whole school community participates in maintaining the plants in the school environment, but the Green House looks unmaintained because there are some dry plants, empty pots and overgrown with wild plants as seen in Figure 3.



**Figure 3** Green House SMAN 1 Martapura

Waste management at SMAN 1 Martapura runs quite well, trash bins are available for three types of waste, which are organic waste, anorganic waste, and B3 waste as shown on Figure 4, in addition there is a trash bin that separates plastic bottles with plastic bottle caps. In sorting waste, the Adiwiyata mentor stated waste sorting does not involve students directly, because there are already cleaning staff in charge of sorting waste with the 3R system. Waste that has been sorted is then collected to be sold to the nearest Waste Bank.



**Figure 4.** Three Types of Trash Bins

Environmental cleanliness activities at school are carried out once a month on Friday by involving all school members, this activity is called Clean Friday. These activities are in conjunction with Taqwa Friday and Healthy Friday which are carried out alternately each month, but at times in one day there are two activities such as Clean Friday and Healthy Friday.

In addition to SMAN 1 Martapura as an Adiwiyata school that implemented the PBLHS Movement, MAN 1 Banjarmasin as a Non Adiwiyata school also implemented the PBLHS Movement. MAN 1 Banjarmasin is one of the schools in the middle of Banjarmasin City that stands on a land area of 2,462 m<sup>2</sup> and is located in a densely populated environment, making it difficult to expand the land and run a greening program. These obstacles do not prevent MAN 1 Banjarmasin from participating in efforts to implement programs that care for the environment such as the Waste Bank, the prohibition of the use of plastic bags, and environmental cleanliness activities.

MAN 1 Banjarmasin's environment as a school that has difficulty greening due to limited land is still carried out greening activities from various media such as pots and hydroponics. In addition to using planting media, greening activities are also carried out on land that can still be utilized for tree planting, such as planting 10 Matoa Trees which are distributed at various strategic points of the school such as the front yard, the side of the field, and the garden behind the prayer room.



**Figure 5.** Matoa Tree Planting

The Berkah Waste Bank MAN 1 Banjarmasin was first inaugurated in 2017 with the motto “Menabung Sampah, Menuai Berkah, Hidup Menjadi Lebih Indah”. The

activities of the Berkah Waste Bank are running well, but there are many obstacles faced such as the lack of administrators so that several times the Berkah Waste Bank has not operated for a while, and in 2025 the activities will resume operations between environmental issues accumulating garbage in Banjarmasin City it started with a socialization activity on waste bank management from the Dinas Lingkungan Hidup Kota Banjarmasin.



**Figure 6.** Waste Bank Socialization with Dinas Lingkungan Hidup Kota Banjarmasin

Since 2021, MAN 1 Banjarmasin has banned the use of plastic bags for all school members, and drinks packaged in plastic bags have been replaced with plastic cups. This is supposed to facilitate the process of sorting and recycling plastic waste, but based on the results of interviews with teachers at MAN 1 Banjarmasin still many school residents who use plastic bags as food packaging or other items.



**Figure 7.** Clean Friday

School cleaning activities are carried out once a month on Fridays and once a year there will be a class cleaning competition. In addition, once a year MAN 1 Banjarmasin conducts cooperative activities to clean the environment around the school and with the community to create beneficial interactions for the cleanliness of the environment.

### *B. Discussion*

Learning at SMAN 1 Martapura has been integrated with the PBLHS Movement in Physical Education, Sports and Health (PJOK) subjects, because the school has focused on the healthy Adiwiyata program. Learning is contextualized by raising environmental

issues around the school, so that students can recognize and learn from the surrounding environment and form the character of environmental love. In addition to the PBLHS Movement that is integrated with formal learning, SMAN 1 Martapura also has an extracurricular called Pencinta Alam SMAN 1 Martapura (PASMAN). Research Baihaki et al. (2022) states that environmental material that is well integrated in classroom learning is one of the efforts to form a person who is committed to love the environment. Through activities and learning integration with the Gerakan PBLHS, which focuses on the Adiwiyata Sehat program, school members can develop a caring attitude towards the environment (Zaliyanti and Azani, 2024).

Greening efforts at SMAN 1 Banjarmasin involve students who are members of the student council and Adiwiyata cadres, with a variety of trees and plants, namely the Green House consisting of Family Medicinal Plants (TOGA), rare plants such as cocoa, fruits such as mango, rambutan, and papaya, and flowers. In contrast to MAN 1 Banjarmasin, greening efforts are difficult due to limited land, so there are only ornamental plants and flowers, so aesthetically compared to SMAN 1 Martapura looks very different. The literature review Ismail (2021) states that a green school environment has a positive impact on the school environment, apart from schools becoming more beautiful and reducing the impact of global warming, greening will have a positive impact on students because it affects brain development in learning. In addition, a literature review by Browning and Rigolon (2019), states that school greening and student academic performance are closely related.

SMAN 1 Martapura and MAN 1 Banjarmasin have the same program in terms of environmental cleanliness, namely Clean Friday which is carried out once a month by involving all school members in cleaning all rooms and environments in the school. This program has a positive impact on the school and school community, because the school looks clean and beautiful, and the participation of all school community can develop the habit of caring for the environment. This is in line with research Kartini et al. (2024), which states that the Clean Friday program has a positive impact on the environment in schools because schools become cleaner, more beautiful, and safer, and school residents will care about the environment.

Waste management at SMAN 1 Martapura and MAN 1 Banjarmasin have different systems, but both have good efforts in reducing waste generation, especially waste that is difficult to decompose. SMAN 1 Martapura has bins that are differentiated based on the type of waste, and has a special bin for plastic bottles that have been separated with the bottle cap, besides that the waste will be sorted again by the school cleaning staff. Another case with MAN 1 Banjarmasin, efforts to suppress waste generation is the existence of rules prohibiting the use of plastic bags, so that food and drinks that should use plastic bags are replaced with plastic cups, this effort will facilitate the sorting of waste for school cleaning staff. In line with Ratnasari et al. (2019), which states that to solve the waste problem appropriately starting from small steps, it is necessary to classify various types of waste early on starting from the school environment. In addition, research (Suhaila et al., 2025) proves that reducing plastic waste can have a significant impact on changing student behavior, with teachers serving as facilitators and motivators.

Berkah Waste Bank is an environmental care program run by MAN 1 Banjarmasin, which aims to reduce the volume of waste in Banjarmasin City so that the realization of Banjarmasin City “BAIMAN” or Barasih wan Nyaman (Clean and Comfortable), but the

Berkah Waste Bank had stopped operating due to the lack of Waste Bank administrators. This is in line with research (Ulfah et al., 2016) which states that the Waste Bank in schools is considered effective as an approach in waste management assessed from the school level, influenced by the goals to be achieved, strategies for achieving goals, school policies, planning, structured programs, availability of facilities and infrastructure, and supervision from institutions to control school waste banks.

#### 4. Conclusion

Gerakan PBLHS in Adiwiyata and Non Adiwiyata schools is not much different, but it adjusts the environment and land conditions in each school. The Gerakan PBLHS carried out at Adiwiyata SMAN 1 Martapura school includes learning in PJOK subjects that raise environmental issues, greening with green houses, rare plants, fruit plants, and ornamental flowers, clean Fridays, and sorting waste with the 3R system. The Gerakan PBLHS carried out at MAN 1 Banjarmasin Non Adiwiyata school is a clean Friday, a ban on the use of plastic bags, and a Waste Bank.

Gerakan PBLHS carried out by Adiwiyata schools and Non Adiwiyata schools shows a lack of student participation in carrying out some of these programs, such as at SMAN 1 Martapura in tree planting activities only involving OSIS members and Adiwiyata cadres, besides that the Waste Bank at MAN 1 Banjarmasin had stopped operating due to lack of student interest in becoming Waste Bank administrators. Based on these issues, the researcher suggests that future researchers measure students' level of environmental knowledge and environmental care attitude, to identify the factors that cause students to not participate in the Gerakan PBLHS, such as a lack of interest in joining the Waste Bank management team.

#### 5. Acknowledgment

Researchers acknowledge the principal, teachers, Adiwiyata Advisors, and students of SMAN 1 Martapura who have allowed, cooperated, and provided opportunities for researchers to conduct observations and interviews at the school, so that researchers get to know more about the environment of SMAN 1 Martapura and obtain information that answers the research objectives.

Gratefulness is also extended to the principal, teachers and students of MAN 1 Banjarmasin who have allowed, cooperated, and provided opportunities for researchers to conduct observations and interviews at the school, so that researchers get to know new policies at MAN 1 Banjarmasin related to the environmental program and answer the research objectives.

#### 6. References

- Aini, N., Sumarmi, Kurnia Putra, A., & Handoyo, B. (2022). *Gerakan peduli dan berbudaya lingkungan hidup SMA Negeri 8 Malang*. 2(10), 1014–1021. <https://doi.org/10.17977/um063v2i102022p1014-1021>
- Alhamda, F. N. F., & Megawati, S. (2021). Analisis Implementasi Program Adiwiyata dalam Membangun Karakter Peduli Lingkungan di SMA Negeri 3 Jombang. *Publika*, 9, 335–344. <https://doi.org/https://doi.org/10.26740/publika.v9n3.p335-344>

- Baihaki, Rizalie, A. M., & Syaifuddin, A. R. (2022). Implementation of the Adiwiyata School Program in the Implementation of Environment-Based Curriculum. *International Journal of Social Science And Human Research*, 05(06). <https://doi.org/10.47191/ijsshr/v5-i6-61>
- BMKG. (2023). *Informasi Parameter Iklim*. Badan Meteorologi Dan Klimatologi. <https://www.bmkg.go.id/iklim/?p=ekstrem-perubahan-iklim>
- Browning, M. H. E. M., & Rigolon, A. (2019). School Green Space and its Impact on Academic Performance: A Systematic Literature Review. In *International Journal of Environmental Research and Public Health* (Vol. 16, Issue 3). MDPI AG. <https://doi.org/10.3390/ijerph16030429>
- Darmo, W. R. S., & Rahmayanti, H. (2021). *Pendidikan Lingkungan Hidup* (1st ed.). Penerbit Nem.
- Fauzani, P., & Aminatun, T. (2021). Adiwiyata Program Implementation in Inculcating Environmental Care Characters: A Literature Review. *Advances in Social Science, Education and Humanities Research*, 541. <https://doi.org/https://doi.org/10.2991/assehr.k.210326.021>
- Fyttopoulou, E., Karasmanaki, E., Tampakis, S., & Tsantopoulos, G. (2023). Effects of Curriculum on Environmental Attitudes: A Comparative Analysis of Environmental and Non-Environmental Disciplines. *Education Sciences*, 13(6). <https://doi.org/10.3390/educsci13060554>
- Ismail, M. J. (2021). Pendidikan Karakter Peduli Lingkungan dan Menjaga Kebersihan di Sekolah. *Guru Tua: Jurnal Pendidikan Dan Pembelajaran*, 4(1), 59–68. <https://doi.org/https://doi.org/10.31970/gurutua.v4i1.67>
- Kartini, K., Surachmi, S., & Rondli, W. S. (2024). Analysis Implementation of Character Education Through the Adiwiyata Program in SMP Negeri 1 Batangan Pati. *ASEANA: Science and Education Journal*, 4, 28–33. <https://doi.org/10.53797/aseana.v4i1.5.2024>
- Komalasari, A., Dewantara, J. A., Sulistyarini, S., Arifiyanti, F., & Ochieng, O. P. (2023). Implementation Adiwiyata Program in Shaping the Environmental Care Character of Senior High School Students. *IJECA (International Journal of Education and Curriculum Application)*, 6(1), 33. <https://doi.org/10.31764/ijeca.v6i1.13499>
- Muslim, Almegi, Alfiah, Akmal, & Amelia, H. R. (2021). Peranan Lingkungan Sosial Terhadap Pembentukan Sikap Peduli Lingkungan Peserta Didik MAS Al Islam. *El-Jughrafiyah*, 1. <https://doi.org/https://doi.org/10.24014/jej.v1i1.14042>
- Nada, H. N., Fajarningsih, R. U., & Astirin, O. P. (2021). Adiwiyata (Green School) Program Optimization Strategy in Malang Regency to Realize Environmentally Friendly School Citizens. *IJORER: International Journal of Recent Educational Research*, 2(2), 121–137. <https://doi.org/10.46245/ijorer.v2i2.83>

- Nugroho, M. A. (2022). Konsep Pendidikan Lingkungan Hidup: Upaya Penanaman Kesadaran Lingkungan. *Jurnal Pendidikan Guru Madrasah Ibtidaiyah*, 1(2), 93–108. <https://doi.org/https://doi.org/10.18860/ijpgmi.v1i2.1691>
- Nuraeni, Nursalam, & Idawati. (2020). Indonesian Journal of Primary Education Adiwiyata Implementation In Understanding Environmental Education. *Indonesian Journal of Primary Education*, 4(2), 184–196. <https://doi.org/https://doi.org/10.17509/ijpe.v4i2.29432>
- Pemerintah Pusat Indonesia. (2009). *Undang-undang Republik Indonesia Nomor 32 Tahun 2009 Tentang Perlindungan dan Pengelolaan Lingkungan Hidup*.
- Pusat Pelatihan Masyarakat dan Pengembangan Generasi Lingkungan. (2020). *Panduan Pembinaan Gerakan Peduli dan Berbudaya Lingkungan Hidup di Sekolah*. Kementerian Lingkungan Hidup dan Kehutanan.
- Ramdhoni, F., Hana Fitriani, A., & Afif, H. A. (2018). Identifikasi Deforestasi Melalui Pemetaan Tutupan Lahan di Kabupaten Banjar, Kalimantan Selatan. *Seminar Nasional Geomatika 2018: Penggunaan Dan Pengembangan Produk Informasi Geospasial Mendukung Daya Saing Nasional*, 465–472. <https://doi.org/https://doi.org/10.24895/sng.2018.3-0.987>
- Ratnasari, A., Asharhani, I. S., Sari, M. G., Hale, S. R., & Pratiwi, H. (2019). Edukasi Pemilahan Sampah Sebagai Upaya Preventif Mengatasi Masalah Sampah di Lingkungan Sekolah. *Prosiding PKM-CSR*, 2, 652–659. <https://doi.org/https://doi.org/10.37695/pkmcscr.v2i0.498>
- Sousa, S., Correia, E., Leite, J., & Viseu, C. (2021). Environmental Knowledge, Attitudes and Behavior of Higher Education Students: a Case Study in Portugal. *International Research in Geographical and Environmental Education*, 30(4), 348–365. <https://doi.org/10.1080/10382046.2020.1838122>
- Suhaila, Syukri, F., Nata, N., Yusuf, A., & Nursiwan. (2025). Analisis Gerakan Peduli dan Berbudaya Lingkungan Hidup di Sekolah (PBLHS) dalam Rangka Aksi Indonesia Bebas Sampah Plastik 2025. *CENDEKIA : Jurnal Ilmu Pengetahuan*, 5(2). <https://doi.org/https://doi.org/10.51878/cendekia.v5i2.5099>
- Ulfah, N. A., Normelani, E., & Arisanty, D. (2016). Studi Efektifitas Bank Sampah Sebagai Salah Satu Pendekatan dalam Pengelolaan Sampah Tingkat Sekolah Menengah Atas (SMA) di Banjarmasin. *JPG (Jurnal Pendidikan Geografi)*, 3(5), 22–37. <https://doi.org/https://dx.doi.org/10.20527/jpg.v3i5.2298>
- Utaya, S., & Wafaretta, V. (2021). The vision, mission, and implementation of environmental education of adiwiyata elementary school in Malang City. *IOP Conference Series: Earth and Environmental Science*, 802(1). <https://doi.org/10.1088/1755-1315/802/1/012048>
- Yulianus, J. (2025). *Ratusan Ton Sampah Tidak Terangkut di Banjarmasin*. [https://www.kompas.id/artikel/tpas-ditutup-kota-banjarmasin-darurat-sampah?open\\_from=Tagar\\_Page](https://www.kompas.id/artikel/tpas-ditutup-kota-banjarmasin-darurat-sampah?open_from=Tagar_Page)

Zaliyanti, A. M., & Azani, M. Z. (2024). Implementation of The Adiwiyata Program by The Principal to Foster Students' Morals towards The Environment. *JIE (Journal of Islamic Education)*, 9(1), 359–383. <https://doi.org/10.52615/jie.v9i1.391>