

Conference Paper

## Creating the Adiwiyata School with Waste and Environmental Management at SDN Nglumber II Kepohbaru, Bojonegoro

Aldira Mara Ditta Caesar Purwanto\*, Rohmatul Faizah

Faculty of Law, Universitas Pembangunan Nasional "Veteran" Jawa Timur, Surabaya 60294, Indonesia

\*Corresponding author:  
E-mail:  
[aldira.ih@upnjatim.ac.id](mailto:aldira.ih@upnjatim.ac.id)

### ABSTRACT

The Adiwiyata program is a place for schools to learn and raise awareness for educators, education staff, students, and the community around schools to protect the environment and encourage sustainable development. So that it can create a school that is environmentally friendly and cultured. The Adiwiyata program itself has been implemented by the Ministry of Environment and continues by the Ministry of Environment and Forestry which aims to create schools that care and are environmentally cultured through activities of coaching, assessing, and awarding Adiwiyata to schools. The guidelines for implementing the Adiwiyata program are regulated in the Minister of Environment Regulation Number 5 of 2013. In line with the Adiwiyata program, SDN Nglumber II, located in Kepohbaru District, Bojonegoro Regency, has the goal of becoming an Adiwiyata School. Although schools have great potential, to achieve this, many things need to be prepared. This service aims to provide socialization and assistance to increase environmental knowledge to school residents, especially students before Adiwiyata activities will resume. It is intended that the Adiwiyata activities will be successful and sustainable so that the objectives of the Adiwiyata program can be achieved. The process of a series of ABDIMAS activities starts from the preparation stage, namely situation analysis, then continues with Forum Group Discussion (FGD) in small groups after which counseling is carried out. With the implementation of this service activity, teacher knowledge about the school environment to support the implementation of the Adiwiyata program increases. The knowledge and skills that have been possessed are expected to be transmitted and become an example for elementary schools around the City of Bojonegoro for the realization of Adiwiyata schools.

*Keywords: Adiwiyata, waste management, environment*

### Introduction

Environmental education is important to be applied to students from an early age. Through the school environment, environmental education values are easier to apply. Various manifestations of planting environmental education in schools include environmentally cultured schools, green schools, and healthy schools. The term that is being promoted by the government is the Adiwiyata school which is a good and ideal place to obtain all knowledge and various norms and ethics that can be the basis of human beings towards the creation of welfare to achieve the ideals of sustainable development. Adiwiyata encourages the creation of knowledge and awareness among school residents to preserve the environment. It is hoped that every school member will be involved in school activities towards a healthy environment and avoid negative environmental impacts.

The word Adiwiyata comes from Sanskerta, namely from the word Adi which means great, great, good, ideal, or perfect, and the word Wiyata which means a place where one gets knowledge, norms, and ethics. While Adiwiyata means a big, majestic, good, and beautiful place where the place is used by someone to gain knowledge, norms, and ethics (Dinas Lingkungan Hidup

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Kabupaten Blitar,2022). The adiwiyata program aims to create good conditions for schools to become places of learning and awareness-raising for educators, education staff, students, and residents around the school. The program is carried out as an effort to encourage environmental conservation and sustainable development to create schools that care and are environmentally cultured (Puspitasari, 2021).

This Adiwiyata program is an environmental education program that is very supportive of achieving graduate standards in schools, with the development of characters accustomed to this Adiwiyata school program through three principles, namely educative, participatory, and sustainable. Educational means that environmental education is carried out in schools through various kinds of habits, such as how to maintain, preserve, and manage the environment for all school members to change the mindset and behavior of school residents to become people who care about the environment, make citizens who love the environment, at school, at home, and in the community. Participatory implies that the implementation of the Adiwiyata Program must be carried out comprehensively, starting from the government to the community, through planning, implementation, and evaluation involving the community. Likewise in schools, the planning and implementation of this Adiwiyata are not only carried out by school residents but also involve parents and the surrounding community in cooperation to care for the environment. Sustainable means that the Adiwiyata Program is planned, continuous, and sustainable so that this Adiwiyata Program can raise awareness among all parties about caring for the environment (Kemdikbud, 2022).

The implementation of the environmental care and cultured school program (Adiwiyata) is following the mandate of Law Number 32 of 2009 concerning Environmental Protection and Management, which is then followed up through the Regulation of the State Minister of the Environment Number 5 of 2013 concerning Guidelines for the Implementation of Adiwiyata Article 3. This regulation aims to provide directions and guidelines for the implementation of the Adiwiyata program to all elements of implementing the Adiwiyata program at the central and regional levels. This regulation was later replaced by Regulation of the Minister of Environment and Forestry Number P.53/MENLHK/SETJEN/KUM.1/9/2019 concerning the Adiwiyata Award. In addition, there is also the Minister of Environment and Forestry Regulation Number P.52/MENLHK/SETJEN/KUM.1/9/2019 concerning the Movement for Care and Culture of the Environment in Schools. This PBLHS movement aims to realize responsible school community behavior in efforts to preserve environmental functions and improve environmental quality as stated in Article 2 paragraph (1) of the Regulation of the Minister of Environment and Forestry Number P.52/MENLHK/SETJEN/KUM.1/ 9/2019 Movement for Environmental Care and Culture in Schools.

SDN Nglumber II is located in Kepohbaru District, Bojonegoro Regency. It has a beautiful environment and is far from pollution. From the initial observations, this school has sufficient land to support the Adiwiyata program and has teaching staff who care about the environment. This is evidenced by the existence of routine cooperation activities and the existence of a beautiful school garden. Schools can take advantage of this existing potential by providing understanding to students to care more about the environment. The school once proposed to become an Adiwiyata school, but due to the lack of maximum preparation and the absence of education for the environment around the school, ranging from teachers, students, traders in schools, etc., the award could not be obtained. So, the Proposing Team is here to provide further socialization and assistance to increase environmental knowledge to school residents, especially students before Adiwiyata activities will resume. It is intended that Digitata activities will be successful and sustainable so that the objectives of the Adiwiyata program can be achieved. Another goal that is no less important is the formation of the character of students who care about the environment so that it is in line with the objectives of environmental education, namely increasing knowledge, skills, and public awareness about environmental values and environmental issues. To realize an environmentally cultured school, several school policies are needed that support the

implementation of environmental education activities by all school members following the basic principles of an environmentally cultured school, namely participatory and sustainable.

SDN Nglumber II is located in Nglumber Village, Kepohbaru District, Bojonegoro Regency. This school is located approximately 15 km from the main Surabaya-Bojonegoro road. SDN Nglumber II Kepohbaru has environmental conditions that have the potential to become an Adiwiyata school, but due to several reasons, it has not been nominated for an Adiwiyata school, one of which is poor waste management, education on the environment around the school which is still very lacking so there needs to be more socialization. further related to this Adiwiyata school program. In addition, the condition of students at SDN Nglumber II is relatively small, in grades I-VI there are 62. Therefore, our team is here to help facilitate the realization of an Adiwiyata school at SDN Nglumber II Kepohbaru, to create a beautiful school environment and become a favorite school for the community. around, of course, with a myriad of achievements, one of which is being an Adiwiyata school.

### **Material and Methods**

This community service is carried out in several stages, namely:

1. Analyzing school readiness in implementing Adiwiyata.
2. Provide a pre-test to elementary school children to find out their knowledge before being given environmental education.
3. Provide education about the environment
4. Give a post-test after being given counseling
5. Seeing the comparison of knowledge before and after being given an education
6. Providing environmental learning facilities to schools that can be used by students and school residents as a medium for environmental learning.

### **Results and Discussion**

The Adiwiyata program is a program established by the Ministry of the Environment to increase awareness of environmental conservation and create a green and healthy environment in the school environment. The Adiwiyata Program is also implemented following Law Number 32 of 2009 concerning Environmental Protection and Management, as well as following up on the Regulation of the Minister of the Environment Number 02 of 2009 concerning the reference for the Implementation of the Adiwiyata Program. Because the Adiwiyata Program is also related to the educational environment, the Minister of Environment agreed with the Minister of Education on February 1, 2010.

Several aspects need to be considered for the educational environment to fulfill the requirements to become an Adiwiyata standard school. Because the Adiwiyata School title is given to schools that care about environmental preservation and are environmentally cultured which are applied based on the three main principles of Adiwiyata schools, namely educative, participatory, and sustainable. The first is educational, namely, the school always provides education about environmental conservation, the second is participatory, which involves all school residents starting from teachers, staff, and students to participate in preserving the environment, the third is sustainable, namely, environmental conservation activities in the school must be carried out continuously. It is not only sustainable when approaching the awarding of the Adiwiyata school, it even inspires the environment around the school to be preserved.

Creating an Adiwiyata standard school is currently trying to be done by SDN Nglumber II which is located in Kepohbaru Village, Bojonegoro Regency, and becomes a place for a team of Law Faculty lecturers and 2 students of UPN "Veteran" Jawa Timur to do Community Service some time ago. At the time of the community service activity, it coincided with the preparation of SDN Nglumber II to be proposed as an Adiwiyata School in Bojonegoro Regency. This is of course by the chosen community service theme, namely environmental socialization, so the Adiwiyata theme will be the discussion and activity of this Community Service.

After observing we found the conclusion that the environmental conditions around SDN Nglumber II which are rice fields and empty fields make SDN Nglumber II tend to look hot and arid, this is also supported by weather conditions in the Bojonegoro area which rarely rains. This is the reason why it is difficult to create a green environment at SDN Nglumber II. Some teachers and staff of SDN Nglumber II also complained that the green plants they were trying to plant had dried up and the lack of knowledge of being an Adiwiyata school. From the conditions described above, it becomes a challenge for the team of lecturers and students to help solve problems at SDN Nglumber II through Community Service activities. There were several activity sessions carried out by the team of lecturers and students while there to share knowledge about environmental empowerment such as proper waste management with the process of selecting waste based on its type and tips for realizing an Adiwiyata school.

During the Community Service there, several activities had been prepared by the team of lecturers and students to share knowledge and formulate the right strategy for the preparation of the Adiwiyata school for SDN Nglumber II in an integrative way with the hope of triggering the spirit to fix the school in any condition and increase the knowledge of the school community about the Adiwiyata Program.

### ***Counseling***

The first community service activity was started by interactive counseling delivered by the Chief extension officer about 4 main aspects of becoming an Adiwiyata school, namely:

1. Making policies in environmentally friendly schools, A policy will certainly bind and regulate a place to be better and more comfortable for every individual who is within the scope of that environment. Therefore, the making of environmentally sound school policies aims to be implemented and followed by school residents, and this policy is considered to make the environment at Nglumber Elementary School get special attention so that it is more awake and concerned about its preservation
2. Create and implement an environment-based curriculum, school is a place to learn and work. Therefore, the implementation of the environmental curriculum as learning is considered the right thing because it goes directly to students as the main drivers of change so that they can learn and understand the importance of maintaining and preserving the environment in schools in the hope that they can develop their minds and be inspired to become pioneers of environmental conservation. One example of an environment-based curriculum is the PLH (Environmental Education) subject which includes knowledge and environmental conservation, unique facts about nature, and good and correct use of nature according to the rules that will make students interested in the environment.
3. Environmental activities that are participatory, Activities outside the classroom are still a favorite for students to relieve fatigue from studying in class. If activities outside the classroom are inserted with environmental activities with a once-a-week schedule, it will be very interesting because students will be interested in participating in them and indirectly invite students to participate in realizing Adiwiyata schools and help students to explore their school environment further. Environmental activities that can be carried out and can involve a lot of participation and a sense of cooperation among students are community service in the school environment, class beauty, and cleanliness competitions, the challenge of planting toga plants in their respective classrooms, eradicating larvae in the bathroom and their prevention, treat waste according to its sorting. However, as one of the main concepts of an Adiwiyata school is sustainable, this environmental activity must always be carried out.
4. Management of Pre-Supporting Facilities for Environmental Preservation, In addition to students who can be used as targets for environmental conservation, the school is obliged to facilitate the existence of facilities and infrastructure so that the implementation of environmental activities can run optimally and efficiently. Thus, the opportunity to become an Adi-

wiyata School will be even greater because the facilities and infrastructure are already qualified. The facilities and infrastructure referred to here are that the school provides its budget for the fulfillment of facilities and infrastructure, each class is considered for conditions such as air ventilation so that the teaching and learning process is comfortable, fixing damaged or dangerous school facilities, meeting the needs of adequate cleaning tools in the school. classrooms and bathrooms, providing sanitation facilities located at strategic points (canteen, playing field, in front of classrooms) and equipped with hand washing sinks and soap, providing special land for environmental activities such as reforestation land and halls for reforestation. If the fulfillment of pre-facility needs is complete, then outsiders who see it will judge this school as comfortable and worthy of the title of Adiwiyata school.

### ***FGD (Focus Group Discussion)***

In this session, teachers and staff of SDN Nglumber II were divided into several groups to focus more on discussing waste management and Adiwiyata schools. The main purpose of the FGD method is to get closer to the interaction of data and results from a discussion of a group of participants/respondents and to increase the depth of information uncovering a phenomenon so that the phenomenon can be explained. During the FGD session, the teachers and staff were accompanied by a team of lecturers as resource persons if there were questions to be asked and if they wanted a solution to a problem.

During this session, many teachers and staff were invited to discuss how to manage waste at SDN Nglumber II because waste is something that currently requires special attention. Then after discussing it, it was concluded that SDN Nglumber II needs to provide more trash cans which are divided into 2 types, namely organic and inorganic, and carry out routine monitoring of the waste whether it has been disposed of according to its type. Then it will open a waste bank where later in its implementation a program will be held to attract students' interest such as collecting 3 plastic bottles and will get prizes, then empowering waste with 3r characteristics (Reuse, Recycle, Reduce).

1. Reuse = sorting back the waste that is felt to be reusable
2. Recycle = sorting out waste/plastic that meets the requirements to be recycled
3. Reduce = Minimizing the use of waste, especially plastic waste, such as students bringing their plastic cups from home.

After discussing waste management, the FGD continued with discussing Adiwiyata and how to make it happen. Then a conclusion was found between the teachers and staff of SDN Nglumber II and the Lecturer Team from the Faculty of Law, UPN "Veteran" Jawa Timur. The following are some of the points in it:

1. Forming a team consisting of school residents. To start an environmental empowerment action, sufficient human resources are needed to serve as a driving team for the environment itself. So, forming a team consisting of school residents itself is expected to be a good start because school residents are the ones who understand the school environment best.
2. Conducting an Environmental Study, after the team is formed the next thing to do is to first examine the state of the school environment at SDN Nglumber II, this study can cover the environmental conditions at SDN Nglumber II, the constraints or environmental problems being faced by SDN Nglumber II, then what are the solutions appropriate to help deal with it. This needs to be done so that the driving team knows more about what is needed for the Nglumber II Elementary School environment.
3. Preparing plans and actions, this stage can be considered a serious stage of approaching the realization of the Adiwiyata school because here the teams have started to prepare plans for activities or actions that will be carried out to implement the plan. And at this stage, an environmental seminar may also be held by inviting resource persons who are experts in the environmental field or carrying out an environmental action such as making a greenhouse (greenhouse) as an icon at SDN Nglumber II or making a proposal to seek

sponsors or outside funding for this purpose. can facilitate more environmental programs already established.

4. Monitoring and Evaluation. This stage is the last but needs to be implemented regularly and continuously so that the environmental program that is already running continues to be developed and does not end in vain. Monitoring can be implemented through quarterly meetings every 3 months, briefings at each start or end of the event to strengthen teamwork, and periodic monitoring of environmental facilities that have been established and those that have been implemented. Monitoring is also useful for fixing if there are environmental facilities at SDN Nglumber II that are not functioning or damaged.
5. The last stage is if it is felt that SDN Nglumber II is ready to apply to become an Adiwiyata School, immediately register it with the local Environmental Service. Because SDN Nglumber II is located in Bojonegoro Regency, it can register with the Bojonegoro Environmental Service.

### ***Giving symbolic gifts***

The last session was the presentation of symbolic gifts as a form of cooperation between SDN Nglumber II and the team of lecturers and students. The symbolic gift given to symbolize the community service activities carried out today is the Adiwiyata theme. Several hanging ornamental plants were given to slightly facilitate the needs of green plants in SDN Nglumber II. And the delivery of this symbolic prize is expected to be the beginning of a good cooperation step for SDN Nglumber II and UPN "Veteran" Jawa Timur.

### **Conclusion**

This Community Service Program can be well organized and run smoothly by the activity plans that have been prepared. This activity received a very good response as evidenced by the active participation of participants in the mentoring by not leaving the place before the end of the training. The implementation of Community Service is very useful for teachers at SDN Kepohbaru II Nglumber, Bojonegoro. With this activity, it is hoped that awareness about the environment can increase so that the Adiwiyata school can be realized at SDN Kepohbaru II Nglumber Bojonegoro.

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### ***Suggestion***

Based on the evaluation that has been done, some suggestions can be put forward as follows:

1. Existence of follow-up activities in the form of socialization or similar training is always held periodically so that it can increase public awareness of the environment.
2. Knowledge of the Principal, Teachers, and students must also be improved through regular coaching regarding environmental problems so that Adiwiyata schools can be realized.

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