

Implementation of Adiwiyata “Green School” in Chieving Education for Sustainable Development (Case Study at Forestry Vocational School of Pekanbaru)

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Abstract

Ministry of the Environment Indonesia launched Adiwiyata “Green School” program in 2006 for encouraging and forming environmentally friendly and cultured schools that are able to participate and carry out environmental preservation and sustainable development efforts. This paper describes Forestry Vocational School activities in achieving Adiwiyata. The paper also provides information regarding its effectiveness, and challenges during its implementation. The school has adopted Adiwiyata “Green School” since 2013. There are 4 (four) components which are used as a guideline for undertaking adiwiyata school program, including school policies, curriculum, participatory-based activities, and facilities/infrastructure that support environmental education. Adiwiyata is an effective tool in raising environmental awareness that could eventually lead to eco-behavior. However, its implementation should also be supported by other stakeholders/programs as environmental awareness and behavior do not depend solely on Adiwiyata program.

Keywords: Environmental Education; Forestry; School.

Introduction

In the effort to accelerate the development of Environmental Education through formal education, in 2006, the Ministry of the Environment has launched Adiwiyata “Green School” Program, with the aim at encouraging and forming environmentally friendly and cultured schools that are able to participate and carry out environmental preservation and sustainable development efforts for the benefit of the present generation and future (KLH and Kemdikbud, 2011 in Dasrita, Saam, Amin, Siregar, 2015). This program is also considered as one of the strategic efforts in teaching education for sustainable development programs through formal education (Warju, et al., 2017). The school is the initial gateway to gain knowledge and a place for information transfer. Through schools, coaching, establishing, and active involvement of students in growing environmental awareness is very potential. In addition, the school will be able to increase interaction and participation of all stakeholders and the school's academic community to be more concerned about the environment (DLH, 2018). Therefore, the adwiyata school program is also expected to be one of the educational activities that could overcome existing environmental problems.

Since 2006, a total of 7654 schools (around 6% of schools in Indonesia) have received the National Adiwiyata award as a government appreciation for school efforts in realizing environmentally friendly schools (Kemdikbud, 2016). Pekanbaru State Forestry Vocational School has pioneered the implementation of adiwiyata schools since 2013. Forestry Vocational School received national adiwiyata school awards in 2016 after previously receiving adiwiyata at city and provincial level. There are four (4) elements that guide the implementation of Adiwiyata schools including School Policy Development, Development of Environmental-Based Curriculum, Development of Participatory-Based Activities, Management and development of School Support Facilities. In its implementation, Adiwiyata School needs cooperation and the role of related parties ranging from students, teachers, educators, surrounding communities, as well as other institutions / agencies such as other schools, and companies. This paper contains information related to programs implemented by Pekanbaru State Forestry Vocational School and its role in realizing an environmentally conscious generation. In addition, literature studies will also be included in this paper

to find out the effectiveness of Adiwiyata schools in increasing students' environmental awareness. Some problems and challenges related to the implementation of Adiwiyata school will also be outlined in this paper.

Objectives

- Providing information regarding the school's program in fulfilling 4 (four) Adiwiyata "green school" requirements
- Evaluating the effectiveness of Adiwiyata "green school" in changing perspective towards environment
- Explaining problem and challenge arise during Adiwiyata "green school" implementation

Methodology

Forestry Vocational School of Pekanbaru has adopted Adiwiyata 'Green School' since 2013. The adoption of

adiwiyata uses guidelines set by the Ministry of Environment. Adiwiyata is also divided into several levels including municipal/district, provincial, national and independent. Pekanbaru Forestry Vocational School has reached the national level of adiwiyata. There are 4 (four) components of adiwiyata which are used as the criteria for determining adiwiyata schools, including school policies, curriculum, participatory-based activities and facilities/infrastructure that support environmental education (Menlhk, 2016). This paper will provide an overview of the four components of adiwiyata that have been implemented by the Pekanbaru State Forestry Vocational School. Documentations which had been collected during the implementation of Adiwiyata are used as the main reference for making this paper. In addition, the literature review was also done to evaluate the advantages gained from its implementation. Some challenges and problems during the implementation of adiwiyata is also elaborated in this paper. In general, the process of implementing adiwiyata is at the school level as shown below:

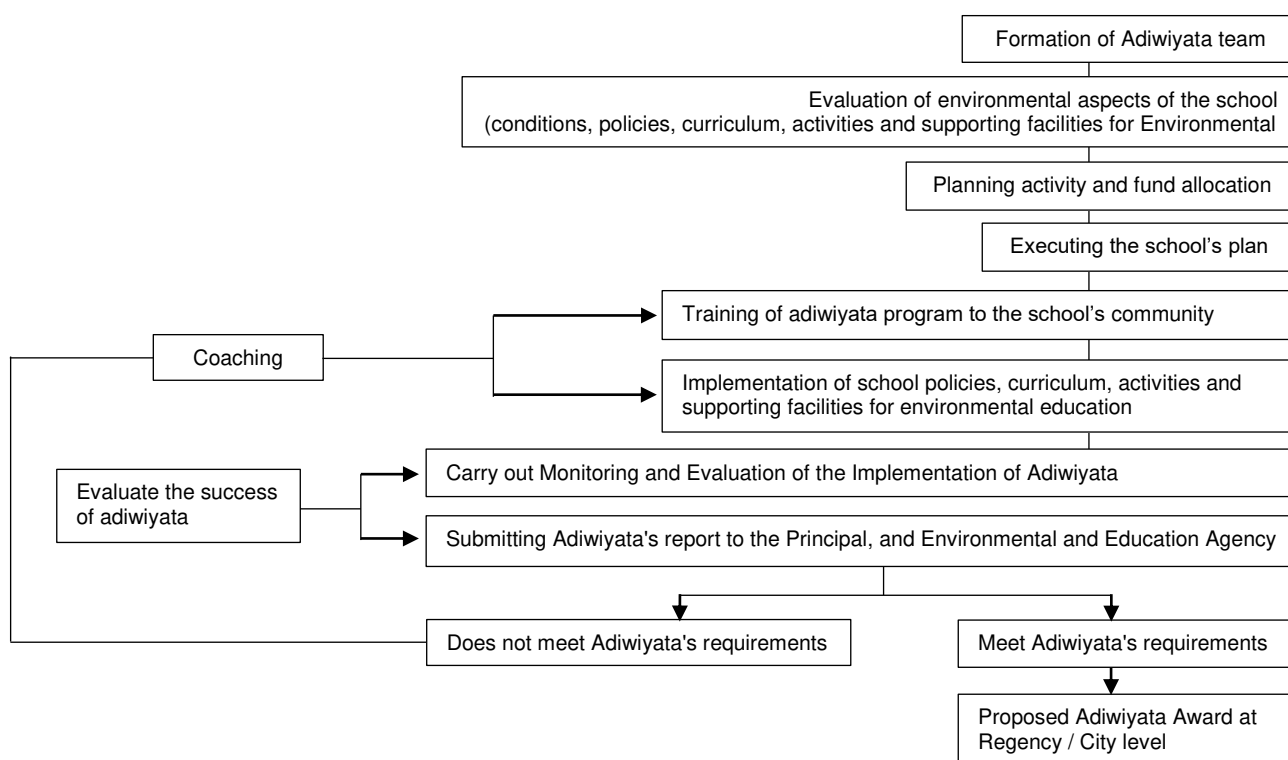


Figure 1. Implementation Mechanism of Adiwiyata at School Level. (Source: Ministry of Environment and Ministry of Education Indonesia)



Figure 2. Level of Green School.

Result and Discussions

Pekanbaru Forestry Vocational School is one of the five State Forestry Vocational Schools which are under

the management of the Ministry of Environment and Forestry. As an environment-based school, Forestry Vocational School organizes various programs related to the efforts to overcome environmental problems. The action is not only conducted in the school but also in the surrounding communities. Referring to the 4 (four) assessment standards set by the Ministry of Environment, the following are examples of activities organized by the Forestry Vocational School:

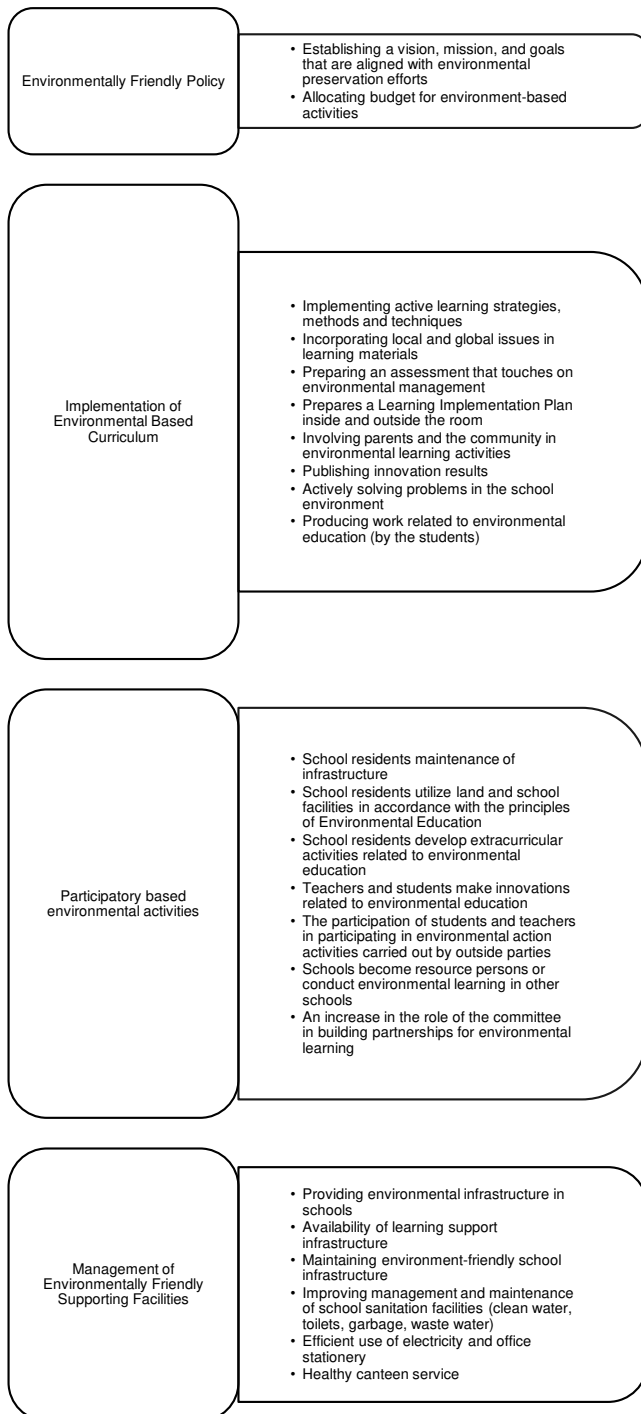


Figure 3. Activities organized by the Forestry Vocational School.

Based on the above program, the assessors from the Environmental Agency and Ecoregion Control Center conduct document assessments and field visits for verification. The determination of the results is based on the assessment indicators according to table 1 below.

Table 1. Adiwiyata Assessment Indicators.

No	Component	Standard	Proof	Max Score
1	Environmentally Friendly Policy	A. Education Unit Level Curriculum (KTSP) contains efforts to protect and manage the environment	3	10
		B. School activity plans and budgets contain programs to protect and manage the environment	7	10
2	Implementation of Environmentally Based Curriculum	A. Educators have the competence in developing environmental learning activities	7	10
		B. Learners conduct learning activities about environmental protection and management	3	10
3	Participatory based environmental activities	A. Carry out planned environmental protection and management activities for school residents	5	10
		B. Establish partnerships in the context of environmental protection and management with various parties (community, government, private sector, media, other schools)	5	10
4	Management of Environmentally Friendly Supporting Facilities	A. Availability of supporting infrastructure that is environmentally friendly	2	10
		B. Improving the quality of management of environmentally friendly facilities and infrastructure in schools	4	10
Sum	4	8	36	80

1	Adiwiyata Award at City / Regency Level	80	70%	56
2	Provincial Level Adiwiyata Award *)	80	80%	64
3	National Adiwiyata Award **)	80	90%	72

** Additional requirements: have received an adiwiyata at city/district award for 1 year

** Additional requirements: have been awarded the province adiwiyata for 1 year

Source: BLH Surabaya, 2012.

Discussion

The existence of Adiwiyata School has a positive contribution in the efforts to increase environmental awareness. Establishing environmentally conscious behavior in the school will have an impact on environmental habits in the family and in the surrounding environment. There are some finding relates to benefit of adiwiyata, those are:

1. Warju, et al. (2017) tried to evaluate the implementation of the Adiwiyata program in 33 schools in Indonesia. They concluded that the Adiwiyata program promotes sustainable development paradigm
2. Iswari and Utomo (2017) found that there is also a relationship between Adiwiyata and the formation of environmental care behaviors, in terms of aspects of students' knowledge, attitudes and actions
3. Tompodung et al. (2018) summarized that Adiwiyata's program gives positive impacts for the green behavior of the school community.
4. Nurwaqidah et al. (2019) explained that Adiwiyata in Ponorogo program could increase environmental literacy
5. Bahrudin (2017) concluded that Adiwiyata schools relates to school physical care where adiwiyata schools tend to have a better and well-maintained school building. Besides that, in the context of forming attitudes and environmental concerns, the Adiwiyata school has a decisive strategic role to form a generation that bears the principles of sustainable living
6. Syoffnelli, Saam, Thamrin (2016) found that there are differences in the level of knowledge and behavior in environmental management between students of SMK 1 Pangkalan Kerinci (Adiwiyata school) and SMK 1 Bunut (non Adiwiyata school) in managing the environment

However, other research also shows that there is no environmental awareness difference between Adiwiyata and non Adiwiyata awarded school (Dasrita, Saam, Amin, Siregar, 2015). This shows that environmental awareness does not depend entirely on the status of the school but it also affected by other factors. Therefore, increasing environmental awareness should be carried out in an integrated way that involve many stakeholders including family environment, government, as well as surrounding community. One of other challenges in Adiwiyata school is that the school sometimes focuses mainly on how to win the awards and forget the main purpose of implementing Adiwiyata schools, which is to create an environmentally conscious generation. In addition, Rahman and Maryani (2017) concluded that miscommunication is the main barrier in carrying out the socialization and internalization of four Adiwiyata components. Principal for examples gives more

emphasis on school facilities and infrastructure. The success implementation of **Adiwiyata** green school needs sincere participation from all school community including school management for the provision of suitable environmental education program and its supporting atmosphere and facilities (Nurwidodo et al., 2019).

By bearing the title of Adiwiyata School, of course the burden and responsibility are also attached to fostering other schools so that they can also become environmentally educated schools. On the other words, schools bearing the title of Adiwiyata School must be able to share insights, experiences, and strategies in realizing Adiwiyata School (DLH, 2018). Despite it needs some more improvement in its implementation, Adiwiyata school award is a proof of the Indonesian government's commitment in realizing Education for Sustainable Development. The Minister of Environment and Forestry of Indonesia, Siti Nurbaya, on Menlhk (2016), hopes that the Adiwiyata award will become a national movement. Through Adiwiyata, it is hoped that school citizens can be responsible for protecting and managing the environment, through good school governance to support sustainable development (mediaindonesia, 2018).

CONCLUSION

Adiwiyata Green School is one of the Indonesian government's programs in realizing sustainable development. Through education, it is hoped that the awareness of the young generation on environmental sustainability can be increased. Pekanbaru State Forestry Vocational School as one of the environment-based schools will always strive to innovate in producing an environmentally conscious generation and try to take part in overcoming environmental problems.

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