Evaluation of the Implementation of the Adiwiyata Program in Elementary Schools in Grogol Petamburan District, Jakarta, Indonesia

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A B S T R A C T

The Adiwiyata program is a movement carried out by school residents related to environmental care. This study aimed to obtain information related to the implementation of the Adiwiyata program in public elementary schools in the Grogol Petamburan District. The evaluation model used is CIPP, namely context, input, process, and product. This research method uses an evaluative approach. Scientific data were obtained through interviews, observations, and documentation, including documents on student learning outcomes. Interviews were conducted with school residents, namely school supervisors, principals, vice principals, teachers, the school Adiwiyata team, students, canteen traders, and parents or local residents. The results of the research on the implementation of the Adiwiyata program show that the component's context, the elementary school, has responded series this government policy by integrating various environmental issues in the vision, mission, school regulations, and in the implementation of the educational curriculum. On component input, the budget for the Adiwiyata program is available in the RKAS, the school's human resources include teachers and students, the facilities and infrastructure are adequate to support the Adiwiyata program, and it has a strategy to become an Adiwiyata school. In the components process, the school has gone through the stages of becoming an Adiwiyata school. Learning has been integrated with the Adiwiyata program and has a variety of concrete actions carried out by school members. Component product, there is the participation of students and school members to carry out real actions to preserve the environment. In conclusion, the implementation of the Adiwiyata program in elementary schools in Grogol Petamburan District, Jakarta, Indonesia, has been quite good, where systematic and coordinated efforts have been seen to realize the Adiwiyata program.

1. Introduction

The Adiwiyata program is a national program in Indonesia that aims to encourage schools to implement environmentally friendly and sustainable practices. This program aims to form a generation that cares and is responsible for the surrounding environment. Evaluation of the implementation of the Adiwiyata program in schools is an important step in assessing the success and impact of the program. The Adiwiyata program aims to create environmental awareness among students, teachers, and the school community. Through this program, schools become environmental education centers that teach the importance of nature conservation, resource management, and environmental protection. By raising environmental awareness from an early age, the Adiwiyata program helps create a generation that cares about the environment.[1-5]

The Adiwiyata program encourages the development of environment-based learning. Schools implementing this program integrate environmental issues into the curriculum so that students learn about the relationship between humans and nature and the importance of maintaining ecosystem balance.

This environment-based learning allows students to develop understanding and skills that are relevant to today's environmental challenges. Through the Adiwiyata program, schools are expected to implement environmentally friendly practices such as waste management, energy saving, efficient use of clean water, and tree planting. By doing this, schools can create a healthy and comfortable learning environment for students. In addition, these environmentally friendly practices can also reduce the negative impact on the environment as a whole.[6,7]

The Adiwiyata program encourages the active participation of all members of the school community, including students, teachers, school staff, and parents. Through participatory activities, such as managing school gardens, organic gardens, or environmental campaigns, this program creates collective awareness and a spirit of togetherness in protecting the school environment and its surroundings. The involvement of the school community can also extend the positive impact of the Adiwiyata program beyond the school itself.[8-10] This study aimed to evaluate the implementation of the adiwiyata program in elementary schools in Grogol Petamburan District, Jakarta, Indonesia.

2. Methods

This study is a descriptive observational study. This study conducted studies using secondary data obtained from the school's vision and mission files, school regulations, and the integration of the Adiwiyata program with school subjects. This study was conducted at two elementary schools in Grogol Petamburan District, Jakarta, Indonesia, namely SDN Wijaya Kusuma 05 and SDN Tanjung Duren Selatan 01. Subject the evaluation was carried out by the principal, teachers, and students. The CIPP (context, input, process, product) evaluation method is a comprehensive evaluation approach and is often used in the context of education and development programs.

This method consists of four main components covering various aspects of evaluation. Context is a component that focuses on evaluating the program's external environment, including needs, problems, and conditions that affect the implementation of the Adiwiyata program in schools. Evaluation of this context involves an analysis of relevant policies, rules, and regulations, as well as the social, cultural, and physical environment conditions in the school and surrounding community. Input is a component related to the evaluation of the resources needed for the implementation of the Adiwiyata program in schools. Input evaluation involves assessing the plans, budget, manpower, facilities, and other resources available to support program implementation. Evaluation can also include an analysis of the curriculum, learning materials, and training provided to teachers and school staff. The process is a component related to the evaluation of the process of implementing the Adiwiyata program in schools. Evaluation of this process involves an assessment of the strategies, activities, and interactions that occur in program implementation. Evaluation can be done through observation, interviews, and document analysis to understand how far the program is being implemented according to plan, how students, teachers, and school staff are involved, as well as other factors that influence implementation. Product is a component related to the evaluation of results or products resulting from the implementation of the Adiwiyata program in schools. Evaluation of this product involves assessing student learning outcomes, changes in behavior, and the resulting impact in the context of environment and sustainability. Evaluation can also include measuring performance indicators that have been set in the Adiwiyata program, such as waste management, energy saving, or increasing environmental awareness.

3. Results and Discussion
Context

In the analysis of policies and regulations related to Adiwiyata, it can be found that the government provides strong support in efforts to preserve the environment in elementary schools. At the national

level, the government has issued a policy that encourages the implementation of the Adiwiyata program in all elementary schools. For example, a Minister of Environment and Forestry issued a regulation that provides technical guidelines and directions for the implementation of the Adiwiyata program. The government has also allocated a special budget to support the Adiwiyata program in elementary schools. This shows the government's commitment to providing the necessary resources to implement the program. The government cooperates with related institutions, such as the Ministry of Education and Culture, in promoting and supporting the implementation of Adiwiyata in elementary schools. This collaboration demonstrates the synergy between various government agencies to achieve common goals in environmental preservation. The government also actively conducts advocacy and campaigns to increase public awareness about the importance of environmental preservation in elementary schools. For example, through national or regional campaigns, the government seeks to increase participation and support from various related parties. The government has integrated environmental issues into the national education curriculum, including in elementary schools. This shows serious attention to education and increasing awareness of students about environmental preservation from an early age. The elementary school has responded series this government policy by integrating various environmental issues in the vision, mission, school regulations, and in the implementation of the educational curriculum.

Input

The elementary school has developed a detailed financial management plan for the Adiwiyata program. The plan includes budget allocations for Adiwiyata activities such as procurement of equipment, training, curriculum development, and other environmental activities. The Adiwiyata program implementation plan involves the allocation of adequate human resources. The school has budgeted for the training of teachers

and school staff on environmental issues, as well as the assignment of special working hours to supervise and implement Adiwiyata activities. The prepared budget has covered the fulfillment of infrastructure and facilities needed to support the Adiwiyata program. For example, the allocation of funds for the construction of separate trash cans, the development of school garden areas, increasing the efficiency of energy use, or the installation of recycling facilities. The budget plan also includes the procurement of equipment and materials needed for Adiwiyata activities. For example, purchasing air quality measuring devices, recycling equipment, planting seeds, or laboratory equipment for environmental education activities. Through this evaluation, it can be concluded that the plans and budget preparation are sufficient to support the implementation of the Adiwiyata program in elementary schools. This ensures the availability of the necessary resources, both in terms of finance and infrastructure, and strengthens the effective and sustainable implementation of Adiwiyata activities.

Process

Elementary schools have implemented separate waste collection activities by dividing waste into different categories, such as organic waste, plastic waste, and paper waste. There are bins that are clearly identified and provided at various locations in the school, as well as cleaning staff who are responsible for managing the waste. Observations show that schools have adopted energy-saving measures, such as using energy-saving lamps, turning off electrical appliances that are not used, and managing room temperature wisely. In addition, there are also efforts to educate students about the importance of saving energy through teaching campaigns and programs. Tree planting activities are carried out as an effort to increase biodiversity and make the school area green. Observations show that tree planting is carried out regularly by involving students, teachers, and school staff. The trees planted are well cared for and cared for to ensure healthy growth. In the evaluation results

using the CIPP method, these findings indicate that Adiwiyata activities in elementary schools have been implemented properly. Separate waste collection, energy saving, and tree planting are indicators of the successful implementation of the Adiwiyata program, which leads to better environmental management. In addition, student participation and the school's active involvement in these activities are also important aspects that support the success of the Adiwiyata program in elementary schools.

The results of interviews with teachers, school staff, and students in the evaluation of the Adiwiyata program indicated a high level of involvement in these activities, as well as positive changes in students' behavior regarding the environment. Teachers, school staff, and students are actively involved in Adiwiyata activities. They involve themselves in planning, implementing, and evaluating environmental activities in schools. Teachers act as facilitators and integrate environmental issues into everyday learning, while school staff assists in organizing logistics and supporting environmental activities. Students also actively participate in Adiwiyata activities, such as caring for the school garden, collecting separate trash, and participating in environmental training. Interviews with students revealed positive changes in their behavior regarding the environment. Students begin to appreciate the importance of environmental preservation and feel responsible for doing so. They are more aware of the use of resources, such as water and electricity, and reduce waste. In addition, students also become more aware of the importance of disposing of trash properly and keeping the environment clean. Teachers and school staff reported an increase in student awareness of environmental issues. Students show a greater interest in learning about the environment and playing a role in preserving the environment. They are more active in inviting others to participate in environmental activities and sharing the knowledge they gain with family and friends. These findings indicate the program's success in achieving its main objective, which is to increase awareness and change student behavior regarding the

environment. The high involvement of teachers, school staff, and students is an important factor in achieving this positive change. In addition, students' increased environmental awareness also indicates a long-term impact of the Adiwiyata program on the formation of sustainable environmental attitudes and values.

Product

Observations and interviews show that students are actively involved in Adiwiyata activities. They participate in various environmental activities such as separate waste collection, tree planting, energy saving, and recycling activities. This participation reflects students' awareness of the importance of protecting the environment and their desire to contribute to environmental preservation efforts. Interviews with students also revealed positive changes in their daily behavior regarding the environment. For example, students are starting to adopt water-efficient use by turning off taps when not in use, using reusable drinking bottles instead of single-use plastic bottles, and reducing plastic bag use by bringing their own shopping bags. This shows that students have internalized environmental values and applied them in everyday life. Students also demonstrate a better understanding of the environmental impact of their actions. They realize that their behavior can affect the quality of the environment and the sustainability of natural resources. This awareness encourages students to take positive action, both within the school environment and at home, to reduce negative impacts and preserve the environment. By increasing student participation in Adiwiyata activities and changing daily behavior, it can be concluded that the Adiwiyata program has been successful in increasing student awareness about the importance of environmental preservation. Students are not only involved in environmental activities at school but also apply environmental principles in their daily lives. This shows that the Adiwiyata program has a positive impact on shaping sustainable and responsible behavior related to the environment in elementary school students.

Observations show that through the Adiwiyata program, the school garden has increased biodiversity. By planting a variety of trees, plants, and flowers, the school garden becomes a habitat that supports the lives of insects, birds, and other small animals. This biodiversity reflects the school's efforts to create a friendly environment and support the local ecosystem. Students involved in the Adiwiyata program develop a higher sense of responsibility towards the environment. They feel responsible for caring for the school garden, keeping the environment clean, and protecting the existing biodiversity. Students are actively involved in school gardens maintenance activities, such as watering plants, fertilizing, and maintaining the preservation of flora and fauna. The Adiwiyata program also has an impact on increasing student awareness about the importance of biodiversity and responsibility for the environment. Through environmental education integrated into the program, students gain an understanding of ecosystems, food chains, and human dependence on nature. This reinforces their sense of responsibility towards the environment and the importance of protecting biodiversity. By increasing biodiversity in school gardens and increasing students' sense of responsibility towards the environment, the Adiwiyata program has been successful in achieving the expected positive impact. This impact is not only visible physically in the form of increased biodiversity but also in the form of changes in students' attitudes and behavior toward the environment. This shows that the Adiwiyata program makes a significant contribution to building sustainable environmental awareness and involving students in real action for environmental preservation.

The importance of environmental preservation

Environmental preservation ensures the sustainable availability of natural resources for humans. A healthy and sustainable environment provides clean water, fresh air, food, and natural raw materials necessary for human life. By protecting the environment, humans can continue to rely on and utilize these natural resources. A healthy environment has a positive impact on human health. Environmental preservation includes maintaining the quality of air, water, and soil that is clean from pollution. This reduces the risk of developing respiratory diseases, infections, and other health problems. Preserved biodiversity can also provide an important source of natural medicines for humans.[11-13]

Environmental preservation plays an important role in the sustainability of the human economy. Healthy ecosystems support economic activities such as agriculture, fishing, tourism, and other industries. The well-maintained preservation of natural resources allows humans to use them in a sustainable manner, maintaining livelihood sustainability and economic growth.[14-16] Environmental preservation also helps in the control of natural disasters. Maintained forests and good vegetation play a role in holding soil, reducing erosion, and mitigating floods. Healthy ecosystems also play a role in reducing the risk of forest fires and other natural disasters.[17] By protecting the environment, humans can protect themselves from the threat of natural disasters, which are often related to climate change.[18] Environmental preservation ultimately has an impact on the quality of human life as a whole. A well-maintained environment provides a comfortable, beautiful and friendly place to live for humans.[19] Enjoying nature and its biodiversity enhances human happiness, emotional well-being, and social life.[20]

4. Conclusion

Implementation of the Adiwiyata program in elementary schools in Grogol Petamburan District, Jakarta, Indonesia, has been quite good, where systematic and coordinated efforts have been seen to realize the Adiwiyata program.

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ABSTRACT

The Adiwiyata program is a movement carried out by school residents related to environmental care. This study aimed to obtain information related to the implementation of the Adiwiyata program in public elementary schools in the Grogol Petamburan District. The evaluation model used is CIPP, namely context, input, process, and product. This research method uses an evaluative approach. Scientific data were obtained through interviews, observations, and documentation, including documents on student learning outcomes. Interviews were conducted with school residents, namely school supervisors, principals, vice principals, teachers, the school Adiwiyata team, students, canteen traders, and parents or local residents. The results of the research on the implementation of the Adiwiyata program show that the component's context, the elementary school, has responded series this government policy by integrating various environmental issues in the vision, mission, school regulations, and in the implementation of the educational curriculum. On component input, the budget for the Adiwiyata program is available in the RKAS, the school's human resources include teachers and students, the facilities and infrastructure are adequate to support the Adiwiyata program, and it has a strategy to become an Adiwiyata school. In the components process, the school has gone through the stages of becoming an Adiwiyata school. Learning has been integrated with the Adiwiyata program and has a variety of concrete actions carried out by school members. Component product, there is the participation of students and school members to carry out real actions to preserve the environment. In conclusion, the implementation of the Adiwiyata program in elementary schools in Grogol Petamburan District, Jakarta, Indonesia, has been quite good, where systematic and coordinated efforts have been seen to realize the Adiwiyata program.

1. Introduction

The Adiwiyata program is a national program in Indonesia that aims to encourage schools to implement environmentally friendly and sustainable practices. This program aims to form a generation that cares and is responsible for the surrounding environment. Evaluation of the implementation of the Adiwiyata program in schools is an important step in assessing the success and impact of the program. The Adiwiyata program aims to create environmental awareness among students, teachers, and the school community. Through this program, schools become environmental education centers that teach the importance of nature conservation, resource management, and environmental protection. By raising environmental awareness from an early age, the Adiwiyata program helps create a generation that cares about the environment.[1-5]

The Adiwiyata program encourages the development of environment-based learning. Schools implementing this program integrate environmental issues into the curriculum so that students learn about the relationship between humans and nature and the importance of maintaining ecosystem balance.

286

This environment-based learning allows students to develop understanding and skills that are relevant to today's environmental challenges. Through the Adiwiyata program, schools are expected to implement environmentally friendly practices such as waste management, energy saving, efficient use of clean water, and tree planting. By doing this, schools can create a healthy and comfortable learning environment for students. In addition, these environmentally friendly practices can also reduce the negative impact on the environment as a whole.[6,7]

The Adiwiyata program encourages the active participation of all members of the school community, including students, teachers, school staff, and parents. Through participatory activities, such as managing school gardens, organic gardens, or environmental campaigns, this program creates collective awareness and a spirit of togetherness in protecting the school environment and its surroundings. The involvement of the school community can also extend the positive impact of the Adiwiyata program beyond the school itself.[8-10] This study aimed to evaluate the implementation of the adiwiyata program in elementary schools in Grogol Petamburan District, Jakarta, Indonesia.

2. Methods

This study is a descriptive observational study. This study conducted studies using secondary data obtained from the school's vision and mission files, school regulations, and the integration of the Adiwiyata program with school subjects. This study was conducted at two elementary schools in Grogol Petamburan District, Jakarta, Indonesia, namely SDN Wijaya Kusuma 05 and SDN Tanjung Duren Selatan 01. Subject the evaluation was carried out by the principal, teachers, and students. The CIPP (context, input, process, product) evaluation method is a comprehensive evaluation approach and is often used in the context of education and development programs.

This method consists of four main components covering various aspects of evaluation. Context is a component that focuses on evaluating the program's external environment, including needs, problems, and conditions that affect the implementation of the Adiwiyata program in schools. Evaluation of this context involves an analysis of relevant policies, rules, and regulations, as well as the social, cultural, and physical environment conditions in the school and surrounding community. Input is a component related to the evaluation of the resources needed for the implementation of the Adiwiyata program in schools. Input evaluation involves assessing the plans, budget, manpower, facilities, and other resources available to support program implementation. Evaluation can also include an analysis of the curriculum, learning materials, and training provided to teachers and school staff. The process is a component related to the evaluation of the process of implementing the Adiwiyata program in schools. Evaluation of this process involves an assessment of the strategies, activities, and interactions that occur in program implementation. Evaluation can be done through observation, interviews, and document analysis to understand how far the program is being implemented according to plan, how students, teachers, and school staff are involved, as well as other factors that influence implementation. Product is a component related to the evaluation of results or products resulting from the implementation of the Adiwiyata program in schools. Evaluation of this product involves assessing student learning outcomes, changes in behavior, and the resulting impact in the context of environment and sustainability. Evaluation can also include measuring performance indicators that have been set in the Adiwiyata program, such as waste management, energy saving, or increasing environmental awareness.

3. Results and Discussion
Context

In the analysis of policies and regulations related to Adiwiyata, it can be found that the government provides strong support in efforts to preserve the environment in elementary schools. At the national

level, the government has issued a policy that encourages the implementation of the Adiwiyata program in all elementary schools. For example, a Minister of Environment and Forestry issued a regulation that provides technical guidelines and directions for the implementation of the Adiwiyata program. The government has also allocated a special budget to support the Adiwiyata program in elementary schools. This shows the government's commitment to providing the necessary resources to implement the program. The government cooperates with related institutions, such as the Ministry of Education and Culture, in promoting and supporting the implementation of Adiwiyata in elementary schools. This collaboration demonstrates the synergy between various government agencies to achieve common goals in environmental preservation. The government also actively conducts advocacy and campaigns to increase public awareness about the importance of environmental preservation in elementary schools. For example, through national or regional campaigns, the government seeks to increase participation and support from various related parties. The government has integrated environmental issues into the national education curriculum, including in elementary schools. This shows serious attention to education and increasing awareness of students about environmental preservation from an early age. The elementary school has responded series this government policy by integrating various environmental issues in the vision, mission, school regulations, and in the implementation of the educational curriculum.

Input

The elementary school has developed a detailed financial management plan for the Adiwiyata program. The plan includes budget allocations for Adiwiyata activities such as procurement of equipment, training, curriculum development, and other environmental activities. The Adiwiyata program implementation plan involves the allocation of adequate human resources. The school has budgeted for the training of teachers and school staff on environmental issues, as well as the assignment of special working hours to supervise and implement Adiwiyata activities. The prepared budget has covered the fulfillment of infrastructure and facilities needed to support the Adiwiyata program. For example, the allocation of funds for the construction of separate trash cans, the development of school garden areas, increasing the efficiency of energy use, or the installation of recycling facilities. The budget plan also includes the procurement of equipment and materials needed for Adiwiyata activities. For example, purchasing air quality measuring devices, recycling equipment, planting seeds, or laboratory equipment for environmental education activities. Through this evaluation, it can be concluded that the plans and budget preparation are sufficient to support the implementation of the Adiwiyata program in elementary schools. This ensures the availability of the necessary resources, both in terms of finance and infrastructure, and strengthens the effective and sustainable implementation of Adiwiyata activities.

Process

Elementary schools have implemented separate waste collection activities by dividing waste into different categories, such as organic waste, plastic waste, and paper waste. There are bins that are clearly identified and provided at various locations in the school, as well as cleaning staff who are responsible for managing the waste. Observations show that schools have adopted energy-saving measures, such as using energy-saving lamps, turning off electrical appliances that are not used, and managing room temperature wisely. In addition, there are also efforts to educate students about the importance of saving energy through teaching campaigns and programs. Tree planting activities are carried out as an effort to increase biodiversity and make the school area green. Observations show that tree planting is carried out regularly by involving students, teachers, and school staff. The trees planted are well cared for and cared for to ensure healthy growth. In the evaluation results

using the CIPP method, these findings indicate that Adiwiyata activities in elementary schools have been implemented properly. Separate waste collection, energy saving, and tree planting are indicators of the successful implementation of the Adiwiyata program, which leads to better environmental management. In addition, student participation and the school's active involvement in these activities are also important aspects that support the success of the Adiwiyata program in elementary schools.

The results of interviews with teachers, school staff, and students in the evaluation of the Adiwiyata program indicated a high level of involvement in these activities, as well as positive changes in students' behavior regarding the environment. Teachers, school staff, and students are actively involved in Adiwiyata activities. They involve themselves in planning, implementing, and evaluating environmental activities in schools. Teachers act as facilitators and integrate environmental issues into everyday learning, while school staff assists in organizing logistics and supporting environmental activities. Students also actively participate in Adiwiyata activities, such as caring for the school garden, collecting separate trash, and participating in environmental training. Interviews with students revealed positive changes in their behavior regarding the environment. Students begin to appreciate the importance of environmental preservation and feel responsible for doing so. They are more aware of the use of resources, such as water and electricity, and reduce waste. In addition, students also become more aware of the importance of disposing of trash properly and keeping the environment clean. Teachers and school staff reported an increase in student awareness of environmental issues. Students show a greater interest in learning about the environment and playing a role in preserving the environment. They are more active in inviting others to participate in environmental activities and sharing the knowledge they gain with family and friends. These findings indicate the program's success in achieving its main objective, which is to increase awareness and change student behavior regarding the environment. The high involvement of teachers, school staff, and students is an important factor in achieving this positive change. In addition, students' increased environmental awareness also indicates a long-term impact of the Adiwiyata program on the formation of sustainable environmental attitudes and values.

Product

Observations and interviews show that students are actively involved in Adiwiyata activities. They participate in various environmental activities such as separate waste collection, tree planting, energy saving, and recycling activities. This participation reflects students' awareness of the importance of protecting the environment and their desire to contribute to environmental preservation efforts. Interviews with students also revealed positive changes in their daily behavior regarding the environment. For example, students are starting to adopt water-efficient use by turning off taps when not in use, using reusable drinking bottles instead of single-use plastic bottles, and reducing plastic bag use by bringing their own shopping bags. This shows that students have internalized environmental values and applied them in everyday life. Students also demonstrate a better understanding of the environmental impact of their actions. They realize that their behavior can affect the quality of the environment and the sustainability of natural resources. This awareness encourages students to take positive action, both within the school environment and at home, to reduce negative impacts and preserve the environment. By increasing student participation in Adiwiyata activities and changing daily behavior, it can be concluded that the Adiwiyata program has been successful in increasing student awareness about the importance of environmental preservation. Students are not only involved in environmental activities at school but also apply environmental principles in their daily lives. This shows that the Adiwiyata program has a positive impact on shaping sustainable and responsible behavior related to the environment in elementary school students.

289

Observations show that through the Adiwiyata program, the school garden has increased biodiversity. By planting a variety of trees, plants, and flowers, the school garden becomes a habitat that supports the lives of insects, birds, and other small animals. This biodiversity reflects the school's efforts to create a friendly environment and support the local ecosystem. Students involved in the Adiwiyata program develop a higher sense of responsibility towards the environment. They feel responsible for caring for the school garden, keeping the environment clean, and protecting the existing biodiversity. Students are actively involved in school gardens maintenance activities, such as watering plants, fertilizing, and maintaining the preservation of flora and fauna. The Adiwiyata program also has an impact on increasing student awareness about the importance of biodiversity and responsibility for the environment. Through environmental education integrated into the program, students gain an understanding of ecosystems, food chains, and human dependence on nature. This reinforces their sense of responsibility towards the environment and the importance of protecting biodiversity. By increasing biodiversity in school gardens and increasing students' sense of responsibility towards the environment, the Adiwiyata program has been successful in achieving the expected positive impact. This impact is not only visible physically in the form of increased biodiversity but also in the form of changes in students' attitudes and behavior toward the environment. This shows that the Adiwiyata program makes a significant contribution to building sustainable environmental awareness and involving students in real action for environmental preservation.

The importance of environmental preservation

Environmental preservation ensures the sustainable availability of natural resources for humans. A healthy and sustainable environment provides clean water, fresh air, food, and natural raw materials necessary for human life. By protecting the environment, humans can continue to rely on and utilize these natural resources. A healthy environment has a positive impact on human health. Environmental preservation includes maintaining the quality of air, water, and soil that is clean from pollution. This reduces the risk of developing respiratory diseases, infections, and other health problems. Preserved biodiversity can also provide an important source of natural medicines for humans.[11-13]

Environmental preservation plays an important role in the sustainability of the human economy. Healthy ecosystems support economic activities such as agriculture, fishing, tourism, and other industries. The well-maintained preservation of natural resources allows humans to use them in a sustainable manner, maintaining livelihood sustainability and economic growth.[14-16] Environmental preservation also helps in the control of natural disasters. Maintained forests and good vegetation play a role in holding soil, reducing erosion, and mitigating floods. Healthy ecosystems also play a role in reducing the risk of forest fires and other natural disasters.[17] By protecting the environment, humans can protect themselves from the threat of natural disasters, which are often related to climate change.[18] Environmental preservation ultimately has an impact on the quality of human life as a whole. A well-maintained environment provides a comfortable, beautiful and friendly place to live for humans.[19] Enjoying nature and its biodiversity enhances human happiness, emotional well-being, and social life.[20]

4. Conclusion

Implementation of the Adiwiyata program in elementary schools in Grogol Petamburan District, Jakarta, Indonesia, has been quite good, where systematic and coordinated efforts have been seen to realize the Adiwiyata program.

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