

**EFFECT OF ENVIRONMENT AND ETHICS EDUCATION ENVIRONMENT FOR  
PEOPLE'S PARTICIPATION IN ENVIRONMENTAL CONSERVATION DISTRICT  
DELI SERDANG**

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**Abstract**

In keeping with environmental sustainability in this world it is necessary efforts to preserve the environment around us so that there is harmonization between fellow creatures living environment. Education about the environment greatly affect the role or participation to environmental preservation in the amount of 75.5%. Environmental ethics also has a positive effect on people's participation amounted to 20.7% and environmental education and environmental ethics have a positive effect by 57, 68%.

**Keywords:** Environmental Education, Environmental Ethics and Public Participation

## 1. Introduction

The historical development of the world starting from human existence on this earth and how humans interact with their environment. If we compare it to a few years ago, the environment around us is still so natural and cool, the amount of forest land is a habitat for many species of animals has now been turned into settlements residents, factories, shopping areas, farmland, and so on. This will lead to far-reaching impact for our lives in the future such as: floods, landslides, extinction of various species of rare, limited availability of clean water and lead to global warming.

Wahyu Arya Wardana, revealed that everyday human activities often lead to the destruction of the environment in which it is caused by human a part behavior in order to improve the quality and comfort of life. Habits and human behavior normally associated with industrial activity that is not well done and effective and does not pay attention to the surrounding environment.

We both know that the haze hit the region Deli Serdang which time many schools were closed even in smog-prone areas as well as areas that have oil palm plantations at the expense of innocent human life. Conditions of environmental damage that has been sacrificed human life is already very alarming because of the man who died. Humans who do not have the environmental ethic that does not care about the condition of natural resources are destroyed without any improvement in the efforts to overcome the environmental crisis. A decrease in the quality of the environment is increasingly disturbing the public because it leads to the loss of innocent human life so that more children die especially if we see that the green area had been replaced with condos because development can not be stopped.

The more people, the more the land should be used to make settlements where they live, the more people the more the need for staples which led to the construction industry and agricultural land will increase. Therefore, with the increasing number of people are increasing the number of development and we have to do a development that is environmentally friendly and mutually beneficial between human life and the lives of other living beings and the environment we live in order to keep always the environmental balance. Through education we can teach the younger generation how to suppress the increase in air pollution and it is one of the potential efforts in overcoming the environmental crisis is the case today.

Environmental Education presented the school environment would be more effective to touch and rub off on the students that we foster so it is very necessary to be delivered in schools. In education we can directly embed a concern for the preservation of natural resources and the environment by disposing of waste in place. By entering kurukulum environmental education in schools and can be done through a learning process that is uncharged environmental education. Convenience school environment with beautiful plants, cleanliness and facilities supported by the school.

Environmental education in the school environment is a fundamental capital invested in students and is one effort that could be developed so that people can participate in maintaining the environment. Issues the environmental crisis has been long discussed internationally that we can see the Kyoto Protocol agreement September 24, 2003 in which the committee is to discuss the environmental crisis.

In our daily lives we must instill the ethical environment in which the life of the environment around us must be maintained properly so that the harmonization of life in an environment that can run well and interdependence. Environmental ethics will provide an understanding of human behavior on the environment is a human relationship with plants, human relationships with animals are nearby so as to create a harmonious environment between the life that exist in an environment. All the people in this world should contribute to the environment so that it would be a good environment caused by the human role through its participation to the surrounding environment. Public participation is expected to preserve the environment so as to create life balance among living things that exist around the neighborhood.

## **2. Problem Formulation**

based rear described above, it can be the formulation of the problem as follows:

1. Is there any influence of environmental education to the participation of environmental conservation.
2. Is there any influence of environmental ethics to the participation of environmental conservation.
3. Is there any influence of environmental education and environmental ethics to the participation of environmental conservation.

The research was conducted with the aim to reveal the influence of environmental education and environmental ethics for public participation in environmental conservation. In particular, this study aims to determine or assess the following:

1. Effect of environmental education to community participation in environmental conservation.
2. Effect of environmental ethics for public participation in environmental conservation.
3. Effect of environmental education and environmental ethics for public participation in environmental conservation.

Environmental state at this point that has undergone drastic changes, which in turn impacts of natural disasters everywhere. If we consider the developments taking place at the present time

the contrary where we can see that there is already a warning around the world that global warming is already happening due to the act of man.

As a result of the development of technology and humans are getting smarter and greedy because the education they had not to care for the earth and everything in it, but be damaging to the environment. According Setiawan (2010), who said that environmental awareness can be implanted effectively through education in schools. Greatly influenced the development of physical education, faculties (intellect, taste and whim) social and human morality as well as an important tool to keep yourself and nurture positive values.

Environmental conditions continued to deteriorate because of the lack of improvement efforts undertaken by the relevant government in tackling the environmental crisis are now being hit globally. The number of natural disasters everywhere caused by human greed that is not friendly to the environment because they wanted to enrich himself by way of logging on trees and replace them with buildings so high that some people say that the number of natural disasters as a whole on this earth is due to human activities that do not care and are not environmentally friendly.

Through education that is taught to students are expected to impact on increasing knowledge and skills and will help in the formation of positive attitudes and behaviors. Environmentally friendly behavior can be shaped as expected and is determined by three things:

1. Establishment of behavior with the habit.
2. Establishment of behavior with understanding.
3. Establishment of behavior by a model or example. (Walgito, 2010).

To suppress the further degradation of the environment necessary for environmental education given to the public, both formally and informally.

Education is a process of personal formation, preparation of citizens and preparation of manpower and the presence of human education is expected to further understand and can behave as expected. Through formal and informal education we can change the behavior of learners so that learners know what he does not know.

Referring to the study of 'Our Common future (1987) conducted by the World Commission on Environment and Development to the United Nations General Assembly and the Earth Summit in Rio de Janeiro, 1992, suggested that development be done should refer to the sustainable development approach as a global issue. As a process, sustainable development or sustainable development should look at that development is an integrated system consisting of aspects of both national and international interest and to ensure the survival of the ecological, economic and socio-cultural as well as the responsibility of all parties. Understanding the environment

according to Chiras related to the natural environment around the attractions that everything that exists around good tourist environment of water, air, soil, vegetation, and so on.

Ethics comes from the Greek "ethos" which means that examines the nature of the standards and moral judgment.

Syamsuri (1996) says that ethics is a branch of philosophy related to normative moral ethics that serve as moral guidance that comes from within man himself.

Environmental ethics function in two things:

1. To balance the rights and obligations of humans to their environment.
2. Limiting behavior and efforts to control various activities in order to remain within reasonable limits.

In public life we must live in mutual respect and mutual maintain manners, behavior and how to talk to others. Everything we do can not be separated from morality or ethics because ethics is a habit inherited from our ancestors.

Ethics understood how people live and behave well in society at large so as to interact well with each other in carrying out daily activities.

In connection with what was said by the environmental ethics is concerning norms and rules governing how the behavior of human beings towards nature both biotic and abiotic.

According to Holmes Rolston (2003), who said that environmental ethics is the theory and practice related to appropriate action based on the values that preserve nature. Every human being is very different view on how we should interact with our environment especially it concerns the nature of plants in places where we are.

Then Soerjani, et al, (1987), said that environmental ethics is a clue or direction of human behavior in pursuit of the realization of the moral environment and the ethics of the environment, the human will share the rights and obligations to the environment and limiting behavior and efforts to control various activities in order not to exceed environmental carrying capacity.

Keraf (2005) explained that there were 9 principle in environmental ethics, namely:

1. Respect for nature.
2. The responsibility for the environment.
3. cosmic solidarity that encourages people to save the environment.
4. Compassion and concern for nature.

5. Do not harm nature.
6. Living simply and in harmony with nature.
7. Justice.
8. Democracy.
9. Moral integrity.

In everyday life we often hear the word of participation because in carrying out household tasks all family members participate implement existing activities so that it can be said that the participation is to take part in the execution of the task.

Participation is generally a participation or participation / involvement of individual communities either individually or in groups in an activity. Participation is one way to increase the government's responsibility to give the public to participate and be involved in environmental conservation activities of tourism, ranging from design, processing and results, especially regarding the problems in the tourist environment.

Generally Nitisemito suggests that participation is the participation of other parties in the sense that the government can be more successful in carrying out his duties if he can increase community participation.

This definition focuses on the participation of an individual or community involvement in an activity that will lead to the achievement of objectives. The assumption underlying this definition that the purpose of the work will be accomplished more effectively and efficiently if all the components involved and not just dominated by the leaders, but between the government and society in general have similar interests, needs, aspirations, objectives and expectations of any work.

David and Newstrom clearly define participation is an individual's mental and emotional involvement of people in a group situation that encourages them to Contribute to group goals and a shared responsibility for them. This means that the mental and emotional involvement of people in group situations that encourage them to contribute to the objectives of the group and the various responsibilities of the goal.

Definition also contains three essential elements, namely: involvement mental (not physical) person, take responsibility in achieving common goals and contributing through concrete activities. Furthermore, Davis suggests seven conditions for the creation of participation, namely: (1) there is no time or opportunity before doing the activity, 2) lack of respect either the value or the economy, (3) a lack of compatibility between the ability of participation in work and participants felt best to participate with their work , (4) participation has the ability, such as

intelligence and knowledge, (5) communicating with the exchange of ideas, (6) both officials and the government does not feel threatened his position because of the participation of individual citizens, and (7) the freedom of governments to decide series work and organization.

According to Ramos, the participation is the involvement of mental, physical and emotional person to contribute so that it can be responsible for achieving the goal. So participation is the readiness to accept responsibility and readiness to contribute. Participation means a person's involvement in the process of both economic activities, social, cultural and political that can affect or influence on life. Terry suggests participation is the participation of a person both mentally and emotionally to give donations to the decision-making process, particularly on issues where personal involvement.

### **3. RESEARCH METHODOLOGY**

#### **Place And Time Research.**

In this study as a research object is an existing industrial estate in Deli Serdang regency in both regions where the industry is very much influence the environmental damage caused by the many industrial companies operating in both locations. When the study started from September 2015 until December 2015. As the unit of analysis in this research was the respondents who are in the Industrial Area (KIM 1) Mabar and TanjungMorawa Industrial Area (KIM 2). Of the people in the surrounding industrial estate in Deli Serdang then be sampled at random (random sampling). The number of respondents in this study is 75 people.

Respondents who have been chosen as the unit of analysis is then given questionnaires that had been developed by the authors is answered by the respondent that the result will be the data that will be used to address existing problems. In a study of data collection procedures in the following way:

1. Observation is by direct observation of the object under study.
2. Interview is conducting direct interviews with respondents.
3. questionnaires that by distributing questionnaires to the respondents.
4. The research literature is to find theories that could support this research.

The data has been obtained by researchers through respondent then tested with:

1. Validity is menjlaskan extent of a measuring instrument is measuring what will be measured.
2. Reliability Test is used to determine whether the data collection tool shows the level of precision, accuracy, stability or consistency of the tools used are completely consistent with what would be disclosed on the symptoms that are happening.

Data analysis tool used in this research is Structural Equation Modeling (SEM) of a set of statistical techniques that allow testing of a relatively complex set of relationships and simultaneous. (Ferdinand, 2000). The research methodology used was a qualitative research method by distributing questionnaires to the respondents to obtain the necessary data in the study. Data were analyzed using regression analysis and this analysis is used to examine the influence of variables.

The variables studied were (1) environmental education (2) the ethical environment, (3) participation in environmental conservation.

The research model to be tested can be illustrated are:

In the study can be concluded as follows:

1. There is the influence of environmental education with community participation.
2. There is the influence of environmental ethics with public participation.
3. There is the influence of environmental education and environmental ethics with public participation.

## PREVIOUS RESEARCH

1. Julianty and NingSulistiyowati, 2013, explaining that there is a relationship between environmental education, knowledge of environmental health and healthy behaviors of the health status of the research results of 55.3%.
2. YuliPriyanto, M. SasmitoJati, Soemarno and ZaenalFanani, 2013, describes the results of his research that there is a relationship between the attitude of environmental care, environmental care behavior with knowledge of environmental education.
3. RachmatMulyana, 2009, Planting Environmental Ethics And Cultured environment, where there is an explanation that environmental education in the school environment is the basis for the establishment of environmental ethics on across generations.

## 4. Data Analysis

Data were collected from questionnaires distributed to respondents then tabulated for analysis using the analysis of the data so that the data processing results can be obtained as follows:

**Variables Entered/Removed<sup>b</sup>**

	Variables Entered	Variables Removed	Method
Model			

1	X2, X1 <sup>a</sup>	.Enter
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- a. All requested variables entered.  
b. Dependent Variable: Y

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.785 <sup>a</sup>	.616	.605	2.835499

- a. Predictors: (Constant), X2, X1  
b. Dependent Variable: Y

**ANOVA<sup>b</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	927.703	2	463.851	57.693	.000 <sup>a</sup>
	Residual	578.884	72	8.040		
	Total	1506.587	74			

- a. Predictors: (Constant), X2, X1  
b. Dependent Variable: Y

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.756	9.178		.954	.343
	X1	.648	.063	.755	10.338	.000
	X2	.599	.211	.207	2.833	.006

- a. Dependent Variable: Y

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	62.71178	78.01868	7.02133E1	3.540695	75

Std. Predicted Value	-2.119	2.204	.000	1.000	75
Standard Error of Predicted Value	.328	1.029	.549	.144	75
Adjusted Predicted Value	62.36464	77.50541	7.01975E1	3.541536	75
Residual	-				
	6.179604E	7.876147	.000000	2.796919	75
	0				
Std. Residual	-2.179	2.778	.000	.986	75
Stud. Residual	-2.215	2.856	.003	1.011	75
Deleted Residual	-				
	6.381524E	8.325647	.015820	2.936857	75
	0				
Stud. Deleted Residual	-2.278	3.012	.005	1.028	75
Mahal. Distance	.001	8.761	1.973	1.610	75
Cook's Distance	.000	.155	.017	.031	75
Centered Leverage Value	.000	.118	.027	.022	75

a. Dependent Variable: Y

### 1. Effect of Environmental Education Against Public Participation.

Statistically Based on the results of the analysis showed that the influence of environmental education to community participation is 0.755 or 75.5%. Can be explained that the educational level lingkungan have a very strong influence on community participation to the environment.

Partial that variable environmental education greatly contribute to the participation of the environment by 75.7% from Thitung value of 0.755. The value of environmental education affects people's participation is due to that the people that are around the area has had environmental education so that people in both regions secaraa voluntarily maintain the cleanliness of the environment.

The role of the community are expected to maintain the viability of the harmony among living things around him with his own awareness to preserve the environment. The Government plays an active role through increased public education about the environment through various efforts made by the government in providing public 'knowledge about the environment. The results are consistent with the opinion of Syahrin (2010) who said that wisdom is a set of knowledge that is developed by a community group (community) where local knowledge was accumulated from long experience in dealing with nature through ties of mutual benefit to both parties.

### 2. Effect of Environmental Ethics Against Public Participation.

As well as environmental ethics that is based on statistical analysis results can be explained that the ethics of the environment has an influence on people's participation amounted to 0.207 or 20, 7%. Partially can be explained that environmental ethics to contribute to the participation of 20.7% can be seen dari Thitung value of 0.207 from the results of statistical analysis.

Environmental ethics little effect on community participation in preserving the environment where it can be seen that the environmental ethics is not really run by a man in his place. The low value of the environmental ethic can occur because of lack of respect for his fellow human beings living in the surrounding areas and communities lack an understanding of the cultural and religious values that becomes a guide of human life.

### **3. Effect of Environmental Education and Environmental Ethics Against Public Participation.**

Then based on the results of statistical analysis can also be obtained that the influence of environmental education and environmental ethics to the participation of 57.693 or 57, 69%. Both of these variable environmental education and environmental ethics positively influence the participation of the community to care about the environment and than environmental sustainability that will either be able to run well in the long term. Simultaneously variable environmental education and environmental ethics variables contributing to community participation amounted to 57.693 or 57, 69% were seen by the results of statistical analysis.

## **5. CONCLUSION**

1. Education is very influential in a positive environment to public participation in the environment it can be seen from the influence of environmental education to the participation of 75.5%.
2. Likewise with environmental ethics also has a positive effect only so far down that environmental education has an influence on people's participation in the amount of 20.7%.

### **5.1 SUGGESTION**

1. To assist local governments in the area of environmental sustainability, the government needs to do on a regular basis on environmental education and dissemination to the public.
2. Local governments should cooperate with religious leaders, community leaders and educational institutions to always instill moral values or the community to appreciate the environment around each.

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