

The Influence of Environmental Education and Community Discipline on Lake Toba Environmental Sustainability Concern in Samosir Regency

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Abstract: The earth, water and air contained in it are all natural resources that can be managed properly so that they can be used to meet the needs of people's lives so that the environment must be preserved. Lake Toba is one of the natural resources in Indonesia and there are several districts around Lake Toba where one of them is Samosir Regency which is on Samosir Island and surrounded by Lake Toba. The beauty of Lake Toba can be used as a source of income for the community and the area of Samosir Regency so that the environment must be preserved through environmental education and community discipline. As respondents in this study were the people around the tourist area in Samosir Regency who were taken randomly as many as 60 people. The results of the study explain that environmental education has an effect on concern for the environmental sustainability of Lake Toba by 16.63%, community discipline has an effect on concern for the environmental sustainability of Lake Toba by 23.76% and together that environmental education and community discipline have an effect on concern for the environmental sustainability of Lake Toba. Tioba by 45.37%.

Abstrak: Bumi, air dan udara yang terkandung semua didalamnya merupakan kekayaan alam yang dapat dikelola dengan baik untuk dapat digunakan dalam memenuhi kebutuhan hidup masyarakat sehingga harus dijaga kelestarian lingkungannya. Danau Toba salah satu kekayaan alam yang ada di Indonesia dan terdapat beberapa kabupaten yang ada di sekitar Danau Toba dimana salah satunya adalah Kabupaten Samosir yang berada di Pulau Samosir dan dikelilingi oleh Danau Toba. Keindahan Danau Toba dapat dijadikan sebagai sumber pendapatan masyarakat dan daerah Kabupaten Samosir sehingga harus dijaga kelestarian lingkungannya melalui pendidikan lingkungan dan disiplin masyarakat. Sebagai responden dalam penelitian ini adalah masyarakat yang ada di sekitar kawasan wisata di Kabupaten Samosir yang diambil secara acak sebanyak 60 orang. Hasil penelitian menjelaskan bahwa pendidikan lingkungan berpengaruh terhadap kepedulian kelestarian lingkungan Danau Toba sebesar 16,63 %, disiplin masyarakat berpengaruh terhadap kepedulian kelestarian lingkungan Danau Toba sebesar 23,76 % dan secara bersama-sama bahwa pendidikan lingkungan dan disiplin



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masyarakat berpengaruh terhadap kepedulian kelestarian lingkungan Danau Toba sebesar 45,37 %.

INTRODUCTION

The environment is the necessities of life for all living things where the environment is a gathering place for all living things that exist to live side by side and need each other. It is this need for life that causes environmental conditions to change according to the will of living things in the world in utilizing all the environment around them. Lake Toba is a vast environment in which there are many living things that depend on the beautiful condition of Lake Toba as a place where many living things live there.

To maintain environmental sustainability, it is hoped that all the people around the tourist area in Samosir Regency will participate in protecting and maintaining the sustainability of their environment so that the beauty of the environment can be maintained as best as possible.

Many facts explain that humans do not understand the meaning of the environment so that humans do not respect their environment and cause environmental damage. This is in line with the opinion of Sulistya, 2006, who said that environmental damage is caused by human errors in understanding the environment.

The high level of public education will result in the community respecting its environment and conversely a low level of public education also affects the appreciation of the environment it inhabits.

Community discipline also determines environmental sustainability. Community discipline can be in the form of community compliance with environmental sustainability so that people do not want to damage the environment where they live or elsewhere.

Formulation of The Problem.

After an explanation in the background about the phenomena that exist in Samosir Regency, it can be concluded that the formulation of the problem is as follows:

1. How big is the influence of environmental education on environmental sustainability concerns in Samosir Regency.
2. How big is the influence of community discipline on environmental sustainability concerns in Samosir Regency.
3. How big is the influence of environmental education and community discipline on concern for environmental sustainability in Samosir Regency.

Research Purposes.

1. To find out how much influence environmental education has on environmental sustainability concerns in Samosir Regency.
2. To find out how much influence community discipline has on environmental sustainability concerns in Samosir Regency.
3. To find out how much influence environmental education and community discipline have on environmental sustainability concerns in Samosir Regency.

Research Benefits.

This research provides the following benefits:

1. To the Government of Samosir Regency.

- a. The Samosir Regency Government should always empower the community in environmental sustainability and cleanliness of settlements and historical sites in Samosir Regency.
- b. The Samosir Regency Government is to equip garbage collection sites in various places to maintain public discipline and tourists who come on vacation to Samosir Regency to dispose of garbage in the available garbage collection places.

2. To the Community.

- a. The community needs to maintain the environmental sustainability of the Lake Toba coastal area and the cleanliness of the community's residential environment.
- b. Communities need to maintain self-discipline to maintain environmental

sustainability and cleanliness of settlements to dispose of waste through the available garbage containers.

3. Knowledge Development.

- a. It is hoped that this research can develop knowledge about environmental education and community discipline in preserving the environment, especially in tourist areas.
- b. It is hoped that this research can be used by other researchers in the same place or elsewhere, especially in tourist areas.

Theoretical Description.

Helmi, 2013, said that environmental sustainability is that everyone bears obligations and responsibilities towards generations by making efforts to preserve the carrying capacity of ecosystems by improving the quality of the environment.

Sue and Tamara, 2016, say that caring for the environment are general attitudes towards environmental quality that are manifested in self-determination to express actions that can improve and maintain environmental quality in every behavior related to the environment.

Then Hamzah, 2013, said that environmental concern is a form of human mental attitude which is reflected through his behavior.

Pamuti, et al, 2014, said that environmental education is knowledge, study, material that seeks to educate students to understand and practice directly how to deal with environmental problems that have been happening all over the world.

Pratomo in Afandi, 2013, says that environmental education is an educational program to foster humans to have rational and responsible awareness, understanding, attitudes and behavior as a reciprocal relationship between humans and the environment.

Wursanto, 2003, said that discipline is an attitude of obedience to the rules or regulations that apply in the organization and joins the organization on the basis of awareness.

Hasibuan, 2006, says that discipline is a person's awareness and willingness to

comply with all company regulations and applicable social norms.

Another opinion was also expressed by Sastrohadiwiryo, 2003, saying that discipline is an attitude of respect, respect, obedience and obedience to the rules that apply both written and unwritten and able to carry out and not evade sanctions when violating the rules.

Framework of Mind

In this study the framework of thinking is as follows:

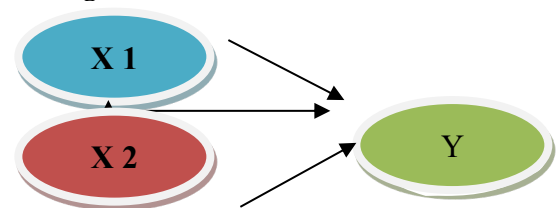


Figure 1. study the framework of thinking

Information :

X 1 = Environmental Education

X 2 = Community Discipline

Y = Concern for Environmental Sustainability

Prior Research

1. Dea Misqiyatul Maslulah, Etty Ratnawati, 2019, Explaining the results of her research that outdoor education has an effect on environmental sustainability by 0.770 or 77%.
2. Muhammad Ali Ardiansyah, Lida Sofia, Rina Rifayanti, 2016, explained the results of his research that there is no difference between environmental education and environmental preservation where $t_{count} > t_{table}$ or $0.966 > 0.050$.

Hypothesis.

Based on the phenomena described in the background, theoretical support, framework, previous research and premises, the hypothesis is formulated as follows:

1. There is an influence between environmental education on concern for the environmental sustainability of Lake Toba in Samosir Regency.
2. There is an influence between community discipline on concern for the environmental sustainability of Lake Toba in Samosir Regency.

3. There is an influence between environmental education and community discipline on the environmental sustainability of Lake Toba in Samosir Regency.

METHODS

Location and Time of Research.

This research was conducted on Samosir Island and the time of this research was carried out in March - August 2023.

Population and Sample.

In this study, the population used as the population around Lake Toba in Samosir Regency was collected through a sampling technique, namely random sampling of 60 people.

RESULT AND DISCUSSION

Data Analysis.

1. Validity and Reliability Test.

Based on the results of the validity calculation it is known that all question items or statements that T count below T table are 1.672 meaning that all question items or statements are said to be valid.

Then based on the processed data it is known that the reliability coefficient value is below 0.60 so that it can be said that the instrument used has a reliability value.

2. Multicollinearity Test Results.

With the SPSS 16 output results on Coefficients, it can be seen that the VIF coefficient is < 10 so it can be concluded that there is no multicollinearity in this study because it is below the coefficient value < 10 .

3. Results of Heteroscedasticity.

Based on the results of SPSS data processing, it can be seen that there is no specific pattern where the dots are spread out irregularly so that there are no symptoms of heteroscedasticity.

4. Linear Regression Results.

Based on the results of data processing with SPSS it can be explained that the results of multiple linear regression are as follows:
 $Y = 22.293 + 0.278 X_1 + 0.313 X_2 + e$

The linear regression equation explains the meaning as follows:

1. The constant value 22.29 explains that Concern for Environmental Sustainability is in a constant state.
2. The regression coefficient value of Environmental Education (X_1) is 0.278 with a significant level of t-test (p-value) of 0.000 (< 0.05) meaning that Environmental Education will significantly increase by 27.8% if Environmental Education increases 1%.
3. The regression coefficient value of Community Discipline (X_2) is 0.313 with a significant level of t-test (p-value) of 0.000 (< 0.005) meaning that Community Discipline will significantly increase by 31.3% if Community Discipline increases 1%.

Analysis and Evaluation.

1. The Influence of Environmental Education on Concern for the Conservation of the Lake Toba Environment.

Communities around Lake Toba on Samosir Island and precisely the people in Samosir Regency should be given increased knowledge about environmental preservation so that they can preserve the environment of Lake Toba.

Lake Toba as a result of natural wealth should be able to contribute to the income of the community and the area around Lake Toba so that it can improve the welfare of the people around Lake Toba and around the areas on Lake Toba, especially the people and the Samosir Regency area.

The results of this study explain that environmental education has an effect on Concern for the Conservation of the Environment of Lake Toba with a calculated T value of 1.663 or 16.63%.

2. The Influence of Community Discipline on Concern for the Conservation of the Lake Toba Environment.

Then the community needs to have discipline in preserving the environment because it can result in good or bad environmental conditions in the area around Lake Toba, especially in Samosir Regency.

Community discipline needs to be maintained and maintained so that they are

loyal in preserving the environment of Lake Toba.

With the beauty of the Lake Toba area, it will be able to invite tourists from various places to come to Samosir Island to enjoy the beauty of Lake Toba.

The results of the research that has been completed by researchers can explain that the influence of Community Discipline on Concern for the Conservation of the Environment of Lake Toba around the tourist area in Samosir Regency is 2.376 or 37.6% meaning that the discipline of the community around tourism in Samosir Regency lacks discipline in concern for the environmental sustainability of Lake Toba.

3. The Influence of Environmental Education and Community Discipline on Concern for the Conservation of the Lake Toba Environment.

Based on the results of the study, it can be explained that the influence of Environmental Education and Community Discipline has an effect on Concern for the Conservation of the Environment of Lake Toba with a Count F value of 4,537 or 45.37% which can be seen in table 1.

Table 1. Result F Count ANOVA^b

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	47.928	2	23.964	4.537	.011
Residual	301.055	57	5.282		
Total	348.983	59			

a. Predictors:
(Constant), X2, X1

b. Dependent Variable:
Y

Source: Processed Results, 2023.

CONCLUSION

1. Environmental Education has an influence on Concern for the Conservation of the Lake Toba Environment by 16.63%.

2. Community Discipline has an influence on Concern for the Conservation of the Lake Toba Environment by 23.76%.
3. Environmental Education and Community Discipline jointly influence Concern for the Conservation of Lake Toba's Environment by 45.37%.

SUGGESTION

1. It is hoped that the public can understand the meaning of environmental preservation so that they can maintain the beauty of Lake Toba through concern for the Conservation of the Lake Toba environment with environmental education owned by the community.
2. It is hoped that the public can understand the meaning of environmental preservation so that they can maintain the beauty of Lake Toba through an attitude of community discipline with community discipline.
3. The Samosir Regency Government should provide training on improving environmental education and community discipline carried out by the Samosir Regency Government.

REFERENCES

- Afandi, Rifki, (2013), Integrasi Pendidikan Lingkungan Hidup Melalui Pembelajaran IPS di Sekolah Dasar Sebagai Alternatif Menciptakan Sekolah Hijau, *Jurnal Pedagogia, Vo. 2, No.1.1*
- Angela, V. F. (2023). Strategi Pengembangan Ekowisata dalam Mendukung Konservasi Alam Danau Tahai. *JIM: Jurnal Ilmiah Mahasiswa Pendidikan Sejarah, 8(3)*, 984–993.
- Azis, A., Nurasiah, N., Zulfan, Z., Kusnafizal, T., Fahmi, R., & Abdar, Y. (2023). Analysis of Aceh's Economic Recovery After the Tsunami Disaster and Prolonged Conflict Year, 2005. *Riwayat: Educational Journal of History and Humanities, 6(1)*, 249–261. <https://doi.org/10.24815/jr.v6i1.31455>
- Dea Misqiyatul Maslulah, Ety Ratnawati, (2019), Pengaruh Pendidikan Alam

- Bebas Terhadap Kesadaran Kelestarian Lingkungan, *Jurnal Edueksos*, Vol. 8, No. 2.
- Hasibuan, S., P., Malayu, (2006), *Manajemen Sumber Daya Manusia*, Cetakan k2 9, Penerbit Bumi Aksara, Jakarta.
- Harahap, A. S., Nofianti, R., Rahayu, N., & Ginting, D. N. B. (2023). Menggali Kearifan Lokal Etnis Banjar: Peran Orangtua dalam Membentuk Karakter Anak di Desa Kota Rantang Hamparan Perak Kabupaten Deli Serdang. *JIM: Jurnal Ilmiah Mahasiswa Pendidikan Sejarah*, 8(3), 961–969. <https://doi.org/10.24815/jimps.v8i3.24930>
- Hartoyo, R., & Sulistyowati, S. (2023). The Role Of The Legal Aid Post Is In Providing Legal Assistance To Disadvantaged People In Order To Obtain Justice In The Courts Of The Holy Land. *JIM: Jurnal Ilmiah Mahasiswa Pendidikan Sejarah*, 8(3), 1599–1611. <https://doi.org/10.24815/jimps.v8i3.25236>
- Helmi, (2013), *Hukum Perizinan Lingkungan Hidup*, Penerbit PT. Sinar Grafika, Jakarta.
- Heryanto, H., (2013), *Akar Penyebab Krisis Lingkungan, Materi Perkuliahan Filsafat Lingkungan, Program Studi Ilmu Lingkungan*, Universitas Indonesia.
- Jumadi, J. (2023). Revitalisasi Nilai Budaya Suku Cerekang Sebagai Upaya Pelestarian Lingkungan Hidup. *JIM: Jurnal Ilmiah Mahasiswa Pendidikan Sejarah*, 8(2), 815–821. <https://doi.org/10.24815/jimps.v8i2.24919>
- Monikasari, M., & Fitriyanti, F. (2023). The Existence of The Malay House 'Limas Potong' In the Midst of Modernization Currents in the City of Batam 1970-2022. *Riwayat: Educational Journal of History and Humanities*, 6(2). <https://doi.org/10.24815/jr.v6i2.31445>
- Perdana, Y., Sumargono, S., Pratama, R. A., & Lestari, N. I. (2022). The Gait of Islamic Unions in the Political Stage of the National Movement. *Riwayat: Educational Journal of History and Humanities*, 5(2), 269–275.
- Nurlela, N. (2023). Assitlungeng: Studi Tentang Nilai Solidaritas Masyarakat Nelayan Danau Tempe. *JIM: Jurnal Ilmiah Mahasiswa Pendidikan Sejarah*, 8(2), 792–798. <https://doi.org/10.24815/jimps.v8i2.24844>
- Muhammad Ali Ardiansyah, Lida Sofia, Rina Rifayanti, (2016), Pengaruh Pelatihan Pendidikan Lingkungan Hidup Terhadap Sikap Peduli Anak Akan Kelestarian Lingkungan, *Jurnal Psikostudia Uiversitas Mulawarman*, Vol. 5, No. 2.
- Mudyahardjo, Radja, (2006), *Pengantar Pendidikan Sebuah Studi Awal Tentang Dasar-Dasar Pendidikan Pada Umumnya dan Pendidikan Indonesia*, Penerbit Raja GraFindo Persada, Jakarta.
- Pamuti, Bobby, P., Djarkasi, (2014), Kajian Perencanaan Dan Pengajaran Mata pelajaran pendidikan Lingkungan Hidup (PLH) Pada Tingkat Sekolah Dasar di Kota Manado, *Jurnal Sabua*, <http://ejournal.unsrat.ac.id>.
- Siahaan, N., H., T., (2004). *Hukum Lingkungan dan Ekologi Pembangunan*, Penerbit Erlangga, Jakarta.
- Simbolon, B., R., (2010), Paket Materi Pembelajaran Inkuiri Dalam Pendidikan Lingkungan Hidup Untuk Meningkatkan Prilaku Berwawasan Lingkungan Murid SD di Jakarta, *Jurnal Ilmu Pendidikan Lingkungan Dan Pembangunan Berkelanjutan*, Vol. 11, No.2.
- Singodimedjo, Markum, (2000), *Manajemen Sumber Daya Manusia*, Penerbit SMMAS, Surabaya.
- Purwodarminto, W.,J.,S, Kamus Umum Bahasa Indonesia, Penerbit PT Balai Pustaka, Jakarta.
- Sulistya, P., (2006), *Mendidik Generasi Muda Dengan Pendidikan Lingkungan Online*, Tersedia.
- Tamara, Riana Monalisa, (2016), Peranan lingkungan Sosial Terhadap Pembentukan Sikap Peduli Lingkungan

Peserta Didik Di SMA Negeri Kabupaten
Cianjur, *Gea, Jurnal Pendidikan Geografi*,
Vol. 16, No. 1.

Wursanto, (2003), I., G., *Manajemen
Kepegawaian*, Penerbit Kansius, Jakarta.

Zuchdi, Darmiyati, (2011), *Pendidikan
Karakter Dalam Perspektif Teori Dan
Praktek*, UNY Press, Yogyakarta.