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Environmental ignorance behaviour index (EIBI) of the student organization member at Universitas Respati Yogyakarta

Indeks perilaku ketidakpedulian lingkungan hidup (IPLKH) anggota organisasi kemahasiswaan Universitas Respati Yogyakarta

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ABSTRACT

Background: One of the objectives of the 13th SDG is to take urgent action to address climate change and its impacts. Higher education is the highest educational institution that has an important role in a sustainable future. **Objective:** This research aims to obtain and evaluate the environmental ignorance behaviour of students who are members of student organizations at Universitas Respati Yogyakarta. **Methods:** The method in this study is descriptive quantitative to measure the Environmental Ignorance Behaviour Index (EIBI). This research was conducted at October 2022. **Results:** The highest ignorance index is the dimensions of water saving and transportation usage, which is 0.67. Sharing value of environmental ignorance behaviour comes from the use of transportation (29.57%), water saving (29,52%) and energy management (18.10%). **Conclusion:** The dimensions of the use of transportation and water saving make a high contribution to the Environmental Ignorance Behaviour Index of student organization members.

ABSTRAK

Latar Belakang: Salah satu tujuan SDG ke-13 adalah mengambil tindakan segera untuk mengatasi perubahan iklim dan dampaknya. Pendidikan tinggi memiliki peran penting dalam masa depan yang berkelanjutan. **Tujuan:** Penelitian ini bertujuan untuk evaluasi Indeks Perilaku Ketidakpedulian Lingkungan Hidup (IPKLH). **Metode:** Metode penelitian ini adalah deskriptif kuantitatif. Penelitian dilaksanakan pada Oktober 2022. Teknik pengambilan sampel menggunakan purposive sampling, yaitu 26 mahasiswa anggota organisasi kemahasiswaan. Instrumen penelitian menggunakan Modul Susenas Hansos 2017 aspek lingkungan. Analisis data deskriptif yaitu nilai IPKLH dan persentase dimensi kontribusi. **Hasil :** Nilai IPKLH mahasiswa Ormawa yaitu 0,57. Dimensi dengan kontribusi pada ketidakpedulian mahasiswa terkait penggunaan transportasi (29,57%), penghematan air (29,52%), dan pengelolaan energi (18,10%). **Kesimpulan :** Penggunaan transportasi dan penghematan air memiliki kontribusi yang besar pada Dimensi ketidakpedulian lingkungan mahasiswa

INTRODUCTION

The challenge for our children and grandchildren in the future is climate change caused by human behaviour. Significant changes in global temperature, rainfall, wind patterns and other climatic parameter that occur over decades represent climate change.¹ We cannot separate these changes from their impact on public health.

The SDGs pay special attention to climate change. We can see this in Goal 13 of the SDGs, which is to take urgent action to combat climate change and its impact. In this goal, the target is to improve education, awareness, and human and institutional capacity for climate change mitigation, adaptation, impact reduction and early warning.²

Higher education institutions are the highest educational institutions that play an important role in seeking a sustainable future. In recent years, university has regarded promoting campus sustainability in the areas of campus governance, curriculum, and indeed research and community service.³ University can develop environmental sustainability values involving three pillars of sustainability, including environmental, social, and economic.⁴ Higher education institutions need to pro-actively act in achieving the goals of the SDGs through policies, curricula, and practices of environmental initiatives.⁵

In 2021, UNRIYO has run the Health Promoting Program (HPU) which was launched by Faculty of Health Sciences. One

of the intentions in this HPU is to provide green space in the building. In addition, actions to respond to climate change and the goals of the SDGs need to engage students as a large part of educational institutions. However, until now there has been no intervention from the university for students related to environmental care behavior.

Higher education is the highest educational institution that has an important role in a sustainable future. Human resources in environmental care universities are needed to manage the carrying capacity of the environment. Student organizations or student associations are an effective forum to help foster environmental awareness in their members.⁶

The organization is considered an effective forum for implementing green campus practices. This is based on several factors that influence implementation practices such as organizational commitment/leadership, established rules/regulations, awareness of organizational members on the importance of environmentally friendly behavior, awards and training provided, to leader behavior.⁷ Organizations are expected to help raise awareness of environmental ethics in individuals.⁸

Public awareness is a powerful tool in efforts to improve the environment. Information through education has an important impact on changing behavior.⁹

Several studies have been conducted to measure environmental awareness and student practice at various levels. Research on the level of awareness, environmental literacy and self-efficacy attitudes in environmental education,¹⁰ and research on environmental awareness evaluation for students at Trakya University.¹¹

The Central Bureau of Statistics, especially the Environmental Sub-Directorate, is to provide a measure of the level of environmental Ignorance behavior in Indonesia that can be used as a basis for evaluation and policy making related to increasing environmental awareness.

BPS RI developed a measurement of environmental behavior to measure the level of Ignorance of a region in Indonesia to the environment in the form of the "Environmental Ignorance Behavior Index (EIBI).¹² The higher the index number indicates that the region is less concerned about the environment. Conversely, the lower the index number means the region is more concerned about the environment. The observed behavior is divided into several blocks or dimensions which will later be used in calculating the level of Ignorance to the environment, namely saving energy, waste management, saving water, and reducing air pollution (private transportation).

The results of this study are expected to serve as initial information for universities to develop programs to improve sustainable environmental care behavior for students. This

can be done as an effort to prepare UNRIYO towards a green campus.

The benefit of this IPLKH measurement is to protect and maintain the carrying capacity of the environment by increasing the contribution of environmental care from individuals and communities.¹²

METHOD

The method used in this research is descriptive quantitative research. The respondent selection technique in this research is purposive sampling. The respondents of this study were representatives of Ormawa at UNRIYO (13 Ormawa). We distributed the questionnaires regarding the behavior of environmental ignorance at the Ormawa meeting with the Bureau of Student Affairs, Alumni, and Career Center on Readiness Analysis and Building Environmental Care Academics on October 8, 2022. Each Ormawa is represented by 2 respondents. The total respondents in this study were 26 respondents. This research has received permission with letter number 32/PPPM/VI/2022. Data was analyzed using descriptive analysis, which are EIBI calculation and dimensions sharing percentage.

The instruments used in this study came from the 2017 National Socio-Economic Survey questionnaire (Susenas Hansos Module 2017) Block VIII, IXB, IXC, and IXD regarding the environment, as follows¹² :

Table 1. EIBI Questionnaires¹²

Dimensions	Indicators
Water Conservation (Blok IXC)	1 Percentage of individuals who do not save water when washing clothes.
	2 Percentage of individuals who wash cutlery with running water
	3 Percentage of individuals who rarely use used water
	4 Percentage of individuals letting the water flow even if not used..
Energi Conservation (Blok VIII, Blok IXA)	5 Average proportion of energy-saving lamps
	6 Percentage of individuals who rarely turn off their lights when not in use
	7 Percentage of individuals who use sunlight for a small part of the room.
Use of Transportation (Blok IXD)	8 Percentage of individuals who use motorized vehicles to go to the main activities
	9 Percentage of individuals who buy a vehicle without considering the environmental side.
Waste Management (Blok IXB)	1 Percentage of individuals who handle waste in an environmentally unfriendly way
	0 Percentage of individuals who do not carry shopping bags with them when shopping
	1 Percentage of individuals who do not carry shopping bags with them when shopping

The level of individual Ignorance to each indicator is assessed based on the respondent's answer choices. Scoring is done based on the cut-off of each indicator. EIBI calculation is done by calculating the index value for each dimension.¹²

$$\text{Dimensions} = \sum (\text{Indicator Weight} \times \text{Indicator Value})$$

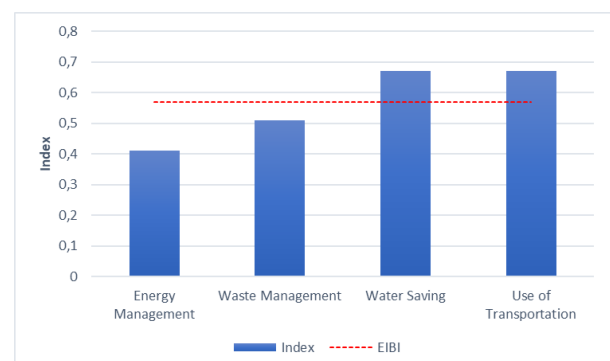
$$\text{EIBI} = \sum \text{Dimensions} \times 1/n$$

Which is n is the number of dimensions i.e
= 4

RESULTS AND DISCUSSION

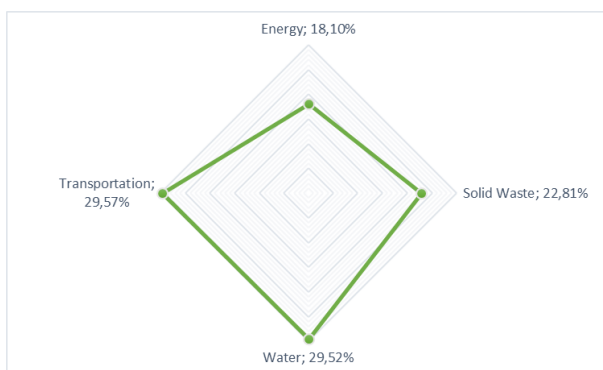
The Environmental Ignorance Behavior Index (EIBI) ranges from 0 to 1. The larger EIBI value (closer to 1) indicates the higher level of environmental Ignorance in the area, while the smaller EIBI value (closes to 0) indicates the lower level of Ignorance (more care) that environment. Based on the calculation results obtained EIBI Ormawa UNRIYO is 0.57.

Based on the assessment of each of the constituent dimensions, the Ignorance index value for each dimension is obtained, namely the energy management dimension which has the smallest index value of 0.41. This shows that energy management in Indonesia is quite good compared to other dimensions. The dimension of waste management is 0.51. Meanwhile, the dimensions that have the largest index values are water savings and transportation use, each of which is 0.67. This shows that the level of Ignorance to water saving and the use of transportation is quite high.



Picture 1. EIBI Chart of Each Ignorance Dimensions

The share given by each dimension is in line with the index value generated by each dimension that composes EIBI. The largest share of the behavior of not caring about the environment comes from the use of private transportation by 29.57% and water savings by 29.52%. The share of waste management dimensions is 22.81%. The smallest share of behavior that does not care about the environment is obtained from the energy use dimension of 18.10%.



Picture 2. Dimensions Share of EIBI from Student Organization Member

Share of Ignorance behavior related to the use of transportation is higher than the EIBI value. This is indicated by the behavior of individuals who use private motorcycles and the selection of motorized vehicles that are more concerned with the brand/price/model compared to the vehicle's ability to save fuel and be environmentally friendly.

In previous research on transportation for students, it was found that public transportation with student fares promises to increase students' awareness of using public transportation.¹³ Campus 2 UNRIYO is a route for public transportation for Trans Jogja buses.

This has the potential to improve public transportation to campus, if the university initiates coordination with the DIY Department of Transportation to become UNRIYO Campus 2 as a bus stop/shelter for Trans Jogja Buses. Opportunities for using integrated transportation modes can be seen from the campus building which is integrated between study programs in one building and is not separated or has different gates. A campus that is able to eliminate as many gates as possible and reduce spatial segregation will significantly affect student walking behavior¹³. Accessibility and connectivity have a greater indirect effect on the choice of public transportation as the primary transportation of individuals.¹⁴

Share Ignorance to water saving behavior is shown from individual behavior towards the use of water that is still allowed to flow when washing cutlery and how to wash clothes without a washing machine by storing water and using rinsing more than 2 times.

Concern for water issues has a close relationship with attitudes, responsibilities and culture. Emotions, habits, and involvement in the environment have a significant and positive relationship.¹⁵

In the dimension of waste management, proper segregation of waste at the source is the most effective measure to expedite the waste management process.¹⁶

Students as agents of change need to know well about the problems faced in our current environment, as well as the

appropriate corrective steps. The Ignorance behavior of UNRIYO students is in the EIBI 0.57 (EIBI range 0 – 1). The reason students have a high level of ignorance is because of the lack of opportunities to carry out environmentally friendly activities. One of the efforts to increase these opportunities is to add environmental conservation or protection activities in the curriculum or other academic activities.¹⁷

Environmental education is the key to solving environmental problems. In particular, environmental issues that need to be addressed by students such as flooding, deforestation, loss of biodiversity, pollution.¹⁸ Universities need to give a serious response to the issue of environmental concern. In the research of Thondhlana, Gladman and Hlatshwayo, Thina N (2018), it was found that more than 70% of students do not think that the sustainability of environmental care is taken seriously by universities.¹⁹ Negative behavior (ignorance) of students in higher education regarding environmental issues can be developed by establishing environmental awareness as a competency objective that must be achieved.²⁰ Higher education activities have relevance as a driver of sustainability towards a green campus.²¹ The attitudes and behavior of internal stakeholders have three fundamental aspects as supporters of realizing a sustainable university, (1) university governance (leadership, involvement, institutional framework, and policies); (2) involvement with the community

(campus activities, research, curriculum, and competencies); and (3) sustainability assessment and reporting.²²

Environmental behavior is behavior that is carried out by a person, individual, or group to solve a problem. Individuals who have acquired environmental knowledge, attitudes and skills have an obligation to take action and participate in solving environmental problems.²³

CONSLUSION

IPLKH members of student organizations at UNRIYO are high. The dimensions of using transportation and saving water have a high contribution to the Environmental Ignorance Index of members of the UNRIYO student organization. These results need serious attention from university leaders to create a sustainable campus.

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