

## ECOLOGICAL CITIZENSHIP: THE ROLE OF YOUNG CITIZENS IN ENVIRONMENTAL RESPONSIBILITY AND SUSTAINABILITY

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### ABSTRACT

This article examines ecological citizenship, which refers to individual awareness and responsibility as part of the larger natural environment, and is becoming increasingly important in the context of global climate change and the current environmental crisis. Being environmentally conscious is important for young citizens because they will inherit this planet in the future. The method used in this research is qualitative research with library research. Data was collected from an analysis of relevant source books and journals, as well as a document analysis of several articles related to this topic. Citizenship Education plays an essential role in shaping ecological citizenship. Citizenship education develops attitudes of care, civic responsibility, commitment, and engagement for young citizens to act positively to protect the environment. Further research needs to be conducted to explore the most effective learning strategies in instilling the values of ecological citizenship, both through conventional methods and digital technology-based approaches. Young people are expected to understand the concept of environmental citizenship and actively participate in concrete actions.

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## INTRODUCTION

Environmental issues arising from human interaction often manifest as conflicts between human activities and their detrimental impacts on the environment as a habitat. In ecology, human activities such as exploiting natural resources, pollution, and urbanization can cause significant environmental degradation, including deteriorating air and water quality, habitat destruction, and biodiversity loss. Furthermore, human interaction also contributes to global climate change, which profoundly affects ecosystems and human life worldwide. According to Leontinus (2022), climate change is no

longer merely an issue but has become a reality that requires concrete collective action at the global, regional, and national levels. Goal 13 of the Sustainable Development Goals (SDGs), which focuses on addressing climate change, is expected to be a turning point for the world's response in creating a better global climate.

Environmental problems have become a serious and urgent concern that demands immediate attention. Issues such as polluted rivers due to industrial or domestic waste, deforestation caused by agricultural expansion or mining activities, air and soil pollution, waste accumulation, and global warming are alarming threats to the sustainability of a clean and healthy environment. Another contributing factor is the low public awareness and sensitivity regarding the importance of environmental cleanliness and health. This reality warrants serious and sustained attention.

The low level of environmental awareness among citizens indicates that the public is not yet sufficiently engaged or does not feel adequately responsible for ecological preservation. Active participation from communities, business actors, religious leaders, academics, youth, non-governmental organizations (NGOs), and government officials is essential in building environmentally friendly villages or cities. It serves as a key factor in controlling environmental degradation. This article explores the importance of cultivating social responsibility among younger generations in addressing significant ecological challenges. According to Sunaedi and As'ari (2018), programs focused on natural resource and environmental management, understanding and integrating local wisdom in conservation efforts, and enforcing community-based ecological regulations play a pivotal role in realizing the concept of an ecovillage.

Unsustainable industrial and agricultural activities can lead to soil and water degradation and contribute to biodiversity decline in a given area. Cahyono et al. (2015) argue that competition for land use for agriculture, regional development, and mining contributes to the deforestation and desertification of the Earth's surface, resulting in increasingly hot and arid conditions. It implies that environmental damage will worsen without preventive and repressive measures to address these issues. Consequently, climate change may trigger natural disasters such as floods, droughts, and storms, accelerate species extinction, and threaten the availability of food and

water. Therefore, it is imperative for humans to consider the environmental consequences of their actions and interactions and to strive for sustainable solutions that minimize negative impacts on ecosystems and the environment as a whole.

Daily human life is inseparable from the interactions between humans and God, humans themselves, and the environment. Creating a clean and healthy environment ensures the well-being of the people living in it. Young citizens are responsible for maintaining, preserving, and sustaining this planet. As the primary habitat for human life, the Earth requires a comprehensive and holistic stewardship. Human responsibility toward the environment is vital for ensuring the planet's sustainability. As social beings residing on Earth, humans play a significant role in maintaining ecological balance and biodiversity.

This responsibility involves an awareness of the environmental impact of human activities and a commitment to minimizing their adverse effects. It also requires recognition of the importance of preserving biodiversity and natural habitats and taking action to protect Earth's flora and fauna. Such actions include the wise use of natural resources, reducing pollution and waste, and supporting efforts to develop sustainable technologies and systems. For example, air pollution has become one of the most pressing environmental issues worldwide. The increase in industrial activities, transportation, and the use of fossil energy has led to the emission of toxic gases and particles into the air, adversely affecting the quality of the air we breathe daily. Air pollution impacts the environment and affects human health (Maharani & Aryanta, 2023).

Every citizen must possess a strong sense of environmental responsibility and actively contribute to sustaining the planet for future generations. Khairunnisa et al. (2019) emphasize that ecological health is both a science and an art aimed at achieving balance between the environment and humans, ultimately creating a clean, healthy, comfortable, safe, and disease-free condition.

According to a report from the online news platform *detik.com*, a massive waste cleanup effort took place across 175 locations in Bali. Under the theme "*One Island, One Voice*," local communities actively participated in cleaning beaches and surrounding areas as a form of environmental concern (Yusuf, 2023). In Jakarta, a carnival was held to promote public awareness and love for

the Earth, and in the province of East Nusa Tenggara, the Green House Community in North Central Timor Regency and various stakeholders organized an event titled “*A Love Letter to Nature*” that involved planting tree seedlings (Victory News, November 27, 2022). This activity reflected the environmental concern of youth (young citizens) for the condition of the environment in the Indonesia–Timor Leste border region.

Such positive initiatives by various communities reflect a form of citizenship conscious of the environment as a fundamental component of human interaction. The rapid development of technology has transformed human behavior, making it necessary to strengthen citizens’ sense of care and responsibility for the environment. Civic awareness through active participation and ecological responsibility must be a focal point to ensure the planet’s sustainability as humanity’s shared home.

Several recent studies indicate that the environmental crisis is no longer merely an issue but has become a global reality that demands the integration of ecological responsibility into citizenship, particularly for younger generations as the future inheritors of the Earth. The development of citizenship education has shifted toward emphasizing environmental awareness, social engagement, and the utilization of local wisdom as strategies to build ecovillages and mitigate environmental degradation. At the same time, the transformation of human behavior in the digital era presents a need for innovative approaches to fostering ecological citizenship, in which the active participation of communities, youth, and all stakeholders becomes a key factor in safeguarding the planet’s sustainability as humanity’s shared home. The emphasis of this article is an attempt to answer the question of how to prepare the younger generation to develop a sense of environmental responsibility and sustainability, with a specific focus on the issue of waste in Indonesia.

## RESEARCH METHOD

This study employs a library research approach. Library research relies on literature and articles in libraries or scholarly databases relevant to the research focus. This approach is used to conduct preliminary research to better understand emerging phenomena within society or in the field (Zed, 2008). The data for this study were sourced from relevant literature aligned with the central theme, namely, ecological citizenship and the role of young citizens.

Research data were collected by reading, annotating, and processing journal articles and related scholarly materials. The primary literature includes academic journal articles on ecological citizenship and civic education, supplemented by data from trusted online journal sources. The prioritized articles are those published between 2012 and 2025.

The research data obtained from credible and accountable sources were organized based on the literature review results so that the findings are interconnected and aligned with the discussed topic. Data analysis was conducted inductively through two main stages: data reduction and data display. Data reduction aimed to help the author select valid and relevant information, while data display facilitated the conclusion. The conclusions were drawn with reference to the research objectives through analysis and synthesis, ensuring that they reflected the core of the subject matter discussed in this paper.

The data analysis process was conducted in three sequential stages. First is data reduction, in which the collected data are sorted and simplified to assist in identifying the most valid and relevant information. Second, data display, in which the reduced data were systematically presented in alignment with the research topic. Third is the conclusion drawing, where the conclusions were formulated based on the analysis and objectives of the study, to represent the main discussion of the article accurately.

## **RESULTS AND DISCUSSION**

### **Waste Problems in Indonesia**

When this discussion is focused on the most urgent issues for environmental sustainability in Indonesia, three critical problems have been identified: waste management, air pollution, and deforestation in several regions of the country. However, this research article explicitly limits its scope to the problem of waste, which consistently emerges as a consequence of the activities and behaviors of Indonesian society. Indonesia faces significant challenges in waste management, which is in line with the increasing trend of waste generation from year to year. The following presents the estimated data on national waste generation in Indonesia from 2021 to 2023.

Table 1. National Waste Generation 2021–2023

Year	National Waste Generation (Million Tons per Year)
2021	68.5 million tons
2022	70.0 million tons
2023	69.9 million tons

(Source: compiled from various references by the researcher)

In 2022, the highest level of waste generation was recorded. Meanwhile, in 2024, based on the report from the National Waste Management Information System (SIPSN) of the Ministry of Environment and Forestry (KLHK) as of July 24, 2024, input from 290 regencies/municipalities across Indonesia indicated that the total national waste generation reached 31.9 million tons. Of this total, 63.3% or 20.5 million tons were managed, while the remaining 35.67% or 11.3 million tons were unmanaged.

Proper waste management is a shared responsibility; therefore, its implementation cannot be viewed solely from a single layer. In general, the key factors for successful waste management include: (1) the credibility of policymakers; (2) efficient implementation mechanisms, including market incentives; (3) significant attention to the recycling market; (4) community involvement; (5) sustained commitment to high quality in all waste management facility operations; and (6) practical evaluation of the chosen strategies or options (Addahlawi, 2019).

Although these figures show improvement, tens of millions of tons of waste per year still pollute the environment without adequate management. In the context of waste and its management, the Waste Bank Program has become one of the government’s and communities’ flagship initiatives in community-based waste management. Muttaqien et al. (2019) argue that implementing the waste bank program is a breakthrough in managing household waste, which has greatly assisted both communities and the government in reducing the volume of waste disposed of in temporary disposal sites. Dermawan & Lahming (2018) also emphasize that waste problems can be alleviated if the government works in harmony with society and provides increasing opportunities for active participation in waste management.

The findings of this study serve as a basis for discussing how to prepare students to develop a sense of responsibility and sustainability as a

manifestation of ecological citizenship. Through a deeper understanding of the relationship between humans and the environment, students are expected to internalize the values of ecological awareness and foster a commitment to actively participate in preserving nature. Thus, education should not only focus on the mastery of knowledge but also on character formation that reflects ecological responsibility as an essential aspect of citizenship practice in the current era of environmental crisis.

### **The Urgency of Ecological Citizenship for Young Citizens**

As an archipelagic nation with vast forest areas, Indonesia is home to a wide diversity of ecosystems and communities spread across various regions. This ecological and cultural diversity necessitates more intensive efforts to preserve environmental sustainability. In the face of globalization, ecological conditions are continually influenced by rapid technological advancement, making it essential to establish an environmentally-based consensus to address the resulting ecological challenges. Such a consensus underscores the importance of instilling environmental awareness and responsibility among Indonesian citizens. This sense of care and commitment toward the environment is embodied in the concept of *ecological citizenship*.

Ecological citizenship is crucial in addressing climate change and escalating environmental degradation. Awareness developed through ecological citizenship education can motivate individuals to take more responsible actions and make environmentally conscious decisions. As a concept, ecological citizenship emphasizes the intrinsic connection between the environment and civic responsibility. It calls for a heightened public consciousness regarding environmental preservation and sustainability for the common good.

Ecological citizenship does not arise spontaneously; it requires deliberate efforts to cultivate awareness among young citizens. As members of society, citizens must safeguard the environment as part of their own ecosystem. Every citizen is responsible for maintaining a clean and healthy environment (Asshiddiqie, 2010). Ecological citizenship, therefore, is a concept with significant implications for environmental conservation and ecological resilience. Public awareness as part of ecological citizenship, where citizens recognize their duty to protect and their right to enjoy a clean environment,

manifests environmental resilience (Sari et.al., 2020).

In the current era of the Fourth Industrial Revolution (Industry 4.0), the development of ecological citizenship holds a critical position in civic life. Understanding ecological citizenship includes grasping responsibilities, rights, and issues within environmental contexts. More importantly, citizens are expected to possess sufficient understanding to address environmental problems and contribute to the preservation and sustainability of the environment.

Every citizen has the right and the responsibility to conserve nature and the environment (Prasetiyo & Budimansyah, 2016). Environmental preservation is imperative, as humans rely on natural resources for sustainable living (Jannah, 2018; Mariyani, 2017). Ecological citizenship education aims to raise public awareness of protecting the environment and ensuring its sustainability. This form of schooling encompasses various aspects, including an introduction to climate change and its environmental impacts, and strategies for mitigating those effects.

At its core, ecological citizenship teaches that humans coexist within an ecosystem shared with other living beings, and that every human action affects this system. As such, ecological citizenship demands that individuals consider the environmental impact of their actions and decisions. It also involves public participation in decision-making related to environmental matters. Public involvement helps ensure that environmental concerns are considered in every policy decision. This perspective highlights the need for young people to actively support policies that affect the environment.

It is exemplified by a study conducted by Prasetiyo and Budimansyah (2016) on the *Bandung Urban Farming Community*, which identified four primary programs targeting the broader Bandung community, with a particular focus on students and university youth. The programs Urban Farming, School Urban Farming, Street Urban Farming, and Campus Urban Farming utilize public spaces to foster positive community engagement. Such activities reflect civic engagement, encouraging environmentally responsible attitudes and behavior among citizens.

However, the lifestyles of today's youth often diverge from environmentally friendly principles. Many young people are trapped in consumerist and hedonistic lifestyles. Easy access to e-commerce platforms



allows them to purchase items rapidly and effortlessly. Attractive advertisements and promotional offers drive impulsive consumption (Silfiana & Samsuri, 2019). This prevalent instant lifestyle among young citizens must be transformed into more environmentally conscious behavior.

Through its Waste Management Business Community, Semarang's Environmental Agency (Dinas Lingkungan Hidup) has initiated efforts to educate the public on proper waste management and processing. The positive activities initiated by environmentally conscious communities are essential to creating a clean and healthy environment. These contributions represent a form of moral reinforcement toward environmental care. Such moral strengthening involves increasing awareness of civic roles and responsibilities in ecological contexts. This civic role manifests through daily *habits* and *behaviors* (Prasetyo & Budimansyah, 2016). The involvement of young citizens in addressing today's environmental issues is urgently needed. It underscores the importance of cultivating awareness and responsibility in preserving the environment as a shared ecosystem. In this context, young citizens must develop sufficient ecological literacy to make conscious, informed choices that support environmental sustainability. The culture of instant gratification is a significant challenge embedded within modern youth lifestyles.

Recognizing the vital importance of the environment as a human ecosystem, integrated education is necessary to cultivate care values and foster a high level of environmental awareness. Environmental education is how individuals understand key concepts and develop attitudes and skills related to the interaction between humans, culture, and the environment. Citizen participation in environmentally supportive activities reflects a character of environmental concern. All stakeholders must support the reinforcement of ecological citizenship as part of environmental resilience to ensure the development of consistent habits that demonstrate ecological responsibility (Gusmadi & Samsuri, 2020; Prasetyo & Budimansyah, 2016; Sari, Samsuri, & Wahidin, 2020). Therefore, environmental citizenship is inherently connected to citizenship, necessitating cultivating civic participation and responsibility.

Participation in the promotion of ecological citizenship must be encouraged (Melo-Escrihuela, 2008). Citizen involvement in preserving the environment as the foundation of human life is a central pillar of environmental citizenship. Establishing a shared understanding that nature and the human

environment are inseparable is essential. The participation of younger generations can be manifested through efforts to prevent environmental damage and pollution. Another essential attempt includes conserving the environment by prioritizing collaboration and harmony to foster community cooperation. Machfiroh et al. (2018) emphasized that young citizens represent one of the foundational pillars of national life today and in the future. It suggests that the civic engagement of young citizens plays a crucial role, particularly since many are proficient in the use of technology. Although Indonesia has enacted various environmental laws, public awareness of the importance of ecological preservation remains insufficient (Hsu & Perry, 2014). Thus, citizens must develop pro-environmental programs to prevent further environmental degradation (Prasetiyo & Budimansyah, 2016). One of the key actions to be taken is the ecological citizenship movement. This movement involves citizens' awareness of their responsibility to preserve the environment by adopting environmentally friendly lifestyles (Silfiana & Samsuri, 2019).



Figure 1. Strengthening Work Commitment in the Context of Civic Engagement (Source: Huda, et al., 2018)

There are four core stages aimed at encouraging young citizens to contribute to civic responsibility (Huda et al., 2018), namely: (1) developing a targeted and comprehensive strategy; (2) strengthening commitment to work

through strategic planning within community engagement; (3) fostering creative thinking and professional skills through leadership experience; and (4) enhancing leadership awareness through rational problem-solving. It implies that civic education should focus on developing critical thinking, relevant skills, and increasing awareness to promote responsible behavior.

The civic education paradigm promoted by the international academic community and the Center for Civic Education emphasizes civic virtue and culture development (Budimansyah, 2008). According to Quigley, as cited in Winataputra (2012), civic virtue refers to citizens' awareness of prioritizing the common good over personal interests. Civic virtue exists within the psychosocial domain of the individual and consists of two substantive elements: civic dispositions and civic commitments. Civic commitments reflect the willingness of citizens to consciously and responsibly bind themselves to their nation. In line with this, Winarningsih et al. (2021) state that civic commitment is essential for every citizen in the Society 5.0 era.

Environmental degradation, illegal logging that leads to deforestation, irresponsible industrial waste disposal, indiscriminate littering, deteriorating air quality, and declining groundwater availability demonstrate a decline in civic virtue. In the environmental domain, this moral decline is reflected in the widespread destruction of forests, unchecked waste management, and the general deterioration of natural ecosystems.

Therefore, citizens must develop the ability to implement civic virtue and culture in national life, especially in fostering environmental awareness. It aligns the concept of ecological citizenship with the vision and mission of the Sustainable Development Goals (SDGs) (Santoso, Ratnawati, & Riyanti, 2022). From elementary to higher education, civic education can cultivate ecological citizenship among young citizens. The role of civic education goes beyond shaping intelligent citizens who understand their rights and responsibilities within society, the nation, and the state—it also aims to develop global citizens who are environmentally conscious and capable of adapting to global challenges (Juliati, et.al, 2019).

At the higher education level, civic education taught to university students aims to raise awareness and foster a commitment to remain loyal to the Unitary State of the Republic of Indonesia. Cogan (1997) emphasizes that civic education is central to shaping citizens to think critically and

systematically. Furthermore, citizens must also change their lifestyles and consumerist habits, which often contribute to excessive waste generation. This statement clearly highlights that citizens must possess the ability and willingness to develop positive habits that help protect the environment from harmful impacts.

Ecological civic education seeks to enhance citizens' awareness of the importance of environmental sustainability. This education encompasses various aspects, including introducing the concept of climate change, its environmental effects, and strategies for reducing its impacts. Ecological civic education also promotes policies and practices that support environmental sustainability, such as the use of renewable energy and waste reduction. Ecological civic education can be implemented within school environments. Schools can integrate ecological citizenship principles into the curriculum, for example, by organizing greening programs and waste reduction campaigns. In addition, schools can foster community awareness by involving students in environmental projects and other forms of social engagement.

### **Ecological Citizenship within the Dimensions of the Pancasila Student Profile**

Concerning the Pancasila Student Profile, young citizens must embody independence and cooperation, demonstrate collaboration and empathy, and engage in critical thinking to safeguard environmental sustainability.

#### **a. Dimension of Faith and Devotion to God Almighty**

Human awareness of nature as a creation of God is a longstanding understanding found throughout the history of human belief systems. In many religious teachings, nature is regarded as a sign of God's greatness as the Creator. Based on this perspective, humans are seen as stewards and caretakers of nature, bearing the responsibility to sustain the continuity of life.

Pancasila students recognize that citizens live within an ecosystem that is a systemic and inseparable unity. Ariyani and Wangid (2016) argue that instilling the values of environmental care and responsibility is essential for students from elementary school through higher education. This statement implies that ecological concern is a core character trait that every young citizen must possess. In alignment with the Pancasila Student Profile,

particularly within the dimension of faith and devotion to God Almighty, every citizen must protect the environment as part of God's creation.

In the sub-element of "caring for the natural environment," Pancasila students are expected to reflect deeply, develop awareness regarding environmental preservation, and consider the consequences of ecological damage. It begins with a conscience-driven awareness—expressed through gratitude, understanding eco-friendly behavior, and the manifestation of thankfulness through environmental care. Therefore, it is crucial to reinforce human consciousness of nature as God's creation and to take responsible actions to protect the environment. Actions such as reducing the use of plastic and motor vehicles can help preserve nature and ensure sustainability for future generations.

b. Dimension of Global Diversity

Harmonious living is an aspiration shared by all. However, achieving it requires effort from all parties, individuals, and communities. One way to foster a harmonious life is through cultural alignment. In this context, active participation from every individual is essential. Aligning cultures means finding common ground among diverse traditions, customs, and societal practices. It involves recognizing that each culture has uniqueness and values that must be respected. At the same time, it is essential to understand that everyone lives within a multicultural society, where diverse cultures coexist in unity. Therefore, creating a harmonious life requires integrating the values embedded within various cultures.

The role of young citizens within this dimension can be realized through attitudes of care and active participation in embracing diversity, prioritizing harmony, and the principle of equality. The dimension of global diversity includes sub-elements that emphasize intercultural communication and the development of respect for cultural differences. At various stages, it is crucial to understand the complexities and potential challenges of intercultural communication to build harmony within the community. Active participation in cultural alignment is vital in creating a harmonious life. Understanding different cultures, respecting differences, fostering dialogue, and taking concrete actions make building a more inclusive and balanced society possible. Therefore, young citizens must actively align cultures to support a sustainable and peaceful life.

c. Dimension of Mutual Cooperation (Gotong Royong)

Collaboration and care are the key elements within the dimension of cooperation. A good citizen must be able to interact and collaborate with others to achieve shared goals. Cooperation in environmental preservation can begin within one's immediate surroundings. For example, Setiawan et al. (2022) describe the gotong royong practices of the residents of Kampung Markisa in Tangerang City, who work together to support development efforts. The community actively participates in social activities such as community meetings, collective cleanups, and planting seedlings in their home gardens. These activities reflect civic participation as an expression of responsibility in local development and environmental stewardship.

Young people must take on a leading role as both drivers and role models of participation in environmental conservation and community collaboration (Nurjanah et al., 2018). This dimension also emphasizes that citizens are expected to be responsive to their social environment. They must contribute according to the needs of their community to create a positive atmosphere and achieve common goals. Citizens must collaborate with coworkers, classmates, organizations, or community groups to develop environmental protection programs. Moreover, greater attention must be paid to the ecological impact of our daily activities. Through such awareness and action, young citizens can help create a cleaner, greener, and more sustainable environment for the shared future.

d. Dimension of Independence

Every individual is continuously confronted with change and development, which requires adapting to evolving conditions. The Society 5.0 era is understood as a society that emphasizes a balance between economic advancement and resolving social issues by integrating virtual and physical spaces. While the Industrial Revolution 4.0 brought new value-added services that improved the quality of life, Society 5.0 represents a more advanced integration between digital and physical realities (Winarningsih et al., 2021). The need for self-development is essential in a person's life to improve the quality of life and face ongoing changes more effectively. However, this requires independence and self-initiative in recognizing and understanding one's needs. Independence in

personal development is crucial for navigating continuous change. Each citizen must know their needs and potential, conduct objective self-evaluation, stay informed about surrounding developments, and wisely utilize available resources. It is also essential to ensure that using resources does not create new problems for the environment or others. Through this approach, individuals can actively develop themselves and enhance their overall quality of life.

e. Dimension of Critical Thinking

Each individual, as a citizen and in relation to the Pancasila Student Profile, must be capable of critical thinking. Young citizens are expected to be objective in receiving and processing information, and to analyze it wisely to ensure their decisions do not harm others. In the context of the environment, critical thinking involves the ability to examine problems from multiple perspectives. A critically-minded young citizen can assess the impact of human actions on the environment and understand the importance of preserving it.

Everyone needs to learn about and understand the environment and to use natural resources wisely to ensure sustainability. Ecological citizenship has significant implications for the broader view of citizenship, especially regarding human existence in today's world, where society faces growing and unpredictable risks. Risk society and environmental challenges have fostered a new awareness that humans live in an age of uncertainty and escalating threats (Irwan, 2012; Kalidjernih, 2009).

Environmental concern is becoming an increasingly important issue for young citizens. They recognize that environmental sustainability is essential for maintaining the balance of nature and ensuring human well-being. This concern leads to concrete actions to protect the environment while cultivating a more critical mindset. Such awareness encourages young citizens to participate in environmental policy and decision-making. They are encouraged to engage in public consultations, monitor environmental regulations, and provide constructive input for ecological improvement. Environmental concern must be continuously nurtured and strengthened to ensure that it yields positive impacts for both environmental preservation and human prosperity.

## **Alternative Efforts to Strengthen Ecological Citizenship**

### **a. School Culture**

Environmental awareness and character development can be reinforced through school culture by integrating them into the learning framework. It allows students to learn about ecological sustainability and participate in activities that help them understand the importance of protecting the environment. Learning about the environment should not be limited to science or biology subjects. Ecological citizenship movements in schools—especially at the senior high school level—significantly deepen students’ understanding of environmental sustainability and climate change (Park & Kim, 2020). In line with Fahlevi et al. (2020), ecological citizenship movements in schools can and should be implemented as early as elementary school. It implies the need for early habituation, starting from a young age. Moreover, parents also play a critical role in fostering environmental values at home during the preschool years, aligned with children’s developmental stages.

Schools can cultivate habits such as encouraging students to clean their classroom and environment before lessons begin. Another strategy includes encouraging students to pick up litter found inside or outside the school and dispose of it in the proper bins. Beyond waste management, students should also be trained to conserve water and electricity, reduce plastic waste, and use reusable water bottles. Water is a valuable resource becoming increasingly scarce in many parts of the world. Campaigning for water conservation helps preserve water resources for our present needs and future generations. Practical habits for students—such as turning off the tap after washing hands or limiting water use to what is necessary—can promote responsible behavior. Regarding plastic waste, it is essential to raise awareness and cultivate habits among students to understand the urgency of reducing plastic waste for a healthier and more sustainable future. By instilling daily practices such as conserving water and electricity, minimizing plastic waste, and using reusable water bottles, schools play a key role in helping preserve the environment and essential natural resources for current and future generations.

### **b. Self Awareness**

As citizens, individuals must possess self-awareness and a strong commitment to developing an attitude of environmental concern. As a state



member, everyone can enjoy a healthy environment. The following are several practical ways in which citizens can demonstrate and cultivate an environmentally conscious attitude:

### 1. Reducing the Use of Plastic

Reducing the use of plastic items such as plastic bags, straws, and food containers can help decrease the amount of plastic waste in the ocean or landfills. Reducing plastic waste contributes to environmental preservation and minimizes damage to ecosystems. Today, many shopping centers have limited the use of plastic bags. Public places, hotels, and other public facilities have begun promoting the reduction of plastic bottle usage by providing refillable drinking water stations for personal bottles. For example, the environmental community movement in Bali with the slogan “*Bye Bye Plastic Bag*” serves as a form of social capital that supports waste reduction efforts and environmental conservation (Anggasta & Widiastuti, 2022). Plastic pollution is one of the most significant environmental problems in the world, and the consumption of single-use plastic utensils has increased substantially in the food service industry, particularly since the COVID-19 pandemic (Shin et al., 2025). This issue is about managing the waste and strengthening awareness and understanding before plastic waste accumulates.

### 2. Saving Water

Saving water is essential in ensuring a sustainable water supply, especially in areas experiencing drought or limited access to clean water. One effective way to conserve water is by reducing the duration of water use in daily activities. For instance, shorter showers can significantly decrease wasted water, reducing the strain on local water resources. Additionally, simple habits such as turning off the tap while brushing teeth or washing hands can prevent unnecessary water waste, often occurring unconsciously. It is essential to ensure that available water is used wisely and efficiently. These seemingly small actions can significantly impact the preservation of water resources for future generations.

### 3. Sorting Waste

Sorting waste is a crucial step in the recycling process. Proper waste separation is the first step in reducing the volume of waste to prevent overloading landfills. It also supports more environmentally friendly waste

management practices. For example, organic waste can be processed into compost, which enriches the soil. This process reduces reliance on chemical fertilizers and helps prevent soil pollution. Accurate waste sorting reflects a sense of responsibility and contributes to creating a more sustainable circular economy, while also helping to minimize adverse environmental impacts.

#### 4. Planting Trees

Planting trees can help improve air quality and preserve forests, which are essential to the ecosystem. Deforestation has become increasingly widespread across Indonesia, with land being cleared for agriculture, mining, and timber production—causing severe environmental impacts on forest ecosystems. A study by Santoso et al. (2022) found similarities in deforestation patterns across various provinces in Indonesia. The Indonesian government must take preventive measures to address ongoing and potential future deforestation. Several communities have initiated campaigns to raise awareness about the dangers of deforestation and environmental sustainability. Many of these communities have also been actively engaged in reforestation efforts to support the long-term sustainability of Indonesia's forests.

#### c. Social Media Campaigns

Social media has become an essential platform for environmental activists to convey their messages and campaign for greater awareness of nature and ecological issues. Through social media, environmental activists can reach broader and more diverse audiences, significantly expanding the reach of their campaigns. These platforms share information and facts about various environmental issues and promote actions individuals can take to reduce negative environmental impacts.

Gusmadi and Samsuri (2020) suggest that environmental information can be effectively disseminated through online platforms such as TikTok, Facebook, Instagram, YouTube, and Twitter. The role of social media is expected to actively support sustainable development efforts in addressing environmental challenges. Furthermore, research by Nugroho et al. (2025) introduced a new approach by utilizing digital technology in Virtual Reality (VR) to campaign for environmental awareness. This approach aims to foster

empathy and deepen understanding of the consequences of human actions on the environment.

## CONCLUSION

Ecological citizenship refers to the awareness and responsibility of individuals as part of the broader natural environment. It is particularly crucial in global climate change and the current environmental crisis. Environmental awareness is imperative for young citizens, as they will inherit the planet. Young citizens must engage in public consultations, monitor ecological policies, and provide constructive input to improve environmental conditions. The waste problem, as one of the most crucial environmental issues in Indonesia, must be addressed immediately. However, when linked to the ecological citizenship of the younger generation, it requires the cultivation of awareness, responsibility, and environmental sustainability through strengthening youth capacity, particularly within the school setting. It can be realized through educational frameworks such as the *Profil Pelajar Pancasila*, which emphasizes character building and ecological responsibility, as well as through alternative policy initiatives, including the reduction of single-use plastics, the enhancement of public awareness, tree-planting activities, and environmental campaigns on social media. Together, these efforts provide a strategic pathway to prepare young citizens who are knowledgeable and actively responsible in creating a sustainable future. Furthermore, governments should introduce environmentally friendly policies and implement sustainable green programs to encourage the public to become more environmentally conscious citizens.

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