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Strategy for Strengthening Civic Engagement in Muria Forest Preservation as an Effort to Build Ecological Citizenship Through the Muria Forest Protection Society Association (PMPH)

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Abstract: Communities have an important role in efforts to preserve the environment around them, especially the people who live around forest areas. Forest conservation efforts can be carried out individually or in groups, such as those carried out by the Muria Forest Protection Community Association (PMPH). This study discusses strategies for strengthening civic engagement in an effort to build civic engagement carried out by PMPH Muria in conserving the Muria forest and the constraints experienced in strengthening civic engagement. The research method uses a qualitative method, data collection techniques with observation, interviews and documentation studies. Data analysis techniques with data collection, data reduction, data presentation and drawing conclusions. The results of the research show that the strategy for strengthening civic engagement carried out by PMPH Muria in preserving forests is through the active participation of members of the community with education and direct practice in protecting and maintaining forests, with individual and group approaches. While the challenges faced are the uncertain time between members, the Muria forest terrain with a sharp slope, there are still people who encroach on the forest illegally, selling water sources, changing the functions and benefits of the forest, and hunting for animals typical of Muria.

Keywords: Civic engagement, forest conservation, Muria PMPH

1. Introduction

Communities have an important role in sustaining coexistence, including with their own environment. The environment that exists around the community is very diverse, including the area where the community lives adjacent to the forest environment (Collins & Earnshaw, 2014). Forests provide various benefits not only as a guarantee of being a sufficiently good oxygen provider but also as a place for a variety of ecosystems and biological life, maintaining stable groundwater, as well as preventing landslides and floods. However, this situation will not materialize properly if the forest condition shows concern and damage.

We encounter many forests in Indonesia, one of which is the Muria forest, which is located in Dawe sub-district, Kudus Regency, Central Java. The forest which is spread over three districts namely Kudus, Pati and Jepara has an area of around 2.3777 hectares and is included in the category of protected forest (Banowati, 2016). Muria forest is one of the forests that has the potential to develop and also a high potential for damage, apart from the location of the forest which cannot be controlled optimally because it is located in three different districts, in the Kudus area itself the Muria forest is located around the Sunan Gunung religious tourism area Muria (one of the guardians of songo) who has very high mobility and community activities.

There is a necessity that forests provide benefits to the community and the ecosystems in them can be maintained, but in reality if it is not balanced with conservation efforts by the community itself then the function of the forest will be damaged and cannot be utilized optimally. Widjanarko (2019) stated that concern in preserving the mount Muria forest ecosystem is an evolution of harmonizing good relations between the environment and society as a necessity for the people around the mount Muria forest, to obtain extraordinary benefits from the expensive work carried out.

The phenomenon of forest destruction that occurs shows that there is a lack of awareness of the local community in maintaining and seeking forest sustainability. This fact is in line with what was stated by Suharno and Sartini (2022) that

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there are very many people who are only eager to exploit nature and forget to preserve it. Forest conservation efforts are not enough to just be echoed or as part of the government's efforts in this case the environmental service alone, but the importance of direct citizen involvement as a community that lives side by side with forests every day is real. Maintaining forest sustainability will gradually add to the long-term benefits of forests.

The involvement of citizens (civic engagement) needs to be pursued so that the sustainability of the forest ecosystem is maintained in the future. Citizen involvement describes how an active citizen participates in community life in order to improve conditions for other people or help foster the future of society. In line with this, Karliani (2016) also states that civic engagement or civic participation is everything related to the actions of citizens, both individually and collectively, to participate in government policy making and various activities within the community.

Community involvement is urgently needed to address forest issues, because concern for the environment, especially the surrounding environment, is not only an individual responsibility but a shared responsibility. The existence of this togetherness is one of the reasons for the importance of citizen involvement in the communities around the Muria forest (Purnomo et al., 2022). The involvement of the community around the Muria forest area was pioneered by the muria forest protection community association, better known as PMPH Muria. PMPH Muria was born out of community concern about forest encroachment that had occurred since 1998. PMPH Muria then developed into a community association that is continuously engaged in forest protection efforts through various social activities that they have carried out to date. The concept of community involvement that is carried out consistently will foster a citizen's sense of awareness and social care, so that conserving forests is also part of a citizen's civic engagement strategy in the environmental field.

The research problems discussed in this study are how the strategy of strengthening civic engagement is carried out by the Muria Forest Protection Society (PMPH) in preserving the Muria forest, and what are the challenges in strengthening civic engagement experienced by the Muria Forest Protection Society (PMPH) Muria in preserving the Muria forest. It is hoped that the benefits derived from the results of this research can provide scientific contributions regarding how citizen engagement (civic engagement) can change the condition of damaged forests and requires attention with direct participation by the community. Furthermore, the results of this research are also expected to be useful for increasing awareness and participation of the community in general and communities around the Muria forest in particular to preserve the surrounding environment by participating directly in handling environmental problems and forest destruction.

2. Literature Review

2.1 Civic Engagement

Participation is a manifestation of a citizen's involvement in anything that requires attention, time, effort and treatment for a particular purpose, as well as a form of participation in positioning one's self in all forms of events or events that are considered important. Participation is part of the strengthening or involvement of a citizen as a form of caring, love and the character of a responsible citizen. This citizen engagement is often called civic engagement.

Civic engagement needs to be developed to address social problems in society and to strengthen a sense of solidarity and social identity in society. The notion of civic engagement or citizen involvement is in line with the purpose of civic engagement itself, which is to form citizen participation or concern. Doolittle & Faul (2013), state that community involvement is a person's process of trying to improve their community which is balanced with knowledge, skills, and values that are realized through attitudes or behavior.

Civic engagement is a form of citizen participation awareness in making changes and showing concern for the environment around them by making changes for future sustainability (Hill, 2012). The involvement of these citizens also has a significant impact on changes for the better, especially by looking at environmental conditions or the damage that has occurred, it is the role of the surrounding humans who are able to change the condition and sustainability of forest ecosystems.

2.2 The Muria Forest Protecting Society (PMPH) Muria

Protecting forests is not only the responsibility of the government, but also of all the people around them. In Law Number 23 of 1997 article 5 paragraph (3) states that everyone has the right to play a role in the framework of environmental management in accordance with the applicable laws and regulations. Forest conservation efforts are needed to maintain the sustainability of the environment and be beneficial in the future. The participation of the community is very important because concern does not just happen but must be sought. This preservation effort certainly will not be optimal without the role of other communities or communities. Maryani (2022) states that even though environmental management is still very minimal, this lack of awareness will exacerbate the ecological crisis, especially in cities. Protection efforts can be carried out by anyone and any community, both individually and in groups such as organizations or non-governmental organizations (NGOs). This is also in line with Gusmandi and Samsuri's statement (2020) that community-based environmental education can function as a thought that integrates sustainable economic development, ecological education and natural resources which has the potential to contribute to quality education and democratic citizenship. It

is hoped that this kind of education system will provide social services in an organized manner to groups of people who need it directly, in this case, the sustainability of forest protection.

Seeing this fact, there is a group of people who work to protect forest sustainability, called PMPH Muria (Muria Forest Protection Community Association). This community group operates on the basis of a sense of concern for the ongoing forest destruction. Beginning with the late Moh. Shokib, PMPH Muria is still running. At the beginning of its journey, PMPH Muria was just a movement carried out by people who care about the environment who repair damaged forests by replanting trees that were illegally cut down. However, as time went on and PMPH Muria's membership increased, in 2016 PMPH Muria was officially incorporated as the legal entity of the Republic of Indonesia Ministry of Law and Human Rights No. AHU-0074548.AH.01.07 as a legitimate community is recognized by the government.

With this recognition by the government, the PMPH Muria movement is also growing and establishing many collaborations with various agencies for forest damage recovery, these agencies include the Nusantara Nature Conservation Foundation (YKAN) and the Djarum Foundation. The collaboration carried out by PMPH Muria includes the provision of tree seedlings, education on forest management and its utilization as a tourist village. PMPH Muria has the slogan that "the forest is a trust, and protecting it is worship" as motivation and enthusiasm to continue participating as citizens in maintaining the sustainability of their environment. The movement carried out by PMPH Muria can also be used as an investment in the future of their next generation so that the forest can continue to provide benefits for life.

2.3 Ecological Citizenship

Community concern for the environment is one of the indicators of citizens who not only understand theoretically but also care practically. Community concern is developed through mutually agreed values as a foundation for maintaining environmental sustainability (Sarkis & Zhu, 2018). These values come from things that are needed in an effort to preserve the environment and are then transformed into actions by the community. Various theories in efforts to establish ecological citizenship, one of which comes from Talcott Parson.

Various theories in efforts to build ecological citizenship, one of which comes from Talcott Parson. Repairing and treating damage that has occurred clearly requires a lot of time, thought and energy (MacGregor, 2014). However, citizens who care about their environment show that there is a bond between society and the environment so that they feel they belong to each other and this environmental citizenship character is formed which is ingrained in a person's soul and encourages them to preserve the environment in the long term.

This situation is in line with the thoughts of Dobson (2007) who states that indications of ecological citizenship consist of: first, environmental citizenship involves a commitment to the common good of their environment; second, environmental citizenship realizes that environmental responsibility is a balance between the rights and obligations of citizens towards their environment. Berkowitz et al. (2005) also states that ecological citizenship essentially has motivation, self-confidence, awareness of values, practical wisdom and the ability to put one's ecologically literate citizenship into action. Ecological citizenship involves empowering citizens to have the knowledge, skills and attitudes necessary to identify their values and goals in relation to the environment and to be able to act according to their knowledge of the consequences that will occur.

What is expected to happen when people are aware of the importance of participating in creating a good and sustainable ecology is that forests will be more sustainable, damage can be minimized and most importantly, it will form the character of citizens who can demonstrate these values and caring attitudes in the long term in relation to solutions or solving the problem of forest destruction (Sultanova et al., 2018).

Regarding the concept above, Mariyani (2017) stated that the concept of ecology is very important in efforts to develop thoughts or ideas that are closely related to the ethical and moral procedures of citizens regarding their environment in a responsible manner, able to be wise in protecting, managing and preserving the environment. To achieve this goal there are five important components starting from civic literacy, ecological literacy, value awareness, self-efficacy and practical wisdom.

3. Methodology

This research was conducted with descriptive qualitative method. Sugiyono (2013) states that the qualitative research method is a research method that is based on the philosophy of post-positivism, used to research natural objects, where the researcher is the key instrument. The primary research data source is in the form of interviews with members of the Muria PMPH community, local village government and communities around the Muria forest area in an effort to strengthen civic engagement, while secondary data relates to literature, documents, or other literature studies related to civic engagement and forest conservation efforts. The research location is on the slopes of Mount Muria, to be precise at the PMPH Muria community center, located in Colo village, Dawe District, Kudus Regency, Central Java. Data collection techniques are carried out by conducting observations, interviews and documentation studies. While the data analysis technique uses techniques from Davis & Meyer (2009) that the data analysis technique consists of four stages, namely data collection, reduction (data reduction), data presentation, and drawing conclusions.

4. Result and Discussion

4.1 Civic Engagement Strengthening Strategy by PMPH Muria in Ecological Citizenship

Communities living in an area have an attachment to nature and its environment. The sustainability of the environment is highly dependent on how the community takes care of and maintains it (Nowotny et al., 2018). The relationship between humans or society in protecting their environment is included in the internalization of Pancasila values, namely the second precept of a just and civilized humanity, how human beings can act and show behavior that is in accordance with their nature, including protecting the environment. The precepts of just and civilized humanity also show how the role of humans as social beings cannot be separated from the dependence of other people and the environment in their lives.

In protecting nature and the environment, the community can do it individually or in groups. Every effort made by the community both individually and in groups in conserving the forest will have a major impact on future survival. In addition, direct involvement of the community in protecting the environment, demonstrating the character of citizens who are wise and in accordance with Pancasila values, and strengthening the character of citizens can be done by participating and being directly involved in various environmental activities. This states that citizen involvement explains how a citizen actively participates in community life to improve conditions for other people or help grow the future of society. In protecting the future of the environment, the people around the Muria forest area are moved to form a forest protection community known as PMPH Muria.

In accordance with Mariyani's opinion (2017) that although environmental management has been legally regulated, awareness of environmental preservation is still very minimal, this lack of awareness exacerbates the ecological crisis that occurs especially in urban areas. Lack of public awareness if left unchecked will further exacerbate environmental conditions, and if it is not handled seriously then the sustainability of future life can also be threatened, so efforts need to be made to re-preserve damaged forests and environments so that they can continue to be utilized in the future. This protection effort can be carried out by anyone or any community, whether acting individually or in groups in the form of organizations or Non-Governmental Organizations (NGOs). The organization or group that was formed by the community in an effort to preserve the forest is PMPH Muria. PMPH Muria was established because the people were moved and concerned about forest destruction and the large amount of encroachment that had occurred. The community joined the PMPH Muria community because they care about the future of the environment and are aware that forest and environmental sustainability requires the involvement of citizens or the community by actively participating in the values, rules that govern how the environment must be managed wisely.

Community concern by being actively involved with its policies is in line with the opinion expressed by Doolittle & Faul (2013) that community involvement is a person's process of trying to improve their community which is balanced with knowledge, skills, and values that are manifested through attitudes or behavior. The knowledge in question is knowledge of the importance of protecting forests and their environment, and the manifestation in attitudes and behavior is by being directly involved in forest conservation efforts carried out by PMPH Muria members by conducting forestry and replanting forest trees or reforestation. Apart from conducting patrols and planting tree seedlings in damaged forest land, PMPH Muria also conducts educational activities for local communities who are still found carrying out encroachment on the forest or attracting birds that their activities will damage the sustainability of the forest ecosystem.

This approach strategy is carried out so that the community does not feel directly banned and avoids conflicts that might occur. As a concrete step in forest conservation, PMPH Muria is also working with several agencies to provide tree seed assistance and also assist village tourism to help open business and economic opportunities so that people do not encroach on or destroy forest land for personal gain. Regarding the steps for cooperation with other parties, this is in accordance with Karliani's opinion that the form of civic engagement is active participation and collaboration with other parties in making policies for the environment. Karliani's opinion (2016) explains that civic engagement is often called civic participation, which means that everything related to the actions of citizens, both individually and collectively, is to participate in making government policies and various activities in the community. This statement is also in line with Adler & Goggin (2005) who defines civic engagement in several interest perspectives, namely civic engagement as political involvement or civic engagement as political involvement. community involvement in solving problems that is carried out collectively politically and in collaboration with the government, as well as movements carried out by activists.

The activists referred to here are environmental activists who care about forest destruction and collaborate with other agencies such as the Djarum foundation and YKAN in providing bohon seeds and assisting tourist villages. In raising awareness to be directly involved in forest conservation, PMPH conducts an approach and education about the impact of long-term environmental damage. The involvement of PMPH Muria members also occurs because they are personally aware of the mistakes they have made and then are moved to preserve the environment, as told by one PMPH member who joined this community because he was a bird charmer in the Muria forest and finally realized and was moved to join the effort. forest environmental preservation. This personal awareness is in accordance with the opinion of Wadu et al. (2020) that citizen involvement is formed from individual awareness and their own participation in solving problems that exist in their surrounding community without any element of coercion. Forest conservation activities that are aimed at increasing community participation are felt to be quite effective in restoring the condition of forests that

were originally damaged. By being directly involved, concern for the environment is also getting stronger, so it is hoped that citizens who care about the environment or often referred to as ecological citizenship can grow.

Ecological citizenship or environmental citizens are those who have a high sense of concern for the environment and nature around them. It's not just a concern, more than that, ecological citizenship is those who also play an active role, are directly involved in maintaining the stability and preservation of nature. The activities carried out by PMPH Muria show that there is direct community involvement or civic engagement carried out by the community in forest conservation or concern for the environment. Through PMPH Muria's activities, an environmental community or eco-legal citizenship will also be formed. According to PMPH Muria members, environmental citizens must have a character with a clean environment, no waste, in the sense that waste is conditioned in the available space, and those who are involved in forest conservation and don't throw garbage anywhere.

4.2 The Challenge of Strengthening Civic Engagement in Mount Muria Forest Conservation

Forest damage originates from human activity itself which uses the forest improperly, in accordance with the statement of Fa'atin & Sa'adah (2018) forest damage which began in 1998 was the impact of post-reform where forests changed their function to agricultural land, ignorance of the sustainability of forest functions, including those occurring in the Muria forest area. This is the first step for PMPH Muria to carry out efforts to preserve forests. However, along the way, challenges will definitely arise in all aspects of people's lives, including the forest conservation efforts carried out by PMPH Muria. Discussing the challenges that PMPH Muria has experienced since its inception were cost constraints, the cost constraints experienced by PMPH Muria were due to the environmental conservation movement carried out by PMPH Muria carried out independently and voluntarily by its members. PMPH Muria members collected plant seeds that they had previously planted for forest improvement. Apart from that, PMPH Muria members also experienced problems related to the timing of activities that could not be scheduled consistently because the time owned by members was uncertain, so the activities carried out by PMPH Muria in forest conservation efforts cannot be used as a benchmark will be the same every week.

The obstacles experienced by PMPH Muria are not only internal to the members themselves, but also external or what is happening in the field, as stated by one PMPH Muria member that many people are still not fully aware of the benefits of forests and how to protect the environment. one inhibiting factor experienced by PMPH Muria, even though outreach has also been carried out continuously (Sudibyo et al., 2021). In addition, the very high mobility of the community around the Muria Forest means that community activities cannot be controlled optimally, such as disposal of consumable waste, and the use of groundwater which is consumed by local residents for their daily needs in very large quantities because it is also used as a facility for activities tourist area.

However, behind the obstacles experienced by PMPH Muria, significant changes were also felt by the awareness of the local community, though not all of them, that encroachment could damage the forest in the long term. Another change was also shown by the young people, namely that they no longer carried out activities to lure birds. This was the result of the approach taken by PMPH Muria, that if there was no one to lure the younger generation, then there would be no next generation that would destroy the forest. This fact is in accordance with Silfiana and Samsuri's opinion (2019) regarding the younger generation as the driving force for ecological citizenship, his statement that young citizens are one of the figures who can be relied upon to carry out the ecological citizenship movement. Their creativity, passion, innovative ideas are able to influence other citizens to participate in the ecological citizenship movement. This opinion was also supported by a statement made by a member of PMPH Muria and the fact of field observations that formerly a member of PMPH Muria, namely Mas Wawan, was a bird charmer but now he has stopped and instead became a bird observer who joined PMPH Muria. Mas Wawan's cessation was due to an approach taken by PMPH Muria. The strategy implemented by PMPH Muria through this approach yielded good results by starting to become aware of the behavior that the community has been doing so far that can make forests more profitable.

The definite steps taken by PMPH Muria and the awareness of this young generation will strengthen the sense of concern and responsibility of a citizen as well as an effort to build ecological citizenship. This is in accordance with the opinion put forward by Jannah (2018) that the idea of establishing ecological citizenship is very important to restore citizen responsibility for their ecology. In essence, ecological citizenship also includes an understanding of ecological issues, rights, and responsibilities of citizens in environmental issues. It is the responsibility of the younger generation, such as PMPH Muria members, who are aware of the future of forests for the common good and are motivated by real actions to care for the Muria forest in addressing environmental issues. In the process of developing PMPH Muria to preserve the Muria forest area, the changes made by PMPH Muria received a positive response from local residents. This response was following the encroachment activities that began to decrease, there was an activity of extracting groundwater for private sale which also stopped, and also it is clear that there is education regarding the socio-economics of coffee and Parijoto farmers which can open up opportunities to form tourist villages.

PMPH Muria's goal is not only to preserve the forest, namely so that there is no more extensive damage to the forest, and by involving the community directly, it also has a long-term goal, namely that Muria's protected forest will be upgraded to a nature reserve forest on the grounds that it is not used arbitrarily by public. PMPH Muria is still having problems, but that doesn't mean it's stopping PMPH Muria's steps to preserve forests. Especially with PMPH Muria's

motto which has been echoed all this time that "the forest is a trust and protecting it is worship" which is always guarded by PMPH Muria so that community involvement (civic engagement) is a citizen involvement movement that is continuously carried out so that it is expected to be able to create environmental citizenship. Or ecological citizenship.

5. Conclusion

Communities have an important role in efforts to preserve the environment around them, especially the people who live around forest areas. Environmental preservation efforts are inseparable from the fact that people cannot be separated from dependence on their surroundings. The strategy to strengthen civic engagement carried out by the Muria forest protection community association (PMPH) is carried out by inviting the community to be directly involved and actively participate in preserving the forest, then PMPH Muria also approaches the community not to destroy forests by providing socialization and education on the impact of long-term forest damage that will be felt if the community engages in illegal forest encroachment, selling of water sources, changing the function and benefits of the forest, and hunting Muria-specific animals.

The challenge of civic engagement or citizen involvement experienced by PMPH Muria in efforts to preserve forests does not only come from within PMPH Muria members themselves but also from outside PMPH Muria membership. The challenge from within PMPH Muria itself is because PMPH Muria's movement is voluntary so that there is no patent schedule every month in forest conservation efforts due to the different time availability of each member. Meanwhile, the challenges that come from outside are due to the fact that there are still people who do not pay attention to the appeals and socialization carried out by PMPH Muria, the community is still carrying out encroachment on the forest to make it agricultural land and there are also people who still attract birds for personal use.

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Conflict of Interest

The authors declare no conflicts of interest.

References

Adler, R. P., & Goggin, J. (2005). What do we mean by “civic engagement”?. *Journal of transformative education*, *3*(3), 236-253. https://doi.org/10.1177/1541344605276792.

Banowati, E. (2016, November). Analysis of the Pesanggem Cognitive Aspects of the Resources Management Program Community Based in Muria Forest. In *1st International Conference on Geography and Education (ICGE 2016)* (pp. 372-375). Atlantis Press. https://doi.org/10.2991/icge-16.2017.72.

Berkowitz, A. R., Ford, M. E., & Brewer, C. A. (2005). A framework for integrating ecological literacy, civics literacy, and environmental citizenship in environmental education. *Environmental education and advocacy: Changing perspectives of ecology and education*, *227*, 66. *Scribbr.* https://www.sendadarwin.cl/espanol/wp-content/uploads/2010/01/ecological-literacy-alan-berkowitz.pdf.

Collins, K., & Earnshaw, D. (2014). The implementation and enforcement of European community environment legislation. In *A green dimension for the European Community* (pp. 213-249). Routledge. *Scribbr.* https://www.taylorfrancis.com/chapters/edit/10.4324/9781315036045-12/implementation-enforcement-european-community-environment-legislation-ken-collins-david-earnshaw.

Davis, N. W., & Meyer, B. B. (2009). Qualitative data analysis: A procedural comparison. *Journal of Applied Sport Psychology*, *21*(1), 116-124. https://doi.org/10.1080/10413200802575700.

Dobson, A. (2007). Environmental citizenship: Towards sustainable development. *Sustainable development*, *15*(5), 276-285. https://doi.org/10.1002/sd.344.

Doolittle, A., & Faul, A. C. (2013). Civic engagement scale: A validation study. *Sage Open*, *3*(3), 2158244013495542. https://doi.org/10.1177/215824401349.

Fa'atin, S., & Sa’adah, N. (2018). Konservasi Alam: Aktifitas Paguyuban Masyarakat Peduli Hutan (PMPH) Dalam Bingkai Living Qur’an di Kabupaten Kudus. *TAJDID: Jurnal Ilmu Ushuluddin*, *17*(1), 51-76.

Gusmadi, S., & Samsuri, S. (2020). Gerakan kewarganegaraan ekologis sebagai upaya pembentukan karakter peduli lingkungan. *Jurnal Ilmiah Pendidikan Pancasila Dan Kewarganegaraan*, *4*(2), 381-391.

Hill, R. J. (2012). Civic engagement and environmental literacy. *New directions for adult and continuing education*, *135*(135), 41-50. https://doi.org/10.1002/ace.20025.

Jannah, R. (2018). Menciptakan Kewarganegaraan Ekologis di Era Digital Melalui Kampoeng Recycle Jember. *Journal of Urban Sociology*, *1*(2), 14-26. http://dx.doi.org/10.30742/jus.v1i2.567.

Karliani, E. (2016). Membangun civic engagement melalui model service learning untuk memperkuat karakter warga negara. *Jurnal Ilmiah Pendidikan Pancasila dan Kewarganegaraan*, *27*(2). http://dx.doi.org/10.17977/jppkn.v27i2.5517.

Law No. 23 Year (1997). Environmental Management. National Paper of the Year, (3699).]. Undang Undang No. 23 Tahun 1997 Tentang: Pengelolaan Lingkungan Hidup. *Lembar Negara RI Tahun, (3699)*.

MacGregor, S. (2014). Ecological citizenship. *Handbook of political citizenship and social movements*, 107-132.

Mariyani, M. (2017). Strategi Pembentukan Kewarganegaraan Ekologis. *Prosiding Konferensi Nasional Kewarganegaraan III. Universitas Ahmad Dahlan, Yogyakarta*, *9*, 17-22.

Maryani, D. (2022). Environmental Management of Manufacturing Companies Indonesia: Examining the Influence of Corporate Social Responsibility on Company Profitability. *Environmental Management of Manufacturing Companies Indonesia: Examining the Influence of Corporate Social Responsibility on Company Profitability*, *28*(1). *Scribbr.* http://repository.unived.ac.id/id/eprint/358.

Nowotny, J., Dodson, J., Fiechter, S., Gür, T. M., Kennedy, B., Macyk, W., ... & Rahman, K. A. (2018). Towards global sustainability: Education on environmentally clean energy technologies. *Renewable and Sustainable Energy Reviews*, *81*, 2541-2551. https://doi.org/10.1016/j.rser.2017.06.060.

Purnomo, A., Mulianingsih, F., Fahry, A., & Setyarini, I. M. (2022, February). The role of the Paguyuban Masyarakat Peduli Hutan (PMPH) community as a form of disaster management in the highlands of Kudus Regency. In *IOP Conference Series: Earth and Environmental Science* (Vol. 986, No. 1, p. 012045). IOP Publishing. https://doi.org/10.1088/1755-1315/986/1/012045.

Sarkis, J., & Zhu, Q. (2018). Environmental sustainability and production: taking the road less travelled. *International Journal of Production Research*, *56*(1-2), 743-759. https://doi.org/10.1080/00207543.2017.1365182.

Silfiana, L., & Samsuri, S. (2019). Keterlibatan warga Negara Muda dalam gerakan Kewarganegaraan Ekologis untuk mewujudkan pembangunan berkelanjutan berwawasan lingkungan. *Jurnal Studi Pemuda*, *8*(2), 127-139. https://doi.org/10.22146/studipemudaugm.48180.

Sudibyo, D. Y., Triyanto, T., & Nuryadi, M. H. (2021, September). Social Capital of Forest Protection Community Association (PMPH) in Muria Forest Preservation Efforts. In *Proceeding of International Conference on Social Sciences and Education* (Vol. 1, No. 1). *Scribbr.* https://jurnal.fkip.uns.ac.id/index.php/icsse/article/view/13220/0.

Sugiyono, D. (2013). Metode penelitian pendidikan pendekatan kuantitatif, kualitatif dan R&D. *Scribbr.* https://digilib.unigres.ac.id/index.php?p=show_detail&id=43.

Suharno, S., & Sartini, S. (2022). Tribuana Manggala Bakti: Menjaga Lingkungan Alam Menoreh dalam Perspektif Fritjof Capra. *Jurnal SMART (Studi Masyarakat, Religi, dan Tradisi)*, *8*(2), 275-286. https://doi.org/10.18784/smart.v8i2.1689.

Sultanova, R. R., Gabdrahimov, K. M., Khayretdinov, A. F., Konashova, S. I., Konovalov, V. F., Blonskaya, L. N., ... & Gabdelkhakov, A. K. (2018). Evaluation of ecological potential of forests. *Journal of engineering and applied sciences*, *13*(S8), 6590-6596. https://doi.org/10.3923/jeasci.2018.6590.6596.

Wadu, L. B., Ladamay, I., & Fitriya, N. (2020). Penguatan Keterlibatan Warga Negara Dalam Pembangunan Berkelanjutan Melalui Program Go Green. *Citizenship Jurnal Pancasila Dan Kewarganegaraan*, *8*(1), 41-50. http://doi.org/10.25273/citizenship.v8i1.6076.

Widjanarko, M. (2019). *Menengok kehidupan pemelihara Hutan Muria*. Badan Penerbit Universitas Muria Kudus.