

## GENDER ISSUES IN ENVIRONMENTAL HEALTH

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### Abstract

Gender equality is a manifestation of the equal condition of men and women in obtaining their rights as human beings in order to be able to play a role and participate in political, economic, and socio-cultural activities and equality in enjoying the results of development. The environment becomes unhealthy and can interfere with daily activities and cause diseases that disrupt people's lives. Therefore, there is a need for an active role of men and women (gender) without discrimination in maintaining and preserving a clean and healthy living environment. The purpose of this writing is to find out gender issues in environmental health. The method used is systematic literature review. Of the 50 selected International articles obtained from Google Scholar, PubMed, Emerald Insight, DOAJ, 32 articles discussing Gender and the environment, 5 that meet the Eligibility criteria, were analyzed and came to conclusions. To solve gender problems more effectively, gender socialization or training activities and other forms of activities among officials and communities need to involve both parties, women and men together. By improving gender equality and justice, it is hoped that it will improve and keep the environment clean and healthy. So to encourage the implementation of gender-responsive environmental development not only through policies, programs, and activities but real steps are needed through a massive change movement and a change in mindset and paradigm from all segments of society and if efforts to save the environment and achieve a healthy community life must also be supported by integrating gender equality values

**Keywords:** gender; health; environment

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### INTRODUCTION

In principle, humans in their lives rely heavily on water, land, energy, biodiversity and healthy ecosystems to ensure the continuity of livelihoods. In general, the environment is the natural conditions around us. The living *environment* is defined as the container of living things, which consists of three basic elements, namely the container (the *contour*), the content (the *content*) and the conduct (the *conduct*). All three are interconnected, aligned, balanced, complete and rounded (Sadiku et al., 2020). Changes in one of these basic elements cause disruption of environmental conditions. The environment and humans influence each other . If

the environment is damaged, then human life will be disrupted. An example is the problem of unavailability of clean water caused by climate change and pollution. However, environmental damage makes water unusable (Egaga & Akinwumi, 2015). The unavailability of clean water triggers crises in various parts of the world with the emergence of various diseases caused by water or also known as *waterborne diseases*.

One of the largest beneficiary groups, if we talk about the environment and the declining functioning of natural asset services is women. Women and the differentiation of women's roles in society thus create more burden for women and women often experience injustice due to gender differences (Heise et al., 2019). Since the beginning of human history, women have essentially contributed to the conservation, use and management of natural resources. Perceptions of gender are often with women, but gender is actually a concept that refers to the roles and responsibilities of men and women that occur as a result of and or may be changed by the social and cultural circumstances of the community (Siscawati et al., 2020). Thus, gender is not a synonym of the word woman.

Gender is the concept of relations between women and men, while *sex* is "the biological characteristics of women and men"<sup>5</sup>. For example, females and males have chromosomes, females have a higher tone of voice while males have a lower tone of voice. These sex differences are known biological differences and are NATURAL. Today there is often an injustice in the roles and responsibilities of men and women in development and daily life where women or men do not get access, Equal benefits, control and participation (Bolte et al., 2019). By understanding gender, it is hoped that we can better understand the attitudes, needs and roles of women and men in society.

This environmental issue began to be discussed at the Environment Summit in Stockholm, Sweden, on June 15, 1972 was the first conference on the environment that had linked environmental problems with women (Robertua & Bainus, 2018). Although not explicitly stated, gender perspectives have colored the international agreement. The 1992 Rio de Janeiro Earth Summit explicitly stated the linkages between women, the environment and sustainable development. The women's group is a major group described in the 20th principle of the Rio Declaration as follows: women have an important role in environmental management and development. Their full participation is essential to enhance sustainable development (Robertua & Bainus, 2018).

The Women's Summit in Beijing, 1995 produced 12 critical areas for women, one of which was women and the environment, which had 3 strategic goals, namely actively involving women in decision-making on the environment at all levels, integrating gender issues and perspectives in policies and programs for sustainable development, strengthening mechanisms national, regional and international levels to assess the impact of development and environmental policies on women.

The Sustainable Development Summit in Johannesburg, 2002 emphasized the importance of gender perspectives in environmental management and sustainable development. In the *plan of implementation* agreement, it is stated that women's empowerment must be a priority. Today, issues of gender, health degradation and environmental degradation affect each other hotly discussed and always up-to-date, but the handling of these problems often still runs independently (United Nations, 2002). Handling health problems often does not pay attention to environmental

factors and handling environmental problems often ignores health aspects. Similarly, gender problems, both as a cause and as a consequence of health problems and environmental problems, have not been optimally accommodated in health and environmental development programs.

Another factor that influences gender issues is Culture. Community culture is one of the things that limits women's participation in conveying their needs and aspirations at every meeting at the Village, District and District levels, especially environmental issues which are usually considered as men's affairs and domination (Sukri & Shasrini, 2020). When women participate in meetings, men do not listen to complaints, recommendations and what women talk about. Women are considered to deal only with certain domestic activities that do not earn a salary or are not considered essential jobs (Kinias & Kim, 2011). Their place in the organization is not considered important in relation to decision making.

In the future, identification of gender problems needs to be done to find out the gap in the status and activities of women and men still occur. This gap can be gradually eliminated, among other things, by empowerment efforts. This means that both women and men have the right to control their own lives, set their own agendas, increase self-confidence, solve environmental health problems such as environmental health, clean water providers, waste and waste management as well as management of public places and food processing.

Gender roles are very important in overcoming environmental health problems such as environmental pollution including water pollution, soil pollution, air pollution (Austin & Banashek, 2018). (Austin & Banashek, 2018) With commitment, courage, resilience and patience from men and women can change the state of the polluted environment due to their actions into a better environmental condition, become a balanced state, can reduce the occurrence of environmental pollution, even expected to prevent pollution, for example Forest burning to make agricultural land or just for wood turns out to have serious impacts, such as acute respiratory tract infections, eye irritation, disruption of flight schedules, disruption of forest ecology (Lazaridis & Colbeck, 2008). For this reason, gender intervention will cause maximum strength in overcoming environmental health problems. Therefore, it is found that an important purpose in writing this article is to know and understand gender issues in environmental health.

Looking at the description of the problem above, the World through the United Nations Organization (UN) declared the global Sustainable *Development Goals* (SDGs) which were declared on September 25, 2015 on September 25, 2015 on when the *UN Sustainable Summit 2015* adopted the document "*Transforming Our World: 2030 Agenda for Sustainable Development*" as a document of the 2030 *Agenda for Sustainable Development* (Nations, 2018). With new development agreements that encourage changes towards sustainable development based on human rights and equality to promote social, economic and environmental development

The document contains the goals and targets of the SDGs consisting of 17 *goals* and 169 targets that describe the goals and scope of the inclusive and multidimensional global development agenda (Paixao, 2021). These goals and targets become a guide for the global community for the next 15 years in carrying out development for the welfare of the world community, one of which is the 5th goal "Achieve gender equality and empower all women and girls", targets (1) End

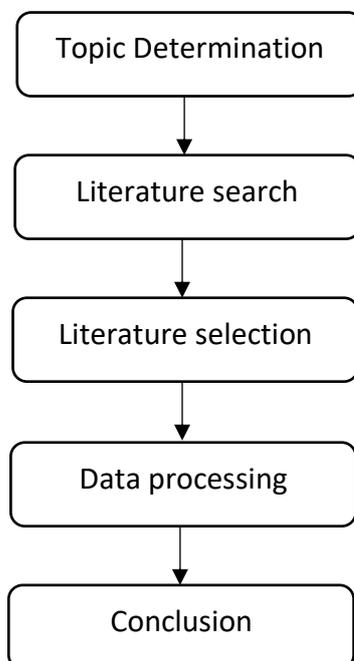
all forms of discrimination against all women and girls everywhere, (5) Ensure that all women be able to participate fully and have equal opportunities for leadership at all levels of decision-making in political, economic and public life, (7) Conduct reforms to give women equal rights to economic resources as well as access to ownership and control over land and other forms of property financial, heritage and natural resource services, in accordance with national law, (9) Adopt and strengthen clear policies and enforcement of legislation to promote gender equality and the empowerment of all women and girls at all levels.

To realize sustainable development programs, it is expected that all countries will always play an active role and contribute in order to help and support the realization of the 5th SDGs target through programs that include: environmental health by 2030.

## RESEARCH METHODS

The writing of this article uses the *Sysatematic Literature Review* method. *Sysatematic Literature review* (SLR) is a systematic, explicit and reproducible method for identifying, evaluating and synthesizing research works and thoughts that have been produced by researchers and practitioners(Xiao & Watson, 2019). In writing this article using secondary research data obtained from related international journal or article data sources conducted by previous researchers such as Google Sholar, WOS, PubMed, Emerald Insight, DOAJ.

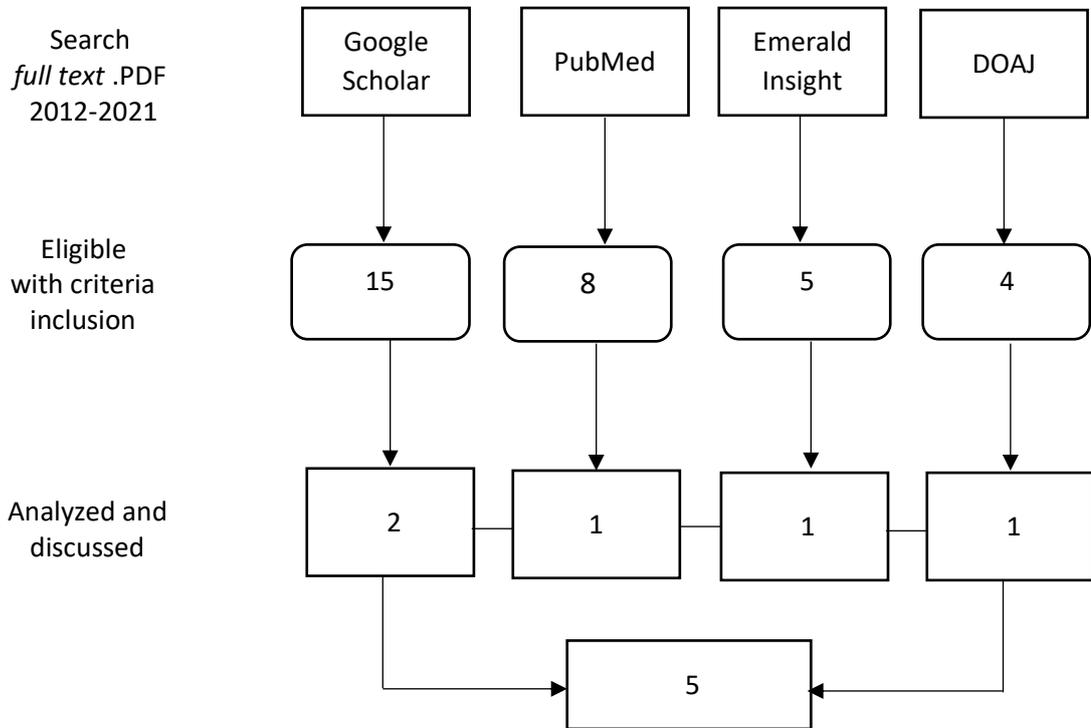
The flow of writing the *Sysatematic Literature Review* carried out in writing this article begins with determining the topic, searching the literature based on the database of related articles, literature selection, data processing and conclusions. As attached below.



**Figure 1 Flowchart of the Sysatematic Literature Review framework**

Article searches are carried out on several data bases such as Google Scholar, PubMed, Emerald Insight, DOAJ using the words gender kundi and environmental

health. After the articles are collected, the next steps are analyzed, discussed and draw conclusions.



**Figure 2 Article Selection Scheme**

### Data Synthesis

This literature review is synthesized using a narrative method by grouping similar extracted data according to the measured results to answer the goal. Research journals that match the inclusion criteria are then collected and made a journal summary including the name of the researcher, year of publication of the journal, research title, methods and summary of results or findings. The summary of the research journal is entered into the table according to the format mentioned above. Research made by (Dębiak et al., 2019) the result The sex and gender approaches to research demand individual researcher's awareness and openness, challenge traditional preferences and limitations in perspectives, require gender competency and strengthened efforts but promise new interpretations and better results in return from which men, women and divers genders will profit.

## RESULT AND DISCUSSION

Of the 50 International articles selected, 32 articles discussing Gender and the environment, 5 that meet the Eligibility criteria, were analyzed and came to conclusions. From the 5 articles taken and analyzed it can be found that:

- a. In general, the estimation results show that gender equality has a positive influence on environmental health management and means that, encouraging equality between men and women is very important to make a good contribution in improving and maintaining a clean environment and healthy.

- b. To solve gender problems more effectively, gender socialization or training activities and other forms of activities among officials and communities need to involve both parties, women and men together. By improving gender equality and justice, it is hoped that it will increase and keep the environment clean and healthy.

The environment is created as part of human life that can be utilized and preserved. As a whole, humans and the environment (which includes plants, animals, tiny bodies and so on) coexist and interact with each other. Human interaction with their environment is a natural process (Scotland's Environment Web, 2014). This is because humans need the carrying capacity of environmental elements for their survival. Humans and the environment are essentially like a building that should strengthen each other because humans are very dependent on the environment, while the environment also depends on human activities, so the quality of the environment is very dependent on human quality (Shende et al., 2015).

Talking about environmental health issues cannot be separated from the roles of women and men (gender). Indeed, women and men are agents of change and have a major influence on the quality of the environment. There are many things that women and men can do about their relationship with environmental health management.

#### 1. The importance of gender roles

Gender equality is the equality of conditions for men and women to get the same opportunities, rights, benefits, and access as human beings, to play a role and participate in political, economic, socio-cultural, national defense and security activities, as well as equality in enjoying the results of development. Gender equality has several objectives, namely:

- a) Eliminate all forms of violence, harassment, and exploitation that women often experience.
- b) End all forms of discrimination that often occur in the household and work environment.
- c) Gets the right to ownership of an item.
- d) Have the right to equal education Have the freedom to participate in political, social, and economic life.
- e) Reward unpaid care and promote shared domestic responsibility (Battle, 2017).

Gender equality is important in order to uphold equal rights as human beings between women and men, as well as to eliminate all forms of discrimination, violence, and harassment that are often experienced by women (Sukri & Shasrini, 2020). The ideal condition in human development is to achieve equality between men and women in accessing development, and to benefit from just and equal development. Conversely, gender discrimination in development can lead to differences in development outcomes between men and women<sup>19</sup>.

Nowadays, the issue of equality between men and women or more popularly known as gender equality. This issue, if examined more deeply, will narrow down to the problem of inequality of circumstances and positions between men and women (Blackstone, 2003). This problem arises when women have limited opportunities when compared to men who have broad opportunities related to programs and activities in the community.

Gender Roles are behaviors learned in a society that are conditioned that activities, duties or responsibilities are acceptable to both men and women (Kambouri-Danos & Evans, 2019). Gender roles can change, and are influenced by age, class, race, ethnicity, religion and geographical, economic and political environments. Both

women and men have dual roles in society. Women often have a role in regulating reproduction, production and society. Men are more focused on production and societal politics.

## 2. Gender participation in environmental health management

The environment as part of human life that can be utilized and maintained. The human environment includes all kinds of natural resources that exist around humans (Uzzell & Moser, 2006). As a unit, humans and the environment (which includes plants, animals, tiny bodies and so on) coexist and interact to be able to meet the needs of life for human survival.

Environmental conditions have become unhealthy or unsightly due to the deterioration of the earth's condition in recent decades (Semenova, 2020). The depletion of the ozone layer, much reduced forest land and high levels of gas emissions produced by industrial countries are suspected to be the cause of increasing the earth's surface temperature. The increasingly hot surface temperature of the earth causes the ice at the north and south poles to melt, as a result of which sea levels continue to rise (Andrew Jorgenson, 2012). If sea levels continue to rise, gradually the islands on the surface of the earth will sink.

Gender roles in preserving the environment are not many, but that does not mean they do not exist. Space for deeper gender involvement (men and women) is also considered inadequate (Austin & Banashek, 2018). Gender is sometimes not actively involved in most policies and controls over the natural resources that sustain people's lives. Whereas the target of achieving the Sustainable Development Goals (SDGs) in 2030 requires the importance of women's involvement in all goals to be achieved. Including gender roles in environmental management is so that everyone understands how important the environment is so that it will maintain, maintain the environment, thus gender has a big contribution to maintain, maintain the environment well and can also maintain the cleanliness of the environment from the smallest scope (Bell, 2016).

Humans rely heavily on water, land, energy, biodiversity and healthy ecosystems to ensure their livelihoods and natural assets are essential to get out of impoverishment (Shende et al., 2015). Many environmental issues, such as climate change and disasters, are now shifting into development issues in general and politics because the extent of the impact is increasingly massive and affects almost all sectors of life. Therefore, the importance of gender so that men and women get a deep opportunity in maintaining and managing the environment to be clean and healthy and prevent the community from environment-based diseases such as; Malaria, ARI, diarrhea, dengue.

## 3. The role of women in protecting the environment

Women are agents of change for their surroundings. One of them is in environmental management. Women have the potential and important role in the management of natural resources and the environment<sup>26</sup>. However, because patriarchal culture is still attached in society, the role of women has more or less become marginalized. Women have been recognized as having an equal role in environmental protection and management. In relation to climate change, for example, internationally the UNFCCC (United Nations Framework Convention on Climate Change) recognizes the importance of equal engagement between women and men, in policy gender-responsive climate, through a specific agenda that addresses gender issues and climate change, including including the inclusion of the

Paris Agreement<sup>27</sup>. But until now, the role of women still tends to be ignored, both at the local and national levels.

The relationship between women and the environment is now widely voiced through ecofeminism. Ecofeminism is a branch of feminism that emphasizes the environment and the relationship between women and the earth as a basis for analysis and practicality. The term ecofeminism was introduced by the French writer Françoise d'Eaubonne in her book entitled "*Le Féminisme ou la Mort*" (UNFCCC, 2006). Ecofeminism as a reaction to the marginalization of women in the development process and the increasing destruction of nature due to the impact of development that is not in favor of nature (Rodali Mohan, 2022). In the midst of the still dominant condition of dualistic logic, including in feminist thought, ecofeminism can be one of the enlightening alternatives.

Furthermore, this commitment to gender equality and women's empowerment is not only a national commitment, but also an international commitment, for example stated in the Convention on the Elimination of All Forms Discrimination against Women (CEDAW), The basis of action for the Sustainable Development Goals (SDGs) (Heise et al., 2019). In addition, one of the indicators of the quality of human resources in the world contained in the 2011 Gender Development Index is gender equality and sustainable development. This means that the realization of gender equality will be able to improve sustainable development, and vice versa development will be sustainable if women and men are equal as equal partners (Rico, 1998).

In patriarchal culture, women work more in the domestic sector, while men work more in the public sector. Women as household managers, in fact, are more synonymous with jobs such as cleaning the house, washing, taking care of children, and so on. These works, if reviewed further, are quite close to many environmental pollution problems such as household waste. From this alone, it can be seen that women have an important role in environmental management efforts. Women have the potential and important role in the management of natural resources and the environment.

Women as creatures of God as well as citizens and human resources of development have the same rights and obligations, positions, participation and opportunities as men to play a role in various areas of life in all development activities (Sukri & Shasrini, 2020). In addition, the position of women in the family and society and their role in development needs to be maintained and continuously improved, so that women as equal partners of men can make the greatest contribution to development by taking into account the nature of their dignity and dignity as women.

#### 4. Gender and environmental conservation

The issue of environmental conservation is actually closely related to the role of men and women. Men and women are very important figures to ensure sustainable development and as key actors in using, managing and protecting natural resources<sup>2</sup>. Gender has a very vital role in environmental management and development. Active participation and full dedication are the most essential things in sustainable development. All men and women, especially those who live in rural or mountainous areas, usually have a special relationship with the environment (Austin & Banashek, 2018). Their lives are very dependent and revolve around the living environment in which he lives. They are completely dependent on forests to meet their daily needs such as: water, animal feed, provision of firewood, forest products as a source of nutrition and others.

Environmental damage is a latent threat to the survival of residents living in landslide-prone areas. The role of men and women can be used as agents of change as well as leaders in solving environmental problems by changing their perspective and behavior towards nature and the environment (Bell, 2016). Therefore, in order for its utilization to be sustainable, the exploitation of natural resources must be accompanied by protective measures. Maintenance and development of the environment must be carried out in a rational way, among others, as follows:

- a. Make careful and efficient use of renewable natural resources, for example: water, land, and air.
- b. Using substitute materials, for example metallurgical products (mixtures).
- c. Develop efficient mining and processing methods, as well as recycling.
- d. Implement environmental ethics based on the philosophy of living peacefully with nature (Goosen, 2012).

Environmental crises that occur in this part of the world, more often bring negative impacts felt by humans, especially in various aspects of life (Sadiku et al., 2020). Therefore, there needs to be serious attention by all people in this world, as a commitment and responsibility of humans to the lives of the next generation. One way that can save the environment is to build good cooperation between men and women without discrimination from each other in preserving a clean and healthy environment.

Various meetings discussing the environment were conducted, to protect and preserve the environment from the ecological crisis. Global commitments made by non-governmental organizations, relevant ministries in each State and the United Nations (UN), are also carried out in order to arouse and make people aware of the environment. To achieve the welfare of life in harmony, with harmony with the environment, has grown a movement that can prosper human life (Semenova, 2020).

Environmental problems are not only the responsibility of the government but also the responsibility of all levels of society. Basically, men and women have equal rights, opportunities, roles and access in environmental management. Therefore, it is time for gender-oriented environmental management and preservation.

## **CONCLUSION**

The environment is created as part of human life that can be utilized and preserved. The obligation to keep the environment clean is a joint obligation between men and women. Good cooperation and environmental management policies based on gender justice are needed so that they can be more optimal in keeping the environment clean, free of waste and pollution, especially in the city of Pekalongan, as well as religious and social approaches to sensitize the people of Pekalongan city, both men and women so that they can protect the environment well.

## **BIBLIOGRAPHY**

- Andrew Jorgenso, R. E. D. (2012). Environmental problems. *Blackwll Publishing Ltd*, 2(9), 519–540. <https://doi.org/10.1017/9781108550710.031>
- Austin, K. F., & Banashek, C. (2018). Gender Inequality and Environmental Well-Being: A Cross-National Investigation of Ecosystem Vitality and Environmental Health. *Sustainability in Environment*, 3(3), 257. <https://doi.org/10.22158/se.v3n3p257>

- Battle, A. U. (2017). The Pursuit of Gender Equality. In *The Pursuit of Gender Equality* (I). <https://doi.org/10.1787/9789264281318-en>
- Bell, K. (2016). Bread and roses: A gender perspective on environmental justice and public health. *International Journal of Environmental Research and Public Health*, *13*(10). <https://doi.org/10.3390/ijerph13101005>
- Blackstone, A. M. (2003). *Gender Roles and Society*. 8(October), 1–5.
- Bolte, G., Nanninga, S., & Dandolo, L. (2019). Sex/gender differences in the association between residential green space and self-rated health—a sex/gender-focused systematic review. *International Journal of Environmental Research and Public Health*, *16*(23). <https://doi.org/10.3390/ijerph16234818>
- Dębiak, M., Groth, K., Kolossa-Gehring, M., Sauer, A., Tobollik, M., & Wintermeyer, D. (2019). Sex and gender approaches in environmental health research: Two exemplary case studies of the German environment agency. *Interdisciplinary Science Reviews*, *44*(2), 114–130.
- Dölling, I., & Vale, M. (2015). Culture and Gender. *Cultural Management Journal*, *XVII*(1), 25–47. <https://doi.org/10.1080/15579336.1988.11769956>
- Egaga, P. I., & Akinwumi, A. S. (2015). Gender and environmental sustainability: Issues and problems involved for persons with special needs in Nigeria. *Journal of Education and Practice*, *6*(30), 184–187.
- Eisenclas, S. A. (2013). Gender roles and expectations: Any changes online? *SAGE Open*, *3*(4). <https://doi.org/10.1177/2158244013506446>
- Goosen, M. F. A. (2012). Environmental management and sustainable development. *Procedia Engineering*, *33*(December 2012), 6–13. <https://doi.org/10.1016/j.proeng.2012.01.1171>
- Heise, L., Greene, M. E., Opper, N., Stavropoulou, M., Harper, C., Nascimento, M., Zewdie, D., Darmstadt, G. L., Greene, M. E., Hawkes, S., Henry, S., Heymann, J., Klugman, J., Levine, R., Raj, A., & Rao Gupta, G. (2019). Gender inequality and restrictive gender norms: framing the challenges to health. *The Lancet*, *393*(10189), 2440–2454. [https://doi.org/10.1016/S0140-6736\(19\)30652-X](https://doi.org/10.1016/S0140-6736(19)30652-X)
- Kambouri-Danos, M., & Evans, A. (2019). Perceptions of gender roles: A case study. *Early Years Educator*, *20*(11), 38–44. <https://doi.org/10.12968/eyed.2019.20.11.38>
- Kinias, Z., & Kim, H. S. (2011). Culture and gender inequality: Psychological consequences of perceiving gender inequality. *Group Processes and Intergroup Relations*, *15*(1), 89–103. <https://doi.org/10.1177/1368430211408940>
- Lazaridis, M., & Colbeck, I. (2008). *Water, Air and Soil Pollution: Preface*. 8, 15. <https://doi.org/10.1007/s11267-007-9131-0>
- Nations, U. (1996). *Report of the Fourth World Conference on Women, Beijing 4-15 September 1995*. (Vol. 2, Issue 1). <https://doi.org/10.1177/102425899600200125>
- Nations, U. (2018). *The 2030 Agenda and the Sustainable Development Goals An opportunity for Latin America and the Caribbean Thank you for your interest in this ECLAC publication*.
- Paixao, S. (2021). SDGs, Environmental Health and Gender Equity. *European Journal of Public Health*, *31*(3), 130.
- Rico, M. N. (1998). *Gender, the environment and the sustainability of development*.
- Robertua, V., & Bainus, A. (2018). From Stockholm to Rio: Critical Reading of

- Global Environmental Governance. *AEGIS: Journal of International Relations*, 2(2), 166–183. <https://doi.org/10.33021/aegis.v2i2.429>
- Rodali Mohan, P. S. (2022). The Role of Women in the Conservation of Environment with Special Reference to Assam. *Journal of Positive School Psychology*, 6(3), 5849–5855.
- Sadiku, M. N. O., Ashaolu, T. J., Ajayi-Majebi, A., & Musa, S. M. (2020). Environmental Studies: An Introduction. *International Journal Of Scientific Advances*, 1(3). <https://doi.org/10.51542/ijscia.v1i3.6>
- Scotland's Environment Web. (2014). *Benefits From The Environment*. 6, 1–4.
- Semenova, G. (2020). Global environmental problems in the world. *E3S Web of Conferences*, 217, 1–8. <https://doi.org/10.1051/e3sconf/202021711004>
- Shende, V. A., Janbandhu, K. S., & Patil, K. G. (2015). Impact of Human Beings on Environment. *International Journal of Research in Bioscience, Agriculture and Technology*, March, 23–28.
- Siscawati, M., Adelina, S., Eveline, R., Siscawati, M., Adelina, S., Eveline, R., & Anggriani, S. (2020). Gender Equality and Women Empowerment in The National Development of Indonesia. *Journal of Strategic and Global Studies*, 2(2). <https://doi.org/10.7454/jsgs.v2i2.1021>
- Sukri, A. L., & Shasrini, T. (2020). The concept of gender equality from the Malay perspective. *JournalNX - A Multidisciplinary Peer Reviewed Journal*, 6(6), 537–544.
- UNFCCC. (2006). *Framework Convention on Climate Change*.
- United Nations. (2002). *Report on the World Summit on Sustainable Development. , South Africa, 26 Agustus-4 September 2002* (Issue September).
- Uzzell, D., & Moser, G. (2006). Environment and quality of life = Environnement et qualité de vie. *European Review of Applied Psychology*, 56(1), 1–4.
- Xiao, Y., & Watson, M. (2019). Guidance on Conducting a Systematic Literature Review. *Journal of Planning Education and Research*, 39(1), 93–112. <https://doi.org/10.1177/0739456X17723971>
- Z.Wuyep, S., C.Dung, V., H.Buhari, A., H. Madaki, D., & A. Bitrus, B. (2014). Women Participation in Environmental Protection and Management: Lessons from Plateau State, Nigeria. *American Journal of Environmental Protection*, 2(2), 32–36. <https://doi.org/10.12691/env-2-2-1>

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