

The Gender-Environment Nexus: Towards Inclusive and Sustainable Development

*As ligações género-ambiente:
rumo ao desenvolvimento inclusivo e sustentável*

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Resumo

Ao longo dos anos, as mulheres foram associadas com responsabilidades e comportamentos marcados por ideias de género. Em vários contextos, as atividades diárias das mulheres são ligadas ao meio ambiente, incluindo, a recolha de águas limpas e produção agrícola para sustentar as suas famílias. Consequentemente, as mulheres são desproporcionalmente afetadas pela crise ambiental global. Esse artigo tem como fundamento reconhecer as múltiplas ligações que existem entre as mulheres e fatores ambientais. As responsabilidades domésticas das mulheres não só limitam as suas oportunidades fora da esfera familiar, como a educação, o empoderamento económico, e a participação política, mas também envolvem as mesmas diretamente com questões climáticas. Globalmente, as mulheres são ativas na defesa dos seus direitos e na promoção de atitudes sustentáveis. Contudo, os seus esforços não são suficientemente valorizados. Assim, salientamos a importância de integrar a perspetiva do género nos processos de decisão relacionados com o meio ambiente. Esse artigo reforça a importância da implementação da Agenda 2030 para o Desenvolvimento Sustentável, direcionado especificamente para o Objetivo n.º 5 “igualdade de género” e n.º 13 “ação climática”. Desta maneira, destacamos a necessidade de considerar as mulheres como agentes de mudança no contributo para a sustentabilidade ambiental, a erradicação da pobreza e o bem-estar global.

Palavras-chave: desenvolvimento sustentável; igualdade de género; meio ambiente; mudanças climáticas

Abstract

Over the years, women have been associated with specific gendered roles and behaviors. In various contexts, women's daily activities are directly linked to the environment, such as collecting clean water and producing food to sustain their families. Consequently, women across the globe are being disproportionately affected by the global environmental emergency. This paper aims at recognizing the 'gender-environment nexus' and raising awareness on the multiple linkages between women and environmental factors. Women's households' responsibilities do not only limit their opportunities outside the family sphere, such as education, economic empowerment, and political participation, but make them directly concerned with climate- and environmental-related challenges. Globally, women are actively advocating for their rights and promoting environment-compatible attitudes to enhance sustainable development. Nevertheless, women's efforts are insufficiently acknowledged and their involvement in decision-making remains limited. Therefore, we emphasize the need to incorporate a gender lens into environmental analysis and policymaking. This paper supports the implementation of the 2030 Agenda for Sustainable Development, especially Sustainable Development Goal (SDG) 3 'gender equality' and SDG 13 'climate action'. In this sense, we argue that women must be considered as agents of change, able to contribute to environmental sustainability, poverty eradication and planetary wellbeing.

Keywords: climate change; environment; gender equality; sustainable development

1. Introduction

In the last decades, the global environmental crisis has been threatening international peace, security, and human life. Several cross-cutting challenges were considered priorities for achieving sustainable development and addressing the needs of the most vulnerable. Among those major issues, the environment, including climate change, biodiversity, pollution, and natural disasters, has been at the centre of the debates and policies worldwide. In parallel, the climate and environmental emergency — among other emergent threats such as the rise of exclusionary politics and conflicts — significantly jeopardizes the progress towards gender equality. Studies have demonstrated that the environmental crisis has gender-differentiated consequences as it disproportionately affects women and girls (UN Women, 2020). In this context, there has been increasing global attention on gender inequality, both through women's activism and the adoption of gender-responsive policies. This article emphasises the need to understand the interconnections between gender and the environment, otherwise referred to as the 'gender-environment nexus', to provide inclusive answers to current global challenges (OECD, 2021). We aim at bringing the two agendas together and acknowledging women's role in the environmental crisis, both as victims and agents of change. In the first part, we analyse the interconnections between women's traditional socioeconomic roles and environmental factors, including the impact of the climate crisis on women. In the second part, we observe the positive contributions that women and gender equality can bring to the environment, especially through women's strong activism and sustainable behaviours.

Finally, we expose some of the challenges and possible solutions to further recognise the gender-environment nexus in environmental policies and decision-making processes. Overall, this article advocates for greater integration and understanding of women's roles and needs in response to the global environmental crisis and to achieve sustainable development worldwide.

2. Women's Socioeconomic Roles: Connected to the Environment

Environmental security and gender equality constitute cross-cutting issues that require global attention and action. Using a gendered lens to look at environmental matters — including agriculture, water, natural disasters, and air pollution — is crucial to understanding the impact of these challenges on both women and men, and adopting inclusive solutions (OECD, 2021).

The linkages between the environment and gender equality are multiple. In 2016, UNEP published its *Global Gender and Environment Outlook*, recognising gender inequality as one of the main obstacles to environmental sustainability due to women's restrained rights to a healthy and safe environment as well as access and control of natural resources (UNEP, 2016; 2020). Women's limited rights of access to land and resources to sustain themselves increase the negative effects of environmental and climate issues in their lives. In parallel, the General Recommendation No. 37 of the Committee on the Elimination of Discrimination against Women (CEDAW) states that

gender inequalities limit the control that women and girls have over decisions governing their lives as well as their access to resources such as food, water, agricultural inputs, land, credit, energy, technologies, education, health, adequate housing, social protection and employment. As a result of these inequalities, women and girls are more likely to be exposed to disaster-induced risks and losses related to their livelihoods and they are less able to adapt to changes in climatic conditions (CEDAW, 2018:3).

Consequently, to have a deeper understanding of the gender-environment nexus, this part analyses the extent to which women are connected to environmental factors through their socioeconomic roles.

Over time, patriarchal norms and traditions have imposed specific roles for women and handed more power and resources to men. In most developing economies, women are directly concerned with environmental issues through the variety of roles they carry out in their households and communities. In fact, women's roles in the household as well as their basic needs rely particularly on the use of natural resources, such as the collection of clean water and the cultivation of food to sustain their families. In this sense, they play a crucial role in the use and control of natural resources, as most of their daily activities are directly linked to water, energy, and food production. However, according to the *World Inequality Report 2022*, while women produce half of the world's food, they earn only 34% of the global labour income (Chancel et al., 2021). While in a gender-equal world women would reach

50% of the income share, progress towards this goal has been slow since the 1990s, with a global increase of only 4% (Chancel & al., 2021). Indeed, as some countries registered constant progress, some others have experienced a reduction in women's income share.

Globally, women have often limited opportunities outside the household, including access to education, economic empowerment, and political participation. While men have greater access to alternative sources of income in urban centres, data retrieved from the United Nations show that women between 25 and 34 years old have 25% more chances to face extreme poverty (United Nations, 2019). Women spend over three times as many hours a day on unpaid care and domestic work as men and are more than twice as likely as men to be unemployed (United Nations, 2019). Furthermore, in addition to the scarcity of lucrative employment opportunities, women are also far more often subjected to discrimination and violence in the workplace (OECD, 2021).

The existing gendered roles derived from the dominant patriarchal system and consequent socioeconomic inequalities increase the negative impact of environmental issues on women. Although it is essential to recognise the divergent experiences among women and the plurality of linkages with the environment, women's biological and reproductive roles in the family sphere give them a special position towards nature and expose them to risks of different kinds (Rico, 1998). For instance, women's daily household responsibilities and contact with poor quality fuels, particularly used in the kitchen, increase their exposition to indoor air pollution. According to the World Health Organization, indoor air pollution poses a growing threat to human health, causing every year over 3,8 million premature deaths globally, with women being about as twice affected as men (WHO, 2021; Dida et al., 2022). In addition, extended exposure to indoor air pollution leads to other health problems such as chronic heart disease, respiratory diseases, lung infections, and cancer, as well as worsening maternal health outcomes and pregnancy loss (WHO, 2021).

Thus, the interdependent set of relationships between women's roles and the use of natural resources makes them more vulnerable to environmental change. In this sense, the norms and ideological standpoints that consider women as primary caregivers reinforce their interdependence with the environment. The next section further explores the gender-environment nexus by focusing on women's role in agriculture.

2.1 Women, Agriculture and Water

In the sectors of agriculture, forestry and fisheries, women have more employment opportunities as they represent about 39% of the global labour force and over 45% of agricultural workers in Africa and Asia (OECD, 2021). Moreover, about 80% of the total food supply in these regions is produced by small-scale farmers, of which women make up about 70% (OECD, 2021). In this sense, women often have a leading role in agricultural settings as they manage a large part of the food production.

However, since more than 93% of the agricultural labour is informal in developing and emerging countries, women constitute a majority in informal precarious and unpaid employment (OECD, 2021). Moreover, in most developing countries, female farmers have limited rights to access, use and own land and other assets, which constrain their production by up to 30% compared to that of men (FAO, 2011). According to the UN Gender Snapshot 2019, women account for only 13,8 % of landholders worldwide (United Nations, 2019). Women are often unable to own or inherit land, and in some cases, they are even denied their rights to the income generated by their production. For example, among 164 countries that recognise women's right to own and manage land, only 52 apply this right effectively (OECD, 2019). The existence of customary laws coupled with the lack of gender-responsive law enforcement and political will reinforce the gaps between women and men. In this regard, addressing the cultural and legal challenges that prevent women's equal participation in the agricultural sector is crucial to reducing women's environmental vulnerability.

In developing countries, women are often more exposed to the cumulative effects of unsustainable agricultural practices, including hunger and infectious diseases. For instance, women are often disproportionately exposed to air pollution and toxic chemicals used in farming activities, which can affect their health and abilities to support their families, especially due to possible aftereffects during pregnancy (OECD, 2021). Women are also more vulnerable to pollutants present in water sources since their daily activities strongly depend on the use of water. In most traditional societies, despite having specific hygiene needs that require clean water, women play a primary role to collect clean water for their families. For example, in 48 Sub-Saharan African and Asian countries, women and girls are responsible for collecting water more than twice as often as men (OECD, 2021). The increasing scarcity of this fundamental resource also implies longer travelling times to find a source of water, leading many girls to drop out of school to fulfil these duties, limiting their future opportunities outside the household and increasing the risks of sexual violence and rape. According to data gathered by UNICEF, women spend collectively about 200 million hours every day collecting clean water (UNICEF, 2016). In addition, they spend about one-third of their calorie intake each day carrying water, putting them at higher risk of hunger and other diseases (OECD, 2021). The use of poor water quality while cooking, cleaning, and caring for their children can cause other health issues (UNICEF, 2016). According to data retrieved from the World Health Organization, contaminated drinking water can transmit diseases such as cholera, typhoid, and polio, and is estimated to cause 485 000 diarrhoeal deaths each year (WHO, 2019).

Gender discrimination in the use and control of natural resources must be addressed to increase women's agricultural production and sustainable practices worldwide. In addition, gender-related data should be strengthened to have a better understanding of women's role in promoting sustainable agricultural practices. Nevertheless, the negative effects of climate change and environmental disasters are intensifying and directly impacting livelihoods. The next section aims at analysing

the interconnections between the current global climate emergency and women's socioeconomic vulnerability.

2.2—*Women and Climate Change*

The socioeconomic costs of the global environmental crisis are leading to increased displacements, forced migration, insecurity, and poverty, which have considerable impacts on women and girls (UN Women, 2020). For example, women and children suffer the most from natural disasters as they represent 80% of displaced persons due to climate change (UNDP, 2015). Issues such as displacement and forced migration often imply women's isolation and unsafe living conditions, implying higher exposure to sexual abuse and violence (UN Women, 2020). In parallel, environmental disasters such as floods, drought, fires, hurricanes, and diseases have a stronger impact on poor households, often headed by women. As women represent most of the world's poor, they are highly exposed to health risks and insecurity (UN Women, 2018). In the Asia-Pacific region, women account for two-thirds of the poor, especially due to gender gaps in employment and limited rights on access to resources and land ownership. Women's economic insecurity is being exacerbated by the region's urbanisation and the increasing exposure to natural disasters (UNEP, n/d). Moreover, women's traditional roles as caregivers for the victims of disasters, especially children and the elderly, increase their workload and psychological pressure (OECD, 2021). Thus, women's gendered roles and socioeconomic norms, directly linked to natural resources, tend to deepen gender discrimination and increase the cumulative consequences of climate change on women.

The negative effects of climate change and biodiversity loss may also increase the emergence of pandemics and the risks of infections. While the current COVID-19 pandemic has profoundly impacted the global economy, it also has deepened gender inequalities by intensifying women's risk of unemployment, poverty and gender-based violence. According to data provided by the Organisation for Economic Co-operation and Development (OECD), women's exposure to infectious diseases is often higher than men since they represent almost 70% of the healthcare workforce (OECD, 2021). In addition, with the closure of schools and childcare services during the COVID-19 pandemic, women were suddenly confronted with another unpaid household responsibility. According to the International Labour Organisation (ILO), the employment impact of the COVID-19 pandemic will have considerable consequences on women's employment loss, especially due to their overrepresentation in sectors highly affected by the crisis, and further exacerbate gender inequality across the globe (ILO, 2021).

Therefore, we recognise the interdependency between the negative impact of climate change and women's socioeconomic status. Women and other vulnerable groups suffer disproportionately from global environmental issues, including climate change, deforestation, desertification, and lack of clean water and sanitation. As women's daily roles are often dependent on environmental factors, gender equality

is fundamental to implementing inclusive and balanced management of natural resources. Nevertheless, we underline that environmental degradation does not affect all women equally but depends on multiple factors that include social class, ethnicity, age, lifestyle and geographical location, among others. In this context, it appears essential to initiate a sustainable and inclusive recovery process by raising awareness of women's global efforts towards sustainability and transformative action.

3. Women as Agents of Change

The intensification of the global environmental crisis has led to a growing number of women engaging in environmental justice and raising their voices to demand transformative change. Across the world, women appear as powerful actors and activists for climate action and sustainable development. Women's climate activism dates back to the 1990s but the movement only gained global recognition in recent years, with women and youth at the forefront of the global campaign for climate action. They are raising awareness of the environmental damage caused by human activity and demanding the adoption of alternative and environment-compatible attitudes. At the grassroots level, women play an important role in the protection and conservation of biodiversity through sustainable consumption and production methods (OECD, 2021). Women's groups engage with governments, the private sector, and other stakeholders to expand their advocacy and join forces to achieve sustainable development. An OECD report shows that women account for about 60% to 80% of mainstream environmental organisations' members (OECD, 2021). In parallel, the digital era and the growing access to social media platforms have enabled civil society actors and women, both from urban and rural areas, to raise their voices around the world. The activism of young leaders such as Greta Thunberg and Vanessa Nakate has significantly inspired youth environmentalist movements to mobilise for change (UNEP, 2020). For example, the #FridaysforFuture movement started in 2015 with young activists organising against the climate crisis in Sweden. The protest was amplified through social media and became rapidly global. In this context, women's activism and role in the campaign against climate change has gained global attention, with millions of women mobilising worldwide against unsustainable practices affecting their lives and those of future generations.

In indigenous communities, women have also been engaged in the protection of their rights, especially related to the environment. For instance, in the United States, those communities are more vulnerable to environmental degradation, and women account for the majority of environmental activists (OECD, 2021). In traditional societies, rural women have strong interests in protecting natural resources as they are often the ones supplying food, water, and medicine to their families. In this sense, the survival of indigenous populations, highly dependent on local natural resources, is threatened by the negative effects of climate change and unsustainable human practices (OECD, 2021). Grassroots women often play an important role in providing alternative methods and solutions to conserve biodiversity and tackling the difficulties

affecting their local communities. According to the Native Women's Association of Canada, composed of twelve indigenous groups of women engaged against the consequences of environmental degradation on women,

Acknowledging the important role Indigenous women play in the conservation of biodiversity is not enough. To determine what actions are required to promote Indigenous women's roles in biodiversity, traditional knowledge on the conservation and sustainable use of biological diversity must be valued and prioritized. (NWAC, 2018:7)

Indigenous women are traditionally engaged in the protection of the ecosystem and traditional knowledge, culture, and rights. The conservation of traditional cultural activities is fundamental in those communities to maintain their sense of identity and increase their well-being (NWAC, 2018). However, environmental degradation has significantly impacted the ability of indigenous women to transfer traditional environmental knowledge to the next generations, weakening their societal and cultural roles (NWAC, 2018). In addition, climate change disproportionately affects women due to their socioeconomic vulnerability and daily roles related to land and water, as well as their exposure to sexual violence and other forms of discrimination. Therefore, we emphasise that indigenous women's efforts towards sustainable practices should be adequately acknowledged and strengthened through capacity-building initiatives.

Similarly, Small Island Developing States (SIDS) constitute some of the most exposed countries to hazardous events where women play an important role in the environmentalist movement (OECD, 2021). Although SIDS do not constitute a homogenous group, the negative effects of climate change significantly threaten the development of those communities. According to a report from OECD, SIDS are 73% more likely to be exposed to natural hazards than other countries in the same income category (OECD, 2021). Activities related to water collection, farming, and fishing, prominent in those societies and often carried on by women, are the most affected by natural hazards. Thus, women's socioeconomic roles in SIDS are often threatened by environmental disasters and climate change issues. This vulnerability has strengthened women's climate justice activism and raised women's voices towards more participation and representation in decision-making processes (OECD, 2021).

Women's advocacy for social equity and participation in sustainable development has increased awareness of the linkages between gender, the environment and sustainable development. At the household level, surveys demonstrate that women are more sensitive to health, ecological and environmental issues and are more likely to adopt green attitudes regarding recycling, reducing waste, driving less, adopting energy-saving practices, and buying organic products (OECD, 2021). Besides, studies show the existence of a correlation between green attitudes and femininity, considering that consumers engaging in green behaviours are perceived to be more feminine. Consequently, men would tend to avoid green behaviours to maintain their masculine identity (Brough et al., 2016). Women's contribution to sustainability has

been recognised in declarations and policy documents globally. In 1992, Principle No. 20 of the Rio Declaration on Environment and Development (A/CONF.151/26, Vol 1) affirmed that “women have a vital role in environmental management and development. Their full participation is, therefore, essential to achieve sustainable development.” (United Nations, 1992:4). In fact, through their direct interfaces with demography, production, consumption, migration and power hierarchy within the family sphere, women represent bridges with the environmental dimension (Rico, 1998).

Nevertheless, women around the world are often restrained by discriminatory legal norms, traditions, and social practices that directly impact their rights and margins of engagement in the public sphere. In addition, the impact of environmental degradation significantly reduces women’s ability and time to engage in decision-making at the community and national levels (Irish Aid, 2007). In this context, although they have a primary role in grassroots engagement and environmental activism, their environmental work is not adequately strengthened, and their representation in decision-making, both in the public and private spheres, remains limited (OECD, 2021). Only a few women hold leadership positions related to environmental decision-making in sectors such as health, energy, and finance, even though they are considered more critical of waste or nuclear weapons than men (OECD, 2021).

Despite the importance of this gap, some studies have registered increasing numbers of women in science, climate, and environmental research as well as in environmental-related decision-making globally (OECD, 2021). Female leaders have been engaged in the response to environmental degradation and climate change through the promotion of sustainable harvesting practices, environmental-compatible consumption behaviours, natural risk management, and ecosystem conservation (Elwell & Williams, 2016). In OECD member countries, the number of female policymakers related to environmental issues is increasing: In May 2020, women held more than 40% of policymaking positions as Ministers of Environment, National Focal Points for the United Nations Framework Convention on Climate Change (UNFCCC) and the United Nations Convention to Combat Desertification (UNCCD) (OECD, 2021). Besides, under the Paris Agreement, Parties of the United Nations Framework Convention on Climate Change (UNFCCC) agreed to improve gender balance and women’s participation in all processes as well as support gender-responsible climate policies at all levels (UNFCCC, 2016). In parallel, researchers have demonstrated the existence of a correlation between women’s higher representation in parliaments and the adoption of environmental policies and international treaties. The OECD report “Women in Public Life” published in 2014, demonstrates that gender parity in decision-making processes enables a greater inclusion of women’s and children’s needs and interests (OECD/CAWTAR, 2014).

However, although there is increasing global recognition of women’s role in decision-making processes, men hold 67% of decision-making roles under the UN

Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol and the Paris Agreement (UN Women, 2020). In addition, men represent 75% of parliamentary seats and 70% of climate negotiators globally (UNEP, 2020). At the same time, environmental degradation — including, for example, deforestation and air pollution — appears to be stronger in countries where gender inequality is high (Elwell & Williams, 2016). Thus, despite women's efforts to protect the environment, the representation gap between women and men limits much of the progress that could be done towards gender equality and sustainable development. In this sense, the greater representation of women in leadership positions would improve the effectiveness of climate-related action and environmental sustainability (OECD, 2021). In our perspective, it is essential to recognise that women's empowerment is directly linked to sustainable development and the realisation of the 2030 Agenda. Women's equal participation in public decision-making on environment-related issues appears crucial to ensure the integration of gender-responsive approaches in policymaking, the development of inclusive responses to climate change, as well as women's socioeconomic empowerment. The inclusion of gender-responsive approaches into environmental actions and policies is directly linked with sustainable economic development and global well-being (OECD, 2021).

4. Towards Gender-Responsive Policies on Climate Change

Gender-mainstreaming strategies — referring to the inclusion of women's voices, needs, and experiences in the formulation, implementation and monitoring of all policies and programmes — are crucial to understanding the different needs and roles of women and adopting inclusive and effective responses to climate change (UN Women, 2020a). To maximise the effectiveness and sustainability of environmental policies related to water, energy, land, and other natural resources, we emphasise in this part the importance of incorporating gender-responsive approaches in policymaking.

Several countries, such as Myanmar — considered the second most exposed country to hazardous events globally — have included gender analysis and assessment components in their environmental strategies. In collaboration with UN Environment and UN-Habitat, the Myanmar Climate Change Alliance Initiative conducts assessments on gender vulnerability in several communities to understand women's and men's different perspectives and behaviours towards climate change (UNEP, 2020). Similarly, with the support of UN Environment, Lao People's Democratic Republic and Thailand have enhanced capacity-building programmes and recognised the link between gender and biodiversity to mainstream gender in their National Biodiversity Strategies and Action Plans (NBSAPs) (UNEP, 2020). Due to the central role that women play in biodiversity conservation, production, and ecological education in their community, the integration of gender into national policies and action plans is crucial.

The incorporation of the gender dimension must also be considered in the allocation of financial resources and budget planning. The connection between gender and green budgeting is central to acknowledging the gender-environment nexus in national budgeting strategies (OECD, 2021). For instance, the Rwandan National Economic Development and Poverty Reduction Strategy has successfully aligned poverty, gender equality, environmental, and climate change issues in its budgeting plans. This inclusive strategy has resulted in an increase of over 26% in Rwanda's agricultural budget between 2009 and 2011 (OECD, 2021).

According to an OECD survey conducted in 2019, 21 OECD countries declared taking into consideration the gender dimension in environmental policymaking, especially when related to climate change; green employment; women's leadership in environmental decision-making; agriculture and forestry; energy; and environmental justice (OECD, 2020). Several platforms, such as the UN Framework Convention on Climate Change (UNFCCC), have also integrated a gender approach to their climate action plans. Nevertheless, despite the global recognition of the disproportional impact of climate change on women, as well as women's capabilities to tackle the negative effects of climate change, the number of countries that adopted a gender-responsive approach to their climate change strategies remains insufficient (OECD, 2021).

A major challenge continues to be the lack of gender-disaggregated data, as emphasised in the Gender Action Plan adopted during UNFCCC COP 25 in 2019. The report states that

Parties should provide summary information on the current status of national plans, programmes and support for ground and space-based climate observing systems, including long-term continuity of data, data quality control and availability, and exchange and archiving of data (UNFCCC, 2019:57)

To narrow down the data gap, several initiatives aim at increasing the information available and deepening the analysis regarding gender and the environment. For example, the International Union for Conservation of Nature (IUCN) and the United Nations Environment Programme (UNEP) have developed eighteen gender-environment indicators, divided into major thematic, including the right to land, natural resources and biodiversity; access to food, energy, water and sanitation; climate change, sustainable production and consumption, and health; and women in environmental decision making at all levels (UNEP & IUCN, 2019). Besides, other stakeholders such as businesses and civil society actors also produce gender-disaggregated data to raise awareness of the gender-environment nexus (OECD, 2021).

In parallel, the 2030 Agenda for Sustainable Development, formulated in 2015 as a collective action to strengthen universal peace and prosperity, highlights the linkages between development, peace, and gender equality. If gender equality and environmental sustainability constitute central aspects of the agenda, to some extent, the framework fails to recognise the multiple interconnections that build up the gender-environment nexus. The impact of environmental degradation on women as

well as the contributions of gender equality to the environment — including women's efforts towards sustainable development — remain insufficiently promoted (OECD, 2021). In fact, while nine of the Sustainable Development Goals (SDGs) are related to the environment, none of them includes a gender approach. In this regard, we argue that the 2030 Agenda does not adequately emphasise the extent to which gender equality would contribute to meeting the SDGs. In our view, the SDG framework constitutes an important tool to acknowledge the linkages between the environment and gender equality, including gender gaps related to the use, control, and ownership of natural resources worldwide. By leaving the gender-environment nexus behind, gender inequalities may remain unaddressed and further exacerbate. In this regard, it appears essential to strengthen the gender-environment nexus in the SDG framework to increase stakeholders' awareness (OECD, 2021). A better understanding of those interactions would increase synergies to address and coordinate the multiple goals more efficiently.

Thus, despite the growing attention given to the gender-environment nexus and the progress made by some countries in this sense, more political will is necessary to ensure the implementation of national commitments towards these goals (OECD, 2021). While the incorporation of the gender dimension into environment-related policies remains insufficient, it is also essential to implement follow-up mechanisms to guarantee the effective implementation of gender-responsive norms. Beyond the recognition of women's specific interests and roles, the inclusion of the gender perspective into environmental solutions must be directed towards increased women's leadership and engagement in decision-making (UNEP, 2020). The consultation of women's organisations and integration of gender mechanisms in environmental decision-making is essential to make women part of the solution. In this regard, dialogue among stakeholders, experts, and local actors must be strengthened. It is crucial to consider gender, human rights, and the environment as cross-cutting issues to adopt sustainable attitudes that will ensure equal rights for all over the access and management of natural resources (UNEP, 2020).

The persistence of patriarchal norms, gender stereotypes and discriminatory practices worldwide constitute major challenges hindering women's empowerment in all sectors, including their contribution to sustainability and the environment. In our perspective, education is key to raising awareness on the gender-environment nexus as well as strengthening women's environment-related skills and enhancing their role as drivers of change. Skill training and educational opportunities would narrow down the gender gaps and increase women's access to green employment and finance. More opportunities and knowledge on environmental sustainability would contribute to promoting women's empowerment and linking gender equality with environmental sustainability. In addition, gender-responsive policies, programmes, and structures will set an enabling environment for women to be empowered and strengthen their participation in policymaking, both regarding environmental issues and other major challenges. In this sense, gender equality and women's eco-

conomic empowerment are part of the response to climate instability and towards positive change for the planet.

5. Conclusion

The global climate crisis has placed our planet on the edge of an environmental breakdown, including global warming, biodiversity loss and environmental degradation. Millions of people are affected by the negative consequences of climate change, exacerbating conflict, inequality, and poverty worldwide (UN Women, 2020). Women and girls constitute most of the world's poorest and most vulnerable to the effects of the environmental emergency. In fact, they are disproportionately impacted by environmental degradation and climate change, especially due to the existence of gender gaps regarding their roles, rights, and socioeconomic status. Women are often associated with households and childcaring roles that highly depend on the use and access to natural resources. Moreover, gender inequalities are being exacerbated by the lack of food and water, increasing air pollution, and the rise of natural disasters resulting from the environmental crisis. However, the gender-environment nexus does not only result from women's vulnerability to environmental degradation but also from their engagement, knowledge, and efforts towards the sustainable use and consumption of natural resources. Indeed, women are actively engaged in climate action and often tend to adopt more sustainable behaviours on environmental questions. In this sense, women's organisations and grassroots activism have a prominent role in the global campaign against climate change. Women and girls are at the forefront of environmental movements and their engagement has led to positive results with regards to ecological well-being (UN Women, 2020). In this context, this article highlights the need for increased coordination and collaboration between all stakeholders as a global partnership to take transformative action and achieve inclusive and sustainable development. Governments, civil society actors and the private sector should increase coordinated efforts to address women's concerns and reduce the damages caused by climate change, with women's voices as part of the solution. The multi-faced world crisis that we face requires collective engagement and action. Gender equality must be considered a fundamental goal to address the environmental damage that threatens human wellbeing.

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References

- Brough A. R., Wilkie J. E. B., Ma J., Isaac M. S., & Gal D. (2016). Is Eco-Friendly Unmanly? The Green-Feminine Stereotype and Its Effect on Sustainable Consumption. *Journal of Consumer Research*, Vol. 43:4:567–582. <https://doi.org/10.1093/jcr/ucwo44>
- Chancel, L., Piketty, T., Saez, E., & Zucman, G. (2021). *World Inequality Report 2022*. World Inequality Lab.

- Committee on the Elimination of Discrimination against Women (CEDAW). (2018). *General Recommendation No. 37 on Gender-related dimensions of disaster risk reduction in the context of climate change*. Available at https://tbinternet.ohchr.org/Treaties/CEDAW/Shared%20Documents/1_Global/CEDAW_C_GC_37_8642_E.pdf [Accessed on January 29, 2022].
- Dida G.O., Lutta P.O., Abuom P.O., Mestrovic T., & Anyona N. D. (2022). Factors Predisposing Women and Children to Indoor Air Pollution in Rural Villages, Western Kenya. *Archives of Public Health*, 80:46. <https://doi.org/10.1186/s13690-022-00791-9>
- Elwell, N. and Williams, Y. (2016). *If You Care About the Environment, You Should Care About Gender*. World Resource Institute (WRI). [Accessed on January 30, 2022]. Available at: <https://www.wri.org/insights/if-you-care-about-environment-you-should-care-about-gender>
- FAO. (2011). *Closing the Gender Gap in Agriculture*. [Accessed on January 30, 2022]. Available at: <https://www.fao.org/news/story/en/item/52011/icode/>
- International Labour Organization (ILO). (2021). *An Uneven and Gender-Unequal COVID-19 Recovery: Update on Gender and Employment Trends 2021* (Policy Brief). [Accessed on January 30, 2022]. Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_824865.pdf
- Irish Aid. (2007). *Environment and Gender Equality*. [Accessed on January 30, 2022]. Available at <https://www.irishaid.ie/media/irishaid/allwebsitemedia/2onewsandpublications/publicationpdfsenglish/environment-keysheet-13-gender-equality.pdf>
- The Native Women's Association of Canada (NWAC). (2018). *Indigenous Women and Girls, Traditional Knowledge, and Environmental Biodiversity Protection*. [Accessed on January 31, 2022]. Available at: <https://chm.cbd.int/api/v2013/documents/7987131FC55F-9831-37F2-A4E906A8A156/attachments/206476/NWAC%20Report.pdf>
- OECD/CAWTAR. (2014). *Women in Public Life: Gender, Law and Policy in the Middle East and North Africa*. OECD Publishing, Paris. <https://dx.doi.org/10.1787/9789264224636-en>
- OECD. (2019). *SIGI 2019 Global Report: Transforming Challenges into Opportunities*, Social Institutions and Gender Index. OECD, Paris. <https://doi.org/10.1787/bc56d212-en>
- OECD. (2020). *Survey on Integrating Gender in Environmental Policies: Reporting on Key Findings*. [Accessed on January 31, 2022] Available at: [https://one.oecd.org/document/ENV/EPOC\(2020\)9/en/pdf](https://one.oecd.org/document/ENV/EPOC(2020)9/en/pdf)
- OECD. (2021). *Gender and the Environment: Building Evidence and Policies to Achieve the SDGs*. OECD, Paris. [Accessed on January 29, 2022]. <https://doi.org/10.1787/3d-32ca39-en>
- Rico, M. (1998). *Gender, the Environment and the Sustainability of Development*. United Nations: Santiago, Chile.
- UN Women. (2018). *Turning promises into action: Gender equality in the 2030 Agenda for Sustainable Development*. [Accessed on January 30, 2022]. Available at <https://www.unwomen.org/en/digital-library/publications/2018/2/gender-equality-in-the-2030-agenda-for-sustainable-development-2018>

- UN Women. (2020). *Gender equality: Women's rights in review 25 years after Beijing* (Report). [Accessed on January 29, 2022]. Available at: <https://www.unwomen.org/en/digital-library/publications/2020/03/womens-rights-in-review>
- UN Women. (2020a). *Gender mainstreaming: A global strategy for achieving gender equality and the empowerment of women and girls*. [Accessed on January 31, 2022]. Available at: <https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2020/Gender-mainstreaming-Strategy-for-achieving-gender-equality-and-empowerment-of-women-girls-en.pdf>
- UNDP. (2015). *UNDP and Climate Change: Scaling Up Climate Action to Achieve the Sustainable Development Goals*. [Accessed on January 30, 2022]. Available at <https://www.undp.org/publications/scaling-climate-action-achieve-sdgs>
- UNEP. (n/d). "Promoting gender equality and the environment". [Accessed on January 30, 2022]. Available at: <https://www.unep.org/regions/asia-and-pacific/regional-initiatives/promoting-gender-equality-and-environment>
- UNEP. (2016). *Global Gender and Environment Outlook*. UN Environment, Nairobi, Kenya.
- UNEP. (2020). *Gender Equality – a Critical Missing Piece of the Climate Puzzle*. [Accessed on January 29, 2022]. Available at: <https://www.unep.org/news-and-stories/story/gender-equality-critical-missing-piece-climate-puzzle>
- UNEP & IUCN. (2019). *Gender and Environment Statistics: Unlocking Information for Action and Measuring the SDGs*. [Accessed on January 31, 2022]. Available at: <https://www.unep.org/resources/report/gender-and-environment-statistics-unlocking-information-action-and-measuring-sdgs>
- UNFCCC. (2016). *Report of the Conference of the Parties on its twenty-first session*. [Accessed on January 30, 2022]. Available at <https://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf>
- UNFCCC. (2019). *Report of the Conference of the Parties on its twenty-fifth session*. [Accessed on January 30, 2022]. Available at: https://unfccc.int/sites/default/files/resource/cop2019_13a01E.pdf
- UNICEF. (2016). "At start of World Water Week, UNICEF highlights how girls lose time collecting water". *UN News Centre*. [Accessed on January 30, 2022]. Available at: <https://www.un.org/sustainabledevelopment/blog/2016/08/at-start-of-world-water-week-unicef-highlights-how-girls-lose-time-collecting-water/>
- United Nations. (1992). *Report of the United Nations Conference on Environment and Development* (A/CONF.151/26, Vol 1), Rio de Janeiro, 3-14 June 1992. [Accessed on May, 18, 2022]. Available at: https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf
- United Nations. (2019). *Progress on the Sustainable Development Goals: The Gender Snapshot 2019* (Report). [Accessed on January 20, 2022]. Available at: <https://unstats.un.org/sdgs/report/2019/gender-snapshot.pdf>
- World Health Organization (WHO). (2019). *Drinking-water* (Fact Sheet). [Accessed on January 30, 2022]. Available at <https://www.who.int/news-room/fact-sheets/detail/drinking-water>

World Health Organization (WHO). (2021). *Household Air Pollution and Health* (Fact Sheet). [Accessed on January 30, 2022]. Available at: <https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health>

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