

Love Or Fire? Ecofeminism, Climate Justice, And Building a Sustainable Future



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Abstract

This paper explores the interconnection between women and the feminine attribution of planet Earth, as ‘Mother Earth.’ By shedding light on different perspectives on this topic including the cultural, religious, and scientific contexts that cover this feminization of the planet Earth, and the related concept of ‘Ecofeminism’, it unveils associated social, culturally based gender roles and stereotypes that have historically undermined the role of women in society, and considered them as the objects to be exploited by men, and how this is connected to overexploitation of resources and human activities on Earth that resulted into a multifaceted global issue of climate change, and how men want to take over to colonize the space too. It will critically evaluate the role of strong and responsible institutions in creating conducive systems and infrastructure that use a human-centric approach to hear from all voices and craft inclusive and fair policies to address the climate crisis.

Keywords: Ecofeminism, environmental sustainability, climate change, economic growth, women empowerment, infrastructure development, space mining



Image Source: Freepik.com

1. Introduction

The feminine attribution of the planet Earth as “Mother Earth” is tied to some cultural beliefs, and philosophical, and ecological perspectives throughout history. It demonstrates a great nexus between the role of women as they give birth, protect, and save their children. This link is also associated with the shared struggle shared by Earth with women _ the struggle of being vulnerable and victimized by human actions. This vulnerability of both Earth and women is also related to the problem that the world is currently facing; climate change (Swanson, 2015). The far-reaching effects of climate change such as global warming affect everyone in the world, but they are perceived contextually, and it becomes even more grave when it comes to marginalized communities, and people of minor backgrounds. It all begins with the overexploitation of the planet Earth due to the desire to fulfill the needs of humankind, which is similar to the gender stereotypes from some cultures where women have been history undermined, oppressed, and viewed as mere properties of men (Bratley et al., 1996; Noble, 2020). we will also discuss a controversial question of the producers of climatic change and the bearer of the risks.

Regarding the infrastructure, we will see how this umbrella term extends from the physical environment, and design to even inclusion of the social settings and political environment. All of these are critical aspects in the journey to creating a just and inclusive society. The inclusion of all voices in infrastructure planning and development can be a great way of creating conducive environmental systems that prioritize the holistic needs of the community (Anh et al., 2022).

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Then we will investigate the most pressing and trending issue of space mining. Mineral exploration is seen by some as an opportunity to address the scarcity and depletion of resources on Earth, and for others, it is anticipated as a big threat that might compromise nature beyond Earth. We are still combatting with earthy environmental crisis, they are still fresh, and we then want to provoke the stability of the space (Tollu et al., 2018).

Finally, we will address a fundamental question “What are we giving and taking from nature: Love or Fire?” A giving and receiving of love or fire of course depends on the responses and the decisions we make today. Through this interdependency, we will find some possible solutions to creating a better and desirable tomorrow where everyone feels involved and concerned.

2. Feminization of Earth as “Mother Earth”

The feminine attribution of planet EARTH as a “MOTHER EARTH”, is deeply rooted in different cultural, religious, and philosophical traditions. Its property of being the only planet that supports life, possessing the life-saving resources including Oxygen, water, food, medicine, and all the basic requirements that humans, plants, animals, and all the living organisms need to flourish is what contributes to its unique view of people as a mother. In the same way, ‘the name mother is generally given to any figure that offers a kind of protection and heals or eases life, which matches exactly the role that women serve in the community. From tolerating the pain of pregnancy and giving birth to emotional care, breastfeeding, and safeguarding the biological and physical immunity of the child, a woman is viewed as a hero of the family (Chen, 2008; Swanson, 2015).

According to ancient Greek mythology, Earth and other planets were worshipped as gods and goddesses. Among all other goddesses, Earth was known as “Gaia” and was depicted as a strong, life-saver who fiercely saved and defended her children from her husband Uranus, her son Cronus, and Zeus. Each of these gods was prophecized that they would give birth to powerful descendants who could dethrone them, and they decided to kill them. However, Gaia was always prepared to dismiss their plans and sustain the kingdom (Miate, 2023).

Moving to another story from the ancient Sanskrit classical text “Bhagavata Purana”, the goddess Earth, Prithvi (in Sanskrit), refused to release her resources such as food, medicine, and wealth because humans were misusing them and compromising nature. Lacking these resources caused famine, but later King Prithu promised Gaia to follow the dharma (righteousness) and released them which saved the continuity of human existence (Baker, 2024).

Referring back to the Bible, Genesis 2:7-3:7, the scripture says that “Man was created from the dust of the earth, and so from there shall return.” All these ancient writings attribute the earth as a life-giver, the protector of humanity and all the life forms, and describe how humans always faced consequences by trying to compromise the earth’s balance.

3. The Role of Women, Indigenous Knowledge, and Climate Justice

Traditionally, women were not active in the science and technology field, because of the traditional gender roles and stereotypes where the jobs involving decision-making, judgment, analysis, and politics itself were viewed as the mere work of men, and women had to be the followers of men’s decisions. According to Fee (1986), women started to emerge in the world of STEM in the 1970s and 1980s and stood up to challenge the status quo (Alaimo, 2008). Before leaving here, we cannot forget the work of Rachael Carson who witnessed the environmental health hazards of DDT pesticides in her “Silent Spring” and called up the governments to act, saving the lives of people and the ecosystems (Pathania, 2017; Sen, 2020).

As time goes on, the involvement and participation of girls and women in STEM fields continue to rise, though it is still 35% as per UNESCO’s report (UNESCO, 2024).

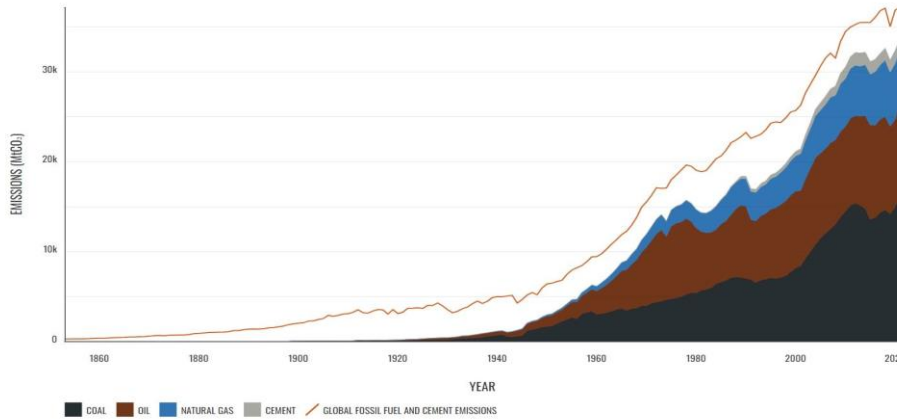
What do we need to have more women like Jane Goodall? The beacon of hope and an inspiration of how women have no limits in contributing to a fair and sustainable vision of the world. This British primatologist has dedicated her life to restoring the beauty of the world while advocating for a change in human actions that compromise nature in her Jane Goodall Institute, her writings, inspirations, and empowerment to youth serve as an example of how women can bring new ideas at the decision making table and participate in the drafting of inclusive and sustainability policies (Nugent, 2021). According to a recent report “Women in Politics: 2023” map, by the Inter-Parliamentary Union (IPU) and UN Women “Women serve as Heads of State and/or Government in only 31 countries. Women make up 26.5 percent of Members of Parliament. Globally, less than one in four Cabinet Ministers is a woman (22.8 percent).” This highlights how women are still underrepresented in all the decision-making and policy implementation positions worldwide as compared to men (Women in Politics: 2023, 2021).

In the same report, “New data show that women lead important human rights, gender equality, and social protection policy portfolios, while men dominate policy areas like defense and economy” (Women in Politics: 2023, 2021). This research shows how women need to be included in the creation of global solutions, all voices should be heard and considered to ensure the delivery of the right solutions to the real problems. While climate change affects us all, each experiences its exacerbating impacts uniquely, depending on one’s body’s biological function, age, gender, land, and many more factors, but some of us are more vulnerable and prone to the climatic change problems, and these include children, the elderly, and the marginalized or Indigenous groups. As we fight for climate justice, it is crucial to have a contingent framework for resilience and adaptation. The Maasai women have stepped out of traditional gender roles of being caretakers and joined men in the field, where they are striving to adapt to the changing climate (Kizito, 2024). This shift in mindset coupled with different strategies that are employed by Indigenous communities can help ensure that life continues as we continue bailing for climate action, and ensuring it becomes a duty of all.

Indian traditional medicine of Ayurveda can also be an effective way of developing climate resilience. For instance, the classical texts called ‘Samhitas’, i.e. Charaka Samhita, Sushruta Samhita, and Ashtanga Hridaya, among others have exclusive ways of addressing the stability of the body and boost its immunity through the concept of ‘Dinacharya’ or the daily regimen and ‘Ritucharya’, the seasonal regimen, and they suggest one to control the factors such as diet, physical exercise as per daily and seasonal variations to keep body’s constitution and functions in equilibrium (Sharma, 2016). It is also important to consider the gender stereotypes surrounding the concept of ecofeminism, and the most known author against this “ism” terminology that has been a debatable topic because of its polarizing nature. Karren J. Warren has strongly argued the Western perspectives surrounding ecofeminism by highlighting points including essentialism where men were viewed as inherent with nature, calling man the supreme rulers and controllers of the whole nature, undermining women as the derivatives of men, she also mentioned how imperialism and lack of clarity and intersectionality of westerners where they seek to exercise their influence to other countries and place their knowledge at the top. Warren argued that this is not the right way to address the issue, by saying they should include every voice in making decisions, value the Indigenous knowledge too, and consider environmental issues as a global issue that affects people in different ways, so understanding the contextual impacts is highly crucial (Glazebrook, 2002).

4. The Producer of Climate Change and The bearer of the Risk

What makes climate change more paradoxical and challenging is that it seems to be the responsibility of some entities more than others. In the context of capitalism, climate action is neglected and slowed down in favor of individual benefits.



A graph showing Carbon dioxide emissions traced to the carbon fuels and cement produced by the Carbon Majors entities and comparing them to total global fossil fuel and cement emissions (Source: Influence Map, 2024).

As per the report of Influence Map on its Carbon Majors Platform, 100 companies were the producers of over 70% of global greenhouse gas emissions between the years 1988 and 2015 (InfluenceMap, 2024). Despite several international agreements such as the Paris Agreement, and the Kigali Amendment of the 2016 Montreal Protocol, it remains a challenge if these international documents and treaties are seen as mere theoretical papers that are not ready to come into practice. However, when the consequences of climatic change are shared unequally, affecting disadvantaged individuals who even could not have the ability to satisfy their basic needs or afford the cost of adaptation. In India, “250,000 people are estimated to have experienced the heatstrokes that occurred in Summer in March to May” (Fatimah, 2024). The overall Summer season has been catastrophic with the highest ever recorded temperature of 53°C, this has greatly aggravated the health and livelihoods of the marginalized community from the Dalit caste, who had no proper shelter, or air cooling facilities (Al Jazeera, 2024).

5. Infrastructure Development and Environmental Sustainability

Infrastructural development is important when addressing climate change, especially when it comes to the most disadvantaged people, like in the case of the Dalits in India, having no proper shelter, and no air cooling system aggravates the issue. As per the 2021 “Infrastructure for Climate Action” report published by the UNOPS, UNEP, and the University of Oxford, “79% of greenhouse gas emissions, and 88% of adaptation costs” (UNEP, 2021). Therefore, it is critical to encourage every stakeholder in urban infrastructure projects, and include local perspectives in infrastructure planning, particularly in developing regions where climate impacts are very severe (Anh et al., 2022; Koppa et al. 2023).

6. Space Mining and Associated Factors

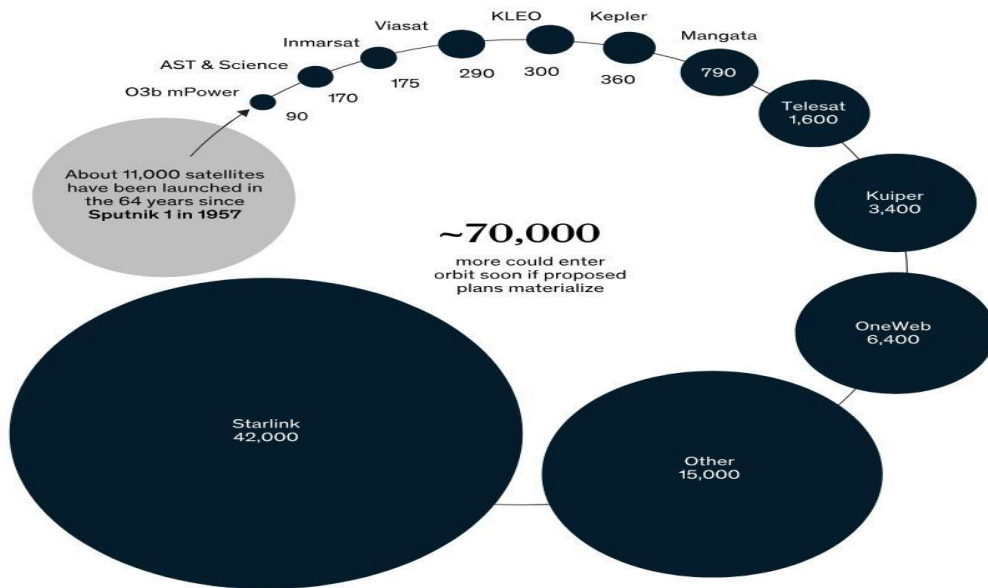
“Human exploration and colonization of Mars will keep us busy for hundreds, even thousands, of years. During that time, there will be advances in nanotechnology, space sailing, robotics, biomolecular engineering, and artificial intelligence. These advances are occurring even now, affecting our outlook about what it means to be human and engage in human activity. Those technologies will not merely allow us to stay home on Earth and Mars, but our minds will extend our presence throughout the universe so that we will not need or want to extend our bodies there — even if we could, which I think is doubtful.” (Louis Friedman)

In this quote, Luis Friedman has prophesized what is already happening today, and the futures to come, a vision where space traveling would no longer be a dream but a hobby of everyone while emerging technologies and advanced science projects would be made to improve humans. Friedman has expressed an imagination of how it might be in the future when humans will have control of space. It would be a historical moment for us, but the problem still arises- Who will

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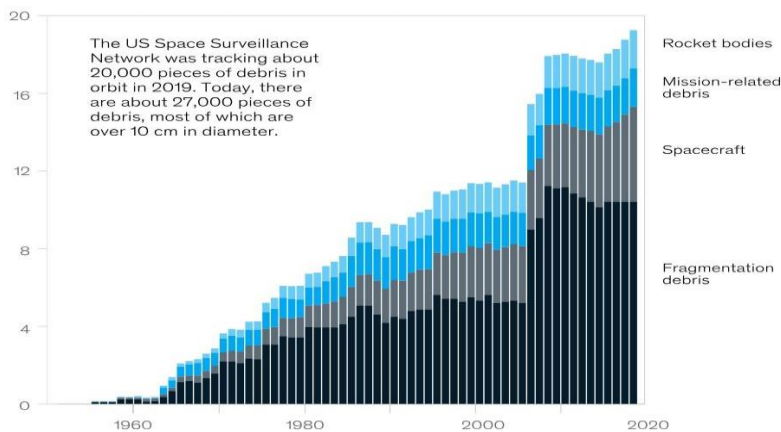
be the beneficiary of the colonization of space, and who will face any potential challenges that may come from human action?

A study by McKinsey & Company estimated that "the global space economy will be worth \$1.8 trillion by 2035 up from \$630 billion in 2023" (Acket-Goemaere et al., 2024). It is unclear and nobody owns a solution for this puzzle. Does the planet and space belong to some of us, or it is for all of us? If so, we are already fighting with climatic and environmental impacts due to the human activities on our planet Earth, our pollution of land, water, air, and space, our industrial production of greenhouse gases and CFCs, our unstoppable political wars and greedy have put the lives of the vulnerable, endangered species and the whole ecosystem in risk of execution. Yet we want to extend our selfishness to own and control the space too. Have we at least calculated the risk associated with this space mining, and so who will pay for any environmental health hazards that may arise?



Source: Company website; FCC fillings; press Search

In 2021, McKinsey & Company expected 70,000 new satellites to enter orbit, while the US Space Surveillance Network tracked around 20,000 pieces of debris in orbit in 2019; and around 27,000 pieces in 2021, and forecasted that they could cause unprecedented collisions anytime, which would be so violent, causing enormous destruction (Daehnick & Harrington, 2021).



Source: Gunter's Space Page; Union of Concerned Scientists database

7. Building Inclusive Institutions for Climate Action

Addressing the complex challenges of climate change and environmental sustainability requires strong, inclusive institutions capable of creating and implementing equitable policies. Frazer et al. (2021) emphasize the importance of diversity, equality, and inclusion in workplace practices, and principles and they can be extended to environmental governance too. The development of fair laws for climate action is crucial. This includes implementing "polluter pays" principles, where those responsible for pollution bear the costs of managing it to prevent damage to human health or the environment. However, the application of such principles must be carefully considered to avoid disproportionately impacting vulnerable and underrepresented populations. Effective implementation of the aforementioned policies such as The Paris Agreement, and Kigali Amendment, and overlook for checks and balances can be a great way to ensure these policies not only remain on paper but are implemented to create a strong and just society.

Multiple collaborations and allocating enough funds to finance climate adaptation and resilience are critical aspects of climate action. Doğan and Kirikkaleli (2021) investigate the relationship between gender equality in education and environmental sustainability in sub-Saharan Africa, highlighting the interconnectedness of social and environmental issues. Their findings suggest that promoting gender equality in education could have positive impacts on environmental sustainability, underscoring the need for holistic approaches to climate action. The adoption of emerging technologies like artificial intelligence, machine learning, robotics, and the Internet of Things provides promising avenues for accelerating climate action. These technologies can aid in climate modeling, resource management, early warning systems for extreme weather events, and more efficient energy use. A clear example is the recent Prithvi-weather-climate (Prithvi-WxC) weather and climate model that was developed by NASA in collaboration with IBM Research. It uses AI to analyze meteorological data to enhance public safety (Blumenfield, 2024).

8. Conclusion

Climate change is a reality and to stop it, we need collaborative efforts to combat it. We should continue to celebrate the unique relationship between our Mother Earth and the role women serve to make our community fair and peaceful and abolish negative gender ideologies and stereotypes that polarize us by undermining the role of women, and marginalized as well as oppressed communities, and make sure that there are strong systems, frameworks and infrastructures that are built on a human-centric approach to creating policies that represent all voices, leaving none behind. While space mining remains a debatable concept, consensus and active involvement of all stakeholders should be prioritized, assuring that "Ground problems should be solved first" before exploitation of the space.

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