ASIAN HORIZONS

Vol. 15, No. 2, June 2021

Pages: 297-313

CLIMATE CHANGE AND WOMEN

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Abstract

Climate change is no more a remote or distant problem. Climate change is impacting ecosystems through constant climate variability, along with increased ocean acidification, frequent occurrences of heatwaves, and atmospheric carbon dioxide concentrations. There is a need to understand the ecological dynamics of the climate impacts on all more specifically on women, to identify their vulnerability and resilience to climate change. The current Corona crisis is an opportunity to make a profound and systemic shift in making the earth a habitable place fit for all. As countries move toward reassuming and rebuilding their life after COVID-19, recovery plans must focus in building a world that is cleaner, greener, healthier, safer and more resilient for all especially for women. We require urgent actions to address the challenges emerging both from the pandemic and the climate emergency. This article focuses on climate change as one of the environmental challenges in which women are more vulnerable. However, in spite of their vulnerability women are and can become effective agents of climate change by exercising responsible stewardship in caring for the earth and by implementing significant

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policies and strategies, as well as related sustainable development plans and interventions. In this process, gender sensitivity and gender equality, participation and involvement of women at all levels is very much needed. In collaboration and co-operation with all, women can face environmental challenges especially climate change and make this earth our common home more habitable for all and for all generations.

Keywords: Carbon Emission; Climate Change; Climate-Related Hazards; Ecosystem; Environmental Challenges; Environmental Crisis; Green Gas; Habitable; Responsible Stewardship; Strategies; Vulnerability

Introduction

Climate change is no more a remote or distant problem, or a plausible scenario of the far-off future. The global warming caused by excessive carbon emission into the atmosphere has already triggered climatic conditions which have acquired dimensions of a cataclysm that can even expunge human beings altogether from this earth. Climate change is impacting ecosystems through constant climate variability, along with increased ocean acidification, frequent occurrences of heatwaves, and atmospheric carbon dioxide concentrations. It also interacts with other ecosystems, such as habitat degradation, defaunation, overfishing, invasive species, fragmentation. 1 There is a need to understand the ecological dynamics of these climate impacts all the more specifically on women, to identify their vulnerability and resilience to climate change.

The current Corona crisis is an opportunity to make a profound and systemic shift in making the earth a habitable place fit for all. While greenhouse gas emissions are projected to fall about 6 per cent in 2020 due to travel prohibition and economic slowdowns due to COVID-19 pandemic, this progress is only temporary. As countries move toward reassuming and rebuilding their life after COVID-19, recovery plans must focus in building a world that is cleaner, greener, healthier, safer and more resilient for all especially for women. We require urgent actions to address the challenges emerging both from the pandemic and the climate emergency.

This article focuses on climate change as one of the environmental challenges in which women are more vulnerable. However, in spite

¹Cf. Yadvinder Malhi, Janet Franklin, Nathalie Seddon, Martin Solan, Monica G. Turner, Christopher B. Field and Nancy Knowlton, "Climate Change and Ecosystems: Threats, Opportunities and Solutions," Published 27 January 2020, https://royalsocietypublishing.org/doi/10.1098/rstb.2019.0104 (accessed 31.05.2021).

of their vulnerability women are and can become effective agents of climate change by exercising responsible stewardship in caring for the earth and by implementing significant strategies for climate change. In this process, gender sensitivity and gender equality, participation and involvement of women at all levels is very much needed. In collaboration and co-operation with all women can face environmental challenges especially climate change and make this earth our common home habitable for all and for all generations.

1. Climate Change Crisis: A Major Environmental Challenge

Climate change refers to significant changes in global temperature, precipitation, wind patterns and other measures of climate that occur over several decades or longer. We have been experiencing changes in climatic variables, such as rising temperature, variable rainfall, frequent droughts, hurricane and typhoons, and have almost failed to reach a global consensus on the mitigation of greenhouse gas (GHG) emissions.² K. Ramachandran states that climate change is a multigenerational issue with exponential environmental, social, political and economic effects.³

Climate change is one of the world's major environmental challenges today. The following are the effects of climate change: Temperatures are rising world-wide due to greenhouse gases trapping more heat in the atmosphere; Droughts are becoming longer and more extreme around the world; Tropical storms becoming more severe due to warmer ocean water temperatures; As temperatures rise there is less snowpack in mountain ranges and polar areas and the snow melts faster; Overall, glaciers are melting at a faster rate; Sea ice in the Arctic Ocean around the North Pole is melting faster with the warmer temperatures; Permafrost is melting, releasing methane, a powerful greenhouse gas, into the atmosphere; Sea levels are rising, threatening coastal communities and estuarine ecosystems.⁴

Balasubramanian and Dhulasi Birundha opine that the drastic alteration in the earth's climate system is due to the accretion of gases such as carbon dioxide (CO2) and methane (CH4) in the atmosphere, caused primarily by anthropogenic activities such as

² Cf. Amarnath Tripathi, and Ashok K. Mishra, "Knowledge and passive adaptation to climate change: An example from Indian farmers," *Climate Risk Management* 16 (2017) 195-207.

³Cf. K. Ramachandran, "Literature in the Age of Climate Change," published on 19th July 2019, https://ecologise.in/2019/07/19/literature-in-the-context-of-the-development-debate-and-climate-change/ (accessed 31.05.2021).

⁴ Cf. R. Rajagopalan, *Environment an Illustrated Journey*, New Delhi: Oxford University Press, 2011, 19-176.

burning of fossil fuels.⁵ It is also attested by the report of Solomon et al. submitted to the fourth Intergovernmental Panel on Climate Change (IPCC) which states that the warming of climate system is now unequivocal and it is due to increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global seal level. 6 Other human activities, such as agriculture, deforestation, overfishing poaching, and mismanagement of the soil and water, and over population also contribute to the proliferation of greenhouse gases that cause climate change.

Climate change is affecting food production; natural ecosystems, freshwater supply, and health... The unprecedented increase in temperature causes severe impact on the global hydrological system, ecosystem, sea level, crop production and related processes.7 Climate change causes irreparable damage to unique forest ecosystems and biodiversity. Several unique and rare species become extinct and it requires the very long period to develop and implement adaptation strategies in the forest sector.8 Coastal ecosystem affected by sea-level rise and temperature increase global warming9 like frequency of hot days, heat waves, droughts and natural disasters resulting from cyclones.

Climate change increases threats to human health. Millions of people especially women suffer of malnutrition, deaths, diseases and injury. Anaemia results in maternal mortality, weakness, diminished physical and mental capacity, increased morbidity from infectious diseases, prenatal mortality, premature delivery, low birth weight,

⁵Cf. M. Balasubramanian and V. Dhulasi Birundha, "Climate Change and Its Impact on India," The IUP Journal of Environmental Sciences VI, 1 (2012) 32, uploaded by Muniyandi Balasubramanian on 17 October 2018. https://www.researchgate.net/ publication/256034994_Climate_Change_and_its_Impact_on_India 28.05.2021).

⁶Cf. S.D. Solomon, M. Qin and Z. Manning et al. ed., Climate Change 2007: The Physical Science Basis, Contribution of Working Group I to the Fourth Assessment, Report of the Intergovernmental Panel on Climate Change, Cambridge: Cambridge University Press, 2007, 996.

⁷ Cf. Jayant Sathaye, P.R. Shukla and Ravindrnath N.H., "Climate Change, Sustainable Development and India: Global and National Concerns," Current Science 90, 3 (2006) 314-325.

⁸Cf. R. Leemans and B. Eickhout "Another Reason for Concern: Regional and Global Impacts on Ecosystems for Different Levels of Climate Change," Global Environmental Change 14 (2004) 219-228.

⁹J.A. Church, J.M. Gregory, and M. Huybrechts Kuhn et al., The Scientist Basis Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel of Climate Change, Cambridge: Cambridge University Press, 2001, 639-693.

and (in children) impaired cognitive performance, motor development, and scholastic achievement.¹⁰

Climate change impacts are more severe in the developing world, because of their poor capacity to adapt to climate variability. There are several reasons for the current climate crisis of colossal magnitude. Ecological concerns, sensitivity and wisdom of interconnectedness of the entire cosmos are not strong enough to swift wise and responsible decisions at local and global level. In the patterns of environmental policies, economic interests and production take precedence over the integral well being of the individuals and the dignity of employees. Both important persons and ordinary individuals are incapable of forfeiting current amenities and are unwilling to change their consumerist life style.

Scientists and researchers have cautioned world's dominant governments and responsible world leaders to introduce plans and strategies to arrest the destruction of the earth—our only home. For instance, Amitav Ghosh has said,

Climate change is inherently uncanny... The uncanniness lies precisely the encounters with presence and proximity of non-human interlocutors...The events set in motion by global warming have an intimate connection with cumulative human actions. They are the mysterious work of our own hands returning to haunt us in unthinkable shapes and forms.¹²

However, the responses from the international, national and local communities are not adequate. The global policies, international agreements and contracts to restrict carbon emissions and pollutions are not totally free from political and economic drives of the powerful countries. They continue to carry on life threatening human activities and programmes that destroy all forms of life on earth. As a consequence, more than men women are subjected to unprecedented and frequent fierce tsunamis, flash floods, violent storms, persistent droughts, spells of heat, sudden landslides, raging torrents pouring from glacial lakes, heat waves, and freakish tornadoes. Even today

¹¹Cf. Saint John Paul II, "World Day of Peace: Peace with God the Creator, peace with all of creation," XXIII World Day for Peace January 1, 1990, No. 7, https://www.vatican.va/content/john-paul-ii/en/messages/peace/documents/hf_jp-ii_mes_19891208_xxiii-world-day-for-peace.html, (accessed 03.06.2021).

¹⁰Cf. International Institute for Population Sciences (IIPS) and Macro International (2007), National Family Health Survey (NFHS-3) 2005-06, 1, Mumbai, India. https://www.iipsindia.ac.in/ (accessed 03.06.2021).

¹²Cf. Amitav Ghosh, *The Great Derangement. Climate Change and the Unthinkable*, Chicago: University of Chicago Press, 2016, 30, https://complit.utoronto.ca/wpcontent/uploads/COL1000H_Jagoe_Ghosh-Stories-.pdf (accessed 03.06.2021).

one can envisage the horror, suffering and pain, loss and death experienced by women both as victims and witnesses of these natural disasters.

2. Women's Vulnerability to Climate Change

Climate change as a global challenge burden all of humanity, but not evenly. Its impacts vary according to the regions, contexts, classes, generations, epoch, revenue groups, and gender. All those who are working in natural resource sectors, such as farming, forestry, fishing, mining oil, gas, hydro, trapping and hunting are vulnerable to climate change. However, women are more vulnerable than men to the impacts of climate change, because they represent the majority of the world's poor and are consequently more dependent on threatened natural resources.

Women's vulnerability to climate change arises from social, political, economic and cultural factors. Women are more susceptible to climate change because of the differences in roles, responsibilities, decision making, access to land and natural resources, opportunities and needs...¹³ Women's capacity and potential to be actors and agents of climate change are hampered because of their inaccessibility to and control over resources such as land, credit, agricultural inputs, decision-making structures, technology, training and extension services, access to education and information, and equal rights both in the family and the society.

Women's vulnerabilities are further augmented and aggravated by climate-related hazards resulting in higher workloads, occupational hazards indoors and outdoors, psychological and emotional stress, and higher mortality... 14 When droughts worsen and forests burn, natural disasters and saltwater intrusion happens from rising sea levels, women have to face health consequences and decadence in economic prospects, safety and security.

¹³Cf. Osman-Elasha, "Gender and climate change in the Arab Region" / the second conference of Arab Woman Organization, 2008, "Women in the Concept and Issues of Human Security: Arab and International Perspectives," Proceedings of the 2nd. Arab Woman Organization (AWO) Conference-Emirates, 2008, https://www. researchgate.net/publication/233951244_Osman_Elasha_B_2008_Gender_and_clima te_change_in_the_Arab_Region_the_second_conference_of_Arab_Woman_Organiza tion_2008-'Women_in_the_Concept_and_Issues_of_Human_Security_Arab_and_ International_Perspec, (accessed 03.06.2021).

¹⁴Rena, Ravinder and N. Narayana "Gender Empowerment in Africa: An Analysis of Women Participation in Eritrean Economy," New Delhi: International Journal of Women, Social Justice and Human Rights 2, 2 (2007) 221-237.

In remote rural communities across the globe, climate change is making it harder for women to manage household responsibilities like cooking, cleaning, gathering resources for living, and caring for children and elders. Women are more dependent on local natural resources for their livelihood, particularly in rural areas where they assume the major responsibility for household water supply and energy for cooking and heating, as well as for food security. They are mainly engaged in subsistence farming, particularly horticulture, poultry and raising small livestock for home consumption which are more time-consuming and labour-intensive.

Women have limited access to and control of environmental goods and services. They have less time and opportunities to have an access to education and training, skills development and employment, income and security in life. They have minor space or no space in decision-making, and are not able to enjoy, or have a share in the distribution of environment management benefits. Along with inaccessibility to resources and lack of involvement in decision-making processes, restricted mobility places women in climatically challenging situations. Consequently, women are less able to confront climate change and its challenges.

Majority of those forced to leave their homes due to climate-related displacement are women. When girls and women are displaced, they're often unable to continue their education and pursue economic opportunities. In many societies, socio-cultural and religious norms and family care especially childcare responsibilities prevent women from migrating or seeking refuge in other places or working when a disaster hits. They face higher rates of child marriage, domestic violence, sexual exploitation, and human trafficking.

Climate change also increases the likelihood of armed conflicts and exacerbate existing conflicts that threaten women's health, rights, and overall life outcomes. Climate change as one of the environmental stressors fuels the rise of organizations that engage inhuman trafficking and extreme labour exploitation. Women are most vulnerable to these human rights violations. It is widely known that during conflict, women face heightened domestic violence, sexual intimidation, human trafficking and rape.¹⁵

¹⁵ Prashna Mishra, "Disasters Discriminate: A Macro Study of the Global Scenario," *Quest Journals Journal of Research in Humanities and Social Science* 9, 4 (2021) 34-40 ISSN (Online) 2321-9467, www.questjournals.org, (accessed 12.06.2021). See also Cf. Falak Shad Memon, "Climate Change and Violence Against Women: Study of A Flood-Affected Population in The Rural Area of Sindh, Pakistan," *Pakistan Journal of Women's Studies: Alam-e-Niswan* 27, 1 (2020) 65-85, ISSN: 1024-1256 DOI:

3. Women's Active Agency in Climate Change

The future climate change is daunting, but it is not all grim. With regard to climate change, women are showing remarkable resilience around the world. In spite of their vulnerability, women are not only to be viewed as victims of climate change, but also as active and effective agents of its climate adaptation and mitigation. Women have historically been excluded from domestic, regional, and international negotiations around climate change, biodiversity, and resource use – but that's beginning to change. As women gain more representation decision-making bodies, countries are beginning develop gender action plans that combine climate action with efforts to improve gender equality.

Women aren't merely helpless victims when it comes to climate change, their participation and leadership can have transformative effects in their countries and communities. Women today in diverse settings are rising up to overcome climate challenges by undertaking various initiatives. Activists like Jane Goodall from England, Sylvia Earle from America, Wangari Maathai from Kenya, Rachel Carson from USA, Vandana Shiva from India, Isatou Ceesay from Gambia, Marina Silva from Brazil, Vanessa Nakate from Uganda, Greta Thunberg from Sweden have helped to spur a global environmental movement. While climate change may have an unfair impact on women, it has also led them to seize the levers of power in a moment of intense uncertainty, to rewrite the rules of society when the current systems of power and economy no longer seem reasonable.

Women have developed and are developing scientific and experiential knowledge and skills related to water harvesting and storage, food preservation and rationing, and natural resource management. Today they are leading climate action movements, championing clean sources of energy, and building alternative models of community that focus on sustainability and cooperation. Collantes rightly states that there has to be tracking and monitoring of the specific components of a gender-based program to really make a difference for women and girls for generations, to change their lives, and make a meaningful change to achieve gender equality.16

10.46521/pjws.027.01.0039, https://www.researchgate.net/publication/342756265 (accessed 12.06.2021).

¹⁶Cf. Joe McCarthy, "Understanding Why Climate Change Impacts Women More https://www.globalcitizen.org/en/content/how-climate-changeaffects-women/, posted MARCH 5, 2020 (accessed 24.05.2021).

In order to value and to improve women's active role in the adaptation and mitigation of climate change, the following recommendations can be taken into consideration:¹⁷

Adaptation initiatives should identify and address gender-specific impacts of climate change particularly in areas related to water, food security, agriculture, energy, health, disaster management, and conflict. Important gender issues associated with climate change adaptation, such as inequalities in access to resources, including credit, extension and training services, information and technology should also be taken into consideration.

Women's priorities and needs must be reflected in the development planning and funding. Women should be part of the decision making at international, national and local levels regarding allocation of resources for climate change initiatives. It is also important to ensure gender-sensitive investments in programmes for adaptation, mitigation, technology transfer and capacity building.

Funding organizations and donors should also take into account womenspecific circumstances when developing and introducing technologies related to climate change adaptation and to try their best to remove the economic, social and cultural barriers that could constraint women from benefiting and making use of them. Involving women in the development of new technologies can ensure that they are adaptive, appropriate and sustainable. At global and local levels, efforts should be made to mainstream gender perspective into all policies and strategies, as well as related sustainable development and climate change plans and interventions.

Strengthening climate action by promoting gender equality should be done by recognising the important contributions of women as decision makers, stakeholders, educators, carers and experts across sectors and at all levels. The active participations women in all these responsibilities can lead to successful, long-term solutions to climate change.

Women are leading the way towards more equitable and sustainable solutions to climate change. Across sectors, women's innovations and expertise are transforming lives and livelihoods, and increased climate resilience and overall well-being. Global negotiations are increasingly reflected in the growing understanding of gender considerations in climate decision making. Continued progress towards gender equality can help achieve successful climate action and vice versa.

¹⁷ Balgis Osman-Elasha, "Women...in the Shadow of Climate Change," https://www.un.org/en/chronicle/article/womenin-shadow-climate-change, (accessed 24.05.2021). See also "Climate Change and Disaster Mitigation: Gender Makes the Difference," IUCN 2004 (a), https://www.srhr-ask-us.org/publication/climate-change-disaster-mitigation-gender-makes-difference/ (accessed 24.05.2021).

4. Possible Practical Actions of Women for Climate Change

The earth our common home is being most neglected and maltreated by everyone in ways that are big or small. The rapidity of consumption, unsustainable and catastrophic effects of the modern technologies, enormous quantity of wastes and environmental change especially the climate change makes the humans incapable of living healthy lifestyle. Women need to become aware of the increasing devastating ecological ramification on the entire humanity and make conscious efforts for changes in their lifestyle, production and consumption, in order to combat this global climate change.

Women can directly and significantly reduce climate warming by avoiding the use of plastic and paper, reducing water consumption and electricity, carefully follow the principle of reduce, recycle and reuse, taking care for all living beings, using public transport, planting trees, sharing the excessive goods and foods with the needy, devising intelligent and practical ways of limiting the use of natural resources, directing and developing a healthy environment fit for future generation. Even in and through small gestures of caring for the earth, promote a culture of care for all creation. Finally, they have to realize that creation is God's gratuitous gift to each one of them and they need to care for it and nurture it.¹⁸

Pope John Paul II wrote that there will be no solution to the ecological problem unless we change our life style from instant gratification and consumerism. 19 Therefore women need education in ecological responsibility that educates them to care for themselves, for others, and for the earth. This type of education must entail a genuine conversion of thought patterns, behaviour, and relationship. Although all of us have a specific role to play in such education, the first educators are the parents especially mothers and the first school is the family, where the children learn to respect and love their neighbour and to care for the nature.

Women need to cultivate the aesthetic value of creation, the glory of God (cf. Gen 1: 4ff; Ps 8:2; 104:1ff; Wis 13:3-5; Sir 39:16, 33; 43:1, 9).

¹⁸Cf. Pope Francis, "Laudato Si (hereafter, LS), Care for Our Common Home," 24 May 2015, Nos. 217, 19, 169, 180, 202, 23, 25, 51,211, 231, 68, 76, and 77, https://www.vatican.va/content/francesco/en/encyclicals/documents/papafrancesco_20150524_enciclica-laudato-si.html (accessed 12.06.2021).

¹⁹Cf. Saint John Paul II, "World Day of Peace: Peace with God the Creator, Peace with all of Creation," XXIII World Day for Peace January 1, 1990, No. 7, https://www.vatican.va/content/john-paul-ii/en/messages/peace/documents/ hf jp-ii mes 19891208 xxiii-world-day-for-peace.html, (accessed 03.06.2021).

Pope Francis says that the soil, the sky, the water, the mountains and the trees—everything is a caress of God. This beautifully speaks of His infinite love, and boundless affection for all. Women's very contact with nature can have a deep restorative power of contemplation, peace and serenity. The Pope says, "Everything is related, and we human beings are united as brothers and sisters on a wonderful pilgrimage, woven together by the love God has for each of his creatures and which also unites us in fond affection with brother sun, sister moon, brother river and mother earth" (LS, 92).

In order to hear, to listen and to respond adequately to both the cry of the earth and the cry of the poor, women need to integrate questions of justice, equality and equity in daily environmental actions. They need to incorporate ecological concerns especially the climate change into the sociological basic rights of the poor and the disadvantaged. Only then, they will be able to combat poverty, restore dignity, establish equality, promote justice, peace and harmony and at the same time protect nature (LS, 139).

As national and international political leaders, women have to develop policies and programme to control the emission of carbon dioxide and other highly polluting gases. They must listen to the voice of their conscience and cry of the poor in order to promote authentic the world community communion and universal solidarity (LS, 26, 169, 178). Pope Benedict XVI states,

To protect the environment, and to safeguard natural resources and the climate, there is a need to act in accordance with clearly-defined rules... while at the same time taking into due account the solidarity we owe to those living in the poorer areas of our world and to future generations.²⁰

The environment is God's gratuitous gift to humanity. Women have to learn to use it responsibly to meet their legitimate needs but always remembering responsibility that they owe towards the poor, towards future generations and towards humanity as a whole. ²¹ Women have to be aware of the intrinsic relationship of creation with the Creator (cf. Rom 1:20) and its destination to be 'recapitulated' in Christ at the end of time (cf. Eph 1:9-10; Col 1:19-20). Pope Benedict the XVI warns everyone that nature is at our disposal not as 'a heap

²⁰Cf. Benedict XVI, "If You Want to Cultivate Peace, Protect Creation," in *Message for World Day of Peace*, 1 January 2010, https://www.vatican.va/content/benedictxvi/en/messages/peace/documents/hf_ben-xvi_mes_20091208_xliii-world-day-peace.html (accessed 03.06.2021).

²¹ Cf. John Paul II, "The Ecological Crisis: A Common Responsibility," United States Conference of Catholic Bishops, Washington, D.C., 1990, No. 6. https://www.catholicculture.org/culture/library/view.cfm?recnum=5439, (accessed 03.06.2021).

of scattered refuse,' but as a gift of the Creator who has given it an inbuilt order, enabling man and woman to draw from it the principles needed in order 'to till it and keep it'" (Gen 2:15).22 It calls for responsible stewardship and strategies of women for climate change.

4.1. Responsible Stewardship of Women for Climate Change

Even as women rejoice in earth's goodness and in the beauty of nature, stewardship places the responsibility for the well-being of all God's creatures. As faithful stewards women have to realize that fullness of life can come only by living this stewardship responsibly within God's creation.²³ The biblical passage Genesis 1:26-28 indicates that one dimension of the human calling is mastery over or dominion over the creation. Women must realize that dominion is the Godgiven role as steward and supervisor, as manager and overseer, as care-giver and care-taker; not an independent tyrant. Dominion was given never as a license to exploit but it was dominion within a created order, the violation of which would naturally lead to imbalance and disaster.

On a global scale, subduing and ruling is like managing and administering. Men and women have been given the honour and privilege of managing and administering God's creation, with the expectation that they will do it responsibly.²⁴ The right exercise of dominion yields *shalom* – the boom and the flourishing of all creation (Ps 72). This is the right understanding of dominion as stewardship. And Jesus, in the Gospel accounts, defines dominion in terms clearly contrary to the way it is usually understood. For Jesus, to rule is to serve (In 13). To exercise dominion is not domination, exploitation, and misuse of power rather it is a self-abnegation/Kenosis/Selfemptying for the sake of the other (Phil 2:1-11). Women are called to serve and protect the creation.

Christian stewardship is based on the concept that everything women have was given to them; all that they are and have ultimately are gifts from God for which they cannot take credit. Waugh says, "Because God created everything, He owns everything and they are only on loan to us. We are not owners but caretakers. And as the

Benedict XVI, Caritas in Veritate, June 29, 2009, No. 48, https://www.vatican.va/content/benedict-xvi/en/encyclicals/documents/hf_benxvi_enc_20090629_caritas-in-veritate.html (accessed 03.06.2021).

²³Cf. Ignacimuthu, Environmental Spirituality, Mumbai: St PAULS, 83-90.

²⁴Cf. Preston Bristow, "The Root of our Ecological Crisis," Journal of Creation 15, 1 (April 2001) 76-79, at 76, http://creation.com/the-root-of-our-ecological-crisis (accessed 13.12.2015).

Biblical parable of the Talents tells us, we will be held accountable to God for what we do with the resources He has entrusted to us."²⁵ Women need to realize this fact that it is God who created the earth and the entire Cosmos (Jn 1:3; Col 1:16-17) and He established a lasting relationship with all of His creation (Isa 43:20-21; Deut 32:1-2; Job 37:14-18; Ps 104:25, 27; Mt 6:26) and they are only stewards.²⁶

The ecological implications of God's reign/kingdom are centred on stewardship actions. They focus on God's first creative act, redemptive action and God's re-creative act. When God reigns not only in the hearts of all people but ultimately throughout the universe, the earth becomes a living habitat/ home for His all.²⁷ A comprehensive or the holistic vision of the reign of God entails a new order of relationships and conduct. It affirms the spiritual-physical unity of the person; it relates social and cultural renewal; it links human and cosmic aspects of redemption; it affirms the interconnectedness of the spiritual and material dimensions of life; and it means the ultimate unity of all things so that God is all in all. The reign of God has significant ecological implications on women's stewardship too. The righteousness of the kingdom as right relationship with all must lead women to an ethic of care for creation, earth-keeping, or earth caring.

4.2. Significant Strategies for Women in Climate Change

Resources and strength of women need to be channelized to develop their full potential so as to take their rightful place as equal partners in all spheres.²⁸ The *Beijing Platform for Action* notes the connection between poverty, natural calamities, health issues, untenable progress and gender inequalities. It outlines three strategic goals. First of all, involve women actively in environmental decision-making at local and global levels. Second, incorporate gender concerns and perspectives in policies and programmes for a wholistic sustainable development. Strengthen or establish mechanisms at the national, regional or international levels to assess the impact of

²⁶Cf. David J. O'Brien, "Another Call to Action: Catholics and the Challenges of Climate Change," in *God, Creation & Climate Change. A Catholic Response to the Environmental Crisis*, ed., Richard W Miller, Mumbai: Pauline Sisters Bombay society, 2010, 154-170.

²⁵ Cf. K. Waugh, "The Prettiest Small Town in America," *Ladies Home Journal* (October 1998) 170.

²⁷ Rayappa A. Kasi, *Anthropology Versus Cosmology. A Cosmic Schism in Cosmogenesis*, Chennai: LTD Media Publications, 2012, 32-34.

²⁸ Cf. Naresh Yadav, "Women & Environment Sustainability," 4. file:///M:/women%20enviornment/12women_&_environment.pdf (accessed 8 March 2017).

development and environmental policies on women.²⁹ Only by a radically reshaping of one's relationship with God, with others, and the whole of creation women can tackle the environmental crisis especially climate crisis.³⁰

Women are often the most directly affected by environmental issues, so they become more concerned about environmental problems. Both women and nature have been considered subordinate entities by men throughout history, which conveys a close affiliation between them. Women's ecological struggle is to establish balance with nature. Women view natural resources not as commercial entities or income generating tools, but as a resource to support their basic needs.³¹ Women, as victims of the violence of patriarchal forms of development, have risen against it to protect nature and preserve their survival and sustenance.32

Given women's affiliation with nature, women have a unique responsibility to the health and survival of nature itself, to the care of the planet. Women have always been the principal conservers of biodiversity. Even today they perform duties such as seed selection, multiplication and conservation. Women are aware that economics and environment are compatible. Their experience reveals to them that soil, water and vegetation, necessary for their day-to-day living, requires care and good management. Women in sustenance economies, producing and reproducing wealth in partnership with nature, are becoming experts in their own right of a holistic and knowledge ecological of nature's processes interconnectedness of nature and women's lives.33

Women can play a vital role in the societal response to climate change, and their participation at all levels resulting in sustainable outcomes. Recognizing women's roles as educators, caregivers, holders of knowledge, and powerful agents of social change positions

²⁹United Nations (2004). "Review of the implementation of the Beijing Platform for Action and the outcome documents of the special session of the General Assembly entitled "Women 2000: gender equality, development and peace for the twenty-first century." Report of the Secretary-General. E/CN.6/2005/2, para 246 to 252. https://www.un.org/womenwatch/daw/followup/beijing+5.htm, (accessed 28.05.2021).

³⁰Kuriakose Poovathumkudy, "Laudato Si: Cry for the Earth and Cry for the Poor," Vidyajyoti Journal of Theological Reflection 79, 8 (August 2015) 593.

³¹ Julie A. Nelson, "Feminism, Ecology, and the Philosophy of Economics," Ecological Economics 20, 2 (1997) 155.

³²Cf. Vandana Shiva, Staying Alive: Women, Ecology and Survival in India, New Delhi: Kali For Women, 1988, 41.

³³Shiva, Staying Alive, 23.

women to effectively design and implement culturally acceptable interventions where they are needed most. Women should be empowered as key stakeholders at the outset of any climate change project with the understanding that combining scientific data and community knowledge will yield better results.

After the Corona pandemic as we return to restore the world economies we need to pay attention to the following six climate-positive strategies as suggested by the UN Secretary-General António Guterres: 34 Focus on green transition that accelerates decarbonisation in all aspects of life and economy; provide green jobs that ensures sustainable and inclusive growth; promote green economy that makes all people in all societies to become more resilient and responsible carers of the earth; invest in sustainable solutions so that fossil fuel subsidies are withdrawn and pollutions are eradicated; cooperate and collaborate with one another in confronting all climate risks and challenges.

Women are aware that climate care and human care are correlated. As centre of human ecology, climate care can never be isolated from the relationship with others and with God (LS 119). Therefore, the following significant strategies are needed to act on the climate emergency and to care for human ecology.³⁵ The Governments has taken to efforts to reduce emissions especially methane gas to limit global warming to 1.5°C or 2°C.³⁶ Conserving and restoring natural spaces, both on land and in the water, is essential for limiting carbon emissions. As nations agreed to a legally binding commitment in Paris to limit global temperature rise to no more than 2°C they must prove it by curbing their greenhouse gas emissions. Every fraction of additional warming above 1.5°C will bring worsening impacts, threatening lives, food sources, livelihoods and economies worldwide.

Finally, women have special responsibility towards nature especially in view of future generations. They need to realize that all are intertwined together in this cosmos and all are interdependent on each other for the welfare of all. Hence, women can teach children the result of the dominance of humanity over

³⁵ "Facts about the Climate Emergency," https://www.unep.org/explore-topics/climate-change/facts-about-climate-emergency (accessed 25.05.2021).

³⁴"Goal 13: Take Urgent Action to Combat Climate Change and its Impacts," https://www.un.org/sustainabledevelopment/climate-change/ (accessed 28.05.2021).

³⁶ Factsheet. Methane Emissions, 25 March 2021, https://www.unep.org/resources/factsheet/methane-emissions (accessed 11.06.2021).

nature and the cosmos, teach them to live in harmony with nature and the cosmos.

Conclusion

Climate change represents the most complex challenge of our time-it requires a concerted, proactive and holistic response. Gender inequality and injustices dramatically limit the resilience and adaptive capacity of women, families and communities. It also restricts options for climate change mitigation. It is important to ensure equal space and resources for both women and men to participate in climate change decision making and actions at all levels. This is a great cultural, spiritual, socio-political and educational challenge of our time with regard to climate change.

By preserving natural environments, by protecting endangered species, by labouring to make human environments compatible with local ecology, by employing appropriate technology, and by carefully evaluating technological innovations women can exhibit respect for creation and reverence for the Creator. When women open themselves for the intense distress of the earth and all life on earth, they can become, the people poised to find the earth again in a wholly new ecological framework and rethink it as an integral part of the vision of the kingdom of God.

Women are key agents to building resilience in climate change and integral ecology. Investment in skills and capacity building among women will foster leadership and strengthen resilience³⁷ at all levels. While greater inclusion of women at the highest levels of decisionmaking related to climate change is necessary, it is not sufficient. The global community must acknowledge the power of women's knowledge and collective action by creating space for participation and leadership in environmental-decision making, planning, implementation, and evaluation from the local to the international levels.38

Women are called to take care of nature, consider ways of lightening the environmental load of their lifestyle, practice good stewardship, and resist indiscriminate destruction of nature.

³⁷Cecilia Sorensen, Sujata Saunik, and Meena Sehgal, et al., "Climate Change and Women's Health: Impacts and Opportunities in India," published: 15 July 2019, https://doi.org/10.1029/2018GH000163 (accessed 28.05.2021).

³⁸Namratha Rao and Anita Raj, "Women May Be More Vulnerable to Climate Change but Data Absent," posted 1 July, 2019, https://www.indiaspend.com/ women-may-be-more-vulnerable-to-climate-change-but-data-absent/ (accessed 25.05.2021).

Concerns about consumption and stable economies will facilitate women to move toward recycling projects and recycling-based business ventures, toward repair and restoration of quality goods and toward purchases intended for multiple generations. Women consciously will tend not to demand new or excessive extraction of the earth's resources when equivalent goods are available on a recycled basis. They will commit themselves responsibly for the inescapably necessary work of restoring and caring for the farms, forests, water resources, rural communities and towns.³⁹

Let women's vocation to be stewards and protectors, nurturers and promoters of God's handiwork not considered as an optional or a secondary aspect of their human and Christian experience. Young people and children—the future generation—demand environmental safety especially with regard to climate change because they are aware that they cannot build a better future without responding to the environmental crisis and the consequence of climate changes of today. Women being aware of their responsibility of safeguarding the earth-our common home fit for future generation, they would like to join hands with people of good will in building a better world. Therefore, it is imperative that both men and women jointly need to make efforts both personally and collectively to reduce greenhouse gases, wastes, and pollution with greater honesty, courage and responsibility. Thus we have to make this earth a beautiful home and a more habitable place fit for all and for all generations.

³⁹Wendell Berry, What are People For?, San Francisco: North Point Press, 1990, 125.