

Science and Green Politics: How far Ecofeminism is Rational and Scientific?

Jinto Michael*

Assistant Professor, Department of English, St. George College, Vazhakulam, Ernakulam, Kerala

Abstract – *Materialist ecofeminism is based on the assertion that sex/ gender inequality represents a material relation of inequality between dominant men and subordinate women. Ecofeminists view the dominant stream of modern science as a projection of Western men's values. The privilege of determining what is considered scientific knowledge has been controlled by men. But for science, knowledge is attained through empirical evidence, and gender is not a concern at all. It is the population growth that drives the intensity of agricultural production and the resulting environmental issues. We survive with the help of science and we need science to survive. Science is not meant to oppress nature and thus oppress woman. Rather it is a rational route to resolve issues and move on.*

Keywords: *Ecofeminism, Science, Scientific, Population, Agriculture, Environment*

-----X-----

Green politics, also known as ecopolitics, evolved into a powerful movement in the west by 1970s; since then Green parties have established themselves in many countries around the globe, and they have some electoral success as well. The term political ecology is sometimes used in academic circles to mention green politics, but the former has come to represent an interdisciplinary field of study. Supporters of green politics share many ideas with the ecology, conservation, environmentalism, feminism, and peace movements. The Green ideology has connections with various other ecocentric political ideologies, including ecosocialism, ecoanarchism, and ecofeminism. Ecofeminism links feminism with ecology and advocates that paternalistic/capitalistic society has led to a harmful split between nature and culture. Modern ecofeminism focuses more on intersectional questions, such as how the nature-culture split enables the oppression of female and nonhuman bodies. It is also an activist and academic movement that sees critical connections between the exploitation of nature and the domination over women both caused by men.

In *Ecofeminism* (1993) authors Vandana Shiva, Maria Mies and Evan Bondi view the dominant stream of modern science as a projection of Western men's values. According to Marxist-informed "materialist ecofeminism", socioeconomic conditions are central to the interconnected dominations of women and nature. The privilege of determining what is considered scientific knowledge has been controlled by men, and for the most part of history restricted to men. A common claim within ecofeminist literature is that patriarchal structures justify their dominance through binary opposition. Oppression is reinforced by assuming truth in these binaries and instilling them as

'marvellous to behold' through religious and scientific constructs.

Mary Mellor explains the nature of materialist ecofeminism in these words:

Materialist ecofeminism is based on the assertion that sex/ gender inequality is not a by-product of other inequalities, but represents a material relation of inequality between dominant men and subordinate women. In terms of the double dialectic, the human-human relation is gendered in such a way that it interacts with the human-nature dialectic. Women are materially placed between 'Man' and 'Nature'. In a very real sense gender mediates human-nature relations, and mediation is a concept central to materialist ecofeminism. An environmental ethic between hu(man)ity and nature cannot be developed if this gendered relationship is not acknowledged. The second important element is the position of women as embodying nature both materially and symbolically in gendered societies (Mellor 111).

Initially, "ecofeminism" put a generic connection between women and nature, and their perspective here is interdisciplinary. It took shape as a distinct political/social philosophy in the late 1980s and early- to mid-1990s. Karen J Warren list out the characteristics of ecofeminist philosophy:

A general, common-denominator characterization of "ecofeminist philosophy" is that it: (1) explores the nature of the connections between the unjustified dominations of women and nature; (2) critiques male-biased Western canonical philosophical views (assumptions, concepts, claims, distinctions,

positions, theories) about women and nature; and (3) creates alternatives and solutions to such male-biased views (Warren 2015).

Ecofeminism find a relation between the oppression and domination of the opposite binary groups (women, people of colour, children, and the poor) and the exploitation of natural elements (animals, land, water, air, etc.). These groups have been subjected to all sorts of oppression and exploitation from the patriarchal society of the west that values masculine philosophies. Ecofeminists contrasts these with traditionally “feminine” values such as nurturing, cooperation and mutual exchange of privileges which are evident in both women and nature.

Vandana Shiva says that women have a special connection to the environment through their daily interactions and this connection has been ignored. She says that women in subsistence economies who produce “wealth in partnership with nature, have been experts in their own right of holistic and ecological knowledge of nature’s processes.” She makes the point that “these alternative modes of knowing, which are oriented to the social benefits and sustenance needs are not recognized by the capitalist reductionist paradigm, because it fails to perceive the interconnectedness of nature, or the connection of women’s lives, work and knowledge with the creation of wealth.” (Shiva 1990). Shiva blames this failure on the West’s patriarchy, and the patriarchal idea of what development is. According to Shiva, patriarchy has labelled women, nature, and other groups not growing the economy as “unproductive”.

Socioeconomic conditions are also central to Vandana Shiva’s account of Western development as “systematic underdevelopment” or “maldevelopment”. Shiva argues that this maldevelopment began with European colonization throughout Asia and Africa; it resulted in the creation of cash-based economies that were modelled after Europe. The colonizers replaced native food crops and forests with monoculture crops.

The Danish economist Ester Boserup, who worked at the United Nations as well as other international organizations, put forward The Qays’s Theory or theory of agricultural intensification which posits that population change drives the intensity of agricultural production. Her book *Woman’s Role in Economic Development* is one of the few studies concerned with what happens to women, as socially and economically productive members of society, when a nation begins to modernize its agricultural and urban life.

Evan Bondi in *Ecofeminism* argues that the medicalization of childbirth has marginalized midwife knowledge and changed the natural process of childbirth into a procedure dependent on specialized technologies and appropriated expertise. But estimates suggest that in a pre-modern, poor world, life expectancy was around 30 years in all regions of the world. In the early 19th century, life expectancy

started to increase in the early industrialized countries while it stayed low in the rest of the world. In Palaeolithic and Neolithic age the world average was around 20-30 years, and it continued till 1900. In 1900 the world average was 31 years. In 1950, it became 48 and today it is around 72 years. Life expectancy increases with age with decreasing infant mortality rate as well as maternal death. This has been achieved because of modern medicine.

What is science? What is the method of science? Or what is meant by the word ‘scientific’? The term ‘scientific’ has become one of the most distorted words that is used here and there to validate even the most unscientific and absurd arguments. The scientific method is a body of techniques for investigating a phenomenon, finding new principles, or correcting and integrating these with the existing knowledge. To be termed scientific, a method of research should be based on empirical evidence supported by specific principles of reasoning. Its high time to think whether what we see, skip or skim, and share in media, including internet is scientific or not.

During the European Agricultural and Industrial Revolutions, the life expectancy of children increased dramatically. Population growth in the West became more rapid after the introduction of vaccination and other improvements in medicine and sanitation. Many countries in the developing world have experienced extremely rapid population growth since the early 20th century, due to economic development and improvements in public health. It is estimated that the world population reached one billion for the first time in 1804. It was another 123 years before it reached two billion in 1927, but it took only 33 years to reach three billion in 1960. Thereafter, the global population reached four billion in 1974, five billion in 1987, six billion in 1999 and seven billion in 2012. According to current projections, the global population will reach eight billion by 2024, and will likely reach around nine billion by 2042.

The first Homo sapiens were nomadic hunter-gathers and scavengers. However, about 10,000-15,000 years ago, agriculture was developed. After that humans could settle down mostly on the banks of rivers, raise crops, and domesticate animals for various purposes. Following this, civilization took hold. Agriculture thereby is a set of activities that alter the environment of a particular area for the production of crops and animals for human use. Agriculture concerns techniques to improve production that could satisfy increasing demand for food with the application of agronomic research. Therefore it is not ‘natural’ at all.

In the earlier stages of agricultural development and of civilization, families had produced and consumed their own goods. Division of labour existed based on sex though they were different in different cultures. In sparsely populated areas, women were engaged in maintaining crops in small pieces of land shifting from

one place to another. But the male dominated agriculture was concentrated in densely populated areas where they privately owned larger pieces of land and the cultivation is characterized by the use of the plough, animals and hired labour. With the advent of science and technology, and the population growth, demand for more quality food increased and the commercialisation of agriculture started.

When humans found that keeping processed vegetables, fruits and grains for a period of time would assist their survival, advanced means of production and processing were introduced. Man began artificial selection of seeds and use of fertilisers and pesticides to increase agricultural production so as to feed the increasing number of Homo sapiens. Earlier, famines and epidemics sufficiently decreased the population; and then agricultural revolution implemented with the help of fertilisers and pesticides, and the growth of modern medicine, increased the life span of Homo sapiens. Hence “go back to nature” is an absurd argument since the organised life of Homo sapiens is a progressive step from their earlier nomadic life.

A fear is being developed in the contemporary society against ‘chemical’ substances. People begin to create an imaginary gulf between “bio” and “chemical”. There are 118 elements that have been identified, of which the first 94 occur naturally on Earth with the remaining 24 being synthetic elements. Chemical elements constitute all of the ordinary matter of the universe. There is no such thing as ‘bio’ in nature. Existence is ‘chemical’.

There is a baseless fear against the use of genetically modified seeds and chemical fertilisers and pesticides. A plant survives by fighting against all sorts of insects and pests and it divides its energy between its own growth, growing its seeds and developing chemicals to fight and survive. Though humans find seeds edible, the purpose of seeds are not to feed humans but producing next generation of plants. Humans have been modifying seeds for their consumption by making the plant concentrate more on seed production and to make more quality seeds. Therefore in modern agriculture, fertilisers and pesticides are used to assist the plant in its survival and producing good quality seeds. And genetic modification empowers the plant to fight against all sorts of odds. GM crops are dubbed by some activists as terminator seeds, that they are sterile; but it is a myth and is actually based on a real GM project to produce sterile plants.

Instead of agreeing with science, activists and ecofeminism narratives ignore the basic principles and argue for the revival of traditional knowledge that won't be able to satisfy the needs of 7 billion Homo sapiens. Popular culture and new media has become the tools for propagating unverified and unscientific arguments deceiving people and instilling unnecessary fear towards science. Masanobu Fukuoka and Subhash Palekar is celebrated when their natural farming is

proved a failure and not justifiable for modern agricultural production. The chemical elements of which plants are constructed — principally carbon, oxygen, hydrogen, nitrogen, phosphorus, sulphur, etc. — are the same as for all other life forms; animals, fungi, bacteria and even viruses. Only the details of the molecules into which they are assembled differ. Plants must obtain the mineral nutrients like nitrogen, phosphorus, potassium, calcium, sulphur, magnesium, sodium etc. from their growing medium. Plants do not know whether we have applied cow dung or NPK fertilizer. A plant is a chemical construct and absorbs chemical elements.

Crop varieties, as an integral part of genetic diversity, are either evolved via natural selection or by artificial selection made by humans. Through natural evolution — via mutation, hybridization and introgression — the plants adapt themselves to the environment, and only those are capable of adaptation survive. Plants exist on earth not for the welfare of humans. The plant distributes its seeds for its survival and for this it has to fight against pests by producing chemicals within. That is why conventional seeds have high survival capacity. But they are less productive because it has to use the absorbed chemicals to produce pesticides within it. Modified plants have to get defensive mechanism from outside because humans modified them to produce higher quantity of seeds to eat. Anyways pesticides will be used; either by the plant itself or by the humans. Environmental carcinogens contribute to around 25% of cancer and pesticides are only one among them. The question is which ‘chemical’ is safe for us. There is no poison as such, but the dosage decides its intensity; even excessive use of Dihydrogen Monoxide (H₂O) is fatal.

GM foods or genetically engineered foods have had changes introduced into their DNA using the methods of genetic engineering as opposed to traditional cross breeding. Humans began the genetic manipulation of crops with the integrated farming. Artificial selection of seeds started at about 10,500 to 10,100 BC. Though the process of selective breeding, desired traits in an organism is retained and they are used to breed the next generation; the organisms lacking the trait are not bred. This is actually the precursor to the modern concept of genetic modification (GM). Still there is the fear towards GM foods.

The ecofeminists find the traditional tribal culture and their unpolished knowledge as more inclusive and ‘natural’ than modern science. The progressive development of human civilization has enabled people to develop scientific knowledge and technologies based on the demands of their particular societies. During the tribal culture, often women who were engaged in small scale farming had knowledge of the medicinal properties of plants. Women are hence labelled as the first doctors. Late

these home-made solutions led to intense researches and the extraction of specific properties or chemical substances and making effective medicines. Or in the case of agriculture, the tribal societies had the knowledge of fertilizers that enhance the growth of plants and crops and used manure and other wastes even though they had not learned chemical reactions behind it. Today the organic farming communities promote this ancient knowledge and declare it as sacred.

In these contexts, the tribal people today are quarantined in their original state and accessing modern life is observed as a taboo. Every society has undergone changes from the past tribalistic principles and a universal human principle has evolved. By saying, socio-economic, cultural and environmental aspects of these communities are ignored, and let them retain their original ways, ecofeminists deny this very basic rationale that science is universal and everything nature has to offer has a universal validity.

Modern science is the upgraded version of traditional, unprocessed knowledge. It is constantly upgraded and updated. Science is not meant to oppress nature and thus oppress woman. There is no apparent relation between gender, race and class oppression and the exploitation and destruction of the environment. It is the misuse of science at a political level and it should be addressed. The emergence and development of science is not triggered by man to usurp woman; it is the renaissance, enlightenment, rationalism and the spirit of enquiry that are contributed to the progress of scientific research. It is not desirable to perceive science and scientists as the agents of capitalism. Instead of blaming science, ecofeminists can embrace science and use its possibilities to tackle with the environmental issues.

REFERENCES

- Boserup, Ester (2007). *Woman's Role in Economic Development*. London: George Allen & Unwin, 1970. Reprinted as: Boserup, Ester. *Woman's Role in Economic Development*. London Sterling, Virginia: Earthscan.
- Hobgood-Oster, Laura (2012). "Ecofeminism: Historic and International Evolution". Retrieved March 17, 2012. <http://users.clas.ufl.edu/bron/PDF--Christianity/Hobgood-Oster-Ecofeminism-International%20Evolution.pdf>
- Mellor, Mary (2000). "Feminism and Environmental Ethics: A Materialist Perspective." *Ethics and the Environment*. Vol. 5, No. 1. Indiana University Press, 2000. 107–123. JSTOR, www.jstor.org/stable/27766058.
- Mies, Maria, Evan Bondi and Vandana Shiva (1993). *Ecofeminism*. Halifax, N.S.: Fernwood Publications; p. 24.

Shiva, Vandana (1990). "Development as a New Project of Western Patriarchy." *Reweaving the World: The Emergence of Feminism*, edited by Irene Diamond and Gloria Ornstein, Sierra Club Books: pp. 189-200.

Wall, Derek (2010). *The No-Nonsense Guide to Green Politics*. New Internationalist: Oxford, UK.

Warren, Karen J. (2000). *Ecofeminist Philosophy: A Western Perspective on What It Is and Why It Matters*. Lanham, Maryland: Roman & Littlefield Publishers, Inc.

Warren, Karen J. (2015). "Feminist Environmental Philosophy", *The Stanford Encyclopedia of Philosophy* (Summer 2015 Edition), Edward N. Zalta (ed.) <https://plato.stanford.edu/archives/sum2015/entries/feminism-environmental/>

Corresponding Author

Jinto Michael*

Assistant Professor, Department of English, St. George College, Vazhakulam, Ernakulam, Kerala

imjintomichael@gmail.com