

TECHNOLOGY, ENVIRONMENTAL DEGRADATION AND ECOCRITICAL ASPECTS IN KAMALA MARKANDAYA'S *THE COFFER DAMS*

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Abstract:

*The ecosphere which is the biological component of the planet consists of the atmosphere, lithosphere and hydrosphere. Our ecosphere is in danger due to man's anthropocentric tendency. Man's claims to be a superior race and his interference in nature's affairs with scientific and technological advancement are posing a threat to a healthy environment. Industrial evolution, automobiles, nuclear weapons, use of pesticides, deforestation and indifferent attitude to surroundings are contaminating air, water and land. The adulterous air, water and soil are adversely affecting human and non human health. Acid rain, global warming, greenhouse gas effect, ozone layer depletion, drought, famine, flood, land slide, earth quake, soil erosion, ground water dwindling, loss of biodiversity, alteration in nature's season cycle are fatal consequences of environmental destruction. The very elements of the planet; the air, the water and the soil are turning toxic due to human centred activities. Man is the only species fouling his own nest. Man's adamant determination to exhaust all of the earth's resources to satisfy his craving is desperately polluting the environment. Kamala Markandaya, a conscious lover of nature focuses on environmental issues in her sixth novel, *The Coffey Dams* (1969). The present paper explores how an industrial set up fractures the ecological harmony of a serene place. This study is an attempt to highlight environmental issues like urbanisation, deforestation and noise pollution due to a dam project in a hilly tribal area, Malnad in South India. This study reveals the detrimental effects of technology on ecology.*

Key Words: *Environment, Ecosphere, Ecology, Pollution, Technology.*

Introduction

We are living in the culture of technology. Our technological endeavour to tame nature is polluting environment. The effort to prove the superiority of technology over ecology is creating impurity in the environment. Our efforts are to exploit even the last bit of natural resources generating an imbalance in nature. Industrialisation is the product of our cultural upliftment. Howarth writes, "The dogma that culture will always master nature has long directed Western progress inspiring wars, invasions, and other forms of conquest, that have crowded the earth and strained its carrying capacity" (164). Culture and nature are two sides of a coin that affect each other and are affected by each other. Rueckert says, "Culture one of the great achievements wherever we have gone and has often fed like a great predator and parasite upon nature never entered into a reciprocating energy transfer, into a recycling relationship with biosphere" (119). Technology aspires to dominate nature. The intervention of technology in the affairs of nature breaks the symphony of nature because in the ecosphere everything is related to everything through the food chain. Further, a lot of biological processes to provide habitability on the earth take place due to the interaction of different organisms to each other and their abiotic environment. The entire cosmos is interlinked and every species of the earth has equal value. William Rueckert accentuates, "Interconnectedness is a reciprocal interdependence of one life process with another" and "the mutual interconnected development of all earth's life system" (112). During the age of industrialisation, there was a consistent protest against the destruction of nature by Technology. In the post-industrial era, there was a worldwide revolution of return

to nature. Nature is our mother. It nourishes us with its blessing. The attempt to spoil the chastity of nature and consequent ecological maladies drew the attention of the literary writers and they initiated to incorporate the environmental issues in their creations. Thus, the environmental oriented study of literature gave birth to a new genre that is called ecocriticism. Sumathy states, "Teaching literature and studying literature without reference to the natural conditions of the world and basic ecological principles that underlie all life seems increasingly short sighted and incongruous" (2).

The study of environmental oriented developments in politics and philosophy is ecocriticism. The range of ecocritical studies is vast. Multiple approaches are under the range of ecocritical radar. Ecocriticism is an umbrella term. It has no single dominant principles or philosophy. Everything under the huge tent of the biosphere can be ecocritically studied. This term was first employed by William Rueckert in his essay "Literature and Ecology: An Experiment in Ecocriticism" in 1978. Rueckert states "Ecocriticism is the application of ecology and ecological concepts to the study of literature" (107). According to Glen A. Love, "Ecocriticism, unlike all other forms of literary inquiry, encompasses non human as well human contexts and considerations" (3). Michael P. Branch and Scott Slovic define ecocriticism as, "The term now widely used to describe scholarship that is concerned with the environmental implications of literary texts" (xiv). The credit of introducing ecocriticism in American literature goes to Ralph Waldo Emerson, Margaret Fuller and Henry David Thoreau. Emerson's "Nature" (1836), Fuller's *Summer on the Lakes* (1843) and Thoreau's *Walden* (1854) are seminal works that portrayed ecological sensitivity on the canvas of American literature. The British version of ecocriticism is known as green criticism. The romantics like Wordsworth, Shelley, Keats etc. are the harbingers of promoting the natural landscape in British literature.

Markandaya is a vibrant lover of nature. Arising of multiple environmental issues owing to technological invasions has been analysed in her novel, *The Coffey Dams*. She reveals the hazardous ecological consequences due to the construction of a dam in the hilly tribal forest region. The ambiance of the novel is a calm hilly South Indian village, Malnad where a British construction company, Clinton and Mackendric Co. starts to build a dam over the turbulent river of that locality. Following environmental issues have been explored in the novel.

Urbanisation:

Urbanisation is one of the important environmental issues. Agrarian land is being transformed into the forest of cement and concrete. Our countries are being converted into cities with the cineplex, shopping malls, industries, markets and shops. The introduction of industries in villages and in open wide forest area is adulterating the countryside. Industries bring with it man and machines dirt and din. Unmindful urbanisation is degrading the environment and causing many problems regarding health and hygiene also. Communicable diseases, poor sanitation excessive air pollution, worsening water quality, acute energy consumption, waste disposal problem, loss of habitat and noise pollution are the major consequences of increasing urbanisation.

Markandaya very strongly raises the issue of urbanisation and its negative impact on environment in *The Coffey Dams*. In the fictional setting of the novel it is mentioned that Indian government assigns the task of building a dam over the river in Malad, a tribal populated hilly region to a British construction company. Clinton is the chief contractor of this project. To launch this project he brings with him thousands of men and machines. How the building of a dam urbanises the whole village has been communicated in the novel in the very opening. Markandaya states, "It was a man's town. The contractor had built it within hailing distance of the work site, for single men and men who were virtually single by reason away from their women and villages of being more than a day's walk" (1). The theme of the novel is the transformation of a sleepy tribal village into a little town. The construction company brings with it thousands of men and tons of machines. The whole scenario of the village changed beyond recognition. Markandaya comments,

A coffee club and a soft drink stall are established there. A tin shack is constructed there to show the films that Madras Picture Corporation sent up by truck. Markandaya comments, "The plains and the hill country people, who had watched with awe the precipitate birth of a town in the jungle" (2). Soon the population of the village multiplies. Markandaya writes, "It was virtually a small industrial town, gouged and blasted out of the hill side" (2). A road is constructed from the worksite to hill side. Urbanisation swallows the countryside and forest. The villagers see the gradual transformation of the seat of nature into a town.

Deforestation

The significance of forests cannot be underestimated. We depend on forests for our existence. The air we breathe is the production of forests. The food we eat come from forests. Amazon forests are considered as the lungs of the world because twenty percent of oxygen to the world is supplied by amazon forests. Forests provide a habitat for animals. Innumerable animals from chordates to non chordates directly and indirectly depend on the forest. Dense forests motivate biodiversity. The vividness of life forms are essential for the survival of human beings and afforestation promotes biodiversity. Complexity and plurality of life forms take part in a lot of biological processes that are essential for the survival of human and non human beings. For example, bees, butterflies, bats and humming birds play a decisive role in the process of pollination. The multiplicity of life forms that are crucial for human existence is evident from the fact that if bees are disappeared from the ecosphere, man would not live more than four years. Deforestation and colonisation go together. Prevent soil erosion and encourage rain. Besides, provide shelter to animals. The merciless chopping of forest to quench the commercial thrust causes environmental deformity. Trees supply oxygen into the atmosphere through the process of photosynthesis. They absorb carbon dioxide and release oxygen. In a way, trees purify the atmosphere by consuming carbon dioxide and releasing oxygen. The reduction of forests distorts the balance of atmospheric gases and generates ecological imbalance.

Markandaya emphatically emerges the environmental issue of deforestation in *The Coffey Dams*. A huge area of forest is cut down to build workshops, work buildings, car maintenance sheds, the workers' quarters, the engineers' bungalows, the amenity buildings, the water tower, ice and filtration plant, pumping and power stations. To build a colony and for the officers and workers lodging, a huge portion of the jungle is cleared. Mackendrick chooses the site, across the river from Clinton's Lines to build the road, footbridge and bungalows. He constructs houses in a woodland setting. The trees are lopped and trimmed to give a natural look to bungalows. Imperialism brings with it deforestation. Indeed colonisation and deforestation go together. Markandaya highlights that in the fictional area of the south, Malnad, an English firm for its commercial profit ruthlessly cut the forest. The construction site has eaten the jungle sprawl through a huge area. The maintenance shed alone covers an acre of ground. Thus, Clinton's aspiring vision of taming the river by creating a dam across it consumes a vast area of forest.

Noise Pollution

Noise is an important part of our daily life. Moderate noise is harmless, but if it is too loud it can have a detrimental effect on our health. Exposure to excessive noise causes stress, hearing problems, communication difficulties, poor concentration, fatigue from lack of sleep and a loss of psychological well being. Fundamentally, normal hearing depends on the three constitutes of the human ear, the outer ear, middle and inner ear. The inner ear, known as cochlea, is most vulnerable to damage by loud noises. It contains many thousands of tiny hair cells that transmit sound impulses to the auditory nerve. Explosive noise of 150 decibels (dB) or more can destroy these cells and cause permanent damage. The issue of noise pollution occupies an important place in *The Coffey Dams*. The detrimental effect of noise has been discussed in the novel.

A coffer dam is a temporary dam built across a river to divert the course of river water so that a dry area may be created to build the main dam. In Markandaya's *The Coffey Dams* two coffer dams, upstream

and downstream coffer dams were proposed to be built. To construct the coffer dams dynamite blasting is carried. That was a hilly area so to create a channel for water twenty-five tons of dynamite is used that fractures the permanent silence of the hilly area. The perpetual blasting creates clamour and clatter. Markandaya states, "Twenty explosions, close on twenty-five tons of dynamite splitting open the valley in symmetrical calculated pattern" (50). The valley is split by dynamite to create the channel in which the river after altering its course will flow. Helen, wife of Clinton assumes the calmness of the rural area before the advent of the dam project. Helen says to Bashiam, "It must have been quiet, before we came before the blasting began" (43).

Employment of big machines, hammers, grinders, chain saw and dynamite explosions in a workplace may lead to a disease called 'Vibration White Finger' in which the fingers become white, cold, and insensitive in certain situations. In *The Coffe Dams*, the ceaseless clamour of men, machines and blasting disrupt the peaceful atmosphere of the hill country. Markandaya writes, "The silence was now permanently fractured. At dawn, at noon, by night, machines thundered and pounded; land and air vibrated spasmodically to the dull crump of explosions" (105). The shock waves after the explosion tremor the barracks, the bungalows, the leisure blocks and tribal settlement. The whole area shivers with the noise of the working machine and explosion. The dust, the noise and the fretfulness spread all over. The river located the upriver feels the onslaught most. The base of the hill on which the displaced tribals are settled is peculiarly affected. Helen suggests the headman to shift somewhere else to protect the huts from the wind and the tremor but the headman refuses to shift because his people are depending on water, they are tied to the river. Helen thinks about the displaced villagers, "They had been pushed as far as they could go" (107). When the moving waves from the blasting shack the bed of the valley, the dust flows through their rickety huts and settles gritty in every nook and cranny. Helen is very sympathetic towards the pangs and problems of the forest dwellers. She discusses with Clinton the impact of the shocking waves on the huts of the tribesmen. She explains to Clinton how they are suffering due to intolerable noise created out of blasting and the clatter of the machines. Illustrating the miserable condition of the huts amid powerful ceaseless noise, Helen says to Clinton, "They're rattled around like peas in a tin" (107). Thus, the peak level of sound creates instantaneous damage to village people.

Other Environmental Effects of Dam

Dams, the manifestation of technological endeavour are hazardous for ecology. The developed countries are dismantling the big dams as they are ecologically harmful. Arundhati Roy observes aptly and exposes the reality of big dams and comments, "The fact that they do harm than good is no longer just conjecture. Big dams are obsolete. They are uncool. They are undemocratic. They are indefensible ecologically. They cause floods, water logging, salinity, they spread disease" (6).

In *The Coffe Dams*, the construction of a dam in the serene tribal area interrupt the rhythm of the tribesmen and creates the danger of land slide, earthquake, water logging. It snatches the source of livelihood from the villagers as they are restricted to catch fish from the river. Lefevre, who runs the soil mechanics laboratory in Clinton's project is very well aware about the detrimental effects of big dams. He says to Gopal about dams, "They have created their own dangers" (Markandaya 231). The followings are the adverse effects of big dams.

- Dams change the hydrology of the river and distort the seasonal cycle.
- Dams alter the quality and temperature of water consequently adversely affect aquatic species of plants and animals
- Many species of migratory fish are vulnerable to dams, which block access to their feeding sites.
- Reduction in water quantity degrades the water quality and causes salinity.
- Increasing salinity makes the water unfit for consumption because there is no longer enough water travelling downstream to flush the ecosystem. This may cause toxicity.

- The transport of sediment along the river is prohibited. This may disturb the morphology of the river bed, downstream floodplains and even coastal deltas thereby causing a harmful influence on the ecosystem in these areas

Thus, Markandaya accentuates the villainous role of technology in the world of ecology. Technology has its negative impacts which disharmonise the symphony of the ecological cycle and gives birth to ecological maladies.

Conclusion

Human life is in danger due to environmental devastation. Markandaya is against industrial development because it is leading us to the path of destruction by generation ecological crisis. Murali stated, “In the present post industrialism age)[although a larger percentage of world's populace are non beneficiaries of the industrial produce] ecological concerns have been surfacing at a drastic pace in every sphere of living” (155). There is a dire need to understand nature as intrinsically valuable, independent of the human element. Eco-critical studies are marginalising human and denying the renaissance image of man as the centre of all and everything. The effects of human-centred activity on the ecosphere are beginning to impact human welfare and the environment negatively. The path of flourishing technology is carrying us to the path of destruction. Most of the technological advancements have far-reaching negative environmental effects. Abbey comments, “We are caught in the iron treads of a technological juggernaut (64). Markandaya underscores multiple environmental issues like deforestation, urbanisation sound pollution, etc. owing to the technological upliftment in *The Coffey Dams*. She refuses and refutes the mechanisation at the cost of human health and welfare. She conveys the message that ecological harmony cannot be maintained by riding the chariot of technology recklessly but can be maintained by having a sense of gratitude and respect towards nature.

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