Chapter-V

Deep Ecology in Bhatt's Oceanside Blues and Akoopar

"Whole earth constitutes a single family"

('Vasudhaiva Kutumbakam')

(Maha Upanishad 42)

Because

"Everything is connected to everything else"

(Barry Commoner. qtd. in Peter Madsen).

And therefore,

"A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise."

(Aldo Leopold. A Sand Country Almanac 1949, 242.

qtd. in Daniel Simberloff 2)

Deep ecology is one of the most important strands of ecocriticism which has ushered into the ecocritical scene in 1980s. The famous Norwegian philosopher and an ardent mountaineer Arne Naess (1912-2009) coined the term 'deep ecology' in 1973 to refer to a conservation movement that combines social activism and a unique ecological philosophy ('ecosophy').

Chief Settle's ecologically wise words with which the first chapter of this thesis has begun would be heard more clearly and profoundly in the manifesto of the deep ecology platform in light of which Bhatt's texts are to be analyzed here.

As mentioned in chapter III, the story of *Oceanside Blues* is rooted in the coastline of the Arabian sea of Gujarat which constitutes longest seacoast (1650 km long) among the other mainland coastlines of India. Its large patches of wetlands, coral reefs, and sea grass houses countless arthropods and sea creatures such as the endangered blue whale sharks, dolphins, sea turtles, dugongs, flamingo, crabs, shrimps, sea snakes, jelly fish, blue bottle, octopus, sea snails. ("Marine National Park, Gulf of Kutch"). On the other hand, the story of *Akoopar* is set in the Gir forest of Gujarat, which is well known for being the only habitat for the endangered Asiatic lions as well as various other floral and faunal species.

The first text anticipates a huge environmental risk in case ecosensitive assessments of the marine biodiversity and coastal cultural diversity are not carried out properly by the authorities who are entitled to declare that coastal region as a chemical-industries-zone. The other text, which thematizes the value of participatory forest management in preserving the endangered species like lions and shark whales, has the potential to offer pragmatic clues and philosophic insights to improve upon the glocal biodiversity protection programs and policies.

In this chapter, I will examine how Bhatt's select texts correspond with the tenets of deep ecology which acknowledge the inherent right of the non-human entities to exist and flourish on the planet earth, irrespective of their so-called worth determined by the utilitarian motives of the human world.

The platform of deep ecology, which will be discussed in a separate section here, strives to "preserve the integrity, stability and beauty of the biotic community" by insisting upon including environmental rights of the non-human world within the purview of the glocal environmental discourse.

Like the previous chapters, this chapter has also been branched into five parts. The first three parts here cover: the basic concepts of deep ecology, their global significance, deep ecological writings of Arne Naess and some other deep ecologists, the tenets of the deep-ecological manifesto, the critique of deep ecology, and counter claims of deep ecology supported by some other schools of thought like Gia and Indian religions. The fourth part of this paper focuses on the significance of deep ecological thought in contexts of India and Gujarat, and the fifth part of this chapter has been devoted exclusively to the thematic study and character analysis of the select texts in light of the deep ecological insights shared by Naess and other formal/informal practitioners of this movement.

5.1 Deep Ecology: Basic Concepts, General Characteristics and Global Significance

As discussed in the previous chapters, according to ecofeminism and ecosocialism, removal of gender discrimination and economic disparities could be the best possible solutions for the mankind to recover the dangerously degenerated ecobalance of the planet earth. As supporters of both these movements have claimed, socio-economic imbalances engendered by the human societies undoubtedly play a major role in aggravating environmental imbalances.

However, according to deep ecologists, ecofeminist and ecosocialist perspectives of Nature are partial since their goals, strategies and solutions are fundamentally human-centric. Deep ecologists are steadfast in their conviction that because the non-human entities, just like human animals, constitute the biosphere and possess equal natural rights to utilize the collective natural resources to protect their existence, humans have no special privilege to contaminate the natural habitats of their co-earthlings. So, what distinguishes deep ecology from other ecocritical

strands is its moral insistence on re-examining environmental problematic from the non-human perspectives. Since the deliberate exclusion of the environmental rights of non-human world engenders ideological imbalance in the environmental debate, they promote all-inclusive ideologies in critical discourses. By rejecting specisism, the egalitarian principles of deep ecology inspire its supporters to undermine anthropocentrism which could be found prevalent in the socio-cultural, political, law and order, and economic systems.

Deep ecologists deprecate the historical distortions of the Biblical stewardship syndrome, Aristotelian human-centric human/non-human dualism and the Descartian stance towards 'automata.' Western Enlightenment philosophies, Modernist narratives of human progress, and the techno-scientific fruition of the same have of course played a commendable role in making the human life more comfortable and worth-living in many respects for particular socio-economic classes. Nonetheless, according to the deep ecologists, human progress needs to be scrutinized from the non-human viewpoint. It should be examined in terms of its impact on the biodiversity, since they have broadened the Nature/Culture splits by endorsing unabashed and commercial exploitation of the non-human world.

In addition to propagating curtailment of human interference into the natural habitats, deep ecologists also appeal the humanity to ethically re-examine the physical pain and psychological depression the non-human world undergo during numerous human-centered activities pertaining to the medical experimentations being carried out on the non-human entities, their enslavement in the zoo and the animal-fights being arranged for human entertainment.

That is why deep ecologists appreciate those religions lessons which underline the importance of compassion, non-violence, and simplicity in human

lives, so that humans can adopt ecoresilient ways of life. Mankind has gained so far adequate knowledge about the connections among sustainable modes of life, preservation of biodiversity, and environmental conservation. Yet, what disturbs deep ecologists are some voices emanating from scientific domains, whose associations with industrial capitalism continue to aggravate consumerism and commodification of nature in a variety of ways.

For example, according to the Australian ecologist Brian Walker's 'Species Redundancy' theory, "only a few key species are necessary for a healthy ecosystem." Since most species, according to him, being like the passengers of a flying airbus (i.e. ecosystem), have no functional value in stabilizing the ecosystem. Contrary to this concept, Paul R. Ehrlich and his wife Anne H. Ehrlich offers a 'Rivet-popper' hypothesis for the same imagery. They view each species in the ecosystem "as a rivet on the aero plane" and "the progressive loss of species mirrors the progressive loss of rivets from the plane, weakening it till it is no longer sustainable and crashes ("Gaia hypothesis"3). Deep ecologists support the 'Rivet-popper' hypothesis since they believe that each member of the the aquatic or terrestrial biotic community is important for the self-regulating functioning of the complex ecosystems.

Deep ecology has radicalized ecocritical movement due to its ethical avowal to incorporate the existential rights of the non-human-world. The framework of deep ecology proposes to integrate philosophies of all the three statements cited at the start of this chapter. Philosophically, it reflects the Upanishadic faith in the spiritual oneness among all life forms; scientifically, it agrees with the eminent ecologist Barry Commoner's conviction in the interconnectedness among all life forms; and

morally, it substantiates Leopold's famous land ethic, which propounds that humans must practically prioritize the ecological well-being of the entire planet earth.

Anthropogenic Pressures on Biodiversity

Majority of the ecologists and weather experts across the world today have reiterated the fact that in this close-knit and self-functioning ecosphere, what has to be kept in mind is that ecological harm meted out by humans to any floral or faunal species, or to any of their aquatic or terrestrial habitats, will ultimately harm the whole ecosphere. 'Preservation of biodiversity' has therefore been given utmost importance by the UN especially since more than three decades.

Biodiversity, as the compound word itself suggests, is the biological diversity "within species, between species and of ecosystems" (UN WCMC). We know that the non-living abiotic factors (like air, water, minerals, soil, gases, humidity etc.) and the living biotic community (such as plants, animals, birds, creatures, fungi etc.) together constitute the complex of aquatic and terrestrial ecosystems.

Oceans, the blue blood of the earth, cover more than 70 percent of the planet earth, which act as natural carbon sink, monitor the water levels of the land, control average temperatures of the earth, and produce more than 50% of the oxygen of the global requirement; and the forests, being the green lungs of the earth, besides sheltering innumerable life forms in various ways, also produce significant amount of the oxygen we inhale and absorb the carbon we exhale. Each member of this biotic community participates in one or the other way in regulating food chains, soil formation, land fertility, and water salinity. They monitor levels of nutrients and proteins in Natural resources, manage Nitrogen cycles, regularize pollination processes, as well as the precipitation cycles.

Although too widely known are these basic facts of ecology, one of the cardinal factors which have been dramatically damaging the biodiversity is the marked apathy of the techno-scientifically and economically advancing humans for the non-human world.

Human demographics on the global plane has jumped from 1262 million in 1850 to 7600 million in 2018; and in 2019, at least "one million" floral and faunal species have already been declared "threatened with extinction." - which is "more than ever before in human history" ("UN Report: Nature's Dangerous Decline 'Unprecedented").

As discussed in the previous chapter, the anthropogenic nexus among the rise in human population, spread of consumerism, expansion of industrialism, urbanisation, deforestation, contamination of air-soil-water resources, rise in global warming, and acidification of seas are human-sponsored factors which have contaminated natural habitats and intensified exploitation of the depleting Natural resources in uncountable ways- which have undoubtedly left a fatal blow on the floral and faunal organisms.

Deep ecology does not ignore the ecological reality that healthy aquatic and terrestrial habitats and a richer biodiversity secure more scopes for survival and growth of diverse species. Since deep ecologists brutally expose the limitations of specisism and challenge the tendencies that undervalue the powers of intuition and emotions against reason and rationality in resolving environmental issues, they have been severely criticized for their so-called anti-humanist and anti-scientific stance. Nevertheless, as discussed so far, when the human world needs today to constrict anthropocentrism, show respect for the environmental ethics and preserve biodiversity, the appeal of the deep-ecologists to treat the ecological interests of the

other-than-human entities at par holds utmost significance in the environmental discourse.

5.2 Digging Dipper: Arne Naess's Contribution to Deep Ecological Thought.

Published in 1973, in a seminal essay entitled "The Shallow and the Deep, Long Range Ecology Movements- A Summary," Naess clarifies what is 'deep' in his deep ecology movement. This essay explains as to why Naess would prefer 'deep' approach rather than 'shallow' approach to the environment problematic. He considers those movements 'shallow'- whose activists deal only with the superficial aspects of the problem. Although shallow activists, he argues, may fight against pollution and raise alarm about depleting natural resources, their core aim is to protect "health and affluence of people in the developed countries." Against this practice, he suggests, the 'deep' movement rejects "man-in-environment image in favor the relational, total-field image"- in which man is but a constituent element of ecology. According to Naess, the 'deep ecology movement' thus follows a "biospherical egalitarianism-in principle." This movement supports "the principles of diversity and of symbiosis" - since diversity among the non-human species as well as the socio-cultural-occupational varieties among the humans, says Naess, "enhances the potentialities of survival, the chances of new modes of life, the richness of forms." He proposes that to protect such diversity, 'the field workers'. of deep ecology movement will fight against the issues pertaining to military and economic invasions, spread of pollution and resource depletion- irrespective of the class distinctions. He adds that deep ecology prefers "complexity, not complication"; and therefore, on social levels, its green politics encourages decentralization of power to strengthen the local autonomy and to support sustainable development ("The Shallow and the Deep, Long Range Ecology Movements - A Summary").

While appreciating Naess's pioneering role in introducing deep-ecology in 1970s, in an essay, Alan Drengson, the Canadian scholar of deep ecology and an associate editor of a ten-volume collection of Naess's works, duly acknowledges the contribution of earlier activists and authors like -Rachel Carson, Henry David Thoreau, John Muir, Aldo Leopold, and Gifford Pinchot -towards guiding the critical focus on the 'deeper' layers of environmental problematic.

Drengson explains as to why the short-term, shallow approach cannot be expected to bring fundamental change. Shallow approach, according to him, may promote technological solutions such as "recycling, increased automotive efficiency, export-driven monocultural organic agriculture" but they are ultimately "based on the same consumption-oriented values and methods of the industrial economy" ("Some Thought on the Deep Ecology Movement").

Naess, on the other hand, has propounded in "The Shallow and the Deep", the long-range deep ecology- which proposes to rebuild all scientific and socio-economic systems on the basis of the "values and methods that truly preserve the ecological and cultural diversity of natural systems."

'Ecosophy- T' 'Ecosopher' 'Self-Realization'

In addition to substantiate his preference for 'deep' rather than 'shallow' exploration of the ecological issues, Naess's above mentioned essay also explains how his idea of 'ecosophy' differs from the general notion of philosophy. Naess has coined the neologism 'ecosophy' to suggest 'household (eco) wisdom (sophy)- of every individual- whose lived experience with Nature, like most of the characters of Bhatt's fiction, can spontaneously guide him/her to decide his/her approach to the physical environment.

In the essay, he states that philosophy as well as political philosophy provide "general forum of debate on fundamentals" being "descriptive", "prescriptive" and "normative." But, "By an ecosophy I mean a philosophy of ecological harmony or equilibrium," and the "...details of an ecosophy will show many variations due to significant differences concerning not only [scientific] "facts" of pollution, resources, population, etc., but also value priorities."

In an interview published in a book edited by Peter Reed and David Rothenberg, Naess explains how ecosophy sees existence of "man/nature to be an integrated whole," adding that there "should be wisdom, but it must be related to action" (101,102). So, Naess's ecosophy overcomes epistemological boundaries to put ecological ideas into real life experience and practice.

When asked about his idea of an 'ecosopher', Naess remarks that the way philosopher and philosophy are distinguished, he would also prefer to distinguish between an 'ecosophy' and an 'ecosopher' by referring to an example in this way:

For instance, here in rural Norway you might find some very wise people, and if you talk to them you see that they have been considering all aspects of life and have a clear total view, but the verbal articulations are scarce and often more poetic than systematic. Some of these people I would certainly call philosophers, and if they have an ecosophic view in mind they will be ecosophers, without having an articulated ecosophy. There are many ecosophers, but few have made an ecosophy. ("The Norwegian Roots of Deep Ecology: Wisdom in the Open Air" 100)

As Naess points out, since everyone has an innate capacity to develop his/her own ecosophy, different ecosophies can be termed as ecosophy-X, Y or Z. Naess names his own ecosophy as 'ecosophy-T.' According to Jim Cocola, the capital 'T' stands here for an arctic mountain hut called 'Tvergastein', the highest dwellings in all of Scandinavia- which "Næss commissioned while he was in his twenties, and where he has dwelt seasonally for almost seventy years ("Ecosophy from T to X").

Naess's seventy year long and passionate association with mountains, his interaction with a variety of geo-cultural landscapes across the globe during his numerous climbing expeditions, his training in philosophy, and his exposure to the works of Rachel Carson, Mahatma Gandhi, Baruch Spinoza, and Buddhism- have considerably enriched his ecological wisdom.

Among Naess's other literary output, important works commenting upon the subjects of philosophy, democracy and non-violence are: *Interpretation and Preciseness* (1953), *Democracy in a World of Tensions* (1951), *Gandhi and Group Conflict* (1974). Besides learning from Nature due to his close proximity with her, as the titles of these books suggest, Naess's exposure to philosophy, political science and economic systems have shaped his ideas about ecological welfare of the entire existence.

Naess opines that environmental values become effectively ingrained in human consciousness if individuals go through the psychic phenomenon what Naess terms as 'Self-realization'- which augments 'ecosophies' of individuals and activates them to adopt simple modes of living, so that they can contribute towards environmental conservation. The use of capital 'S' instead of the small letter shows how small 'self'- i.e. ego of an individual - can be expanded to turn it into capital 'S'- i.e. collective self- after vicariously realizing cultural and ecological situations

of all other entities. Bhatt's protagonist of both the select works go through the process of being egocentric to ecocentric through the kind of Self-realization suggested by Naess. If one ponders over the idea of spiritual enlightenment as discussed in Indian contexts, it could be anticipated that what Naess's Self-realization is analogous to environmental enlightenment.

Ecological Self-Realization

Through his concept of 'Self-realization', Naess intends to diffuse the 'othering' process to help one remove the narcistic boundaries and the dualisms that lie between one's self and the 'others' belonging to the Natural world. As the themes of Bhatt's stories will also imply, self-realization happens when ego of an individual melts in the colossal milieu of Nature or some larger noble cause.

Contribution of figures like Wordsworth or Emerson or Gandhi in their respective domains have exhibited how they must have gone through the melting of their egos to merge into the larger cosmic spirit. In this regard, while sharing his own ecosophy-T-experience, Naess thus explains how 'ecosophies' develop and how they can be applied to different aspects of human lives:

It is often said that the discovery that the Earth is not the center of the universe has made man smaller, diminishing his status. I have always felt that I grew bigger and bigger with the extensions in time, space, and cultural diversity. The universe is my universe, not my ego's but that of the great Self we have in common. This is metaphysics, but through philosophical research it can be developed in the direction of clarity and cognitive responsibility. From the fundamental norm "Self-realization!" plus hypotheses about the world, I derive a set of

principles for "green politics." In this way abstract problems of philosophy are connected with concrete issues of contemporary political conflict. ("The Norwegian Roots of Deep Ecology" 69)

Is Ecosophy Unscientific?

It may be pointed out that since the ethical concepts of intrinsic value and the (subjectively experienced) intuitive power of individuals regulate the phenomena of Self-realization and ecosophy, deep ecology comes under heavy criticism for being unscientific in its environmental approach.

In this context, on being asked by the interviewer with regard to the status of intrinsic value in the eyes of the scientifically trained ecologists working for environmental preservation campaigns, Naess responded that although we usually come across expressions like " 'this should be preserved for its own sake,"' when it needs to be applied to natural phenomenon, "pseudoscientific philosophers and scientists find them objectionable," forgetting that the "world as spontaneously experienced, including appropriateness and truth, cannot be denounced as less real than that of scientific theory" simply because latest scientific observations in physics do "substantiate the primacy of immediate experience" ("The Norwegian Roots of Deep Ecology" 71).

In 1901, the Indian biophysicist Jagdish Chandra Bose's Cresco graph had demonstrated in the hall of the Royal Society of London for the first time that trees and plants have life and they react to external stimuli. In this context, it would be easier for the modern mind set to understand the emotional bond between sparrows and the grandma depicted in Khushwant Sing's short story *The Portrait of a Lady*. Interactions with pets or even with the street dogs tally with the insights of the

Animal studies- which, like the deep ecologists, approve of the fact that non-human entities are also remarkably capable of responding to our approach towards them.

It should not be forgotten that numerous animals excel the humans in matters of physical strength, memory power and their capacity to adjust with the environmental changes. Humans minds have sufficient reasons to be astonished by the well-ordered life patterns of ants and bees, the intricate architectural skills of the weaver birds and the hundreds of mimics sung by mockingbirds. As shown in Bhatt's *Oceanside Blues*, many fish and migratory birds take up extremely difficult and long journeys every year and intuitively reach at particular habitats located thousands of miles away from their native biomes. They safely reach back to their native homes during specific seasons- of course- without formal timetables, route guides or digital navigation devices the human use. Referring to the existential rights of this beautiful non-human world on their habitats and on the natural resources, deep ecologists urge the humans not to contaminate and deplete the same.

5.3 The Platform of Deep Ecology

Naess and George Sessions came up in 1984 with the following tenets which constitute the platform of deep ecology. This manifesto has inspired institutions like "Earth First!" which promotes non-violent ways of raising deep ecological consciousness in the socio-political systems across many countries.

- 1. The well-being and flourishing of human and nonhuman life on Earth have value in themselves (synonyms: inherent worth, intrinsic value, inherent value). These values are independent of the usefulness of the nonhuman world for human purposes.
- 2. Richness and diversity of life forms contribute to the

realization of these values and are also values in themselves.

- 3. Humans have no right to reduce this richness and diversity except to satisfy vital needs.
- 4. Present human interference with the nonhuman world is excessive, and the situation is rapidly worsening.
- 5. The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of nonhuman life requires such a decrease.
- 6. Policies must therefore be changed. The changes in policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present.
- 7. The ideological change is mainly that of appreciating life quality (dwelling in situations of inherent worth) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.
- 8. Those who subscribe to the foregoing points have an obligation directly or indirectly to participate in the attempt to implement the necessary changes. ('Foundation for Deep Ecology' (FDE).

Evidently, these tenets are avowedly non-anthropocentric and anti-speciesist.

Tenet 1 of the platform raises the question of ethics. It appeals to protect Nature for the sake of Nature herself. It recognizes the intrinsic worth of the non-human existence by rejecting instrumentalization of Nature. It challenges the Humanist

Nature/Culture dualism which had assigned superior position to the human-animals over the non-human animals.

While scanning the characters of *Oceanside Blues*, we will find how Mr. Nirmal, a scientist, turns himself into a Descartian 'automata.' While experimenting on the 'critically endangered' species of eagles, paradoxically this man starves eagles to see how long they can fight hunger. The forest guard Noor-bhaai is an antithesis to Mr. Nirmal. Being an ardent lover of wilderness and birds, while witnessing a drastic human impact on peacocks, he rightly points out to the protagonist in an anguished tone that "The brutality of man on this universe's no less than fiendish. If he had his way, he'd suck dry his mother's breasts" (107). Tenet 4 shares Noorbhaai's anxiety, as it says that "situation is rapidly worsening" due to the excessive "present human interference with the nonhuman world."

Considering the links between the rising human populations and declining biodiversity mentioned before, the proposal given in the tenet 5 finds justification—which boldly promotes the idea of controlling human population to recover ecobalance. Due to this suggestion, deep ecologists have been portrayed as 'misanthropes' by several critics.

Rejecting the label of 'anti-humanist' given to the deep ecologists, Alan Drengson contends that the platform of deep ecology which recognizes "the inherent worth of all beings, including humans" clearly "deplore anti-human statements and actions." He argues that when "Gandhiyan nonviolence is a tenet of deep ecology activism in word and deed, how can it be called anti-human?" He rightly points out that tenet 3 does not ignore the necessity to use natural resources to fulfil the "vital needs" of the mankind.

Tenet 3 and 7 jointly offer remedy to grapple with the issue of depleting natural resources. To mitigate the socio-ecological horrors attached with the same, deep ecologists recommend putting a check on unbridled exploitation of nature.

Deep Ecology: Mirroring Gandhiyan/Christian/Gian/Hindu Concepts of Nature

Tenet 7 of the platform persuades us to understand the difference between 'big' and 'great.' It again reminds us Gandhi's famous dictum that the earth possesses enough to meet everyone's need but not everyone's greed. Since simple modes of life supports sustainable growth and helps us decrease burden on the carrying capacity of the earth and her resources, Gandhi became known for putting his ecofriendly idea into practice. Like Bhatt's characters, he always preferred frugal and non-luxurious lifestyles to avoid unnecessary consumption of the natural resources.

In this context, Umashankar Joshi in *Gandhi Katha* relates an interesting episode. At the Sabarmati Ashram, on seeing Gandhi taking only a very small bucket of water from the Sabarmati river to finish his daily cores, when an ashram-mate asked Gandhi as to why he should be using water so miserly when there is abundant water available in the river. To this, Gandhi replied that only a bucket of water is sufficient for him, adding that:

The river water is for all; for the birds, animals, insects, and men and not only for me. I can use only that quantity, which is required by me. But I have no right to use more than what is really my need. From a collective property, could we take more than what is needed?" (12).

Tenet 3 of the platform also says that "Humans have no right to reduce this richness and diversity except to satisfy vital needs."

The issue of determining 'vital needs' is becoming problematic across the world. Besides satisfying their need for food and medicines, humans do not just kill birds, animals and insects, but they are also exported and butchered to make exotic ornaments and other luxury items out of them. A WWF article points out that one of the biggest threats on biodiversity is from humans, who are involved in illegal trafficking of the animal body parts which runs into billions of dollars ("Illegal Wildlife Trade").

Innocent, non-ferocious animals are also killed just for fun and thrill by economically and politically powerful figures. In India, the Jodhpur blackbuck killing case of 1998 exemplifies this fact. Tenet 1, 3 and 5 reflects the all-comprehensive ecological vision of the Jesus as well as that of the Indian spiritual heritage. They remind us the messages contained in the poems like Coleridge's *Ancient Mariner* and Umashankar Joshi's Gujarati poem *Vishwa Shanti* (i.e., 'Universal Peace') aptly underline the same.

In *Ancient Mariner*, the sailor (humanity in general) commits the sinister act of killing a bird called Albatross (non-human Nature), who used to bring good omen (ecobalance) to the sailor's ship (human world) sailing in the ocean (nature). Soon after the mariner commits an ecosuicidal act of killing the innocent bird, a horrific natural disaster strikes the ship. When all the other crew members drop dead in the sea storm one by one, the culprit finds himself, "Alone, alone, all, all alone, Alone on the wide wide sea." Moaning to be in a pathetic situation, he then famously repents that the "Christ would take no pity on My soul in agony" (Part-IV).

Then, the culprit is saved only when his stony heart melts by the warmth of the love he feels for the water snakes. In the concluding section of part-VII of *Ancient Mariner*, the sailor shares his ecological wisdom to the wedding guest, saying that: "He prayeth well, who loveth well Both man and bird and beast." By advising the guest to love "man and bird and beast", the Sailor, like Jesus, shares the secret that the nature/culture splits can be bridged

only through the threads of selfless love that humans need to develop for their fellow men as well as for their fellow non-human earthlings.

Tenet 3 and 4, like the Hindu spiritual texts, do not see an individual, society and nature in isolation. Majority among the Hindu religious creeds, as shown in Bhatt's texts, acknowledge the omnipresence of 'param-atma'- i.e. all-embracing ('param') soul ('atma'). The Upanishads, the Vedas and the Geeta suggest that all living beings have qualitatively equal 'atman'; and they are believed to be connected by a common spiritual thread. In fact, the acronym 'BHAGAVAN' (God) signifies a deep respect for the sacredness of the basic five elements of Nature from which the cosmic existence has come into being: Land ('Bhumi'), Sky ('Gagan'), Air ('Vayu'), Fire ('Agni') and Water ('Nir').

In spiritual contexts, to a great extent, the Hegelian concept of Geist is comparable with the Indian philosophical positions. According to Hegel, every object in the universe is a constituent part of the Geist-i.e., the ultimate reality. As discussed in the second chapter, in Emerson's Transcendentalist philosophy, the same is termed as 'oversoul.'

Aldo Leopold (1887-1948), the American ecologist and philosopher, also sees the entire earth with its elements such as soil, rocks, water and atmosphere as an organic being. In this context, Stephan Harding, in his book *Animate Earth: Science, Intuition and Gaia*, has quoted Leopold stating that it is not difficult to imagine the constituent parts of the earth as organs of a single whole, wherein each part has its specific function (44).

Extension of the same philosophy can be found in Gaia hypothesis too. Introduced in 1970s by the British scientist James Lovelock (b.1919) and the evolutionary biologist Lynn Margulis, the Gaia hypothesis postulates that the planet

earth and the biosphere constitute a self-regulating organic whole to maintain homeostasis- i.e. ecological harmony- among the living and the non-living elements in order to provide them with conducive climatic conditions.

In the Greek mythology 'Gaia' refers to the primal Greek deity that personifies the Mother Earth or the Mother Nature. Due to its mythical nomenclature, according to a Harvard course entitled "Gaia hypothesis," when the said hypothesis was introduced, many scientists ridiculed this theory as being a sort of neo-pagan-religion. Its claim of the earth being a 'living' thing with its teleological attributes have also been severely criticized by scientists such as Ford Doolittle, Richard Dawkins and Stephen Jay Gould. However, Lovelock himself has clarified that they have never claimed that the "planetary self-regulation" was "purposeful" (5). In fact, the alternative name for the Goddess 'Gaia' is 'Gea'which has also been used to coin some other scientific terms like geophysics, geochemistry and geology (8). Lovelock was appreciated later on for his scientific observations about the astonishing capacity of the earth that has still been maintaining its surface temperature, salinity of the sea waters and the levels of atmospheric oxygen in spite of the numerous disturbances it has been going through. Lovelock points to the fact that "some self-regulating phenomenon may not be explainable mathematically" and "agreeing on a rational answer is not possible because science has not yet formulated a full definition of life" (6).

5.4 Deep Ecological Critique: Its Relevance for India/Gujarat

The tensions between the national goals of economic progress and the international environmental targets are rising in all corners of the world. In the post-industrial world, and especially in the post-global scenario, all nations, whether they are

developed or developing ones, are facing the most complicated issue of striking a balance between those two phenomena.

But, as discussed in the second chapter, most of the time, on the inter/national platforms, economic priorities overpower ecologic ones. On local levels also, green crusaders continue their fight to avert the blows the natural ecologies continue to absorb on account of the excessive amount of deforestation, illegal poaching, mining, tourist pressures on the natural milieus, unlawful construction of hospitality units taking place illegally around national sanctuaries.

India (being the fastest growing economy) and Gujarat (being the model state of India) will have to remain alert about the aforesaid issues as they, like the other developing economic models, also facilitate fast economic growth through industrial expansions. Since the stories of *Akoopar* and *Oceanside Blues* take place in the Gir forest and on the coastal regions of Gujarat, it would be interesting to see how effectively these texts problematize man-animal conflicts, or the conflicts that take place between the state and the indigenous people on account of their necessities to use the collective forest and water resources.

It may be noted that the state authorities of India have of course been empowered to protect biodiversity through the environmental Protection Acts such as the Wildlife Act of 1972, the Water (Prevention and Control of Pollution) Act of 1974, and the Biological Diversity Act of 2002. But, as some of the following examples will show, it must be admitted that implementation of any law and its success depends entirely on the awareness of every citizens, the ethical commitment of the bureaucracy, and the political tenacity to address all anomalies that might surface during their march towards the collective green targets.

In this context, India cannot afford to overlook critical areas such as the green crimes. Kukreti Ishan reports that the number of environmental crimes registered in India has shown a dramatic incline "from 4,732 in 2016 to 42,143 in 2017, [which shows] an increase of 790 per cent" in the crime rate ("Environmental offences in India soared 790% in 2017"). It may also be mentioned that in the international "Environmental Performance Index" of 2018, India ranks 177 out of 180 nations of the world (Yale centre for Environmental Law). 2019 has of course shown some improvement in the performance of India in increasing its green covers, but majority of the environmental platform of India are not happy with the industry-intensive policies enumerated in the new EIA (Environmental Impact Assessment) draft proposed in March 2020.

Indian green cover needs to be expanded to touch the global target of 33% before 2030 as per the pledge given by India in the Paris Agreement. In 2019, the green cover of India has reached around 21.56 %. So far as Gujarat is concerned, out of its total geographical area, according to the report of the Forest Survey of India (2017), "11.16% of the total Forest area of the State falls under Open forests while 2.66% is Dense Forests. The very dense category of forest is 0.19% of the total forest area while 0.76% are Scrub forests in the state" ("Forest Cover").

Akoopar throws light on the symbiotic bonds that exist between the people living in the Gir forest and the lions who roam freely in their kingdom. Lions, whose presence could be traced in past in the farthest corners of the world had become almost extinct in the beginning of the twentieth century due to various reasons- and the human atrocities on them being the cardinal cause among them. In this context, the 'Maldharies' of the Gir and forest authorities must be congratulated for their remarkable role in preserving the Asiatic lions in Gujarat. A separate section has

been devoted in this chapter to have a brief look at the history of lions, their forced migrations and the human factors which have done irreversible harm to their existence in the past.

Besides the Asiatic lions, the open deciduous forest of the Gir is enriched with "650 floral varieties" (Gulab Suhagiya. 3); large stretches of grasslands, 300 bird species, 26 kinds of reptiles, and 32 species of mammals like leopards, langur, hyenas, mongoose, chital, sambar, chinkara, crocodile, blue bull, wild boar, jackal, fox, civets etc. ("Gir National Park and Wildlife Sanctuary"). On the other hand, Gujarat coast also throbs with rich marine life. Analysis of the select text throws light on the importance of guarding this rich ecological heritage against the negative influences of corruption and the predatory gaze of the corporate world upon natural resources.

Legal Cautions to Guard the Indigenous Ecological Resources/ Biodiversity

Professor Sairam Bhat, an expert on environmental law, observes that although industrial pollutants are severely damaging our environment, industrialists manage to paralyse environmental laws in India with the help of political intervention and corruption (*Gujarat Samachar* 16). Examples abound which can testify to Bhat's statement.

An environmental RTI activist and advocate Mr. Amit Jethwa had filed a PIL against illegal mining which was being carried out in the outskirts of the Gir forest in 2010. Jethwa was shot dead point blank in 2010 just outside the Gujarat High Court. Following the murder, the MP Dinu Solanki whose money was involved in the mining, his nephew and other five persons including a policeman were arrested. At first, the MP was given clean chit by the local police. However, after nine years' CBI probe, the MP and all his associates were sentenced to life imprisonment in 2019 ("RTI Activist's Murder: Ex-BJP MP, 6 Others Sentenced to Life").

Hiral Dave writes that sandstone and black stone mines are located within the radius of one to seven kilometres of the Gir sanctuary's boundary. Due to the pressures mounting onto the lion's habitat, around 100 out of 523 (in 2015) have migrated from Gir to the peripheral coastal regions of Gir-Somnath and Amreli districts.... [and] in the western patch of the Gir, at least 30.... mines are thriving inside the eco-sensitive zone where any developmental activity is banned" ("Rampant Illegal Mining in Gir Ups Risk of Man-Lion Conflict").

In spite of what Dave has reported above, due to the kind of man-nature harmonies Bhatt fictionalizes in his works, lion population in Gir has factually gone up from 523 in 2015 to 674 in 2020 ("Roaring Success"). But, at the same time, as Jignesh Thakar points out in a Gujarati article, 184 lions lost their lives between 2016-2018; and what can alarm deep ecologists is the fact that many among the deceased lions were cut on the railway tracks that pass through the jungles. Secondly, a remarkable number of cubs and lionesses among them died during their migrations from Gir to its other adjacent areas like Palitana and Barada hills; and the reason for the lions' migration to the other areas is that their forest habitat is being shrunk due to the registered and unregistered tourist resorts being mushroomed around the forest peripheries ("Vaat Sawaj Parivaarni" i.e. 'Story of the Lion Families').

Besides protecting forests and their biodiversity, as *Oceanside Blues* pleads, India also needs to minimize the dumping of the industrial waste and discharge of chemical pollutants into the water resources that continue to acidify the oceans, "altering aquatic ecosystems.... modifying fish distributions.... sustainability of fisheries and the livelihoods of the communities that depend on them" throughout the world ("Marine Pollution").

It may be noted that the protagonist of *Oceanside Blues* is an engineer, who is supposed to approve a coastal region as a suitable site to develop it as an industrial zone. However, it will be interesting to see how his immersion into the coastal culture makes him aware of the environmental implications of such a decision.

Gujarat coastline, being the longest sea route of the West coast of India, has been considered a 'golden route' for trade/transport more prominently since the British arrived in India. Zingde M D states that as per 1996-CPCB report, out of 308 large and medium Indian industries, 233 were on the West coast; whereas, in 2018, Gujarat Petro/Chemical industry comprises 500 large and medium industries; and today Gujarat is called the 'Petro-Capital of India' as it produces "more than 35%" of the total Indian chemical production ("Gujarat Sector Chemical Report" 7, 8). The same report notifies that the Ministry of Environment, Forest and Climate Change has granted Environment and Coastal Region Zone (CRZ) clearance on 14-9-2017 for an area of 453 sq.km. for the further growth of chemical industries in Gujarat (18).

In this situation, it should be noted that "Although it is difficult to assess the loss of coastal habitats due to the inadequacy of records," Gujarat's marine ecosystems have endured a severe damage through chemicals and pesticides, potential oil spills from a large number of tankers that ply these waters ("Protecting India's Coastline: Gujarat.").

Besides damaging the marine ecology, as Prof Ila Patel's research paper explains, haphazard industrialisation has also seriously harmed the livelihood options of the farmers/fishing communities living on the Kutch sea shores of Gujarat ("Industrialization along Kutch Coastal Area in Gujarat- IRMA Study").

It would therefore be important to see as to how Bhatt's *Oceanside Blues* fictionally envisages the social. Cultural and environmental perils of allowing establishment of still more chemical factories on the Gujarat coastline. It predicts how chemical industrialisation can expediate the extinction of the rich biodiversity throbbing across the mangroves, salt marshes, coral reefs, wetlands, and the sea grasses of the west coast of India.

It will be interesting to study in the following section as to how themes, characters and narrative techniques of the select works correspond with the tenets of deep ecological platform, and how they have been able to underline the fact that ecological well-being of humans cannot be separated from that of the non-human world and their habitats.

5.5 Deep-Ecological Assessment of Oceanside Blues and Akoopar

Non-Anthropocentric Titles of the Select Texts

Instead of humans, titles of both the texts give prime importance to non-human, natural entities. *Oceanside Blues* (2001) is an English translation of Bhatt's Guajarati novel 'Samudrantike' (1993). The English title Oceanside Blues evidently focuses upon the ocean; and if we consider the title of the Gujarati text, 'Samudra' means 'ocean', and in Sanskrit 'antike' means: 'acted in the presence of.' So, protagonist and other characters participate in the story which is to be unfolded in the grand presence of the ocean- from where all territorial life forms have also been evolved. One of the meanings of Akoopar in Sanskrit is also 'ocean'.

Interestingly, the simultaneity of the fictional episodes happening on the coastal belt and in the forest regions described in the given texts enunciate the intricate interlinkages among the marine and terrestrial ecological networks and their cultural ethos. The story of *Akoopar* which takes place in the Gir forest also weaves

into its texture very important episodes relating to marine life and sailors. On the other hand, in the story of *Oceanside Blues*, one comes across the forest guard's unique love for wilderness.

In one of the stories of the *Mahabharata*, as discussed below, 'Akoopar' is a name ascribed to a turtle, and in the Mythical story of 'Samudramanthan,' (i.e. 'Churning of the Ocean') Lord Vishnu takes form of a tortoise to support the Mandar Mountain.

Turtles and tortoises have existed on the earth since the times of the Dinosaurs, and they are well known for their longevity. The 187-year-old tortoise called Jonathan has made a Guinness World Record in 2020 for being the world's oldest animal on land (Adam Millward).

Wilson E.G. and his research team in the Executive Summary of their annual report on turtles notes that:

Sea turtles have played vital roles in maintaining the health of the world's oceans for more than 100 million years. These roles range from maintaining productive coral reef ecosystems to transporting essential nutrients from the oceans to beaches and coastal dunes. Major changes have occurred in the oceans because sea turtles have been virtually eliminated from many areas of the globe. Commercial fishing, loss of nesting habitat and climate change are among the human-caused threats pushing sea turtles towards extinction. As sea turtle populations decline, so does their ability to fulfil vital functions in ocean ecosystems. (Why Healthy Oceans Need Sea Turtles 3)

The title *Akoopar* highlights the analogies between the time-honoured, immortal image of the turtle and the imperishable nature of the Gir Forest, which has been able to revive itself out of an utter destruction it has faced in the past due to a worst cyclone.

According to a Gujarati article 'Akoopar ni Katha' by Rajesh Pandya (which I have narrated below), the story ('katha') of a turtle named 'Akoopar' can be found in the 'adhyay-199' (Chapter-199) of the 'Van-Parva' (i.e. Book of the Forest) of the *Mahabharata* published by the Gorakhpur press. Yudhishthira listens to this story from rishi Markandeya during the Pandava's exile into the forest called 'dwait-van'.

'Akoopar' in Mythology

In the famous Hindu myth of 'Samudra manthana' (i.e. Churning of the Ocean), 'devas' and 'danavas' were supposed to use the mountain called 'Mandar' as a rod, and the giant snake called 'Vasuki' (whose great hood shelters Lord Vishnu's head) as a rope to churn the ocean to bring out the nectar of immortality. It is believed that the earth is rested on the hood of the 'Vasuki'. But before the churning starts, the mountain begins to sink into the ocean. At this critical movement, Vishnu takes form of 'Kurma' (i.e., turtle) and provides a firm support to the mountain on his shell ("Samudra Manthan"). So, on the back of the turtle resides the 'Vasuki;' and on the head of the 'Vasuki' rests the planet earth.

In the Gujarati version of *Akoopar*, the author refers to the cyclone of 1982 in which entire Gir forest, along with its green cover, was utterly destroyed. Yet, out of this chaos, like the never-dying phoenix or the 'Kurma'/ Akoopar, Gir has begun to throb again with renewed vitality.

It may be mentioned at the outset of the following story that in the Hindu traditions, the pious deeds performed on the earth by any person is called 'punya.'

After one's physical death, the time span and the pleasures one's spirit is entitled to enjoy in the heaven is determined by the amount and quality of the 'punya' he has been able to earn during his earthly life. Besides the turtle, the complex treads of the engrossing story of 'Akoopar' are woven around other interesting characters. One of them is the king named 'Indradhyumna', whose spirit resides in the heaven when the story opens. The other characters being, Rishi Markendeya, an owl called 'Pravar-karna', a crane called 'Naadi-jungh,' and the turtle ('Akoopar') all integrate their efforts in reminding the powerful among the humans (the King) as to how important it is to establish and maintain harmonious relationships with our non-human counterparts.

The Myth of 'Akoopar'

King Indradhyumna's spirit used to enjoy its stay in the blissful peace of the heaven. But, one day, on discovering that stock of the king Indradhyumna's 'punya' is completely finished, the angels of the Gods ('dev-dutas') ask the king's spirit to vacate his heavenly abode and go to the earth. The king assures them that the reserve of his 'punyas' is cannot be empty as he has done remarkable amount of good deeds on the earth. But the angels ask him to produce the proof for his claims. Being unable to immediately recollect the punya he is referring to; the king has to go to the earth to find out some very old soul, who can recognize the king and give testimony to the angels about the good deeds the king had performed on the earth in the past.

So, the king descends to the earth and goes to meet the oldest rishi Markandeya, hoping that the sage would recognize him. But old muni would recollect nothing due to his fading memory. Yet, he advises the king to search for a wise owl named 'Pravar-karna,' who lives in the far-off Himalayas, and who is older

than the rishi himself. The king changes his form into a horse and implores the rishi to ride on his back and accompany him on his long journey.

After an arduous journey, they find out the owl Pravar-karna's house at last. In spite of the king's prayers, when Pravar-karna is not able to recognize the king, the king becomes disappointed. Nevertheless, the owl advises the king to meet a crane/heron bird named 'Naadi-jungh'- who is even older than the owl and the rishi. He tells the king that Naadi-jungh stays near a lake called 'Indradhyumna.' The name of the lake which resembled the king's own name gives a ray of hope to the despondent king.

So, the trio flies and reaches the lake and finds the crane. Again, the king ardently requests 'Naadi-jungh' to stimulate his distant memory, and let him know if he remembers coming across to a king called 'Indradhyumna.' Although the heron is not able to do so, he tells the king that in the same lake, a turtle called 'Akoopar' lives- who might be able to help the king as he is older than all of them. The crane takes them all to the spot where Akoopar might be found.

They all eagerly await Akoopar's arrival to the surface of the waters. On hearing the king's ardent pleas with folded arms, Akoopar takes out his head from the waters. As soon as he sees the king, tears begin to flow down from Akoopar's eyes. Witnessing this touching moment, Muni Maukendeya asks Akoopar whether he knows the king. With folded palms and impassioned heart, Akoopar replies, "How can I forget this great king? In the ancient times, while performing hundreds of yagnas, this king had donated innumerable number of cows with golden-coated horns and silver-coated hoofs. Those cows had passed from here and their trotting created deep pits all around. Monsoon showers filled up those pits and turned them into the lake in which I have been living for so many years."

Convinced from the testimony of the king's punya revealed by Akoopar, the celestial chariot from the heaven then comes down along with the angels to take the king back to heaven. But the king asks the angels to wait for him till he returns after making both the long-lived elders (Pravarkarna/ Muni Markandeya) reach their homes. So, after the owl and the muni reach their homes, the king leaves for heaven in the chariot (Pandya 285-287. Own translation).

Ecological Significance of the Myth of Akoopar

It may be remembered that the ecologically important species such as the forest owlet, heron, and turtle are endangered species today, which incidentally help the king in the story narrated above in regaining his lost paradise. Statue of a turtle with his head and four legs withdrawn inside his shell kept at the entrance of every Shiva temple suggests that detachment from five human senses is a precondition develop power of meditation and receive spiritual benefits.

Ecological wisdom preserved in our ancient culture (Muni Markandeya) can surely show us the way as to how the eco-protective intensions (punya) and actions (yagna) of the humans and their power systems (both represented by the king) can create and maintain heaven for them on the earth, and secure the same for their future generations as well.

Bhatt's stories exhibit how an immediate contact with the spatial vastness of nature and an environmentally sensitive culture can expand the shrunken ecological consciousness of modern mindsets by melting various kinds of egos they inherit and carry with them throughout their lives.

Oceanside Blues: Thematic Structure and Characterization

In *Oceanside Blues*, when the protagonist enters a coastal village which is constitutive of poor farmhands and illiterate seafarers, he is full of self-importance.

His ego of being an educated, cultured, city-dweller, and his ego of being a government officer invested with some important powers surface as he enters the land which he is supposed to survey.

The theme of the text interestingly unfolds the trajectory of protagonist's interactions with the outward socio-ecological milieu, and the subtle impact they produce on his internal being- with the help of which the bundle of his egos begins to dissolve as he gradually learns lessons of life from Nature and from the villagers whose lives flow in harmony with the natural laws.

When the story of *Oceanside Blue* opens, the engineer walks into a coastal village as he has to reach a 'haveli' called 'estate bungalow'- which has been allotted to him by the government for his accommodation. The government has also arranged for a horse called 'Kabir' for the protagonist's commutation to the other areas spread around the village. Sarvan is a watchman of the haveli, who would help him do odd jobs; and Noormaamad, a retiring forest guard, gladly agrees to assist him on his survey-errands.

Having left behind his kinsfolk and hometown, the engineer is not happy with the idea of living in an unfamiliar place full of simple-minded village people. So, he is found grudging about his new position. "O God", he sighs, "what an outlandish exile I had been banished to!" (3). However, as the story develops, we find that over a period of time, he develops deep emotional associations with the same land, and he is happy to have learnt important ecological lessons from its places, its birds, its tress, its people, and their culture. So, when his project ends, before preparing to leave for his home at last, we find him admitting that it is "Beyond doubt," that "there exists in this universe a secret code by which the animate and the inanimate.... interact" (183).

The ebb and tide in the tale often correspond with the high and low moods the protagonist. In the first scene we find the protagonist waiting for the ebb (1). The receding waters imply his sullen moods which he feels on coming to an alien place. The last scene marks his exit from the place which coincides with the conclusion of the story. Here, we see a transformed and internally peaceful protagonist walking on the damp sand of a quiet ocean along with the horse Kabir (184). Thus, between the entry and exit points of the story lie the great expanse of the ocean in whose vast presence, the protagonist's vision gets expanded to embrace not only the unfamiliar humans, but also the non-human entities. At last we see how deep emotional bonds between humans and the non-human animals (like the horse Kabir) could break the Master/Slave dualisms that lie deep in human psyche. The last scene is very important from the view point of the deep ecological platform. In this scene the protagonist intuitively dismounts from Kabir's back and starts walking along with the horse. His deep-ecological act putting an animal on equal footing creates a unique space in our memories.

During the course of his stay in the village, the protagonist encounters many interesting figures whose characters impress him for their rock-like faith in the bounty of the earth, ocean-like large-heartedness, earth-like all-inclusiveness, sky-like openness, bird-like innocence and tree-like saintliness.

Aval is one of such important figures. She is a daughter-in-law of an ayurvedic healer ('vaidya') called Haada Bhatt. In the pre-independent India, this 'vaidya' had received the haveli and some fertile land as royal gifts for his professional skills and selfless services. Haada Bhatt had once promised to forgo this property in favour of his childless younger cousin called Kashav Bhatt. Even after Haada's demise, Aval decides not to claim the possession of the 'haveli' and the

fertile farmland just to honor her father-in-law's vow. While she herself lives frugally, Aval donates the crop and the farm-income to feed the needy and the guests of a recluse called Baawa-ji.

Saboor is a youth struggling boldly against his abject economic conditions. His parent's death on account of starvation epitomizes the story of the ill-fated, poverty stricken, honest and hardworking land-less labour class- which become the first victim of famine. However, such natural disorder cannot shake Saboor's faith in the bounty of the mother earth. He aspires to have a small piece of land of his own. No matter even if the land is barren. He knows that his hard work and nature's bounty can create green miracles. Saboor and his wife are convinced that the soil, being a living organism, would always reward their sweated labour. The protagonist of the story, being representative of the government, helps Saboor procure a small piece of infertile land in the conclusive part of the story. For Saboor, getting even this stony mass of land is like an orphan's return to the care of the motherly warmth. With a rock-like faith in nature and a back-cracking toil, Saboor and his wife do wonders on the stony surface of the earth from where green trees shoot up at last.

Equally honest and hardworking are the brave seafarer Kishno Tandel and the large-hearted faremerette Vaal-baai. The protagonist's forest-assistant Noor-bhaai remains an unforgettable figure for his boundless love for the birds and for the wilderness he has nurtured along the coastline.

A stark antithesis to the uneducated Noor-bhaai, Mr. Nirmal- a university researcher working on eagles-will always haunt our memory for his emotional penury and cold-blooded Cartesian curiosity in birds. Seeing the caged, famished eagles with their "limp wings dangling from their feeble emaciated bodies" in his lab, the little protagonist asks his Nirmal uncle as to why these birds were starved.

To this, the "down-to-earth scientist" in his "matter-of-fact tone" explains that that he keeps the eagles famished in order to study their "attitude versus instinct." He wants to check how hungry eagles would react when they would be placed before a cat in their cage. Moreover, he would also like to observe "how long can an eagle endure hunger and thirst" (32-33).

On the other hand, we also have a "seemingly-deranged" recluse called Bangaali-Bawa-ji. His mysterious and telepathic communication with the ocean brings to light the human potential to establish a unique harmony with the non-human nature. Sensing the ensuing destructive storm in advance, the Bawaji confides to the protagonist, "Listen. I don't want to scare you, but this Holy Infinity – the Ocean- is sulking with me these last couple of days. I feel the Sea-God might blow his top one of these days. Reason I know not" (158). He also advises the headman of the village called Shamji 'mukhi' not to halter the cattle and asks the protagonist to host the children of Khera village at the 'haveli' for a few days. The protagonist finds the gibberish of this moody recluse a mere non-sense at first, but the cyclone actually strikes just as the Bawa-ji had predicted (166). Along with the children and Aval, when the protagonist witnesses the immense devastation caused by the flood from the terrace of the haveli, he wonders as to how the hermit "with absolute ease and perfect awareness" could "directly communicate with everything in existence, ranging from a galaxy to a grain of sand" (175).

Akoopar: Characterisation and Themes

The Gir lion is the pivotal character of *Akoopar*. All human characters of the novel consider lions as royal animals possessing various attributes which are definitely superior to the human world.

As discussed in the third chapter, in Bhatt's fiction women characters dominate the course of action. In *Akoopar*, Sansai is one of them. She a child of the Gir forest. Sansai escorts the protagonist to Aima's house in the beginning of the story, which symbolizes how an outsider needs to know the jungle at first through her eyes.

Sansai belongs to a respected forest-dwelling community called 'Charan'-who are 'maldharis' (cattle breeders'). Maldharis take their cattle into the jungles to let them graze the forest grass. Sansai is a 'granddaughter' of Rava Ata- the blind 'Charan' who had gone on foot in the post-independent era to request the British Lord to save the Gir by putting a ban on the lion-hunt. Rava Ata had also arranged a wedding ceremony of 'Ghatlo' and 'Ghantali' (two hillocks). The text has a scene in which Rava Ata offers feast on the wedding day of the hillocks while extracting a promise from his fellow-foresters not to graze their cattle on those hillocks (265, 296), so that sufficient grazing space could be kept reserve for the deer and other herbivores. Sansai's emotional bond with lionesses, her anger at the animal-trapsetters, and her campaign to save certain grass from being over grazed by the domestic cattle show how she extends the great ecological heritage she has acquired from her earlier generation of Rava Ata.

Sansai cannot think herself separated from any entity of the forest. She practically knows and takes care of each and every corner stone of the forest. Often, she sounds like the Wordsworthian Lucy. Nature personified. Young. Bubbling with energy. One always finds her roaming fearlessly in the forest and playing sometimes with the lion cubs. Like Nature herself, she is simple. Selfless. Transparent. Free from spiciest prejudices and mental barriers. Always ready to help others: be them humans or non-humans. being an outspoken girl, she knows no beating about the

bush in whatever she wants to say. She speaks what she thinks; and acts according to her selfless beliefs. Gir speaks through her. She has seen the lioness Ramjana's growth from her childhood. She can communicate with the lioness and guards the protagonist from the lionesses' possible aggression in the beginning of the story (24-26).

According to Aima, 'Sansai' is the name of one of the seven sisters of Khodiyar- a Goddess of 'maldharies'- an embodiment of positive energy-whose vehicle is crocodile (97). Sansai is so fastidious about not harming animals that she breaks her relation even with 'Gadhvi'- her fiancé, when she learns that Gadhvi makes money out of an unethical trade of cows. What upsets her unusually is the news that Gadhvi deliberately buys dried-up Gir cows at cheap rates and sells them at high prices to let the cows starve, get tied to the poles to become lions' bait (303).

Lajo, Sansai's bosom friend, has a unique friendship with to her cow called 'Girvan.' Once, two lionesses attack Girvan. This incident shatters Lajo. Girvan was so badly wounded that it was of no use to run after the lionesses to rescue the dying cow. However, holding his staff in his hand, when Lajo's husband prepares to run towards the lionesses to to drive the lionesses away, Lajo stops him. Wiping her tearful eyes, she tells her husband, "Don't try to save her from the clutches of the lionesses now. They must have attacked her out of their dire hunger." Lajo stands motionless till the lionesses pull away Girvan into the bushes. As if talking to the lionesses who were taking away the cow, she says, "I have donated you the cow that was like daughter to me. May the hunger of your cubs and yours be gratified! What else can I say to you? How can I scold you?" (151-152).

Such accidental or deliberate conflicts between the humans and non-humans are bound to take place in forests when they exist together. However, what

determines the harmony of their co-existence is the approach of the humans towards the animals in the moments of emotional crisis, financial loss and physical injuries which are to be borne by the forest-dwelling communities. Even after fatally injured by a lion, the forest guard Dhanu's way of looking at the lions typifies this fact.

In chapter fourteen of the novel, one can see how Dhanu warns Mr. Kiran, the forest officer's friend, never to disturb a pair of a lion and lioness when they mate. Disregarding Dharnu's warning, the crazy fellow begins to take photos of the mating pair. Lion and the lioness prowl upon him. The enraged lion lifts his paw to crush Mr. Kiran, but Dhanu pushed him aside. So, the next moment Dhanu's shoulder gets caught in the lion's mouth. Shouts from protagonist and frenzied waving of the sticks by another forest ranger called Mustupha finally drive away the lioness from the scene. The lion, seeing the lioness going away, also leaves Dhanu to follow the lioness disappearing into the wilderness. Fatally wounded Dhanu is then rushed to the hospital, where he has been operated immediately. Emergency blood transfusion is carried out to save his life.

Dhanu's long association with the lion has taught him that a lion would never attack humans in normal circumstances. Next day, sitting beside Dhanu's bed, when the protagonist consoles Dhanu that wild animals may deceive sometimes, Dhanu at once defends the lion's honour. As he was not able to speak aloud, raising his three fingers, Dhanu says in a low tone, "The lion never deceives. I have three proofs that his intension was not to kill me." The protagonist asks him not to speak much. But in disjointed sentences, Dhanu speaks up this:

Three proofs- one, he did not hold me from the throat" Showing the second finger he said, "He did not even shake his head, otherwise he would have torn off my shoulder." And then lifting the third, he said, "I was fallen down but he did not sit on me. Had he sat on me as he would do on the kill. His weight would have...." Dhanu stopped talking and then once again said, "His intension was not to kill me.... You would not come across such noble animals as the lion. (183)

Chapter sixteenth introduces us to Mr. Viren, conservator of the forest whose professional ethics and sense of duty are praiseworthy. He makes it sure that herders (like Abu) do not bring more number of cattle than what is legally allowed by the law. When the station master Mr. Divakaran, Viren's close friend, asks him to let him build a small open watertank near his railway quarters for birds and other creatures, Viren flatly refuses the demand at first since there was no such provision in the forest environmental law.

So, Divakaran brings earthen pots, cuts off their upper portions and prepares a make-shift water trough from which babblers, peacocks and deer start drinking water. Viren is once astonished to find a leopard standing calmly near Divakaran, while the latter pours water into the water-pot, apologizing in a friendly tone to the spotted creature for the delay he has done in filling up the trough he has kept near his house. Next day, Viren sends cement and other material along with an official approval for the trough to be built near Divakaran's quarters (203). Viren permits his friend Divakaran to build the water trough only when he is convinced that Divakaran really loves the forest and intends to protect its eco-harmony.

Approaches of all characters of *Akoopar* have been able to projects a fact as to how human beings are capable of bridging the Nature/culture rifts by carefully respecting the unwritten laws of Nature, and by following certain safety measures.

In Akoopar, as well as in Oceanside Blues, it could be noticed how a gradual transformation takes place in the psyche of the protagonists (outsiders) on account of their interactions with the characters (insiders) and their culture; and their immersion into the natural milieus.

Dissolution of the Nature-Culture Split in Oceanside Blues

Bhatt charts the gradual expansion in the protagonist's ambits of ecosensitivity, as the protagonist travels into the spatial and cultural locations fictionalized in the given text. The engineer of *Oceanside Blues* is required to shift from city to a remote village area, i.e., from narrow spaces to open spaces, from one kind of linguistic zone into the other kind.

As soon as the protagonist enters village by the seashore, his ears and eyes become sensitive to the changed geo-cultural ambience. He now starts inhaling the open-air wafting across from the blue sparkling waters of the boundless ocean that lay before him; and above his head the limitless blue skies expand up to the horizons.

He unconsciously compares the newly discovered coastal stillness with the din of the busy railway station of a "noisy metropolis" he had left behind, which, according to him, sounded like a "whirlpool of incessant uproar" (1). On his arrival to this new place, he encounters at first a group of naked children frolicking joyfully on the seashore. The new cultural artefact (the bag) and its owner (an unfamiliar face from the city area) send ripples of a pleasant curiosity among the children- who "gaped" at his bag, "all agog with curiosity" (2). On the other hand, the protagonist's heart is laden with despair as he broods: "How long would I last in this alien land?" (2).

Soon he finds that he will have to put up for the night at someone else's home as arrangements for his stay at the bungalow could not yet been made. The protagonist stats walking to look for a shelter wherein he had put up for the night.

He stops at a small gate of a house, looks in, opens the gate and enters the unfamiliar compound hesitatingly. Poor Vaal-baai's smile not only welcomes this stranger, but also lovingly offers him food and shelter- without showing a least interest in knowing even the name of the stranger.

Vaal-baai looks to be an embodiment of the bountiful mother earth- the Gia herself that nourishes all her earthlings. On the other hand, when the protagonist asks for permission to use the water-bucket lying near the well, his formality surprises little Jaanaki, Vaal-baai's daughter. Jaanaki warmly assures the stranger, saying: "Go on, help yourself. Here none'd deny thee a[ny] thing." No wonder why he sees in this little Jaanaki "a manifestation of motherhood that encompasses the entire universe in its loving fold and wraps it snug in warmth, tranquillity and freedom!" (5).

The quietude of the sea, its sublime beauty at nights and in the early mornings, the rhythmic roar of the sea waves, and the soft touch of the wet sand kindle and evolve a deep love and sensitivity for the marine life in the protagonist's heart.

The selfless love he receives from the nature-loving people and the affinity he begins to feel with the serenity of the ocean gradually transform the protagonist's stance for the land he initially considered as alien. Ultimately, he determines not to become part of a project which might damage the rich associations he has witnessed between the coastal cultures and the marine environs.

Communion with Nature in Oceanside Blues

Children of the oceanside- whether it is Vaal-baai's daughter Jaanaki or Aval's son Vishno- are always found in tune with nature. For the orphan Saboor, the "Earth is mother" (15). The long stretch of arid land has turned into a green belt as the forest-guard Noor-bhaai has planted and nurtured wilderness along the coastline.

Aspiring to have a glimpse of a bird called 'doodhraaj', Noor-bhaai says: "If one can sight a 'doodhraaj' during one's lifetime, glory to Almighty's greatest creations, nature." He promises the protagonist that he will show him "...this entire terrain coming to life merely by a bird flapping its wings. Isn't that enough of a miracle?" (32, 31).

Aval's and Sarvan's sympathy for the scorpion (168), which strives to crawl on the wall during the storm shows their deep ecological sensitivity even for the poisonous non-human entities.

Bangaali-baba's prediction about the ensuing sea storm sounds no less than a miracle to a modern mindset. As mentioned earlier, although he warns the protagonist, the 'mukhi', Aval and the entire sea community about the ensuing, destructive sea storm well in advance, he supposedly chooses to submerge his own life into the surging ocean (175). His telepathy indicates a possibility of human communion with the sea through a whole-hearted acceptance of the regenerative as well as the destructive aspects of nature.

The visual metaphors of the people huddled together, facing the sea storm at the estate bungalow under the care of Aval, the food-packets dropped from the helicopter at last, and their final rescue from the storm - suggest that mutual trust, patience and selfless utilization of the techno-scientific inventions- can surely enable humans to deal more effectively with natural tragedies.

The Role of the Mytho-Religious Cultural Consciousness in Ecological Preservation.

The locales depicted in the text assume an aura of sacredness due to the stories attached with them. Their mytho-religious significance play a pivotal role in creating harmonious relationships between the social and natural ecologies of the

places like: 'Bhensala-Pir-Rock'(76) 'Rukmi's Ridge'(52), 'Shy'aal Island'(75), 'Sheth Sagaal-sha's Haveli' (97), and 'Vaaraahroop temple' (104).

Named after a deity ('pir'), the placed called 'Bhensla-Pir' is a small rocky area, jutting out of ocean. People believe that human interference is not allowed by the deity to disturb sacredness of the place (76). Although it not possible to go back to the world of superstitions for a modern man, it is desirable for him to understand the fact that excessive and unnecessary human interference into the patterns of nature can boomerang and hurt the mankind just as Krishno Tandel was found badly wounded after his visit to the Bhensla Pir (93).

'Rukmani Ridge' is also considered a holy place, whose sacred environs could not be defiled by ecologically destructive human acts. The Ridge revives memories of the Krishna-Rukmini-love story. It is a unique place on those salty plains where one finds seven pits of sweet water. Aval explains to the protagonist that here Lord Krishna had defeated 'Rukmi'- who was Rukmini's brother- while kidnapping Rukmini (52).

Indians are believed to deeply-religious-minded people. So, mythological references given in the religious texts could be utilized in protecting the ecologies of the sacred mountains, forests and rivers. But what might surprize deep ecologists is the fact that even religious authorities in India often fail to convince masses and political psyche to protect the ecological sanctity of their holy rivers like the Ganga, the Yamuna or the Narmada or mountains like the Everest.

For example, had the image of the Lord Krishna playing his flute at the banks of Yamuna been remembered by the most followed Indian religious leader called Sri Sri Ravishankar, the Green Tribunal would not have fined his 'Art of Living

Foundation' for catastrophically destroying ecology of the Yamuna river plains by arranging the World Culture Fest in 2016 on her bank.

In *Oceanside Blues*, near Shy'aal Island (95) stands Sheth Sagaal-sha's Haveli (97). According to the folktale, the owner of the haveli, Sheth Sagalsa and his wife remained childless for years. They promised God that if they would be blessed with a child, no guest would ever return empty-handed from their haveli. A son was born, whose name was Chelaiya. One day, to test their dedication, God appeared in the form of a Brahmin guest, and asked his host to let Him taste the meat of Chelaiya's skull. The couple pounded the skull of their only son to fulfil a vow they had given to God. Since the couple passed the divine ordeal, God revived their son. Val-baai and Aval reflect the cultural tradition set by the Seth and his wife of welcoming guests with selfless affection. Even today, such tradition that strengthen the bond between man-man then expands itself into the love between man-Nature, and vice versa.

The vicinity around 'Varaahswaroop' temple is believed to be a place where the Lord Vishnu took form/Avatar ('Swaroop') of a boar ('Varaah') to create the earth and protect it. As per the Puranic Hindu philosophy, the roots of human life lie in the ocean if we consider the first two incarnations (fish and tortoise) of Lord Vishnu- out of His 'Das-avatar.' Here, 'das' means 'ten'; and 'avatar' means 'incarnations.' Many Western and Eastern scholars have identified a striking resemblance between the 'Das-avatar' theory and the Darwinian theory of evolution ("Dashavatara").

Local language and customs have also taught Bhatt's characters to respect the ocean deity. For example, no sailor sets sail for a few days after the auspicious day called 'akhaatrij'- which is the third day(trij) of the month of 'Vaishakh'; according to the Hindu calendar.

So, in *Oceanside Blues*, Ismaail informs the protagonist that: "'After 'akhaatrij' the sea forbids sailing until the full moon after the monsoon... Only then it opens its routes'" (3). Ecologically speaking, the sailors are advised not to disturb the sea during the time when most of the sea-creatures are in their mating-period. Eco-linguists would like to notice that instead of choosing words like 'we don't go to the sea' or 'we choose not to go to the sea after 'akhaatrij'', Ismaail uses expressions like "sea forbids" and the sea "opens its routes." His language exhibits the cultural acknowledgement of the moral authority of the ocean in their livesinstead of the other human agencies. It is the ocean who takes a decision about fixing the time to allow the collective interaction of humans with the ocean.

Expressing his reverence for the omnipotence of the ocean, Krishno Tandel tells the engineer that "At sea one never tells a lie" (73). Now, it is not difficult to imagine as to why this community would never dream of polluting their holy benefactor who has been taking care of all their basic needs since generations.

When protagonist asks Dayaaraam (who maintains the light house at the port) if he ever feels boredom on account of his repetitive routine at the seacoast, Dayaaraam retorts: "I haven't met anyone who got bored by the sea" (97). While going to Shy'aal Island, the protagonist also admits as to how he is awed by the "Infinity of waves sparkling by the aura of the moon.... An enchanting, extremely beautiful world, as though created exclusively for the deities... Never before I had envisioned a sight like this" (69).

Nature is a Teacher and Humans, Learners

In a Wordsworthian style, Bhatt's deep-ecological approach to nature reverses the so-called human hegemony over the non-human world. Highlighting a rare combination of fearlessness and nobility in the character of a small black bird called 'jamadar' (drongo), Noor-bhaai informs the protagonist that "While it's not scared of even the vultures, it never ill-treats smaller birds.... a super cop." "Now tell me," hurling a point-blank question at the protagonist, he asks: "How many men you'd find on this earth who'd neither be scared nor scare others?"' Having no answer to this piercing observation, the protagonist begins to brood over the lessons of specisism one usually comes across during one's childhood days. "In the school," he ponders, "I had been taught that man was the best creation of nature." But now he understands that it was not so. In fact, it is the humans who need to learn certain distinctive qualities and values from the non-human. "Someday if I would be able to learn viewing the world as did Noor-bhaai," the protagonist admits to himself, "I would regard it as a great gift of God" (31).

Remembering Mr. Nirmal's cruelty on eagles, the protagonist rightly thinks that "Education should mean teaching to love nature. A system that can produce many more Noor-bhaais should be evolved. Man, too, should be able to inspire in birds and beasts the same confidence and trust that the black drongo inspired in the smaller birds" (33).

Usually, heavy-bodied birds like peacocks fly leeward side of mountains to peck at the green food and grains they would find there. Instead of that, when the protagonist encounters a rare sight of a multitude of peacocks eating sea creatures in the steep gorges of the broken shorelines, he is shocked to witness the unexpected change in the peacocks' behaviour. "The salty plains had turned so barren and infertile," he murmurs to himself, "that the... angelic bird... had to struggle up and down the seashore rocks for survival. The land had, probably forever, lost its sap, its will to live. Remnant, if any, would be consumed by the factories producing chemicals" (107). This consciousness would save him later on from being part of the

proposed project. As the protagonist proceeds towards concluding the final draft of his report, a fine balance between emotion and reason enables him in taking an environmentally sensitive decision.

At last, after launching a Green Belt Project in that area, the protagonist prepares a report which does not approve of the chemical zone on the region he has surveyed. Before submitting this report, he decides to apply for a transfer. He tells himself: "If my request was not granted, I was prepared to resign, for I did not want to watch the arrival of monstrous road-building machines [onto this place]" (180). This decision betrays that his horizons of love has now been expanded to include environmental well-being of the ocean, the seafarers, the farmers, the forest guard, the trees, the wilderness, the horse Kabir as well as the birds and insects of that arid terrain.

The last scene of *Oceanside Blues* again reflects the deep ecological vision of the author. In this scene we see the protagonist and his horse Kabir ambling along the seaside. The protagonist's acts of undoing Kabir's reins, removing the halter and the saddle from Kabir's back; carrying them all in his hands; and, thereby, freeing Kabir of bondage and burden- symbolise the fact as to how ecosensitivity can enable humans in blurring the Nature/Culture, Man/Animal and Master/Slave dualisms which have remained a cardinal cause of environmental destruction.

Bhatt classically concludes *Oceanside Blues* with the protagonist's words wafting into the air: "Kabir followed me while the setting sun behind us poured its gold on the six interlacing, mingling and merging footprints being embossed on the damp sand along the oceanside trail" (184).

Conclusion

On account of the interpretations of both the texts attempted here, it can be stated that Bhatt's fictional world have thoroughly imbibed the elements of non-violence, egalitarianism, anti-specisism, and non-anthropocentrism- which characterize the tenets of the deep ecological movement.

Bhatt's deep-ecological faith in enhancing intuitive powers of individuals by internalizing ecosensitivity may sound sentimental, Romantic or utopian in the contemporary times, which are primarily dominated by logic, reason, commercial interests, technology and science. There can be no doubt that pragmatism and common-sensical-realism must continue to interrogate and criticize the tendencies of romanticizing, sentimentalizing, or glamorizing nature.

However, what is equally important is not to overlook the historical reality that most of all desirable changes that we now notice in our socio-political-legal systems today had also once been considered Romantic and utopian ideals, and they had also faced fierce resistance when they were proposed to be introduced and implemented for the first time in their respective systems.

So, in the techno-scientifically and digitally advancing world, when logic and reason are the guiding forces to navigate human progress- as Bhatt's fictional world implies- what the human world cannot afford to forget is the fact that it is equally logical and reasonable not to ignore the advice of the biodiversity experts. It is inevitable for the human beings to learn to honor the all-inclusive, deep-ecological worldview while formulating the narratives of human progress and industrial development.

Works Cited

- Arne, Naess, "The Shallow and the Deep, Long Range Ecology Movements- A
- Summary." Originally published in Inquiry (Oslo), 16 (1973), pp. 95-100.,
 - http://www.alamut.com/subj/ideologies/pessimism/Naess_deepEcology.html.Accesse d on 19 August 2019.
- ---. "Intrinsic Value: Will the Defenders of Nature Please Rise" in chapter-3. "Arne Naess" *The Norwagian Roots of Deep Ecology. Wisdom in the Open Air*.

 Eds.Reed Peter and David Rothenberg. University of Minnesota Press.

 London.1993, pp.70-99.
- Arne, Naess, and George Sessions. "The Deep Ecology Platform." Foundation For

 Deep Ecology | The Deep Ecology Platform,

 http://www.deepecology.org/platform.htm. Accessed 27 April 2000.
- "Asiatic Lion." *Wikipedia*, Wikimedia Foundation, 13 Apr. 2020, en.wikipedia.org/wiki/Asiatic_lion.
- Bhat, Sairam. "Gujarat Samachar." Gujarat Samachar, 22 Jan. 2020, p. 16.
- Bhatt, Dhruv. Sarmeya Walks the Pathless Path. Zen, 2014.
- Bhaṭṭ Dhruv. *Akoopār* = *The Infinite*. Translated by Piyush Joshi and Suresh Gadhavi, Tatvam Publication, 2014.
- Bhatta Dhruva. Akūpār. Gūrjara Grantharatna Kāryālaya, 2010.
- Bhaṭṭa Dhruva. *Oceanside Blues = Samudrantike*. Translated by Meghāṇī Vinoda, Sahitya Akademi, 2013.
- Brinker, Rachel. "Dr. Vandana Shiva and Feminist Theory." *Conference on Earth Democracy: Women, Justice, and Ecology*, Oregon State University, 4 July 2009, womenjusticeecology.wordpress.com.
- Cocola, Jim. "Ecosophy from T to X" https://nplusonemag.com/online-

- only/online-only/ecosophy-t-x/ April 16,2006.
- Coleridge, Samuel Taylor. "Lyrical Ballads (1798)/The Rime of the Ancyent Marinere."

 Lyrical Ballads (1798)/The Rime of the Ancyent Marinere Wikisource, the Free

 Online Library,

 en.wikisource.org/wiki/Lyrical_Ballads_(1798)/The_Rime_of_the_Ancyent_Mariner

 e.
- Daniel Simberloff, "Integrity, Stability, and Beauty: Aldo Leopold's Evolving View of Nonnative Species," Environmental History (2012): 1–25. doi:10.1093/envhis/ems044.
- "Dashavatara." Wikipedia, Wikimedia Foundation, en.wikipedia.org/wiki/Dashavatara.
- Dave, Hiral. "Rampant Illegal Mining in Gir Ups Risk of Man-Lion Conflict." *Hindustan Times*, 27 Sept. 2016, www.hindustantimes.com/india-news/rampant-illegal-mining-in-gir-ups-risk-of-man-lion-conflict/story-tmoYtVWVwAwX21WrRrZfqO.html.

 Accessed 17 Sept 2020.
- "Douglas Tompkins". https://en.wikipedia.org/wiki/Douglas Tompkins
- Drengson, Alan. "Some Thought on the Deep Ecology Movement." Foundation For Deep Ecology | The Deep Ecology Movement, www.deepecology.org/deepecology.htm
- Environmental Performance Index-2018. Edited by Yale Center for Environmental Law & Policy, Centre for International Earth Science Information Network, Columbia University in Collaboration with the World Economic Forum., epi.envirocenter.yale.edu/downloads/epi2018policymakerssummaryv01.pdf.
- Ferrando, Francesca. "What Does Post Dualism Mean?" U Tube. youtu.be/FPe9cQv9v9Q.
- "Forest Cover: Principal Chief Conservator of Forest & Head of the Forest Force (HoFF)."

 Forest Cover | Principal Chief Conservator of Forest & Head of the Forest Force

 (HoFF), forests.gujarat.gov.in/forest-cover.htm.

- Gaia Hypothesis. courses.seas.harvard.edu/climate/Eli/Courses/EPS281r/Sources/Gaia/Gaia-hypothesis-wikipedia.pdf.marine
- Gir National Park and Wildlife Sanctuary. forests.gujarat.gov.in/gir-nat-park.htm.
- "Girnarna Vriksho." Edited by Gulab Suhagiya, *Google Drive*, Avakar News, drive.google.com/file/d/1hAswppZPWbuK-R3t7_qwY44PA-3Cfh96/view.
- Glotfelty, Cheryll, and Harold Fromm, editors. *The Ecocriticism Reader: Landmarks in Literary Ecology*. Univ. of Georgia Press, 1996.
- "Gujarat Sector Chemical Report" https://www.rvo.nl/sites/default/files/2018/12/gujarat-chemical-sector-report.pdf. 24 March 2020, pp. 2-18.
- Harding, Stephan. Animate Earth: Science, Intuition and Gaia. Green Books, 2009
- "History of Lions in Europe." *Wikipedia*, Wikimedia Foundation, 17 Apr. 2020, en.wikipedia.org/wiki/History_of_lions_in_Europe.
- "History-Ideas and Action" http://www.deepecology.org/mission.htm
- Jhala, Yadvendradev V., et al. "Asiatic Lion: Ecology, Economics, and Politics of Conservation." *Frontiers in Ecology and Evolution*, vol. 7, no. 312, 2019, pp. 1–21., doi:10.3389/fevo.2019.00312.
- Joshi, Namrata, et al. "20 Years Later, This Is Why Salman Khan Is Still Hated by the Bishnois of Jodhpur." *ThePrint*, 25 Aug. 2019, theprint.in/pageturner/excerpt/20-years-later-this-is-why-salabolman-khan-is-still-hated-by-the-bishnois-of-jodhpur/281349/.
- Joshi, Umashankar. *Gandhi Katha*. Translated by. Divya Joshi. www.mkgandhi.org. Accessed 24.12.2019.
- Joshi, Umashankar. "Vishwa Shanti." *Samagra Kavita (Collected Poems 1931-1981)*., Chimanlal Literary Trust, 1981, pp. 18–19.

- Kays, Roland W. "Reproduction and Life Cycle." *Encyclopædia Britannica*, Encyclopædia Britannica, Inc., 11 Mar. 2020, www.britannica.com/animal/lion/Reproduction-and-life-cycle.
- Kukreti, Ishan. "Environmental Offences in India Soared 790% in 2017." Down To Earth, 22 Oct. 2019, www.downtoearth.org.in/news/environment/environmental-offences-in-india-soared-790-in-2017-67366. Accessed 17 Octo 2020.
- "Labours of Hercules." *Wikipedia*, Wikimedia Foundation, 22 Apr. 2020, en.wikipedia.org/wiki/Labours_of_Hercules.
- "Maha Upanishad." *Sanskrit Documents Icon*, Https://Sanskritdocuments.org/, 20 Aug. 2017, sanskritdocuments.org/doc_upanishhat/maha.html.
- Madsen, Peter. "Deep ecology" Encyclopædia Britannica, inc. May 16, 2016

 https://www.britannica.com/topic/deep-ecology. Accessed November 04, 2019
- "Marine National Park, Gulf of Kutch." *Wikipedia*, Wikimedia Foundation, 19 Mar. 2020, en.wikipedia.org/wiki/Marine_National_Park, _Gulf_of_Kutch.
- "Marine Pollution." Wikipedia, en.wikipedia.org/wiki/Marine_pollution.
- Millward, Adam. "Introducing Jonathan, the World's Oldest Animal on Land at 187 Years Old." *Guinness World Records*, Guinness World Records, 27 Feb. 2019, www.guinnessworldrecords.com/news/2019/2/introducing-jonathan-the-worlds-oldest-animal-on-land-561882. Accessed 23 Sept 2020.
- Nagi, S S. "The Story of Asia's Lions by Divya BhanusinhSingh." amazon.in/Stiry-Asias-Lions-Divyabhanusinh.
- "Our Mission" Foundation for Deep Ecology. http://www.deepecology.org/mission.htm Pandya, Rajesh. "Akoooar Ni Katha." Navneet Samarpan, Sept. 2009
- Patel, Ila. "Industrialization along Kutch Coastal Area in Gujarat Has Adversely Affected Livelihood Options of Local Villagers: IRMA Study." *Counterview.org*, IRMA, 3

- Dec. 2013, counterview.org/2013/12/03/industrialization-along-kutch-coastal-area-ingujarat-has-adversely-affected-livelihood-options-of-local-villagers-irma-study/?blogsub=pending#subscribe-blog.
- "Protecting India's Coastline: Gujarat." World Bank, Worldbank.org, 11 Oct. 2012, www.worldbank.org/en/news/feature/2012/10/11/protecting-indias-coastline-gujarat.
- Reed, Peter and David Rothenberg eds. "Arne Naess" *The Norwegian Roots of Deep Ecology: Wisdom in the Open Air*; University of Minnesota Press. Minneapolis London, 1993, pp. 65-112.
- "RTI Activist's Murder: Ex-BJP MP, 6 Others Sentenced to Life: India News Times of India." *The Times of India*, TOI, 11 July 2019, timesofindia.indiatimes.com/india/rti-activists-murder-ex-bjp-mp-6-others-sentenced-to-life/articleshow/70172691.cms.
- "Roaring Success: Population of Asiatic Lions in India up 29% in 5 Years." Times of India, 11 June 2020, timesofindia.indiatimes.com/india/roaring-success-population-of-asiatic-lions-in-india-up-29-in-5-years/articleshow/76311768.cms. Accessed 19 Sept 2020.
- "Samudra Manthan." *Wikipedia*, Wikimedia Foundation, 19 Apr. 2020, en.m.wikipedia.org/wiki/Samudra_manthan.
- Scott, Robert L. "The Closing Circle a Review of Berry Commoners Book." Review of *The Closing Circle by Barry Commoner. IUSTITA*, vol. 1, no. 1, 1973, pp. 81–90, www.repository.law.indiana.edu/iustitia/vol1/6.
- Suhagiya, Gulab P. "Girnarna Vriksho." *Girnarna Vriksho*, Akar , p. 3, drive.google.com/file/d/1hAswppZPWbuK-R3t7_qwY44PA-3Cfh96/view.
- Thakar, Jignesh. "Vaat Sawaj Parivaarni: Nar Salamat, Nari, Bachcha Asalamat." AsharNaad.com, 14 Feb. 2019, www.aksharnaad.com/2019/02/14/lion-of-

- gir/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+adhya ru+%28AksharNaad.com%29. Accessed 17 Sept 2020.
- "UN Report: Nature's Dangerous Decline 'Unprecedented'; Species Extinction Rates

 'Accelerating' United Nations Sustainable Development." Sustainable Development

 Goals, United Nations, 6 May 2019,

 www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedentedreport/.
- "What Is Ethics? We Have the Answer." *The Ethics Centre*, 23 Nov. 2018, ethics.org.au/why-were-here/what-is-ethics/.
- Wilson, E. G., et al. Oceana, 2010, Why Healthy Oceans Need Sea Turtles: The Importance of Sea Turtles to Marine Ecosystems,
 oceana.org/sites/default/files/reports/Why_Healthy_Oceans_Need_Sea_Turtles.pdf.,
 pp.1-17.
- World Bank. "Protecting India's Coastline: Gujarat." Worldbank.org, 11 Oct. 2012, www.worldbank.org/en/news/feature/2012/10/11/protecting-indias-coastline-gujarat. . Accessed on 5 July 2017.
- WWF "Illegal Wildlife Trade." WWF, World Wildlife Fund, 2012, www.worldwildlife.org/threats/illegal-wildlife-trade. Accessed 14 Sept 2020.
- Zingde, M.D. *Incosis.gov.in*, National Institute of Oceanography, Mumbai, incosis.gov.in/iogoos/abstracts/abstract121.html.